# APPENDIX 14: COMPLETED METHODOLOGY CHECKLISTS

# 1.1 EXPERIENCE OF CARE

## 1.1.1 ALLARD2009

| Study ID | ALLARD2009 | |
|---|---|---|
| Bibliographic reference:<br>Allard A. Transition to adulthood: inquiry into transition to adulthood for young people with autism. The All-Party Parliamentary Group on Autism. London: National Autistic Society; 2009. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Inquiry into transition to adulthood for young people with autism | |
| Checklist completed by: Rachael Lee | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |

| | | |
|---|---|---|
| 3.1 How well was the data collection carried out? | Not sure/inadequately reported | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Not sure | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not sure/not reported | Comments: Not applicable |

### 1.1.2 ALLGOOD2005

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|---|---|
| Study ID | ALLGOOD2005 |
| Bibliographic reference:<br>Allgood N. Parents' perceptions of family-based group music therapy for children with autism spectrum disorders. Music Therapy Perspectives. 2005;23:92-99. | |
| Guideline topic: Autism in children & young people | Key research question/aim: Examined parents' perceptions of a 7-week family-based group music therapy intervention |
| Checklist completed by: Rachael Lee | |
| Section 1: theoretical approach | |

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|---|---|---|
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |

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|---|---|---|
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Reliable | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not sure/not reported | Comments: Not applicable |

### 1.1.3 ALTIERE2009B

| Study ID | ALTIERE2009B |
|---|---|
| Bibliographic reference:<br>Altiere MJ, von Kluhe S. Searching for acceptance: challenges encountered while raising a child with autism. Journal of Intellectual and Developmental Disability. 2009;34:142–152. | |

| Guideline topic: Autism in children & young people | Key research question/aim: Examined the experience of raising a child with autism | |
|---|---|---|
| Checklist completed by: Rachael Lee | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Reliable | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not sure/not reported | Comments: Not applicable |

### 1.1.4 BEATSON2002

| Study ID | BEATSON2002 | |
|---|---|---|
| Bibliographic reference:<br>Beatson JE, Prelock PA. The Vermont rural autism project: sharing experiences, shifting attitudes. Focus on Autism and Other Developmental Disabilities. 2002;17:48-54. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Explored parent's understanding of and experience of a specialist autism service | |
| Checklist completed by: Rachael Lee | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Reliable | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |

| | | |
|---|---|---|
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not sure/not reported | Comments: Not applicable |

### 1.1.5 BENDERIX2007A

| | | |
|---|---|---|
| Study ID | BENDERIX2007A | |
| Bibliographic reference:<br>Benderix Y, Nordström B, Sivberg B. Parents' experience of having a child with autism and learning disabilities living in a group home: a case study. Autism. 2007;10:629-641. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Explored parents' experience of having a child with autism living in a group home | |
| Checklist completed by: Rachael Lee | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Reliable | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |

| | | |
|---|---|---|
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.6 BENDERIX2007B

| | | |
|---|---|---|
| Study ID | BENDERIX2007B | |
| Bibliographic reference:<br>Benderix Y, Sivberg B. Siblings experiences of having a brother or sister with autism and mental retardation: a case study of 14 siblings from five families. International Pediatric Nursing. 2007;22:410-418. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To describe siblings' experiences of having a brother or sister with autism and mental retardation | |
| Checklist completed by: Rachael Lee | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Not applicable |

| | | |
|---|---|---|
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Reliable | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.7 BERESFORD2007

| Study ID | BERESFORD2007 | |
|---|---|---|
| Bibliographic reference:<br>Beresford B, Tozer R,Rabiee P, Sloper P. Desired outcomes for children and adolescents with autistic spectrum disorders. Children and Society. 2007;21:89-98. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To identify barriers to accessing services | |
| Checklist completed by: Rachael Lee | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |

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|---|---|---|
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Reliable | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Poor | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequat | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.8 BERESFORD2010

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|---|---|
| Study ID | BERESFORD2010 |
| Bibliographic reference:<br>Beresford B, Stuttard L, Clarke S, Maddison J, Beecham J. Managing behaviour and sleep problems in disabled children: an investigation into the effectiveness and costs of parent-training interventions. Research Report DFE-RR204. London: Department for Education; 2010. Available at: https://www.education.gov.uk/publications/RSG/AllPublications/Page1/DFE-RR204. | |
| Guideline topic: Autism in children & young people | Key research question/aim: : An investigation into the effectiveness and costs of parent-training interventions for sleep problems |
| Checklist completed by: Rachael Lee | |

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|---|---|---|
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Not sure/inadequately reported | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not sure/not reported | Comments: Not applicable |

### 1.1.9 BEVANBROWN2010

| Study ID | BEVANBROWN2010 | |
|---|---|---|
| Bibliographic reference:<br>Bevan-Brown J. Messages from parents of children with autism spectrum disorder (ASD). Kairaranga. 2010;11:16-22. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Sought parental opinion about what content and messages should be included in a DVD about ASD | |
| Checklist completed by: Rachael Lee | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Not sure/inadequately reported | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |

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|---|---|---|
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not sure/not reported | Comments: Not applicable |

### 1.1.10 BIRKIN2008

| | | |
|---|---|---|
| Study ID | BIRKIN2008 | |
| Bibliographic reference:<br>Birkin C, Anderson A, Seymour F, Moore DW. A parent-focused early intervention program for autism: who gets access? Journal of Intellectual and Developmental Disability. 2008;33:108-116. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Examined access to the EarlyBird program and barriers which may affect uptake | |
| Checklist completed by: Rachael Lee | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Not sure/inadequately reported | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Not applicable |

| | | |
|---|---|---|
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.11 BRAIDEN2010

| Study ID | BRAIDEN2010 | |
|---|---|---|
| Bibliographic reference:<br>Braiden HJ, Bothwell J, Duffy J. Parents' experience of the diagnostic process for autistic spectrum disorders. Child Care in Practice. 2010;16:377-389. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To document parents' experiences of the diagnostic process for ASD | |
| Checklist completed by: Rachael Lee | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Not applicable |

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|---|---|---|
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.12 BREWIN2008

| Study ID | BREWIN2008 | |
|---|---|---|
| Bibliographic reference:<br>Brewin BJ, Renwick R, Schormans AF.Parental perspectives of the quality of life in school environments for children with Asperger Syndrome. Focus on Autism and Other Developmental Disabilities. 2008;23:242-252. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To examine the perspectives of parents of children with Asperger Syndrome (AS) on quality of life at school | |
| Checklist completed by: Rachael Lee | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |

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|---|---|---|
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Reliable | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not sure/not reported | Comments: Not applicable |

### 1.1.13 BREWSTER2010

| | |
|---|---|
| Study ID | BREWSTER2010 |
| Bibliographic reference:<br>Brewster S, Coleyshaw L. Participation or exclusion? perspectives of pupils with autistic spectrum disorders on their participation in leisure activities. British Journal of Learning Disabilities. 2010;39:284-291. | |
| Guideline topic: Autism in children & young people | Key research question/aim: Explored the perceptions of children with ASD and/or ADHD of their access to leisure,recreational and short-term break provision |
| Checklist completed by: Rachael Lee | |
| Section 1: theoretical approach | |

| | | |
|---|---|---|
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Reliable | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.14 BUNDY2009

| | |
|---|---|
| Study ID | BUNDY2009 |

| | | |
|---|---|---|
| Bibliographic reference:<br>Bundy MB, Kunce LJ. Parenting stress and high functioning children with autism. International Journal on Disability and Human Development. 2009;8:401–410. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Explored the experience of stress in parents of children with high functioning autism | |
| Checklist completed by: Rachael Lee | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |

| | | |
|---|---|---|
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.15 BURROWS2008

| | | |
|---|---|---|
| Study ID | BURROWS2008 | |
| Bibliographic reference:<br>Burrows KE, Adams CL. Challenges of service-dog ownership for families with autistic children: lessons for veterinary practitioners. Journal of Veterinary Medical Education. 2008;35:559-566. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To describe the challenges of service-dog ownership for families wlth autistic children | |
| Checklist completed by: Rachael Lee | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |

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|---|---|---|
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not sure/not reported | Comments: Not applicable |

### 1.1.16 BURROWS2010

| | | |
|---|---|---|
| Study ID | BURROWS2010 | |
| Bibliographic reference:<br>Burrows R. Is anyone listening? A report on stress, trauma and resilience and the supports needed by parents of children and individuals with ASD and professionals in the fild of autism in Northern Ireland. Belfast: Autism NI; 2010. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Document the response of parents to having a child/individual with ASD in Northern Ireland | |
| Checklist completed by: Rachael Lee | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Not sure/inadequately reported | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Not applicable |

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|---|---|---|
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.17CAMARENA2009

| | | |
|---|---|---|
| Study ID | CAMARENA2009 | |
| Bibliographic reference:<br>Camarena PM, Sarigiani PA. Postsecondary educational aspirations of high-functioning adolescents with autism spectrum disorders and their parents. Focus on Autism and Other Developmental Disabilities. 2009;24:115-128. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To assess postsecondary educational aspirations and thoughts concerning obstacles of adolescents with autism and their parents | |
| Checklist completed by: Rachael Lee | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |

| | | |
|---|---|---|
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Reliable | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not sure/not reported | Comments: Not applicable |

### 1.1.18 CARBONE2010

| | |
|---|---|
| Study ID | CARBONE2010 |
| Bibliographic reference:<br>Carbone PS, Behl DD, Azor V, Murphy N. The medical home for children with autism spectrum disorders: parent and pediatrician perspectives. Journal of Autism and Developemtal Disorders. 2010;40:317–324. | |
| Guideline topic: Autism in children & young people | Key research question/aim: Examines differences between perceptions of parents and pediatricians regarding the needs of children with autism spectrum disorders and their families |
| Checklist completed by: Rachael Lee | |
| Section 1: theoretical approach | |

| | | |
|---|---|---|
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |

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|---|---|---|
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Reliable | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not sure/not reported | Comments: Not applicable |

### 1.1.19 CARRINGTON2003A

| Study ID | CARRINGTON2003A |
|---|---|
| Bibliographic reference:<br>Carrington S, Papinczak T, Templeton E. A phenomenological study: the social world of five adolescents who have Asperger's syndrome. Australian Journal of Learning Difficulties. 2003;8:15-20. | |

| | | |
|---|---|---|
| Guideline topic: Autism in children & young people | Key research question/aim: Investigated the social experiences and perceptions of friendship among teenagers diagnosed with Asperger's syndrome | |
| Checklist completed by: Rachael Lee | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not sure/not reported | Comments: Not applicable |

## 1.1.20 CARTER2004

| Study ID | CARTER2004 | |
|---|---|---|
| Bibliographic reference:<br>Carter C, Meckes L, Pritchard L, Swensen S, Wittman PP, Velde B. The friendship club: an after-school program for children With Asperger syndrome. Family and Community Health. 2004;27:143-150. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To review participant satisfaction with a friendship club and its outcomes | |
| Checklist completed by: Rachael Lee | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Not sure/inadequately reported | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Poor | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |

| | | |
|---|---|---|
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.21 CASSIDY2008

| | | |
|---|---|---|
| Study ID | CASSIDY2008 | |
| Bibliographic reference:<br>Cassidy A, McConkey R, Truesdale-Kennedy M, Slevin E. Preschoolers with autism spectrum disorders: the impact on families and the supports available to them. Early Child Development and Care. 2008;178:115-128. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Aimed to outline the impact of ASD on families and the supports available to them | |
| Checklist completed by: Rachael Lee | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Not applicable |

| | | |
|---|---|---|
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.22 CHELL2006

| | | |
|---|---|---|
| Study ID | CHELL2006 | |
| Bibliographic reference:<br>Chell N. Experiences of parenting young people with a diagnosis of Asperger syndrome: a focus group study. International Journal of Psychiatric Nursing Research. 2006;11:1348-58. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Aimed to identify parents of children with Asperger syndrome's perspectives and insights in order to inform service development | |
| Checklist completed by: Rachael Lee | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Not applicable |

| | | |
|---|---|---|
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Reliable | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.23 CONNOR2000

| Study ID | CONNOR2000 |
|---|---|
| Bibliographic reference:<br>Connor M. Asperger syndrome (autistic spectrum disorder) and the self-reports of comprehensive school students. Educational Psychology in Practice. 2000;16:285-296. | |
| Guideline topic: Autism in children & young people | Key research question/aim: to gain insight into the opinions and experiences of a sample of young people diagnosed with Asperger syndrome attending their local comprehensive schools |
| Checklist completed by: Rachael Lee | |
| Section 1: theoretical approach | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |

| | | |
|---|---|---|
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Not sure/inadequately reported | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not sure/not reported | Comments: Not applicable |

### 1.1.24 CULLEN2002A

| Study ID | CULLEN2002A |
|---|---|
| Bibliographic reference:<br>Cullen L, Barlow J. 'Kiss, cuddle, squeeze': the experiences and meaning of touch among parents of children with autism attending a touch therapy programme. Journal of Child Health Care. 2002;6:171-181.<br><br>Cullen L, Barlow J. Parents' experiences of caring for children with autism and attending a touch therapy programme. Child Care in Practice. 2002;8:35-45.<br><br>Cullen LA, Barlow JH, Cushway D. Positive touch, the implications for parents and their children with autism: an exploratory study. Complementary Therapies in Clinical Practice. 2005;11:182-189. | |

| | | |
|---|---|---|
| Guideline topic: Autism in children & young people | Key research question/aim: to explore the experiences and meaning of touch between parents and children with autism before and after attending a Touch Therapy Programme | |
| Checklist completed by: Rachael Lee | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not sure/not reported | Comments: Not applicable |

### 1.1.25 DANN2011

| Study ID | DANN2011 | |
|---|---|---|
| Bibliographic reference:<br>Dann R. Secondary transition experiences for pupils with autistic spectrum conditions (ASCs). Educational Psychology in Practice. 2011;27:293-312. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To explore the views and experiences of key stakeholders regarding inclusion into secondary phase schooling for pupils with Autistic Spectrum Conditions | |
| Checklist completed by: Rachael Lee | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Reliable | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |

| | | |
|---|---|---|
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.26 DILLENBURGER2010

| | | |
|---|---|---|
| Study ID | DILLENBURGER2010 | |
| Bibliographic reference:<br>Dillenburger K, Keenan M, Doherty A, Byrne , Gallagher S. Living with children diagnosed with autistic spectrum disorder: parental and professional views. British Journal of Special Education. 2010;37:13-23. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Experience of information and support | |
| Checklist completed by: Christina Loucas | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Reliable | Comments: Not applicable |
| Section 5: analysis | | |

| | | |
|---|---|---|
| 5.1 Is the data analysis sufficiently rigorous? | Not rigorous | Comments: No clear and consistent method for analysing qualitative responses in the questionnaire described |
| 5.2 Are the data 'rich'? | Not sure/not reported | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Unreliable | Comments: No detail given about how the qualitative data was analysed e.g. no indication of any interater checks |
| 5.4 Are the findings convincing? | Not sure | Comments: Findings appear convincing, however it is difficult to confirm this due to poor methodology |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.27 DILLENBURGER2004

| Study ID | DILLENBURGER2004 | |
|---|---|---|
| Bibliographic reference:<br>Dillenburger K, Keenan M, Gallagher S, McElhinney M. Parent education and home-based behaviour analytic intervention: an examination of parents' perceptions of outcome. Journal of Intellectual & Developmental Disability. 2004;29:119–130. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Experience of specific intervention (ABA) | |
| Checklist completed by: Christina Loucas | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |

| | | |
|---|---|---|
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Only one method used: questionnaires |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not rigorous | Comments: No clear and consistent method for analysing qualitative responses in the questionnaire described |
| 5.2 Are the data 'rich'? | Poor | Comments: Data lacks depth and detail |
| 5.3 Is the analysis reliable? | Unreliable | Comments: No detail given about how the data was analysed e.g. no indication of any interater checks |
| 5.4 Are the findings convincing? | Not sure | Comments: Findings appear convincing, however it is difficult to confirm this due to poor methodology |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.28 DITTRICH2011

| Study ID | DITTRICH2011 |
|---|---|
| Bibliographic reference:<br>Dittrich R, Burgess L, Bartolomeo K. Autism participation-have your say! Responses. Hampshire's pre-consultation: developing a Hampshire autism strategy to meet local needs. Hampshire: Hampshire County Council; 2011. Available from: http://www.hants.gov.uk/pdf/autism-participation-report-september2011.pdf. | |

| | | |
|---|---|---|
| Guideline topic: Autism in children & young people | Key research question/aim: To identify needs of children with autism and ther families in who live in Hampshire, to develop a dedicated service. | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Postal/online survey, so no relationship with participants. |
| 4.2 Is the context clearly described? | Clear | Comments: Study tried to remove any context bias e.g. by ensuring the survey was appropriate for people with different needs/abiltiies. |
| 4.3 Were the methods reliable? | Reliable | Comments: Data collected through focus-groups and surveys |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not reported | Comments: Information on how many people coded the surveys not reported |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |

| Section 6: ethics | | |
|---|---|---|
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.29 DONALDSON2011

| Study ID | DONALDSON2011 | |
|---|---|---|
| Bibliographic reference:<br>Donaldson SO, Elder JH, Self EH, Christie MB. Fathers' perceptions of their roles during in-home training for children with autism. Journal of Child and Adolescent Psychiatric Nursing. 2011;24:200–207. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Experience of specific intervention (Father-directed in-home training) | |
| Checklist completed by: Christina Loucas | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Only one method was used: semi-structured interviews |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |

| | | |
|---|---|---|
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.30 DYMOND2007

| Study ID | DYMOND2007 | |
|---|---|---|
| Bibliographic reference:<br>Dymond SK, Gilson GL, Myran SP. Services for children with autism spectrum disorders. Journal of Disability Policy Studies. 2007;18:133-147. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Suggested improvements for education/school and community-based services | |
| Checklist completed by: Christina Loucas | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |

| | | |
|---|---|---|
| 4.3 Were the methods reliable? | Not sure | Comments: Only used one method: survey questionnaire |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.31 FISH2006

| Study ID | FISH2006 | |
|---|---|---|
| Bibliographic reference:<br>Fish W.W. Perceptions of Parents of Students with Autism towards the IEP Meeting: A Case Study of One Family Support Group Chapter. Education. 2006: 126: 56-68. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Experience of education/school (IEP) | |
| Checklist completed by: Christina Loucas | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |

| | | |
|---|---|---|
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Only used one method: semi-structured interviews |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not sure/not reported | Comments: Not applicable |

### 1.1.32 FLYNN2010

| | |
|---|---|
| Study ID | FLYNN2010 |
| Bibliographic reference:<br>Flynn K, Tosh J, Hackett L, Todd S, Bond C, Hunter A. Supporting families post-diagnosis: an evaluation of parent workshops. Good Autism Practice. 2010;11:31-35. | |
| Guideline topic: Autism in children & young people | Key research question/aim: Experience of post-diagnosis information and support (parent workshops) |
| Checklist completed by: Christina Loucas | |

| | | |
|---|---|---|
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |

| | | |
|---|---|---|
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Only one method was used: questionnaire. |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not rigorous | Comments: No clear and consistent method for analysing qualitative responses in the questionnaire described |
| 5.2 Are the data 'rich'? | Poor | Comments: Findings are clear, however it is difficult to classify the data as 'rich' due to poor data analysis |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: No detail given regarding reliability checks e.g. no indication of any interater checks |
| 5.4 Are the findings convincing? | Not sure | Comments: Findings appear convincing, however it is difficult to confirm this due to poor methodology |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not sure/not reported | Comments: Not applicable |

## 1.1.33 GREEN2007

| Study ID | GREEN2007 | |
|---|---|---|
| Bibliographic reference:<br>Green VA. Parental experience with treatments for autism. Journal of Developmental and Physical Disabilities. 2007;19:91-101. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Experience of specific intervention (ABA) | |
| Checklist completed by: Christina Loucas | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Not sure/inadequately reported | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Unclear | Comments: Limited detail provided |
| 4.3 Were the methods reliable? | Unreliable | Comments: Only one method used (interview) and data was not reliably recorded: "responses were typed by the interviewer into Excel spreadsheets during the interview for later coding and analysis" |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not rigorous | Comments: Insufficient detail provided for method of analysis |
| 5.2 Are the data 'rich'? | Not sure/not reported | Comments: Findings are clear, however it is difficult to classify the data as 'rich' due to poor methodology |

| | | |
|---|---|---|
| 5.3 Is the analysis reliable? | Unreliable | Comments: No detail given regarding reliability checks e.g. no indication of any interater checks |
| 5.4 Are the findings convincing? | Convincing | Comments: Findings appear convincing, however it is difficult to confirm this due to poor methodology |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not sure/not reported | Comments: Not applicable |

### 1.1.34 GREY2010

| Study ID | GREY2010 | |
|---|---|---|
| Bibliographic reference:<br>Grey IM, Lynn E, McClean B. Parents of children with autism: experiences of education service provision in the Republic of Ireland. Irish Journal of Psychology. 2010; 31:111-124. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Experience of education/school (ABA versus non-ABA schools) | |
| Checklist completed by: Christina Loucas | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Not applicable |

| | | |
|---|---|---|
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Only one method was used: semi-structured interview. |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.35 GRINDLE2009

| Study ID | GRINDLE2009 |
|---|---|
| Bibliographic reference:<br>Grindle CF, Kovshoff H, Hastings RP, Remington B. Parents' experiences of home-based applied behavior analysis programs for young children with autism. Journal of Autism and Developmental Disorders, 2009;39:42-56. | |
| Guideline topic: Autism in children & young people | Key research question/aim: Experience of specific intervention (EIBI) |
| Checklist completed by: Christina Loucas | |

| | | |
|---|---|---|
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |

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|---|---|---|
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Only one method was used: semi-structured interview. |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.36 HACKETT2009

| Study ID | HACKETT2009 |
|---|---|
| Bibliographic reference:<br>Hackett L, Shaikh S, Theodosiou L. Parental perceptions of the assessment of autistic spectrum disorders in a tier three service. Child and Adolescent Mental Health. 2009;14:127–132. | |
| Guideline topic: Autism in children & young people | Key research question/aim: Experience of post-diagnosis information and support |
| Checklist completed by: Christina Loucas | |
| Section 1: theoretical approach | |

| | | |
|---|---|---|
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Reliable | Comments: Not applicable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not rigorous | Comments: No clear method for how the data was coded/analysed was described |
| 5.2 Are the data 'rich'? | Not sure/not reported | Comments: Findings are clear, however it is difficult to classify the data as 'rich' due to poor methodology |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: No detail on whether any reliability checks were taken |
| 5.4 Are the findings convincing? | Not sure | Comments: Findings appear convincing, however it is difficult to confirm this due to poor methodology |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

## 1.1.37HALL2010

| Study ID | HALL2010 | |
|---|---|---|
| Bibliographic reference:<br>Hall HR, Graff JC. Parenting challenges in families of children with autism: a pilot study. Issues in Comprehensive Pediatric Nursing. 2010;33:187–204. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Experience of information and support | |
| Checklist completed by: Christina Loucas | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Only used one method: focus groups. |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |

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| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.38 HARE2004

| | | |
|---|---|---|
| Study ID | HARE2004 | |
| Bibliographic reference:<br>Hare DJ, Pratt C, Burton M, Bromley J, Emerson E. The health and social care needs of family carers supporting adults with autistic spectrum disorders. Autism. 2004;8:425-444. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Experience of transition | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Only one method of data collection was adopted; structured interview |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Limited information on data analysis provided. A statitical package |

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|---|---|---|
| | | was used and this was checked by field supervisor, but no information on methods etc. |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Information on how discrepencies in analysis were resolved were not reported. |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.39 ECOTEC2010

| Study ID | ECOTEC2010 | |
|---|---|---|
| Bibliographic reference:<br>ECOTEC. Research study on age appropriate services for young people with neurodevelopmental disorders: a research study for Big Lottery Fund. Birmingham: ECOTEC Research and Consulting Ltd; 2010. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Information/support at key transitions | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |

| Section 4: validity | | |
|---|---|---|
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Reliable | Comments: Data were collected through interview and focus-groups |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Analysis seems rigorous, but coding carried out by one person so no interrater reliability checks |
| 5.2 Are the data 'rich'? | Poor | Comments: A limited amount of data are reported for each cohort of participants and not all topics reported for each cohort. |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Only one person coded data |
| 5.4 Are the findings convincing? | Not sure | Comments: Findings are clearly presented and original extracts are included, but detail very limited. |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.40 HAY2005

| Study ID | HAY2005 |
|---|---|
| Bibliographic reference:<br>Hay I, Winn S. Students with Asperger's syndrome in an inclusive secondary school environment: teachers', parents' and students' perspectives. Australasian Journal of Special Education. 2005;29:140-154. | |
| Guideline topic: Autism in children & young people | Key research question/aim: Experience of education/school |
| Checklist completed by: Lucy Burt | |
| Section 1: theoretical approach | |

| | | |
|---|---|---|
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Only one method of data collection was adopted; focus groups |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Only one person coded data |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.41 HUMPHREY2008A

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|---|---|
| Study ID | HUMPHREY2008A |

| | | |
|---|---|---|
| Bibliographic reference:<br>Humphrey N, Lewis S. What does 'inclusion' mean for pupils on the autistic spectrum in mainstream secondary schools? Journal of Research in Special Educational Needs. 2008;8:132-140.<br><br>Humphrey N, Lewis S. 'Make me normal': the views and experiences of pupils on the sutistic spectrum in mainstream secondary schools. Autism. 2008;12:23-46. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Experience of education/school | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Although limited detail on data collection and record keeping reported |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Reliable | Comments: Although details on who carried out analysis are lacking |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Although details on who carried out analysis are lacking |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not reported | Comments: No information on who/how many coded |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |

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|---|---|---|
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.42 HURLBUTT2011

| | | |
|---|---|---|
| Study ID | HURLBUTT2011 | |
| Bibliographic reference:<br>Hurlbutt KS. Experiences of parents who homeschool their children with autism spectrum disorders. Focus on Autism and Other Developmental Disabilities. 2011;26:239-249. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Barriers to accessing services/unmet needs (reasons for homeschooling) | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Context bias consideration not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data were only collected by one person, but were double coded. |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |

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|---|---|---|
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: 2 coders; no disagreement between them |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.43 HUTTON2005

| | | |
|---|---|---|
| Study ID | HUTTON2005 | |
| Bibliographic reference:<br>Hutton AM, Caron SL. Experiences of families with children with autism in rural New England. Focus on Autism and Other Developmental Disabilities.2005;20:180-189. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: What is the impact on the family of having a child with ASD and what is the nature of intervention services they receive? | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Not sure/inadequately reported | Comments: Interviews were not recorded, but notes were taken. Unclear how detailed the notes were or how subjective. |
| Section 4: validity | | |

| | | |
|---|---|---|
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Context bias consideration not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data were clollected via interviews only. |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Limited details regarding data analysis are reported and what is reported is ambiguous. |
| 5.2 Are the data 'rich'? | Not sure | Comments: The results section is descriptive rather than analytic, but for most questions the range of responses are (briefly) described. |
| 5.3 Is the analysis reliable? | Not reported | Comments: Interviews were coded by each researcher, but how agreement was reached or how discrepant results were addressed is not reported |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

## 1.1.44 JEGATHEESAN2010

| Study ID | JEGATHEESAN2010 |
|---|---|
| Bibliographic reference:<br>Jegatheesan B, Fowler S, Miller PJ. From symptom recognition to services: how South asian muslim immigrant families navigate autism. Disability and Society. 2010;25:797-811.<br><br>Jegatheesan B. Multilingual development in children with autism:perspectives of south asian muslim immigrant parents on raising a child with a communicative disorder in multilingual contexts. Bilingual Research Journal. 2011;34:185-200. | |
| Guideline topic: Autism in children & young people | Key research question/aim: What were the experiences of intervention services of muslim |

| | | |
|---|---|---|
| | immigrant families with children with autism | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Context bias consideration not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected by interview only, otherwise reliable |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

## 1.1.45 JINDALSNAPE2005

| Study ID | JINDALSNAPE2005 | |
|---|---|---|
| Bibliographic reference:<br>Jindal-Snape D, Douglas W, Topping KJ, Kerr C, Smith EF. Effective education for children with autistic spectrum disorder: perceptions of parents and professionals. International Journal of Special Education. 2005;20:77-87.<br><br>Jindal-Snape D, Douglas W, Topping KJ, Kerr C, Smith EF. (2006) Autism spectrum disorders and primary-secondary transition. International Journal of Special Education. 2006;21:18-31. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: What services/advice is available to support children with auism in the transition from primary to secondary education? | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Inadequately reported | Comments: Limited information regarding how interviews were carried out, other than the instrument that was used. |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Unclear | Comments: characteristics of the participants/setting were not described. No reference to context bias. |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected via interviews only. Information on double coding is limited; unclear whether it was applied to all interviews or just specific questions. |
| Section 5: analysis | | |

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|---|---|---|
| 5.1 Is the data analysis sufficiently rigorous? | Not sure | Comments: Limited information on analysis reported; it is not clear how themes were identified. |
| 5.2 Are the data 'rich'? | Poor | Comments: Diversity of contexts unclear; the word 'might' is used regularly (e.g. teacher visits might involve talking to staff); lack of detail and depth |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Some double coding was done, but unclear how much and how differences were resolved |
| 5.4 Are the findings convincing? | Not sure | Comments: Generally the responses seem convincing, but some areas lack detail |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.46 JOHNSON2002

| Study ID | JOHNSON2002 | |
|---|---|---|
| Bibliographic reference:<br>Johnson E, Hastings RP. Facilitating factors and barriers to the implementation of intensive home-based behavioural intervention for young children with autism. Child: Care, Health & Development. 2002;28:123-129. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: What are the experiences of families conduting home-based behavioural interventions for children with ASD? | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |

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|---|---|---|
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Postal survey, so no relationship between researcher and participants |
| 4.2 Is the context clearly described? | Clear | Comments: Context bias acknowledged |
| 4.3 Were the methods reliable? | Not sure | Comments: Only one method of data collection was used; postal survey |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure | Comments: Only 28 of 141 questionnaires were double coded. |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

## 1.1.47JONES2008A

| Study ID | JONES2008A |
|---|---|
| Bibliographic reference:<br>Jones G, Hack E. Chapter 3. Parent/carer involvement in the commissioning of services for children and young people with autism spectrum disorder in the East Midlands. Journal of Research in Special Educational Needs. 2008;8:167–182. | |
| Guideline topic: Autism in children & young people | Key research question/aim: To ascertain the extent to which parents of children with ASD are involved in |

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| | comminssioning services | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Not sure | Comments: Methodology poorly reported; very limited information |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Inadequately reported | Comments: Methodology poorly reported; very limited information |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Methodology poorly reported; very limited information |
| 4.2 Is the context clearly described? | Not sure | Comments: Methodology poorly reported; very limited information |
| 4.3 Were the methods reliable? | Not sure | Comments: Methodology poorly reported; very limited information |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not reported | Comments: Methodology poorly reported; very limited information |
| 5.2 Are the data 'rich'? | Poor | Comments: There is a lack of quotes from interviews, so it is unclear whether many of the statements in results are supported by the interviews |
| 5.3 Is the analysis reliable? | Not reported | Comments: Methodology poorly reported; very limited information |
| 5.4 Are the findings convincing? | Not sure | Comments: There is a lack of extracts from orginal data so unclear whether finding are supported |
| 5.5 Are the findings relevant to the aims of the study? | Partially relevant | Comments: What is reported is relevant to research |

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| | | questions, but not all research questions have been answered |
| 5.6 Are the conclusions adequate? | Not sure | Comments: Links between conclusions and data are not clear; limitations not discussed; unclear if alternate explanations have been explored |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.48 JONES2008C

| Study ID | JONES2008C | |
|---|---|---|
| Bibliographic reference:<br>Jones G, English A, Guldberg K, Jordan R, Richardson P, Waltz M. Educational provision for children and young people on the autism spectrum living in England: a review of current practice, issues and challenges. London: Autism Education Trust; 2008. Available from: http://www.autismeducationtrust.org.uk/resources/research.aspx. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To review the current practice issues and challenges in educational services for children with autism | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Inadequately reported | Comments: Details are reported on the collection of questionnaires, but are missing in relation to how interviews were arranged and conducted |
| Section 4: validity | | |

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| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Reliable | Comments: Data were collected via questionnaires and interviews. |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not reported | Comments: No information on analysis of data reported |
| 5.2 Are the data 'rich'? | Not sure | Comments: Findings are clear and detailed, however it is difficult to classify the data as 'rich' due to lack of information regarding analysis |
| 5.3 Is the analysis reliable? | Not reported | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.49 KEENAN2010

| Study ID | KEENAN2010 |
|---|---|
| Bibliographic reference:<br>Keenan M, Dillenburger K , Doherty A, Byrne T, Gallagher S. The experiences of parents during diagnosis and forward planning for children with autism spectrum disorder. Journal of Applied Research in Intellectual Disabilities. 2010;23: 390–397. | |
| Guideline topic: Autism in children & young people | Key research question/aim: Examining parental experiences of diagnosis of children with ASD |
| Checklist completed by: Lucy Burt | |
| Section 1: theoretical approach | |

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| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |

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| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Not sure/inadequately reported | Comments: Information provided on the questionniares but not on focus groups |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Context bias considerations not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data were collected through questionnaires and focus groups, but very little detail reported regarding the method and analysis for focus groups. |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not reported | Comments: Method of analysis for focus groups not reported |
| 5.2 Are the data 'rich'? | Not sure | Comments: Findings are clear, however it is difficult to classify the data as 'rich' due to lack of methodology |
| 5.3 Is the analysis reliable? | Not reported | Comments: No details on methodology reported |
| 5.4 Are the findings convincing? | Not sure | Comments: Limited information reported |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not clear | Comments: Minimal information reported regarding participant information sheets and data |

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| | | security. |

### 1.1.50 KERRELL2001

| Study ID | KERRELL2001 | |
|---|---|---|
| Bibliographic reference:<br>Kerrell H. Service evaluation of an autism diagnostic clinic for children. Nursing Standard. 2001;15:33-37. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To examine parents experiences of an autism diagnostic clinic for children | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Not sure | Comments: Methods around data collection are reported, but analysis was not described. |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Context bias not considered |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through semi-structured interview only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not reported | Comments: Details of analysis not reported |
| 5.2 Are the data 'rich'? | Not rich | Comments: Limited findings reported. Lack of information on analysis of data analysis also makes it difficult to |

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| | | describe as 'rich'. |
| 5.3 Is the analysis reliable? | Not reported | Comments: No details on analysis reported |
| 5.4 Are the findings convincing? | Not sure | Comments: Findings appear convincing, but details is limited and there is also limited information on methods of analysis |
| 5.5 Are the findings relevant to the aims of the study? | Not sure | Comments: Limited findings reported and lack of information on analysis of data analysis makes it difficult to describe as relevent. |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not sure | Comments: Some ethical considerations were made, but details are limited |

### 1.1.51 KIDD2010

| Study ID | KIDD2010 | |
|---|---|---|
| Bibliographic reference:<br>Kidd T, Kaczmarek E. The experiences of mothers home educating their children with autism spectrum disorder. Issues in Educational Research. 2010;20:257-275. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To identify 'home-educating' experiences of mothers with a child with ASD | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |

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| 3.1 How well was the data collection carried out? | Appropriate | Comments: Details on record keeping not reported |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Only one method of data collection adopted; semi-structured interviews |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Both researchers coded all itnerviews |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.52 KIMURA2010

| Study ID | KIMURA2010 |
|---|---|
| Bibliographic reference:<br>Kimura M, Yamazaki Y, Mochizuki M, Omiya T. Can I have a second child? dilemmas of mothers of children with pervasive developmental disorder: a qualitative study. BMC Pregnancy and Childbirth. 2010;10: 69. | |
| Guideline topic: Autism in children & young people | Key research question/aim: To identify the experiences of mothers of children with PDD in relation to decisions about having a second-child. |
| Checklist completed by: Lucy Burt | |
| Section 1: theoretical approach | |

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| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Context bias not considered |
| 4.3 Were the methods reliable? | Not sure | Comments: Only one method of data collection used; semi-structured interviews |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not sure | Comments: Some details on ethical considerations reported, but limited. |

### 1.1.53 KOYDEMIROZDEN2010

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| Study ID | KOYDEMIROZDEN2010 |

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| Bibliographic reference:<br>Koydemir-Özden S, Tosun U. A qualitative approach to understanding Turkish mothers of children with autism: implications for counselling. Australian Journal of Guidance and Counselling. 2010;20:55-68. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To gain an understanding of the experiences of Turkish mothers with a child with autism | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Not sure | Comments: Limited details on participants and settings reported, context bias not considered |
| 4.3 Were the methods reliable? | Not sure | Comments: Only one method of data collection was used; semi-structured interviews |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |

| Section 6: ethics | | |
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| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.54 KUHANECK2010

| Study ID | KUHANECK2010 | |
|---|---|---|
| Bibliographic reference:<br>Kuhaneck HM, Burroughs T, Wright J, Lemanczyk T, Darragh AR. A qualitative study of coping in mothers of children with an autism spectrum disorder. Physical and Occupational Therapy in Pediatrics. 2010;30:340-350. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To identify the coping strategies of mothers of children with autism | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Context bias not considered |
| 4.3 Were the methods reliable? | Not sure | Comments: Data were collected using one method only; semi-structured interview |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |

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| 5.2 Are the data 'rich'? | Not sure | Comments: Some themes have limited details attached to them |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.55 LARSON2010

| Study ID | LARSON2010 | |
|---|---|---|
| Bibliographic reference:<br>Larson E. Ever vigilant: maternal support of participation in daily life for boys with autism. Physical and Occupational Therapy in Pediatrics. 2010;30:16-27. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Exploring the experiences of care-giving of mothers of children with autism | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Not sure | Comments: Details in methodology are limited; rationale for qualitative approach not given |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Inadequately reported | Comments: Details in methodology are limited; information lacking on collection methods and record keeping |

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| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Details in methodology are limited |
| 4.2 Is the context clearly described? | Not sure | Comments: Details in methodology are limited |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collection through semi-structured interview ony |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure | Comments: Details in methodology are limited; not clear how many people coded |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Details on ethical considerations not reported |

### 1.1.56 LILLEY2011

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|---|---|
| Study ID | LILLEY2011 |
| Bibliographic reference:<br>Lilley R. Maternal intimacies: talking about autism diagnosis. Australian Feminist Studies. 2011;26:207-224. | |
| Guideline topic: Autism in children & young people | Key research question/aim: Exploring the experience of mothers when their child is diagnosed with autism |
| Checklist completed by: Lucy Burt | |

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|---|---|---|
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |

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|---|---|---|
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Not sure | Comments: Details on methodology are very limited |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Inadequately reported | Comments: Details on methodology are very limited |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: The researcher related to the mothers as she too has a child with autism, so was seem as *one of them.* |
| 4.2 Is the context clearly described? | Unclear | Comments: Details on methodology are very limited |
| 4.3 Were the methods reliable? | Not sure | Comments: Details on methodology are very limited. Data were collected through interviews and focus groups. |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not reported | Comments: No details of data analysis reported |
| 5.2 Are the data 'rich'? | Not sure | Comments: Findings are clear, however it is difficult to classify the data as 'rich' due to poor methodology |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: No details of data analysis reported |
| 5.4 Are the findings convincing? | Not sure | Comments: Findings appear convincing, however it is difficult to classify this way due to poor methodology |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.57 LILLY2004

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| Study ID | LILLY2004 |

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| Bibliographic reference:<br>Lilly JD, Reed D, Wheeler KG. Perceptions of psychological contract violations in school districts that serve children with autism spectrum disorder. Journal of Applied School Psychology. 2004;20:27-45. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To identify parents satisfaction with schools in relation to a child with autism. | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Details of data analysis not reported |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Inadequately reported | Comments: Some information missing; where interviews conducted, how/if they were recorded etc. |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected via one method; semi-structured interviews |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not reported | Comments: No information on data analysis reported |
| 5.2 Are the data 'rich'? | Not sure | Comments: Data are detailed in response to some questions but not others. Difficult to classify the data as 'rich' due to lack of information on analysis |
| 5.3 Is the analysis reliable? | Not reported | Comments: No information on data analysis reported |
| 5.4 Are the findings convincing? | Convincing | Comments: Although some questions would benefit from more detail being reported |

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| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.58 LIN2008

| Study ID | LIN2008 | |
|---|---|---|
| Bibliographic reference:<br>Lin C, Tsai Y, Chang H. Coping mechanisms of parents recently diagnosed with autism in Taiwan: a qualitative study. Journal of Clinical Nursing. 2008;17:2733-2740. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To identify the coping mechanisms of parents of children with autism | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected via semi-structured interview only |
| Section 5: analysis | | |

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|---|---|---|
| 5.1 Is the data analysis sufficiently rigorous? | Not sure | Comments: Some detail on data analysis reported, but not enough to classify as 'rigorous' |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure | Comments: An expert in qualitative methods double coded interviews, but unclear how differences were resolved and whether participants fed back on transcripts. |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.59 LUONG2009

| | | |
|---|---|---|
| Study ID | LUONG2009 | |
| Bibliographic reference:<br>Luong J, Yoder MK, Canham D. Southeast asian parents raising a child with autism: a qualitative investigation of coping styles. The Journal of School Nursing. 2009;25:222-229. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To identify the coping mechanisms of parents of children with autism | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |

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|---|---|---|
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through semi-structured interviews only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure | Comments: Some detail on data analysis reported, but not enough to classify as 'rigorous' |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.60 MANSELL2004

| | |
|---|---|
| Study ID | MANSELL2004 |
| Bibliographic reference:<br>Mansell W, Morris K. A survey of parent's reactions to the diagnosis of an autistic spectrum disorder by a local service: access to information and use of services. Autism. 2004;8:387-407. | |
| Guideline topic: Autism in children & young people | Key research question/aim: To investiate parents views on the quality of services that are offered to children with autism |
| Checklist completed by: Lucy Burt | |
| Section 1: theoretical approach | |

| | | |
|---|---|---|
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Not sure | Comments: Lack of details regarding rationale for data collection and analysis. |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected using open-ended questionnaire only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure | Comments: Detail on data analysis not provided |
| 5.2 Are the data 'rich'? | Not sure | Comments: Findings are clear, however it is difficult to classify the data as 'rich' due to lack of detail on analysis |
| 5.3 Is the analysis reliable? | Not reported | Comments: Detail on data analysis not provided |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

## 1.1.61 MCCABE2008A

| Study ID | MCCABE2008A | |
|---|---|---|
| Bibliographic reference:<br>McCabe H. Autism and family in the People's Republic of China: learning from parents' perspectives. Research and Practice for Persons with Severe Disabilities. 2008;33: 37-47. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To investigate the impact of an autism diagnosis on families of the children diagnosed | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Reliable | Comments: Data collected via survey and interviews. |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure | Comments: Unclear how whether interviews were double coded or whether participants fed-back on transcripts |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |

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| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.62 MCCABE2008B

| Study ID | MCCABE2008B | |
|---|---|---|
| Bibliographic reference:<br>McCabe H. The importance of parent-to-parent support among families of children with autism in the People's Republic of China. International Journal of Disability, Development and Education. 2008; 55:303-314. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To investigate the experiences of services offered to parents whose children have been diagnosed with autism | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Reliable | Comments: Data collected though semi-structured interview and survey |

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|---|---|---|
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.63 MCCONKEY2011

| | | |
|---|---|---|
| Study ID | MCCONKEY2011 | |
| Bibliographic reference:<br>McConkey R, MacLeod S, Cassidy A. The Keyhole® Rainbow Resource Kit: meeting the needs of parents of newly diagnosed preschoolers with ASD. Early Child Development and Care. 2011; 181:321-334. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To ascertain parents views on a resource kit for children with autism. | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |

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|---|---|---|
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Reliable | Comments: Data collected via semi-structured interviews and questionnaires |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not reported | Comments: No details on data analysis reported |
| 5.2 Are the data 'rich'? | Not sure | Comments: Findings are clear, however it is difficult to classify the data as 'rich' due to lack of information regarding analysis |
| 5.3 Is the analysis reliable? | Not reported | Comments: No details on data analysis reported |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.64 MEIRSSCHAUT2010

| | |
|---|---|
| Study ID | MEIRSSCHAUT2010 |
| Bibliographic reference:<br>Meirsschaut M, Roeyers H, Warreyn P. Parenting in families with a child with autism spectrum disorder and a typically developing child: mother's experiences and cognitions. Research in Autism Spectrum Disorders. 2010;4:661-669. | |
| Guideline topic: Autism in children & young people | Key research question/aim: To examine the experiences and cognitions of mothers with a child with autism and a typically-developing child |
| Checklist completed by: Lucy Burt | |
| Section 1: theoretical approach | |

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|---|---|---|
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Reliable | Comments: Data collected through semi-structured interview and questionnaires |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure | Comments: Limitied details on data analysis are reported, making it difficult to classify as 'rigorous'. |
| 5.2 Are the data 'rich'? | Not sure | Comments: Some themes are not have limited depth and detail to describe as 'rich' |
| 5.3 Is the analysis reliable? | Not reported | Comments: Limited details on analysis reported; unknown if interviews were doubled-coded or whether participants fed-back on themes. |
| 5.4 Are the findings convincing? | Not sure | Comments: Findings were convincing for some themes, but not those that had limited information |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.65 MIDENCE1999

| Study ID | MIDENCE1999 | |
|---|---|---|
| Bibliographic reference:<br>Midence K, O'Neill M. The experience of parents in the diagnosis of autism: a pilot study. Autism. 1999;3:273-285. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To explore the experiences of parents whose children are diagnosed with autism | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected via semi-structured interview only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Unclear whether transcripts were double coded, but participants did feed back on themes and all |

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| | | were in agreement |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.66 MINNES2009

| Study ID | MINNES2009 | |
|---|---|---|
| Bibliographic reference:<br>Minnes P, Steiner K. Parent views on enhancing the quality of health care for their children with fragile X syndrome, autism or down syndrome. Child: Care, Health & Development. 2009;35:250-256. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To investigate parent views of the quality of heathcare services for children with autism | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |

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| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through focus groups only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Poor | Comments: Not all themes are discussed; depth and diversity of accounts has not been demonstrated |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Not sure | Comments: Limited detail on findings makes it difficult to rate them as 'reliable'. |
| 5.5 Are the findings relevant to the aims of the study? | Partially relevant | Comments: Further detail is needed to rate as 'relevant' |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.67MORRISON2009

| Study ID | MORRISON2009 |
|---|---|
| Bibliographic reference:<br>Morrison JQ, Sansosti FJ, Hadley WM. Parent perceptions of the anticipated needs and expectations for support for their college-bound students with Asperger's syndrome. Journal of Post-secondary Education and Disability. 2009;22:78-87. | |
| Guideline topic: Autism in children & young people | Key research question/aim: Parents perceptions of support needed by young people with Asperger's syndrome who are going to university |
| Checklist completed by: Lucy Burt | |

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|---|---|---|
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |

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| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected via focus group only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.68 MOYSON2011

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|---|---|
| Study ID | MOYSON2011 |
| Bibliographic reference:<br>Moyson T, Roeyers H. The quality of life of siblings of children with autism spectrum disorder. Exceptional Children. 2011;78:41-55. | |
| Guideline topic: Autism in children & young people | Key research question/aim: To investigate siblings of children with autism's perceptions of their own quality of life |
| Checklist completed by: Lucy Burt | |
| Section 1: theoretical approach | |

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|---|---|---|
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Reliable | Comments: Data collected through semi-structured interview and focus groups |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not sure | Comments: Some ethical considerations are reported |

### 1.1.69 MULLIGAN2010

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|---|---|
| Study ID | MULLIGAN2010 |

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|---|---|---|
| Bibliographic reference:<br>Mulligan J, Steel L, Macculloch R, Nicholas D. Evaluation of an information resource for parents of children with autism spectrum disorder. Autism. 2010;14:113-126. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To ascertain parents views on an information resource for those who have children with autism. | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through focus groups only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Although some themes use a limited number of extracts of original data |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |

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|---|---|---|
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

## 1.1.70 MYERS2009

| | | |
|---|---|---|
| Study ID | MYERS2009 | |
| Bibliographic reference:<br>Myers BJ, Mackintosh VH, Goin-Kochel RP. "My greatest joy and my greatest heart ache:" parents' own words on how having a child in the autism spectrum has affected their lives and their families' lives. Research in Autism Spectrum Disorders. 2009;3:670-684. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To investigate parents perceptions of the affect of their child's diagnosis of autism on family life | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Participants completed an online survey so there was no relationship with the researcher |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected via online survey only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |

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| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.71 NASUNO2003

| | | |
|---|---|---|
| Study ID | NASUNO2003 | |
| Bibliographic reference:<br>Nasuno M, Takeuchi K, Yamamoto J. Feasibility of parents of children with autism using an applied behaviour analytic early treatment program: a preliminary study in Malaysia. Japanese Journal of Special Education. 2003;40:723-732. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To ascertain parents on formal and informal support resources for children with autism | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Not sure | Comments: Data collection relating to interviews and data analysis has been reported in limited detail and therefore may not be defensible |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Inadequately reported | Comments: Limited details reported on how interviews were conducted and data were recorded |

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|---|---|---|
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Reliable | Comments: Data collected through survey and semi-structured itnerview |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not reported | Comments: Unclear how analysis was carried out due to lack of detail reported |
| 5.2 Are the data 'rich'? | Poor | Comments: Detail and depth of responses are not reported; lack of quotes from interviews are used; unclear how data were analysed and results obtained |
| 5.3 Is the analysis reliable? | Not reported | Comments: Unclear how analysis was carried out due to lack of detail reported |
| 5.4 Are the findings convincing? | Not sure | Comments: Findings are clear, however it is difficult to classify findings as convincing due to lack of details on analysis |
| 5.5 Are the findings relevant to the aims of the study? | Partially relevant | Comments: Findings seem relevant, however it is difficult to classify the data as 'rich' due to lack of detail on analysis |
| 5.6 Are the conclusions adequate? | Not sure | Comments: Limitation of the study are not discussed |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.72NASUNPUBLISHED

| Study ID | NASUNPUBLISHED |
|---|---|
| Bibliographic reference:<br>National Autistic Society. Child mental health research report; Unpublished. | |

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|---|---|---|
| Guideline topic: Autism in children & young people | Key research question/aim: To compare the perceptions of children with autism and their families with those of mental health staff around CAMHS provision for children and young people with autism | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Not sure | Comments: Design is appropriate to research question, but there are no clear accounts of the rationale/justification for the data analysis techniques. |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Inadequately reported | Comments: Data collection briefly described, but details are limited |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Unclear | Comments: Participant characteristics or settings not described |
| 4.3 Were the methods reliable? | Not sure | Comments: Data were collected through interviews and focus groups, which do investigate what they set out to investigate. However, it is difficult to classify as 'reliable' due to the lack of detail in the methods. |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not reported | Comments: Data were thematically analysed. No further detail reported. |
| 5.2 Are the data 'rich'? | Not sure | Comments: Findings are clear, however it is difficult to classify the data as 'rich' due to lack of detail regarding methodology and analysis |

| | | |
|---|---|---|
| 5.3 Is the analysis reliable? | Not reported | Comments: Details of analysis not reported |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.73 NICHOLS2010

| | | |
|---|---|---|
| Study ID | NICHOLS2010 | |
| Bibliographic reference:<br>Nichols S, Blakeley-Smith A. "I'm not sure we're ready for this…": working with families toward facilitating healthy sexuality for individuals with autism spectrum disorders. Social Work in Mental Health. 2010;8:72-91. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To investigate parent views on service requirements relating to sexulaity in young people with autism | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |

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|---|---|---|
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through focus-groups only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not reported | Comments: Reliability checks not reported |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.74 NISSENBAUM2002

| Study ID | NISSENBAUM2002 |
|---|---|
| Bibliographic reference:<br>Nissenbaum MS, Tollefson N, Reese RM. The interpretative conference: sharing a diagnosis of autism with families. Focus on Autism and Other Developmental Disabilities. 2002;17:30-43. | |
| Guideline topic: Autism in children & young people | Key research question/aim: To investigate professionals and parents experiences of giving and receiving a child's diagnosis of autism |
| Checklist completed by: Lucy Burt | |
| Section 1: theoretical approach | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | |

| | | |
|---|---|---|
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through unstructured interviews only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Unclear if the data were double-coded, but member checks were completed |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.75 OLIVIER2009

| | |
|---|---|
| Study ID | OLIVIER2009 |
| Bibliographic reference:<br>Olivier MA, Hing ADA. Autistic spectrum disorder (ASD): parental challenges and strategies. Vulnerable Children and Youth Studies. 2009;4:58-66. | |
| Guideline topic: Autism in children & young people | Key research question/aim: To investigate the views of parents of children with autism around how they can be supported more effectively. |
| Checklist completed by: Lucy Burt | |
| Section 1: theoretical approach | |

| | | |
|---|---|---|
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Not sure | Comments: Design is approriate, but no rationale is offered for the methods of data collection or analysis |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Unclear | Comments: Characteristics of participants not clearly defined; Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through semi-structured interview only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not reported | Comments: Details relating to data analysis are limited; unclear how themes/patterns were derived from data |
| 5.2 Are the data 'rich'? | Poor | Comments: Data are descriptive; depths and diversity of perspective have not been reported; responses to not appear to have been compared |
| 5.3 Is the analysis reliable? | Not reported | Comments: Details relating to data analysis are limited |
| 5.4 Are the findings convincing? | Not sure | Comments: The findings are clear, but due to the lack of detail on analysis methods and the poor quality, cannot be rated as 'convincing'. |
| 5.5 Are the findings relevant to the aims of the study? | Partially relevant | Comments: The limited findings appear relevant to the study, but lack of detail means they cannot be rated as 'relevant'. |

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| 5.6 Are the conclusions adequate? | Inadequate | Comments: Lack of details means that conclusions cannot be considered as plausible and coherent; implications and limitations of research are not addressed. |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.76 OSBORNE2008

| Study ID | OSBORNE2008 | |
|---|---|---|
| Bibliographic reference:<br>Osborne LA, Reed P. Parents' perceptions of communication with professionals during the diagnosis of autism. Autism. 2008;12:309-324. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To examine parent experiences of receiving their child's diagnosis of autism and how this experience can be improved | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data were collected through structured focus groups only |

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|---|---|---|
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure | Comments: Methods of analysis are not explicitly reported |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure | Comments: Double coding was only carried out on 40% of data |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.77 PARSONS2009A

| | | |
|---|---|---|
| Study ID | PARSONS2009A | |
| Bibliographic reference:<br>Parsons S, Lewis A, Ellins J. The views and experiences of parents of children with autistic spectrum disorder about educational provision: comparisons with parents of children with other disabilities from an online survey. European Journal of Special Needs Education. 2009;24:37-58. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To investigate parents views on education services for children with autism | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |

| | | |
|---|---|---|
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Online survey, so researcher had no role |
| 4.2 Is the context clearly described? | Clear | Comments: Context bias is considered |
| 4.3 Were the methods reliable? | Not sure | Comments: Data were collected through online survey only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not reported | Comments: No details on how qualitative data were analysed |
| 5.2 Are the data 'rich'? | Not sure | Comments: Findings are clear, however it is difficult to classify the data as 'rich' due to lack of detail regarding analysis |
| 5.3 Is the analysis reliable? | Not reported | Comments: No details on how qualitative data were analysed |
| 5.4 Are the findings convincing? | Not sure | Comments: Findings are clear, however it is difficult to classify the data as 'convincing' due to lack of detail regarding analysis |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.78 PATTERSON2011

| Study ID | PATTERSON2011 |
|---|---|
| Bibliographic reference:<br>Patterson SY, Smith V. The experience of parents of toddlers diagnosed with autism spectrum disorder in the More Than Words parent education program. Infants and Young Children. 2011;24:329-343. | |
| Guideline topic: Autism in children & young people | Key research question/aim: Experience of specific intervention (Hanen More than Words) |

| Checklist completed by: Lucy Burt | | |
|---|---|---|
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Reliable | Comments: Data collected through indivudal interview and focus groups |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Unclear if transcripts were double-coded, but all interviews were member checked |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

## 1.1.79 PETALAS2009

| Study ID | PETALAS2009 | |
|---|---|---|
| Bibliographic reference:<br>Petalas MA, Hastings RP, Nash S, Dowey A, Reilly D. "I like that he always shows who he is": the perceptions and experiences of siblings with a brother with autism spectrum disorder. International Journal of Disability, Development and Education. 2009;56:381-399. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To investigate the experiences of typically developing children who have a brother with autism | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through semi-structured interview only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |

| | | |
|---|---|---|
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Limitations not reported |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.80 PHELPS2009

| Study ID | PHELPS2009 | |
|---|---|---|
| Bibliographic reference:<br>Phelps KW, Hodgson JL, McCammon SL, Lamson AL. Caring for an individual with autism disorder: a qualitative analysis. Journal of Intellectual and Developmental Disability. 2009;34:27-35. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To examine the experiences of care-givers with a child with autism | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through open-ended survey only |
| Section 5: analysis | | |

| | | |
|---|---|---|
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Limitations not discussed |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.81 PICKERING2005

| Study ID | PICKERING2005 | |
|---|---|---|
| Bibliographic reference:<br>Pickering A, Goode S. Family-centred approach to information provision for families with a child diagnosed with an autistic spectrum disorder. Clinical Psychology Forum. 2005;155:12-15. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: to investigate the views of parents of children with autism regarding the utility of information packs | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Not sure | Comments: Limited information regarding methodology reported |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Inadequately reported | Comments: Method of data collection seems appropriate, but unclear how systematic this and the record keeping was. |

| Section 4: validity | | |
|---|---|---|
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Unclear | Comments: Characteristics of participants and settings not reported; consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected via surveys only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure | Comments: Limited information on data analysis reported |
| 5.2 Are the data 'rich'? | Poor | Comments: Detail and depth of responses has not been reported; no quotes from raw data included |
| 5.3 Is the analysis reliable? | Not reported | Comments: Limited information on data analysis reported |
| 5.4 Are the findings convincing? | Not sure | Comments: No extacts from original data included |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Limitations of study are not discussed |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.82 PREECE2009A

| Study ID | PREECE2009A |
|---|---|
| Bibliographic reference:<br>Preece D, Jordan R. Obtaining the views of children and young people with autism spectrum disorders about their experience of daily life and social care support. British Journal of Learning Disabilities. 2009;38:10-20. | |
| Guideline topic: Autism in children & young people | Key research question/aim: To explore the experiences of daily life in children and young people with autism |
| Checklist completed by: Lucy Burt | |
| Section 1: theoretical approach | |

| | | |
|---|---|---|
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Reliable | Comments: Data collected via semi-structured interviews and observations |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure | Comments: A sample of transcripts (but not all) were double coded |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: some limitations are discussed throughout the discussion section |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

## 1.1.83 PRUNTY2011

| Study ID | PRUNTY2011 | |
|---|---|---|
| Bibliographic reference:<br>Prunty A. Implementation of children's rights: what is in 'the best interests of the child' in relation to the individual education plan (IEP) process for pupils with autistic spectrum disorders (ASD)? Irish Educational Studies. 2011;30:23-44. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To ascertain what children with autism, parents and teachers feel about the IEP development process for children with autism | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected via focus groups only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure | Comments: Double-coding of transcripts not reported |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Although some themes are lacking extracts |

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|---|---|---|
| | | from the original data |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.84 REID2011

| Study ID | REID2011 | |
|---|---|---|
| Bibliographic reference:<br>Reid B. Great expectations: the chance of a lifetime for children with autism. London: National Autistic Society; 2011. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To identify the views of children and young people with autism, their parents and professionals on the special education needs support available | |
| Checklist completed by: | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Unclear | Comments: Limited information on aims of the research reported |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Not sure | Comments: Very limited information on methodology reported |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Inadequately reported | Comments: Very limited information on methodology reported |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Very limited information on methodology reported |
| 4.2 Is the context clearly described? | Not sure | Comments: Very limited information on methodology reported |

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|---|---|---|
| 4.3 Were the methods reliable? | Not sure | Comments: Very limited information on methodology reported |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not reported | Comments: Information on data analysis not reported |
| 5.2 Are the data 'rich'? | Not sure | Comments: Findings are clear, however it is difficult to classify the data as 'rich' due to lack of detail around methodology |
| 5.3 Is the analysis reliable? | Not reported | Comments: Information on data analysis not reported |
| 5.4 Are the findings convincing? | Not sure | Comments: Findings are clear, however it is difficult to classify the data as 'convincing' due to lack of detail around methodology |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Not sure | Comments: Conclusions are clear, however it is difficult to classify the data as 'adequate' due to lack of detail around methodology |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.85 RENTY2006A

| Study ID | RENTY2006A |
|---|---|
| Bibliographic reference:<br>Renty J, Roeyers H. Satisfaction with formal support and education for children with autism spectrum disorder: the voices of the parents. Child: Care, Health & Development. 2006;32:371-385. | |
| Guideline topic: Autism in children & young people | Key research question/aim: To ascertain how satisifed parents of children with autism are with support and education services their child receives |
| Checklist completed by: Lucy Burt | |
| Section 1: theoretical approach | |

| | | |
|---|---|---|
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |

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|---|---|---|
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: The method of analysis is not detailed in full, however, overall would still classify as 'defensible'. |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Reliable | Comments: Data were collected through survey and semi-structured interviews |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure | Comments: General informtaion on the method of analysis are reported, howver, it is not enough to demostrate how themes/codes are derived from the data |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not reported | Comments: Double coding and participant feedback on transcripts not reported |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

## 1.1.86 RYAN2009

| Study ID | RYAN2009 | |
|---|---|---|
| Bibliographic reference:<br>Ryan S, Cole SR. From advocate to activist? mapping the experiences of mothers of children on the autism spectrum. Journal of Applied Research in Intellectual Disabilities. 2009;22:43-53. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Exploring the advocacy and activist roles of mothers with a child with autism | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Not sure | Comments: Characteristics of participants are described; settings not described and consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through semi-structured interview only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Some details of analysis are reported, but the mothod used is not explicit and it is not clear how themes were derived from the data |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: The number of times data were coded is not reported |

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| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.87 SELKIRK2009

| | | |
|---|---|---|
| Study ID | SELKIRK2009 | |
| Bibliographic reference:<br>Selkirk CG, McCarthy Veach P, Lian F, Schimmenti L, LeRoy BS. Parents' perceptions of autism spectrum disorder etiology and recurrence risk and effects of their perceptions on family planning: recommendations for genetic counselors. Journal of Genetic Counselling. 2009;18:507-519. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Identifying parents' beliefs of the aetiology of their child's ASD | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Online survey, so there was no relationship between research and participant; how study was introduced to participants is described |

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|---|---|---|
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Data were collected through online survey online |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Data were double coded |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.88 SERPENTINE2011

| Study ID | SERPENTINE2011 |
|---|---|
| Bibliographic reference:<br>Serpentine EC, Tarnai B, Drager KDR, Finke EH. Decision making of parents of children with autism spectrum disorder concerning augmentative and alternative communication in Hungary. Communication Disorders Quarterly. 2011;32:221-231. | |
| Guideline topic: Autism in children & young people | Key research question/aim: To explore the decisions of parents of children with autism from Hungary, in relation to to seeking communication interventions for their child |
| Checklist completed by: Lucy Burt | |
| Section 1: theoretical approach | |

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|---|---|---|
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |

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|---|---|---|
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through semi-structured interview only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure | Comments: Double coding was only carried out on 20% of the data |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.89 SHYU2010

| Study ID | SHYU2010 |
|---|---|
| Bibliographic reference:<br>Shyu YL, Tsai J, Tsai W. Explaining and selecting treatments for autism: parental explanatory models in Taiwan. Journal of Autism and Developmental Disorders. 2010;40:1323-1331. | |
| Guideline topic: Autism in children & young people | Key research question/aim: To explore the beliefs of parents of children with autism in Taiwan, regarding the causes of the disorder and how they make treatment choices for their child |

| Checklist completed by: Lucy Burt | | |
|---|---|---|
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through semi-structured interview only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Double coding not reported, but member checks were completed |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Limitations not reported |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

## 1.1.90 ROSE2009

| Study ID | ROSE2009 | |
|---|---|---|
| Bibliographic reference:<br>Rose R, Anketell C. The benefits of social skills groups for young people with autism spectrum disorder: a pilot study. Child Care in Practice. 2009;15:127-144. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To evaluate the possible benefits of a social skills group for children on the autistic spectrum | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Reliable | Comments: Data collected via focus groups and questionnaires |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Some details of analysis are reported, but the mothod used is not explicit and it is not clear how themes were derived from the data |
| 5.2 Are the data 'rich'? | Not sure | Comments: The themes are each discussed to an extent; however, because quantitative data were also collected, there less detail reported from the qualitative data, so depth of responses is |

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| | | not demonstrated. |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Some ethical considerations were made |

### 1.1.91 SMYTH2010

| Study ID | SMYTH2010 | |
|---|---|---|
| Bibliographic reference:<br>Smyth C, Slevin E. Experiences of family life with an autism assistance dog. Learning Disability Practice. 2010;13:12-17. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To explore the experiences of families of children with autism who live with an assistance dog | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Not sure | Comments: Some detail on data collection and analysis, but not enough to be considered 'definsible'. |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Inadequately reported | Comments: Unclear how long inerviews lasted, how they were conducted and how they were recorded (taping or field notes – unclear) |

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| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through semi-structured interview only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Data were formulated into themes, but not reported in enough detail to understand *how* themes were derived from data |
| 5.2 Are the data 'rich'? | Not sure | Comments: Findings are clear, however it is difficult to classify the data as 'rich' due to lack of detail on methodology and analysis |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Reliability checks (e.g. double coding) not reported |
| 5.4 Are the findings convincing? | Not sure | Comments: Findings are clear, however it is difficult to classify the data as 'convincing' due to lack of detail on methodology and analysis |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.92 SPANN2003

| Study ID | SPANN2003 |
|---|---|
| Bibliographic reference:<br>Spann SJ, Kohler FW, Soenksen D. Families in a parent support group examining parents' involvement in and perceptions of special education services : an interview with families in a parent support group. Focus on Autism and Other Developmental Disabilities. 2003;18:228-237. | |

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|---|---|---|
| Guideline topic: Autism in children & young people | Key research question/aim: To explore the perceptions of parents of children with autism of special education services and their involvement in them | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Not sure | Comments: Not enough detail on data analysis reported |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through telephone interviews only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not reported | Comments: Method of data analysis not reported |
| 5.2 Are the data 'rich'? | Rich | Comments: Even though method of analysis not reported, tables are provided to show how often responses were endorsed by parents. |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Double coding carried out on 25% of interview transcripts, but without detail on analytic method, cannot be classified as 'reliable'. |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |

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| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.93 SPERRY1999

| Study ID | SPERRY1999 | |
|---|---|---|
| Bibliographic reference:<br>Sperry LA, Whaley KT, Shaw E, Brame K. Services for young children with autism spectrum disorder: voices of parents and providers. Infants and Young Children. 1999;11:17-33. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To explore the perceptions of parents and service providers around services that are offered to children with autism | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected via focus groups only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |

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| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.94 STARR2001

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|---|---|---|
| Study ID | STARR2001 | |
| Bibliographic reference:<br>Starr EM, Foy JB, Cramer KM. Parental perceptions of the education of children with pervasive developmental disorders. Education and Training in Mental Retardation and Developmental Disabilities. 2001;36:55-68. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To explore the views of parents of children with Pervasive Developmental Disorder in relation to education | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Not sure | Comments: Detail relating to the instrument are reported, but analysis of qualitative data is not described |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |

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|---|---|---|
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected via questionnaire only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not reported | Comments: No details on qualitative data analysis reported |
| 5.2 Are the data 'rich'? | Not sure | Comments: Diversity of perspective and depth of responses is not demonstrated in the report. Findings are clear, however it is difficult to classify the data as 'rich' due to lack of information regarding analysis |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: No details on qualitative data analysis reported |
| 5.4 Are the findings convincing? | Convincing | Comments: Findings are clear, however it is difficult to classify the data as 'convincing' due to poor lack of detail regarding analysis |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.95 STIRLING1999

| Study ID | STIRLING1999 |
|---|---|
| Bibliographic reference:<br>Stirling A, Prior A. Opening the door: a report on diagnosis and assessment of autism and Asperger syndrome based on personal experiences. London: National Autistic Society; 1999. | |
| Guideline topic: Autism in children & young people | Key research question/aim: To examine parents experiences of obtaining a diagnosis of ASD for their child |
| Checklist completed by: Lucy Burt | |

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|---|---|---|
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Not sure | Comments: Details of methodology are very limited. Method of analysis not reported at all. |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Not sure/inadequately reported | Comments: Details of data collection are very limited; unknown if data collection and record keeping were systematic |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through questionnaires only, no further information reported |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Detail on data analysis not reported |
| 5.2 Are the data 'rich'? | Not sure | Comments: Findings show depth and perspective have been explored, however it is difficult to classify the data as 'rich' due to lack of detail about methodology |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Detail on data analysis not reported |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Not sure | Comments: Limited conclusions are drawn outside of the findings |

| Section 6: ethics | | |
|---|---|---|
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.96 STONER2005

| Study ID | STONER2005 | |
|---|---|---|
| Bibliographic reference:<br>Stoner JB, Bock SJ, Thompson JR, Angell ME, Heyl BS, Crowley EP. Welcome to our world: parent perceptions of interactions between parents of young children with ASD and education professionals. Focus on Autism and Other Developmental Disabilities. 2005;20:39-51<br><br>Stoner JB, Angell ME. Parent perspectives on role engagement:an investigation of parents of children with ASD and their self-reported roles with education professionals. Focus on Autism and Other Developmental Disabilities,2006;20:39-51<br><br>Stoner JB, Angell ME, House JJ, Bock SJ. Transitions: perspectives from parents of young children with autism spectrum disorder (ASD). Journal of Developmental and Physical Disabilities. 2007;19:23-39. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To explore the perspectives of parents of children with autism on their interactions with education professionals | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through interview only |

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| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.97 STUART2006

| | | |
|---|---|---|
| Study ID | STUART2006 | |
| Bibliographic reference:<br>Stuart SK, Flis LD, Rinaldi C. Connecting with familes: parents speak up about preschool services for their children with autism spectrum disorders. Teaching Exceptional Children. 2006;39:46-51. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To investigate parents perceptions of a preschool programme for children with autism | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |

| Section 4: validity | | |
|---|---|---|
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Unclear | Comments: Participant characteristics/settings not described; consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data were collected through questionnaire only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: No reliability checks reported |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.98 TIPPETT2004

| Study ID | TIPPETT2004 |
|---|---|
| Bibliographic reference:<br>Tippett J. The educational experiences of students with Asperger syndrome. Kairaranga. 2004;5:12-18. | |
| Guideline topic: Autism in children & young people | Key research question/aim: To explore the issues that students with Asperger's Syndrome experience, from the students', their parents and their teachers perspectives. |
| Checklist completed by: Lucy Burt | |
| Section 1: theoretical approach | |

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|---|---|---|
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |

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|---|---|---|
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Not sure | Comments: Limited detail on methodology reported; no detail on analysis reported |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Not sure/inadequately reported | Comments: Limited detail on methodology reported |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Unclear | Comments: Characteristics of participants and setting not described; consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected via interview only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: No detail on analysis reported |
| 5.2 Are the data 'rich'? | Not sure | Comments: Findings are clear, however it is difficult to classify the data as 'rich' due to lack of detail on methodology/analysis |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: No detail on analysis reported |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

## 1.1.99 TISSOT2006

| Study ID | TISSOT2006 | |
|---|---|---|
| Bibliographic reference:<br>Tissot C, Evans R. Securing provision for children with autistic spectrum disorders: the views of parents. Perspectives in Education. 2006;24:73-86.<br><br>Tissot C. Working together? parent and local authority views on the process of obtaining appropriate educational provision for children with autism spectrum disorders. Educational Research. 2011;53:1–15. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To explore the views of parents of children with autism and the local authorities on the provision of special education services | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Not sure | Comments: Limited details of analysis are provided |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Unclear | Comments: Characteristics of participants/settings not described; Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Reliable | Comments: Data collected via interviews and questionnaires |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Limited details of analysis are provided |
| 5.2 Are the data 'rich'? | Not sure | Comments: Findings are clear, however it is difficult to classify the data as 'rich' due to limited details of analysis |

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| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Limited details of analysis are provided |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Limitations are not discussed |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.100 TOBIAS2009

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| Study ID | TOBIAS2009 | |
| Bibliographic reference:<br>Tobias A. Supporting students with autistic spectrum disorder (ASD) at secondary school: a parent and student perspective. Educational Psychology in Practice. 2009;2:151-165. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To explore the views of students with autism and their parents on the support they receive while at secondary school | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |

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| 4.3 Were the methods reliable? | Not sure | Comments: Data were collected through focus groups only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Reliability measures not reported |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Limitations are not discussed |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.101 TRUDGEON2007

| Study ID | TRUDGEON2007 |
|---|---|
| Bibliographic reference:<br>Trudgeon C, Carr D. The impacts of home-based early behavioural intervention programmes on families of children with autism. Journal of Applied Research in Intellectual Disabilities. 2007;20:285-296. | |
| Guideline topic: Autism in children & young people | Key research question/aim: To explore the experiences of parents of children with autism who are involved in early intensive behaviour interventions |
| Checklist completed by: Lucy Burt | |

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|---|---|---|
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |

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|---|---|---|
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Unclear | Comments: The relationship between researcher and participant not reported, but how the study was introduced to participants was reported |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected via semi-structured interview only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Only one theme of 5 discussed |
| 5.3 Is the analysis reliable? | Reliable | Comments: Some transcripts were double coded and themes were member-checked |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Limitations not discussed |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.102 VALENTINE2010

| Study ID | VALENTINE2010 |
|---|---|
| Bibliographic reference:<br>Valentine K. A consideration of medicalisation: choice, engagement and other responsibilities of parents of children with autism spectrum disorder. Social Science and Medicine. 2010;71:950-957. | |

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|---|---|---|
| Guideline topic: Autism in children & young people | Key research question/aim: To explore the experiences of families of children with autism, following diagnosis | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through semi-structured interview only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.103 WADDINGTON2006

| Study ID | WADDINGTON2006 | |
|---|---|---|
| Bibliographic reference:<br>Waddington EM, Reed P. Parents' and local education authority officers' perceptions of the factors affecting the success of inclusion of pupils with autistic spectrum disorders. International Journal of Special Education. 2006;21:151-164. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To ascertain the views of parents of children with autism and the professional working with them on inclusion of these children into mainstream schools | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Unclear | Comments: Relatiosnhsip between researcher and participants not reported, but how the study was introduced is reported |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through focus-groups only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |

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| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.104 WEBSTER2003

| Study ID | WEBSTER2003 | |
|---|---|---|
| Bibliographic reference:<br>Webster A, Feiler A, Webster V. Early intensive family intervention and evidence of effectiveness: lessons from the South West autism programme. Early Child Development and Care. 2003;173:383-398.<br><br>Webster A, Feiler A, Webster V, Lovell C. Parental perspectives on early intensive intervention for children diagnosed with autistic spectrum disorder. Journal of Early Childhood Research. 2004;2:25-49. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To explore the experiences of parents of children with autism in administering a home-based early intervention programme | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Not sure/inadequately reported | Comments: Limited detail on how interviews were conducted are reported |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |

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|---|---|---|
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through semi-structured interviews only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: With concerns over lack of reliability measures for analysis |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: No reliability checks reported |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.105 WEIDLE2006

| Study ID | WEIDLE2006 | |
|---|---|---|
| Bibliographic reference:<br>Weidle B, Bolme B, Hoeyland AL. Are peer support groups for adolescents with Asperger's syndrome helpful? Clinical Child Psychology and Psychiatry. 2006;11:45-67. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To explore the views of adolescents with Asperger's Syndrome and their family around a peer suppport group | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Not sure | Comments: Data collection is clearly detailed, but no details |

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| | | on analysis are provided |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through questionnaires only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: No information on analysis reported |
| 5.2 Are the data 'rich'? | Not sure | Comments: Findings are clear, however it is difficult to classify the data as 'rich' due to lack of information regarding analysis |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: No information on analysis reported |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.106 WELSHASSEMBLY2006

| Study ID | WELSHASSEMBLY2006 |
|---|---|
| Bibliographic reference:<br>Welsh Assembly Government New Ideas Research Fund. Identifying and supporting people with autistic spectrum disorders within the youth justice system in Wrexham and Flintshire. Wales: Wales' National Charity for Autism; 2006. | |

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|---|---|---|
| Guideline topic: Autism in children & young people | Key research question/aim: To ascertain the views of young people with autism, their families and their teachers on the value of Attention Cards. | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Not sure | Comments: Limited details of methodology are reported; no details on analysis of data reported. |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Not sure/inadequately reported | Comments: How interviews were conducted not described; data collection and record keeping processes are not described |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Not sure | Comments: Lack of detail regarding participants; Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Reliable | Comments: Data collected through questionnaires and interviews |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: No details on analysis reported |
| 5.2 Are the data 'rich'? | Not sure/not reported | Comments: Details are not provided on how many participants there were in each group e.g. teachers, so not clear what the level of concensus for outcomes was. Findings are clear, however it is difficult to classify the data as 'rich' due to lack of information on analysis |

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| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: No details on analysis reported |
| 5.4 Are the findings convincing? | Not sure | Comments: Findings are clear, however it is difficult to classify the data as 'convincing' due to lack of information on analysis |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Not sure | Comments: Few conclusions are drawn; limitations are not discussed |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.107 WHITAKER2002

| Study ID | WHITAKER2002 | |
|---|---|---|
| Bibliographic reference:<br>Whitaker P. Supporting families of preschool children with autism: what parents want and what helps. Autism. 2002;6:411-426. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To explore the experiences of parents of children with autism who have been part of a local education authority project that aimed to provide support to preschoolers | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Not sure | Comments: Details on methodology (data collection, analysis) are very limited |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Not sure/inadequately reported | Comments: Details on data collection are very limited |
| Section 4: validity | | |

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|---|---|---|
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Not sure | Comments: Participant charateristics not described; consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through interviews only;limited information reported |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: No details on data analysis reported |
| 5.2 Are the data 'rich'? | Not sure | Comments: Findings are clear, however it is difficult to classify the data as 'rich' due to lack of information on methodology |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: No details on data analysis reported |
| 5.4 Are the findings convincing? | Not sure | Comments: Findings are clear, however it is difficult to classify the data as 'convincing' due to lack of information on methodology; lack of extracts from original data included |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.108 WHITAKER2007

| Study ID | WHITAKER2007 |
|---|---|
| Bibliographic reference:<br>Whitaker P. Provision for youngsters with autistic spectrum disorders in mainstream schools: what parents say - and what parents want. British Journal of Special Education. 2007;34:170-178. | |
| Guideline topic: Autism in children & young people | Key research question/aim: To explore the views of parents with autism on education provisions their child has received |

| Checklist completed by: Lucy Burt | | |
|---|---|---|
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected via questionnaire only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Reliability measures not reported |
| 5.4 Are the findings convincing? | Not sure | Comments: Few extractsf rom original data are used to support statements |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.109 WHITTINGHAM2006

| Study ID | WHITTINGHAM2006 | |
|---|---|---|
| Bibliographic reference:<br>Whittingham K, Sofronoff K, Sheffield JK. Stepping Stones Triple P: a pilot study to evaluate acceptability of the program by parents of a child diagnosed with an autism spectrum disorder. Research in Developmental Disabilities. 2006;27:364-380. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To explore the views of parents of children with autism in relation to the Stepping Stones parenting strategies. | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Not sure | Comments: Information on the process of the focus group not reported, limited detail on analysis were reported so it is not clear how themes were derived from the data. |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Reliable | Comments: Data collected trhough questionnaires and focus groups |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Not enough detail on how analysis was conducted to rate as 'rigorous'. |
| 5.2 Are the data 'rich'? | Not sure/not reported | Comments: Findings are clear, however lacking in depth. It is difficult to classify |

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| | | the data as 'rich' due to lack of information regarding methodology |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: All data were double coded, but as the method of analysis is not clearly described, cannot be considered 'reliabile'. |
| 5.4 Are the findings convincing? | Not sure | Comments: : Findings are clear, however it is difficult to classify the data as 'convincing' due to lack of information regarding methodology |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.110 WHITTINGHAM2009

| Study ID | WHITTINGHAM2009 |
|---|---|
| Bibliographic reference:<br>Whittingham K, Sofronoff K, Sheffield J, Sanders MR. Behavioural family intervention with parents of children with ASD: what do they find useful in the parenting programme stepping stones triple p? Research in Autism Spectrum Disorders. 2009;3:702-713. | |
| Guideline topic: Autism in children & young people | Key research question/aim: To explore the views of parents of children with autism on what are the most useful strategies in the Stepping Stones Triple P Parenting programme |
| Checklist completed by: Lucy Burt | |

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|---|---|---|
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Not sure | Comments: No information about data analysis were reported |

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| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through questionnaires only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: No information on analysis reported |
| 5.2 Are the data 'rich'? | Not sure | Comments: Depth and diversity of responses are not demonstrated. Findings are clear, however it is difficult to classify the data as 'rich' due to lack of information on analytic method |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: No information on analysis reported |
| 5.4 Are the findings convincing? | Not sure | Comments: Extracts from original data are not included. Findings are clear, however it is difficult to classify the data as 'convincing' due to lack of information on analytic method |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Some ethical considerations were made |

### 1.1.111 WILLIAMS2003

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|---|---|
| Study ID | WILLIAMS2003 |

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|---|---|---|
| Bibliographic reference:<br>Williams KR, Wishart JG. The Son-Rise Program intervention for autism: an investigation into family experiences. Journal of Intellectual Disability Research. 2003;47:291-299. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: To explore the experiences of families of children with autism who have used the Son-Rise Program. | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Not sure | Comments: Limited detail on the method of analysis reported, so unclear method used |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Unclear | Comments: Few characteristics of participants are reported; consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through questionnaire only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Not sure/not reported | Comments: Limited details of data analysis are reported, so unclear how themes were derived from the data |
| 5.2 Are the data 'rich'? | Not sure/not reported | Comments: Findings are clear, however it is difficult to classify the data as 'rich' due to lack of information on method of analysis |
| 5.3 Is the analysis reliable? | Not sure/not reported | Comments: Data were double coded, however limited details reported on method of data analysis make it difficult to rate as 'reliable'. |

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| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

### 1.1.112 WITTEMEYER2011

| Study ID | WITTEMEYER2011 | |
|---|---|---|
| Bibliographic reference:<br>Wittemeyer K, Charman T, Cusak J, Guldberg K, Hastings R, Howlin P, et al. Educational provision and outcomes for people on the autism spectrum: Full technical report. London: Autism Education Trust; 2011. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Experience of unmet needs and education/school | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Not applicable |
| 4.3 Were the methods reliable? | Reliable | Comments: Data collected through online surveys and focus groups |

| Section 5: analysis | | |
|---|---|---|
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Transcripts were double-coded |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.113 WOODGATE2008

| Study ID | WOODGATE2008 | |
|---|---|---|
| Bibliographic reference:<br>Woodgate RL, Ateah C, Secco L. Living in a world of our own: the experience of parents who have a child with autism. Qualitative Health Research. 2008;18:1075-1083. | | |
| Guideline topic: Autism in children & young people | Key research question/aim: Experience of support | |
| Checklist completed by: Lucy Burt | | |
| Section 1: theoretical approach | | |
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |

| Section 4: validity | | |
|---|---|---|
| 4.1 Is the role of the researcher clearly described? | Clear | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through semi-structured interview only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Double-coding not reported, but transcripts were member-checked |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Clear | Comments: Not applicable |

### 1.1.114 WRIGHT2011

| Study ID | WRIGHT2011 |
|---|---|
| Bibliographic reference:<br>Wright C, Diener ML, Dunn L, Wright SD, Linnell L, Newbold K, et al. SketchUp™: A technology tool to facilitate intergenerational family relationships for children with autism spectrum disorders (ASD). Family and Consumer Sciences Research Journal. 2011;40:135-149. | |
| Guideline topic: Autism in children & young people | Key research question/aim: To examine the effects of an intervention programme on families of children with autism, from parents and grandparents perspectives. |
| Checklist completed by: | |

| Section 1: theoretical approach | | |
|---|---|---|
| Is a qualitative approach appropriate? | Appropriate | Comments: Not applicable |

| | | |
|---|---|---|
| Is the study clear in what it seeks to do? | Clear | Comments: Not applicable |
| Section 2: study design | | |
| 2.1 How defensible/rigorous is the research design/methodology? | Defensible | Comments: Not applicable |
| Section 3: data collection | | |
| 3.1 How well was the data collection carried out? | Appropriate | Comments: Not applicable |
| Section 4: validity | | |
| 4.1 Is the role of the researcher clearly described? | Not described | Comments: Not applicable |
| 4.2 Is the context clearly described? | Clear | Comments: Consideration of context bias not reported |
| 4.3 Were the methods reliable? | Not sure | Comments: Data collected through focus groups only |
| Section 5: analysis | | |
| 5.1 Is the data analysis sufficiently rigorous? | Rigorous | Comments: Not applicable |
| 5.2 Are the data 'rich'? | Rich | Comments: Not applicable |
| 5.3 Is the analysis reliable? | Reliable | Comments: Not applicable |
| 5.4 Are the findings convincing? | Convincing | Comments: Not applicable |
| 5.5 Are the findings relevant to the aims of the study? | Relevant | Comments: Not applicable |
| 5.6 Are the conclusions adequate? | Adequate | Comments: Not applicable |
| Section 6: ethics | | |
| 6.1 How clear and coherent is the reporting of ethical considerations? | Not reported | Comments: Not applicable |

# 1.2 PSYCHOSOCIAL INTERVENTIONS AIMED AT CORE FEATURES OF AUTISM

## 1.2.1 ALDRED2001

| Study ID | | ALDRED2001 |
|---|---|---|
| Bibliographic reference:<br>Aldred C, Pollard C, Phillips R, Adams C. Multidisciplinary social communication intervention for children with autism and pervasive developmental disorder: the Child's Talk project. Educational and Child Psychology. 2001;18:76-87.<br><br>Aldred C, Green J, Adams C. A new social communication intervention for children with autism: pilot randomised controlled treatment study suggesting effectiveness. Journal of Child Psychology and Psychiatry. 2004;45:1420-1430. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes |

| | | |
|---|---|---|
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |

| | | |
|---|---|---|
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Different for different outcome measures:<br>Unclear for behavioural observation outcome measures as they lacked independent reliability or validity data |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Different for different outcome measures:<br>No for CDI as parent-completed<br>Unclear for VABS as based on interviewwith non-blind parent rather than direct behaviour observation |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different for different outcome measures:<br>No for CDI as parent-completed<br>Unclear for VABS as based on interviewwith non-blind parent rather than direct behaviour observation |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different for different outcome measures:<br>Low risk for ADOS and behavioural observations<br>Unclear/unknown risk for VABS<br>High risk for CDI | | |
| Likely direction of effect: Effect size bigger, where high risk | | |

### 1.2.2 BASS2009

| Study ID | | BASS2009 |
|---|---|---|
| Bibliographic reference:<br>Bass MM, Duchowny CA, Llabre MM. The effect of therapeutic horseback riding on social functioning in children with autism. Journal of Autism and Developmental Disorders. 2009;39:1261-1267. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Unclear (insufficient detail reported) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | No (outcome measures parent-rated and parents non-blind) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No (outcome measures parent-rated and parents non-blind) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

### 1.2.3 BEAUMONT2008

| Study ID | | BEAUMONT2008 |
|---|---|---|
| Bibliographic reference:<br>Beaumont R, Sofronoff K. A multi-component social skills intervention for children with Asperger syndrome: the Junior Detective Training Program. Journal of Child Psychology and Psychiatry. 2008;49:743-753. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes for SSQ; Unclear for Assessment of Perception of Emotion from Facial Expression and Posture Cues; No for James and the Maths Test, Dylan is Being Teased and ERSSQ |

| | | |
|---|---|---|
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Blinding was different for different outcome measures:<br>SSQ - Parent-rated so outcome assessors were not blind to participants exposure to intervention or confounding factors.<br>ERSSQ - Parent-rated and parents participated in the intervention<br>Assessment of Perception of Emotion from Facial Expression - Rater not reported<br>Assessment of Perception of Emotion from Posture Cues - Rater not reported<br>James and the Maths Test - Blind double-coding was only performed for 33% of responses and scoring was performed by the chief investigator<br>Dylan is Being Teased - Blind double-coding was only performed for 33% of responses and scoring was performed by the chief investigator |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Blinding was different for different outcome measures:<br>SSQ - Parent-rated so outcome assessors were not blind to participants exposure to intervention or confounding factors.<br>ERSSQ - Parent-rated and parents participated in the intervention<br>Assessment of Perception of Emotion from Facial Expression - Rater not reported<br>Assessment of Perception of Emotion from Posture Cues - Rater not reported<br>James and the Maths Test - Blind double-coding was only performed for 33% of responses and scoring was performed by the chief investigator<br>Dylan is Being Teased - Blind double-coding was only performed for 33% of responses and scoring was performed by the chief investigator |

| |
|---|
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? |
| The risk of detection bias is different for different outcomes:<br>SSQ - High risk<br>ERSSQ - High risk<br>Assessment of Perception of Emotion from Facial Expression - Unclear risk<br>Assessment of Perception of Emotion from Posture Cues - Unclear risk<br>James and the Maths Test - High risk<br>Dylan is Being Teased - High risk |
| Likely direction of effect: Effect size bigger, where high risk |

### 1.2.4 BEGEER2011

| Study ID | | BEGEER2011 |
|---|---|---|
| Bibliographic reference:<br>Begeer S, Gevers C, Clifford P, Verhoeve M, Kat K, Hoddenbach E, et al. Theory of mind training in children with autism: a randomized controlled trial. Journal of Autism and Developmental Disorders. 2011;41:997-1006. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (an independent researcher drew up the randomisation schedule, but no further details of method of concealment of allocation are reported) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |

| | | |
|---|---|---|
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group? Experimental group N: 1; Control group N: 3 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available? Experimental group N: 1; Control group N: 3 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |

| | | |
|---|---|---|
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Blinding was different for different outcome measures:<br>ToM - Rater not reported, but no blinding of outcome assessors reported<br>LEAS-C - Rater not reported, but no blinding of outcome assessors reported<br>Index of Empathy for Children and Adolescents - Self-rated so not blind to intervention or confounding factors<br>CSBQ: Parent rated and parents were not blind to intervention or confounding factors. |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Blinding was different for different outcome measures:<br>ToM - Rater not reported, but no blinding of outcome assessors reported<br>LEAS-C - Rater not reported, but no blinding of outcome assessors reported<br>Index of Empathy for Children and Adolescents - Self-rated so not blind to intervention or confounding factors<br>CSBQ: Parent rated and parents were not blind to intervention or confounding factors. |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Risk of detection bias different for different measures:<br>ToM - Unknown/unclear risk<br>LEAS-C - Unknown/unclear risk<br>Index of Empathy for Children and Adolescents - High risk<br>CSBQ - High risk | | |
| Likely direction of effect: Effect size bigger, where high risk | | |

### 1.2.5 CARTER2011

| Study ID | | CARTER2011 |
|---|---|---|
| Bibliographic reference:<br>Carter AS, Messinger DS, Stone WL, Celimli S, Nahmias AS, Yoder P. A randomized controlled trial of Hanen's 'more than words' in toddlers with early autism symptoms. Journal of Child Psychology and Psychiatry. 2011;52:741-752. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computer random number generator) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 7; Control group N: 5 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 3; Control group N: 4 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes (with the exception of the Parent-Child Free Play Procedure [PCFP] for which reliability and validity was unclear) |

| | | |
|---|---|---|
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Different for different outcome measures:<br>Unclear/unknown for PCFP as only a subsection (20%) of observations were coded blind, for MSEL and ADOS as identity and blinding of outcome assessor not reported and for VABS as based on parental interview rather than direct behavioural observation<br>No for PIA-CV as parent-completed and parents non-blind |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different for different outcome measures:<br>Unclear/unknown for PCFP as only a subsection (20%) of observations were coded blind, for MSEL and ADOS as identity and blinding of outcome assessor not reported and for VABS as based on parental interview rather than direct behavioural observation<br>No for PIA-CV as parent-completed and parents non-blind |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different for different outcome measures:<br>Low risk for ESCS<br>Unclear/unknown risk for PCFP, MSEL, VABS and ADOS<br>High risk for PIA-CV | | |
| Likely direction of effect: Effect size bigger, where high risk | | |

### 1.2.6 DEROSIER2011

| Study ID | | DEROSIER2011 |
|---|---|---|
| Bibliographic reference:<br>DeRosier ME, Swick DC, Ornstein Davis N, Sturtz McMillen J, Matthews R. The efficacy of a social skills group intervention for improving social behaviors in children with high functioning autism spectrum disorders. Journal of Autism and Developmental Disorders. 2011;41:1033-1043. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (there was a statistically significant group difference at baseline with the experimental group showing higher scores on the Social Responsiveness Scale [SRS]-Social Communication domain relative to the control group [means of 69.6 and 66.0 respectively]) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |

| | | |
|---|---|---|
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 3; Control group N: 2 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 3; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | No (outcome measures were non-blind self- or parent-report) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No (outcome measures were non-blind self- or parent-report) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

### 1.2.7 DREW2002

| Study ID | | DREW2002 |
|---|---|---|
| Bibliographic reference:<br>Drew A, Baird G, Baron CS, Cox A, Slonims V, Wheelwright S, et al. A pilot randomised control trial of a parent training intervention for pre-school children with autism. Preliminary findings and methodological challenges. European Child and Adolescent Psychiatry. 2002;11:266-272. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (random number table) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (the experimental group had a higher NVIQ than the control group, 88.1 compared to 66, p<0.001) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | No (three participants in the control group [25%] commenced an EIBI program during the intervention period and there was a trend for a statistically significant difference in the number of hours of other intervention with the control group receiving 8.4 hours and the experimental group receiving 0.3 hours, p=0.07) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |

| | | |
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| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |

| | | |
|---|---|---|
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | No |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

### 1.2.8 FRANKEL2010

| | | |
|---|---|---|
| Study ID | | FRANKEL2010 |
| Bibliographic reference:<br>Frankel F, Myatt R, Sugar C, Whitham C, Gorospe CM, Laugeson E. A randomized controlled study of parent-assisted children's friendship training with children having autism spectrum disorders. Journal of Autism and Developmental Disorders. 2010;40:827-842. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computer random number generator) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

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|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 14; Control group N: 5 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | No |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 5; Control group N: 3 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Different for different outcome measures:<br>Unclear for Loneliness Scale as inconsistent results with this scale in ASD populations<br>No for PHS and PEI as scales not validated in an ASD population |

| | | |
|---|---|---|
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | No (outcome measures based on non-blind self-, parent- and teacher-report) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No (outcome measures based on non-blind self-, parent- and teacher-report) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

### 1.2.9 GOLAN2010

| Study ID | | GOLAN2010 |
|---|---|---|
| Bibliographic reference:<br>Golan O, Ashwin E, Granader Y, McClintock S, Day K, Leggett V, et al. Enhancing emotion recognition in children with autism spectrum conditions: an intervention using animated vehicles with real emotional faces. Journal of Autism and Developmental Disorders. 2010;40:269-279. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes (groups were matched for sex, age and verbal ability) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

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|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 1 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 1 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | No<br>EmoVoc - No validity or reliability is reported for this measure<br>SEM - The researchers investigated the reliability of this measure, but there have been no external reports of validity or reliability |

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| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | No (non-blind investigator-rated) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No (non-blind investigator-rated) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

## 1.2.10 GREEN2010

| Study ID | | GREEN2010 |
|---|---|---|
| Bibliographic reference:<br>Green J, Charman T, McConachie H, Aldred C, Slonims V, Howlin P, et al. Parent-mediated communication-focused treatment in children with autism (PACT): a randomised controlled trial. Lancet. 2010;375:2152-2160. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (minimisation) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (socioeconomic status and proportion of parents with qualifications gained after age 16 years were higher in the experimental than in the control group with cohen's d effect sizes of 0.14 and 0.48 respectively) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |

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| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 3; Control group N: 3 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

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| D3 | A valid and reliable method was used to determine the outcome | Yes with the exception of the behavioural observation outcome measures as no independent reliability or validity data for this outcome measure and a standardized coding scheme was not used |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Different for different outcome measures:<br>No for CSBS-DP and CDI as parent-reported and parents were non-blind and involved in the intervention<br>Unclear for VABS aas teacher-rated as unclear if teacher blinded |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different for different outcome measures:<br>No for CSBS-DP and CDI as parent-reported and parents were non-blind and involved in the intervention<br>Unclear for VABS as teacher-rated and unclear if teacher blinded |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different for different outcome measures:<br>Low risk for ADOS, PLS-3 and behavioural observations<br>Unclear/unknown risk for VABS<br>High risk for CSBS-DP and CDI | | |
| Likely direction of effect: Effect size bigger, where high risk | | |

## 1.2.11 HOPKINS2011

| Study ID | | HOPKINS2011 |
|---|---|---|
| Bibliographic reference:<br>Hopkins IM, Gower MW, Perez TA, Smith DS, Amthor FR, Wimsatt FC, et al. Avatar assistant: improving social skills in students with an ASD through a computer-based intervention. Journal of Autism and Developmental Disorders. 2011;41:1543-1555. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes (due to inclusion to an attention-placebo condition) |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

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| Unclear/unknown risk of bias (low risk for response bias and high risk for performance bias) | | |
| Likely direction of effect: Effect size bigger for performance bias | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: Not reported; Control group N: Not reported | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

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| D3 | A valid and reliable method was used to determine the outcome | Validity and reliability are different for different measures:<br>Ekman emotion recognition photographs: Yes<br>Study-specific emotion recognition in drawings test: No<br>Benton Facial Recognition Test (short form): Yes<br>Benton Facial Recognition Test (long form): Unclear<br>SSRS: Yes<br>Behavioural observation: Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Blinding was different for different outcome measures:<br>Ekman emotion recognition photographs: rater not reported so blinding is unclear<br>Study-specific emotion recognition in drawings test: rater not reported so blinding is unclear<br>Benton Facial Recognition Test: rater not reported so blinding is unclear<br>SSRS: Rated by parents who were blind to intervention allocation<br>Behavioural observation: Rated by research assistants who were blind to intervention allocation |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Blinding was different for different outcome measures:<br>Ekman emotion recognition photographs: rater not reported so blinding is unclear<br>Study-specific emotion recognition in drawings test: rater not reported so blinding is unclear<br>Benton Facial Recognition Test: rater not reported so blinding is unclear<br>SSRS: No, rated by parents who are aware of confounding factors<br>Behavioural observation: Unclear, rated by research assistants who may have been aware of other confounding factors |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| The risk of detection bias is different for different outcomes:<br>Unmaking the Face: unknown/unclear risk<br>Study-specific emotion recognition in drawings test: High risk<br>Benton Facial Recognition Test: unknown/unclear risk | | |

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| SSRS: unknown/unclear risk<br>Behaviour observation: low risk |
| Likely direction of effect: Effect size bigger, where high risk |

## 1.2.12 INGERSOLL2012

| Study ID | | INGERSOLL2012 |
|---|---|---|
| Bibliographic reference:<br>Ingersoll B. Brief report: effect of a focused imitation intervention on social functioning in children with autism. Journal of Autism and Developmental Disorders. 2012;42:1768-1773. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (coin tossing) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 1; Control group N: 1 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 1; Control group N: 1 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |

| | | |
|---|---|---|
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | No |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

## 1.2.13 JOCELYN1998

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|---|---|---|
| Study ID | | JOCELYN1998 |
| Bibliographic reference:<br>Jocelyn LJ, Casiro OG, Beattie D, Bow J, Kneisz J. Treatment of children with autism: a randomized controlled trial to evaluate a caregiver-based intervention program in community day-care centers. Journal of Developmental and Behavioral Pediatrics. 1998;19:326-334. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (random number table) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (performed by independent research assistant using sealed, opaque envelopes) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (higher percentage of single parents in the control group, p=0.047) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 1; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 1; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| | | |
|---|---|---|
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Unclear (unclear if 12 weeks duration sufficient follow-up length to detect significant treatment effects but as this is likely to result in conservative estimates of effect the study was not downgraded on this basis) |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes (with the exception of the Stress-Arousal Checklist for which reliability and validity is unclear) |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes (primary outcome measures assessed by blinded psychologist, however, impact on family outcome measures are parent-completed and non-blind) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Yes (primary outcome measures assessed by blinded psychologist, however, impact on family outcome measures are parent-completed and non-blind) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

### 1.2.14 KAALE2012

| Study ID | KAALE2012 |
|---|---|
| Bibliographic reference:<br>Kaale A, Smith L, Sponheim E. A randomized controlled trial of preschool-based joint attention intervention for children with autism. Journal of Child Psychology and Psychiatry. 2012;53:97-105. | |
| Guideline topic: Management and support of children and young people on the autism spectrum | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | |
| A. Selection bias (systematic differences between the comparison groups) | |
| A1 An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (random number table) |

| | | |
|---|---|---|
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (central allocation) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (statistically significant group difference at baseline with the experimental group showing a lower expressive language age than the control group [18.8 relative to 24.9 months, p=0.047]) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |

| | | |
|---|---|---|
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Unclear (unclear if the intervention duration of 8 weeks was a sufficient length of time to detect significant treatment effects) |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Different for different outcomes:<br>Unclear for behavioural observation and preschool teacher-child play as no independent reliability or validity data and a standardized coding scheme was not used |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

## 1.2.15 KASARI2006

| Study ID | | KASARI2006 |
|---|---|---|
| Bibliographic reference:<br>Kasari C, Freeman S, Paparella T. Joint attention and symbolic play in young children with autism: a randomized controlled intervention study. Journal of Child Psychology and Psychiatry. 2006;47:611-620.<br><br>Kasari C, Paparella T, Freeman, S, Jahromi LB. Language outcome in autism: randomized comparison of joint attention and play interventions. Journal of Consulting and Clinical Psychology. 2008;76:125-137.<br><br>Lawton K, Kasari C. Brief report: longitudinal improvements in the quality of joint attention in preschool children with autism. Journal of Autism and Developmental Disorders. 2012;42:307-312. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail is reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |

| | | |
|---|---|---|
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 2; Control group N: 5 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 2; Control group N: 4 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

## 1.2.16 KASARI2010

| | | |
|---|---|---|
| Study ID | | KASARI2010 |
| Bibliographic reference:<br>Kasari C, Gulsrud AC, Wong C, Kwon S, Locke J. Randomized controlled caregiver mediated joint engagement intervention for toddlers with autism. Journal of Autism and Developmental Disorders. 2010;40:1045-1056. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (random number table) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail is reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 3 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Unclear (not clear if 8 weeks sufficient duration to see significant treatment effects but as this would result in conservative effect estimate quality is not downgraded on this basis) |

| | | |
|---|---|---|
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

## 1.2.17KASARI2012

| Study ID | | KASARI2012 |
|---|---|---|
| Bibliographic reference:<br>Kasari C, Rotherham-Fuller E, Locke J, Gulsrud A. Making the connection: randomized controlled trial of social skills at school for children with autism spectrum disorders. Journal of Child Psychology and Psychiatry. 2012;53:431-439. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail is reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (statistically significant baseline differences with 83% of the female participants randomised to the peer-mediated condition) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |

| | | |
|---|---|---|
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 1; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Unclear (not clear if 12 weeks sufficient duration to see significant treatment effects but as this would result in conservative effect estimate quality is not downgraded on this basis) |

| | | |
|---|---|---|
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Unclear (no independent reliability or validity data for most of the outcome measures) |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Unclear (with the exception of the behavioural observation outcome measure the blinding of outcome assessors was unclear) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (with the exception of the behavioural observation outcome measure the blinding of outcome assessors was unclear) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |

## 1.2.18 KOENIG2010

| | | |
|---|---|---|
| Study ID | | KOENIG2010 |
| Bibliographic reference:<br>Koenig K, Williams White S, Pachler M, Lau M, Lewis M, Klin A, et al. Promoting social skill development in children with pervasive developmental disorders: a feasibility and efficacy study. Journal of Autism and Developmental Disorders. 2010;40:1209-1218. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (random number table) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (central allocation) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | No (statistically significant difference in the number of participants in each group receiving psychotropic medication with N=6 [24%] in the treatment group and N=10 (53%] in the waitlist control group) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |

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|---|---|---|
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 2; Control group N: 1 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 2; Control group N: 1 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |

| | | |
|---|---|---|
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Different for different outcome measures: Unclear for SCI as insufficient detail reported about this outcome measure |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | No (although blinded rater for CGI outcome measures relied on non-blind parental report and SCI was parent-completed) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No (although blinded rater for CGI outcome measures relied on non-blind parental report and SCI was parent-completed) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

## 1.2.19 LANDA2011

| Study ID | | LANDA2011 |
|---|---|---|
| Bibliographic reference:<br>Landa RJ, Holman KC, O'Neill AH, Stuart EA. Intervention targeting development of socially synchronous engagement in toddlers with autism spectrum disorder: a randomized controlled trial. Journal of Child Psychology and Psychiatry. 2011;52:13-21. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 1; Control group N: 1 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 1; Control group N: 1 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |

| | | |
|---|---|---|
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

## 1.2.20 LAUGESON2009

| Study ID | | LAUGESON2009 |
|---|---|---|
| Bibliographic reference:<br>Laugeson EA, Frankel F, Mogil C, Dillon AR. Parent-assisted social skills training to improve friendships in teens with autism spectrum disorders. Journal of Autism and Developmental Disorders. 2009;39:596-606. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: Not reported; Control group N: Not reported<br>N=3 dropped out but group assignment for these participants is not reported | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: Not reported; Control group N: Not reported<br>N=3 dropped out but group assignment for these participants is not reported | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes (with the exception of the study-specific questionnaire which lacks external reliability and validity data) |

| | | |
|---|---|---|
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | No (non-blind self- or parent-rated) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No (non-blind self- or parent-rated) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

## 1.2.21 LOPATA2010

| Study ID | | LOPATA2010 |
|---|---|---|
| Bibliographic reference:<br>Lopata C, Thomeer ML, Volker MA, Toomey JA, Nida RE, Lee GK, et al. RCT of a manualized social treatment for high-functioning autism spectrum disorders. Journal of Autism and Developmental Disorders. 2010;40:1297-1310. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (random number table) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | Different for different outcome measures:<br>Yes for: Social Responsiveness Scale (SRS): Total; Behavior Assessment System for Children, 2nd ed., parent rated (BASC-2-PRS): Withdrawal and Social Skills subscales<br>No for: Study-specific questionnaires - the Adapted Skillstreaming Checklist (ASC) designed as a direct measure of skills taught and Skillstreaming Knowledge Assessment (SKA); Diagnostic Analysis of Nonverbal Accuracy 2 (DANVA2): Child faces; Comprehensive Assessment of Spoken Language (CASL): Idiomatic Language |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | No (non-blind parent- and researcher-rated) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No (non-blind parent- and researcher-rated) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

## 1.2.22 OWENS2008

| Study ID | | OWENS2008 |
|---|---|---|
| Bibliographic reference:<br>Owens G, Granader Y, Humphrey A, Baron-Cohen S. LEGO therapy and the social use of language programme: an evaluation of two social skills interventions for children with high functioning autism and Asperger syndrome. Journal of Autism and Developmental Disorders. 2008;38:1944-1957. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail is reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes (matched pairs) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 7; Control group N: 7 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 7; Control group N: 7 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Different for different outcome measures: Unclear/unknown for behavioural observations as no reliability or validity data reported and no standardized coding scheme used |

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|---|---|---|
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Different for different outcome measures:<br>Unclear/unnown for GARS as parent-completed and unclear if blinded to group assignment and for VABS as although the interviewer was a blinded research assistant, the outcome measure was based on non-blind parent report<br>No for behavioural observations as outcome assessor was non-blind investigator |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different for different outcome measures:<br>Unclear/unknown for VABS as although the interviewer was a blinded research assistant, the outcome measure was based on non-blind parent report<br>No for GARS and behavioural observations as rated by parents or investigator who would be non-blind to other potentially important confounding factors |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different for different outcome measures:<br>Unclear/unknown risk for GARS and VABS<br>High risk of bias for behavioural observations | | |
| Likely direction of effect: Effect size bigger, where high risk | | |

## 1.2.23 ROEYERS1996

| Study ID | | ROEYERS1996 |
|---|---|---|
| Bibliographic reference:<br>Roeyers H. The influence of nonhandicapped peers on the social interactions of children with a pervasive development disorder. Journal of Autism and Developmental Disorders. 1996;26:303-320. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail is reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |

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|---|---|---|
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes (assumption based on the statement "observers not familiar with the purposes of the project") |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Yes (assumption based on the statement "observers not familiar with the purposes of the project") |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

## 1.2.24 RUBLE2010

| Study ID | | RUBLE2010 |
|---|---|---|
| Bibliographic reference:<br>Ruble LA, Dalrymple NJ, McGrew JH. The effects of consultation on individualized education program outcomes for young children with autism: the collaborative model for promoting competence and success. Journal of Early Intervention. 2010;32:286-301. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes (no significant differences between experimental and control group for number or hours of other services received during the intervention period) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Unclear (paper states 'single-blind' but gives no further detail with regards to whether it is the participants who are blinded) |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No (investigators were intervention administrators) |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 1; Control group N: 2 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 1; Control group N: 2 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | Unclear (only 20% of observations were double-coded and a standardized observation measure was not used the reliability and validity of this outcome measure is unclear) |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | No (primary outcome assessor was the non-blind investigator with a blinded secondary outcome assessor only rating 20% of behavioural observations) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No (primary outcome assessor was the non-blind investigator with a blinded secondary outcome assessor only rating 20% of behavioural observations) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

### 1.2.25 RYAN2010

| Study ID | | RYAN2010 |
|---|---|---|
| Bibliographic reference:<br>Ryan C, Charragain CN. Teaching emotion recognition skills to children with autism. Journal of Autism and Developmental Disorders. 2010;40:1505-1511. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: Not reported; Control group N: Not reported<br>N=5 participants were lost at follow-up, but group allocation of these participants were not reported | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Unclear |

| | | |
|---|---|---|
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 1 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Unclear - Post-group measures were taken one week after the intervention and it is not clear if 5 weeks is long enough to see treatment effects |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | No - Validity and reliability are not reported for the only measure used in the study; the Ekman emotion recognition photographs |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Unclear - Investigators were kept blind to participants pre-test scores but it is not reported if they were blind to treatment allocation |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear - The investigator was a psychologist who was blind to pre-test scores, but it is unclear how much information they had about confounding and prognostic factors |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

## 1.2.26 SCHERTZ2013

| Study ID | | SCHERTZ2013 |
|---|---|---|
| Bibliographic reference:<br>Schertz HH, Odom SL, Baggett KM, Sideris JH. Effects of joint attention medication learning for toddlers with autism spectrum disorders: an initial randomised controlled study. Early Childhood Research Quarterly. 2013;28:249-258. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (weekly hours of intervention [combined across sites] were 38 hours for the experimental group and 31 hours for the control group but the paper does not report any statistical testing of the significance of this difference) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |

| | | |
|---|---|---|
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes (duration of the intervention was variable, but there were no significant differences in the pre-post assessment time difference between the groups) |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: Not reported; Control group N: Not reported | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Unclear |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: Not reported; Control group N: Not reported | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Unclear |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Different blinding for different outcomes:<br>Yes - behavioural observations<br>No - MSEL and VABS (MSEL rated by non-blind research assistants and VABS rated by non-blind research assistants and based on interview with parents who were non-blind and involved in the intervention) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different bias for different outcomes:<br>High risk for MSEL and VABS | | |
| Likely direction of effect: Effect size bigger, where high risk | | |

### 1.2.27 STRAIN2011

| Study ID | | STRAIN2011 |
|---|---|---|
| Bibliographic reference:<br>Strain PS, Bovey II EH. Randomized, controlled trial of the LEAP model of early intervention for young children with autism spectrum disorders. Topics in Early Childhood Special Education. 2011;31:133-154. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (random number table) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |

| | | |
|---|---|---|
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 1 classroom; Control group N: 5 classrooms | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |

| | | |
|---|---|---|
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 1 classroom; Control group N: 5 classrooms | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Unclear (identity and blinding of outcome assessors not reported) |

| | | |
|---|---|---|
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (identity and blinding of outcome assessors not reported) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |

## 1.2.28 TANAKA2010

| Study ID | | TANAKA2010 |
|---|---|---|
| Bibliographic reference:<br>Tanaka JW, Wolf JM, Klaiman C, Koenig K, Cockburn J, Herlihy L, et al. Using computerized games to teach face recognition skills to children with autism spectrum disorder: the Let's Face It! program. Journal of Child Psychology and Psychiatry. 2010;51:944-952. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (method of randomisation is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |

| | | |
|---|---|---|
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 14; Control group N: 7 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | No |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 23; Control group N: 15 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Unclear |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Unclear (blinding of outcome assessors not reported) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (blinding of outcome assessors not reported) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

## 1.2.29YOUNG2012

| Study ID | | YOUNG2012 |
|---|---|---|
| Bibliographic reference:<br>Young RL, Posselt M. Using The Transporters DVD as a learning tool for children with autism spectrum disorders (ASD). Journal of Autism and Developmental Disorders. 2012;42:984-991. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (method of randomisation is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes (due to inclusion of an attention-placebo condition) |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No (parents were care administrators as this was a home-based intervention and were provided with a user-guide so were presumably non-blind to treatment allocation) |

| | | |
|---|---|---|
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias (low risk for response bias and high risk for performance bias) | | |
| Likely direction of effect: Effect size bigger, where high risk | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group? Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available? Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Unclear |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |

| | | |
|---|---|---|
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Blinding was different for different outcome assessors:<br>NEPSY-II: Affect Recognition subscale - No. Outcome assessors were researchers. No blinding of researchers reported<br>The Faces Task - No. Outcome assessors were researchers. No blinding of researchers reported<br>SCQ - Yes. Parent rated and parents were blind to treatment allocation |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No - No blinding of investigators reported and parents are not blind to confounding factors |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

# 1.3 PHARMACOLOGICAL INTERVENTIONS AIMED AT CORE AUTISM FEATURES

## 1.3.1 HOLLANDER2005

| Study ID | | HOLLANDER2005 |
|---|---|---|
| Bibliographic reference:<br>Hollander E, Phillips A, Chaplin W, Zagursky K, Novotny S, Wasserman S, et al. A placebo controlled crossover trial of liquid fluoxetine on repetitive behaviors in childhood and adolescent autism. Neuropsychopharmacology. 2005;30:582-589. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Unclear |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes (matching placebo) |

| | | |
|---|---|---|
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 3; Control group N: 2 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 3; Control group N: 2 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

### 1.3.2 KING2009

| Study ID | | KING2009 |
|---|---|---|
| Bibliographic reference:<br>King BH, Hollander E, Sikich L, McCracken JT, Scahill L, Bregman JD, et al. Lack of efficacy of citalopram in children with autism spectrum disorders and high levels of repetitive behavior: citalopram ineffective in children with autism. Archives of General Psychiatry. 2009;66:583-590. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method was unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 13; Control group N: 13 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes (analysed according to intent-to-treat principle) |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes (initially unclear if 12 weeks duration a sufficient follow-up length to detect significant treatment effects, particularly adverse events. However, as this study failed to find significant positive treatment effects and did find evidence for adverse events, this concern was shown to be misplaced) |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different for different outcomes:<br>No for RBS as parent-rated<br>Unclear for ABC as identity of outcome assessor not reported |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

### 1.3.3 LUBY2006

| Study ID | | LUBY2006 |
|---|---|---|
| Bibliographic reference:<br>Luby J, Mrakotsky C, Stalets MM, Belden A, Heffelfinger A, Williams M, et al. Risperidone in preschool children with autistic spectrum disorders: an investigation of safety and efficacy. Journal of Child and Adolescent Psychopharmacology. 2006;16:575-587. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (random number table) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | No (Open random allocation schedule) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (the risperidone group showed significantly greater severity of autism symptoms as measured by the CARS and significantly poorer language skills as measured by the PLS-3 and poorer motor skill development as measured by the VABS Motor Skills Scale) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes |

| | | |
|---|---|---|
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 1; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 1; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |

| | | |
|---|---|---|
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

### 1.3.4 MIRAL2008

| Study ID | | MIRAL2008 |
|---|---|---|
| Bibliographic reference:<br>Miral S, Gencer O, Inal-Emiroglu FN, Baykara B, Baykara A, Dirik E. Risperidone versus haloperidol in children and adolescents with AD. European Child and Adolescent Psychiatry. 2008;17:1-8. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method was unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Unclear (no baseline statistical comparisons between groups reported) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Unclear (paper states 'Double-blind' but gives no further detail with regards to who is blinded, i.e. participant, parent, investigator, intervention administrator, outcome assessor) |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Unclear (paper states 'Double-blind' but gives no further detail with regards to who is blinded, i.e. participant, parent, investigator, intervention administrator, |

| | | |
|---|---|---|
| | | outcome assessor) |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 2; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 2; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Unclear (unclear if follow-up duration of 12 weeks is sufficient to detect significant treatment effects, in particular, adverse events) |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Unclear (paper states 'Double-blind' but gives no further detail with regards to who is blinded, i.e. participant, parent, investigator, intervention administrator, outcome assessor) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (paper states 'Double-blind' but gives no further detail with regards to who is blinded, i.e. participant, parent, investigator, intervention administrator, outcome assessor) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |

### 1.3.5 NAGARAJ2006

| Study ID | | NAGARAJ2006 |
|---|---|---|
| Bibliographic reference:<br>Nagaraj R, Singhi P, Malhi P. Risperidone in children with autism: randomized, placebo-controlled, double-blind study. Journal of Child Neurology. 2006;21:450-455. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (random number table) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (sealed envelopes) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 1 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 1 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |

| | | |
|---|---|---|
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

# 1.4 BIOMEDICAL INTERVENTIONS AIMED AT CORE AUTISM FEATURES

## 1.4.1 ADAMS2009A

| Study ID | | ADAMS2009A |
|---|---|---|
| Bibliographic reference:<br>Adams JB, Baral M, Geis E, Mitchell J, Ingram J, Hensley A, et al. Safety and efficacy of oral DMSA therapy for children with autism spectrum disorders: part A-medical results. BMC Clinical Pharmacology. 2009a;9:16.<br><br>Adams JB, Baral M, Geis E, Mitchell J, Ingram J, Hensley A, et al. Safety and efficacy of oral DMSA therapy for children with autism spectrum disorders: part B - behavioral results. BMC Clinical Pharmacology. 2009b;9:17. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Unclear (insufficient detail reported) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |

| | | |
|---|---|---|
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes (placebo matched on appearance and smell) |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: Not reported; Control group N: Not reported<br>N=8 dropped out of phase 2 but not clear how many of these were in experimental group and how many in control group | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Unclear |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: Not reported; Control group N: Not reported<br>N=8 dropped out of phase 2 but not clear how many of these were in experimental group and how many in control group | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Unclear |

| | | |
|---|---|---|
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias (dropout due to adverse events is reported and was comparable between groups) | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes (parent-completed and parents were blinded to treatment assignment) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No (parent-completed and parents non-blind to other potentially confounding factors) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

### 1.4.2 ADAMS2011

| Study ID | | ADAMS2011 |
|---|---|---|
| Bibliographic reference:<br>Adams JB, Audhya T, McDonough-Means S, Rubin RA, Quig D, Geis E, et al. Effect of a vitamin/mineral supplement on children and adults with autism. BMC Pediatrics. 2011;11:111. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (randomisation performed by study coordinator and all other study staff were blinded) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Unclear (insufficient detail reported) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (percentage of participants currently receiving psychosocial interventions in each group not reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes (placebo and supplement matched on taste) |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes (parents were intervention administrators and were blinded) |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 8; Control group N: 11 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 19; Control group N: 18 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | Different for different outcomes: No for Parent Global Impressions-Revised (PGI-R) as revised scale and no independent reliability and validity ratings; Unclear/unknown for Severity of Autism Scale (SAS) as reliability and validity of this outcome measure is not reported and unclear; and unclear/unknown for adverse event outcomes as unclear outcome measure for recording adverse events |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different for different outcomes: No for most outcomes (with the exception of adverse events) as parent-rated and parents non-blind to other potentially confounding factors |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different for different outcomes: Unclear/unknown risk for Parent Global Impressions-Revised (PGI-R) scale and Severity of Autism Scale (SAS) | | |
| Likely direction of effect: Where risk unclear/unknown, direction unknown | | |

### 1.4.3 BAHRAMI2012

| Study ID | | BAHRAMI2012 |
|---|---|---|
| Bibliographic reference:<br>Bahrami F, Movahedi A, Marandi SM, Abedi A. Kata techniques training consistently decreases stereotypy in children with autism spectrum disorder. Research in Developmental Disabilities. 2012;33:1183-1193. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes (matched on age, gender and autism severity and no baseline group difference on the outcome measure) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Unclear (outcome measure based on interview with carers and teachers who were non-blind and blinding of examiner not reported) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (outcome measure based on interview with carers and teachers who were non-blind and blinding of examiner not reported) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

### 1.4.4 CHAN2009

| Study ID | | CHAN2009 |
|---|---|---|
| Bibliographic reference:<br>Chan AS, Cheung M-C, Sze SL, Leung WW. Seven-star needle stimulation improves language and social interaction of children with autistic spectrum disorders. American journal of Chinese Medicine. 2009;37:495-504. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | No (all outcomes are based on a questionnaire designed specifically for this study and no information on reliability or validity was reported) |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | No (outcome measures completed by parents who were not blind) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No (outcome measures completed by parents who were not blind) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

### 1.4.5 CHEZ2002

| Study ID | | CHEZ2002 |
|---|---|---|
| Bibliographic reference:<br>Chez MG, Buchanan CP, Aimonovitch MC, Becker M, Schaefer K, Black C, et al. Double-blind, placebo-controlled study of L-carnosine supplementation in children with autistic spectrum disorders. Journal of Child Neurology. 2002;17:833-837. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (nurse-controlled randomisation) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (significant baseline group difference [p=0.02] on the communication subscale of the Gilliam Autism Rating Scale with the experimental group showing greater severity [mean: 21.64] than the control group [mean: 15.23]) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (42% of participants currently receiving anticonvulsants [valproic acid] but group assignment for these participants not reported and no detail reported with regards to other current medication or psychosocial interventions) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes (placebo matched on appearance, taste and smell) |

| | | |
|---|---|---|
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes (parents were intervention administrators and were blinded) |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different for different outcomes: No for parent-rated as parents non-blind to other potentially confounding factors; Unclear/unknown for other outcome measures as blinded outcome assessment but identity of outcome assessor (and blinding to other potentially confounding factors) not reported |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

## 1.4.6 CONIGLIO2001

| Study ID | | CONIGLIO2001 |
|---|---|---|
| Bibliographic reference:<br>Coniglio SJ, Lewis JD, Lang C, Burns TG, Subhani-Siddique R, Weintraub A, et al. A randomized, double-blind, placebo-controlled trial of single-dose intravenous secretin as treatment for children with autism. Journal of Pediatrics. 2001;138:649-655. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (significant differences were found on measures of: frequency of abnormal development from birth onwards; 3 of 15 [unspecified] characteristics of DSM-IV criteria for autism; PLS language age score) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Unclear (paper reports that it was 'double-blind' but unclear if intervention adminsitrator was blinded) |

| | | |
|---|---|---|
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Unclear (paper reports that it was 'double-blind' but unclear if outcome assessor/s blinded) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (paper reports that it was 'double-blind' but unclear if outcome assessor/s blinded) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |

## 1.4.7 DUNNGEIER2000

| Study ID | | DUNNGEIER2000 |
|---|---|---|
| Bibliographic reference:<br>Dunn-Geier J, Ho HH, Auersperg E, Doyle D, Eaves L, Matsuba C, et al. Effect of secretin on children with autism: a randomized controlled trial. Developmental Medicine and Child Neurology. 2000;42:796-802. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computer random number generator) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (randomisation sequence generated by an independent statistician) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (placebo group had a higher PLS-3 score) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | Different validity and reliability for different outcomes:<br>Yes - CARS; PLS-3; ABC<br>Unclear - parent-rated number of gastrointestinal problems |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes (parents and clinicians were blind to treatment allocation) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different blinding for different outcomes:<br>No - ABC; parent-rated number of gastrointestinal problems - parent rated and parents are not blind to confounding factors<br>Unclear - CARS; PLS-3 - clinician rated and although clinicians were blind to treatment allocation, blinding to confounding variables is unclear |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

### 1.4.8 FAHMY2013

| Study ID | | FAHMY2013 |
|---|---|---|
| Bibliographic reference:<br>Fahmy SF, El-hamamsy MH, Zaki OK, Badary OA. L-Carnitine supplementation improves the behavioural symptoms in autistic children. Research in Autism Spectrum Disorder. 2013;7:159-166. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (coin tossing) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 1; Control group N: 4 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 1; Control group N: 4 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

### 1.4.9 GRANPEESHEH2010

| Study ID | | GRANPEESHEH2010 |
|---|---|---|
| Bibliographic reference:<br>Granpeesheh D, Tarbox J, Dixon DR, Wilke AE, Allen MS, Bradstreet JJ. Randomized trial of hyperbaric oxygen therapy for children with autism. Research in Autism Spectrum Disorders. 2010;4:268-275. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (coin tossing) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (randomisation was done by an investigator blind to all participant details except participant number, age and number of ABA treatment hours being received but method of allocation concealment not specified) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (statistically significant baseline group difference in ABC Irritability and RBS Self-injurious behaviour with higher scores in the control group) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (no differences in number of hours of ABA treatment but no detail reported with regards to any pharmacological interventions participants might have been receiving) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes (attention-placebo condition) |

| | | |
|---|---|---|
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk (low risk for response bias and high risk for performance bias) | | |
| Likely direction of effect: Effect size bigger, where high risk | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: Not reported; Control group N: Not reported<br>N=12 dropped out but the paper does not report the groups these participants were assigned to | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Unclear |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: Not reported; Control group N: Not reported<br>N=12 dropped out but the paper does not report the groups these participants were assigned to | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Unclear |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |

| | | |
|---|---|---|
| D2 | The study used a precise definition of outcome | Different for different outcomes: Unclear for dichotomous measures of positive treatment response based on the ADOS as definition of 'improvement' on the ADOS is under-specified in the paper |
| D3 | A valid and reliable method was used to determine the outcome | Different for different outcomes: Unclear for dichotomous measures of positive treatment response based on the ADOS as definition of 'improvement' on the ADOS is under-specified in the paper. Also unclear for behavioural observation outcome measures as only 30-46% of behavioural observations were double-coded and no standardized observation schedule used so reliability and validity of this outcome measure unclear |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (outcome assessors were trained assessors blinded to group assignment but blinding to other potentially confounding factors unclear) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

## 1.4.10KNIVSBERG2002

| Study ID | | KNIVSBERG2002 |
|---|---|---|
| Bibliographic reference:<br>Knivsberg AM, Reichelt KL, Høien T, Nødland M. A randomised, controlled study of dietary intervention in autistic syndromes. Nutritional Neuroscience. 2002;5:251-261.<br><br>Knivsberg AM, Reichelt KL, Høien T, Nødland M. Effect of dietary intervention on autistic behavior. Focus on Autism and Other Developmental Disabilities. 2003;18:247-256. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (random assignment performed by independent professionals) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes (pairwise matching on severity of autistic symptoms, age and PIQ) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No (intervention administrators were non-blind parents) |

| | | |
|---|---|---|
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Unclear (for TOMI identity and blinding of outcome assessors unclear, and for DIPAB although investigator blinded to group assignment outcome measure based on parental interview) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (for TOMI identity and blinding of outcome assessors unclear, and for DIPAB although investigator blinded to group assignment outcome measure based on parental interview) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different for different outcomes: Unclear/unknown for TOMI and high risk for DIPAB | | |
| Likely direction of effect: Effect size bigger, where high risk | | |

## 1.4.11 KOUIJZER2010

| | | |
|---|---|---|
| Study ID | | KOUIJZER2010 |
| Bibliographic reference:<br>Kouijzer MEJ, van Schie HT, de Moor JMH, Gerrits BJL, Buitelaar JK. Neurofeedback treatment in autism. preliminary findings in behavioral, cognitive, and neurophysiological functioning. Research in Autism Spectrum Disorders. 2010;4:386-399. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (group difference in diagnoses - in the experimental group 60% had autism and 40% had PDD-NOS and no participants had Asperger's disorder and in the control group 20% had autism, 40% had PSS-NOS and 40% had Asperger's disorder) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |

| | | |
|---|---|---|
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | No (outcomes were either rated by non-blind parents or teachers who would not have been blinded as intervention took place in school or after school) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No (outcomes were either rated by non-blind parents or teachers who would not have been blinded as intervention took place in school or after school) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

## 1.4.12 MOLLOY2002

| Study ID | | MOLLOY2002 |
|---|---|---|
| Bibliographic reference:<br>Molloy CA, Manning-Courtney P, Swayne S, Bean J, Brown JM, Murray DS, et al. Lack of benefit of intravenous synthetic human secretin in the treatment of autism. Journal of Autism and Developmental Disorders. 2002;32:545-551. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (outcome assessments were clinician-rated, but unclear if they were blind to confounding factors) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

## 1.4.13 OWLEY1999

| Study ID | | OWLEY1999 |
|---|---|---|
| Bibliographic reference:<br>Owley T, Steele E, Corsello C, Risi S, McKaig K, Lord C, et al. A double-blind, placebo-controlled trial of secretin for the treatment of autistic disorder. Medscape General Medicine. 1999;1(3). Available from: http://www.medscape.com/viewarticle/715516.<br><br>Owley T, McMahon W, Cook EH, Laulhere T, South M, Mays LZ, et al. Multisite, double-blind, placebo-controlled trial of porcine secretin in autism. Journal of the American Academy of Child and Adolescent Psychiatry. 2001;40:1293-1299. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (allocation was carried out by investigational pharmacy at each site) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (the groups were significantly different on the ADOS: social interaction and the ADOS: stereotypy) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes |

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|---|---|---|
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Unclear (care administrators were not reported, but care administrators were not involved in outcome measures) |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes (parents and outcome assessors were blind to treatment allocation) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different blinding for different outcomes: No - GARS; VABS - parent rated and parents are not blind to confounding factors Unclear - ADOS; ABC; CGI-S; Mullen/DAS/PPVT/DTVP-2 - outcome assessors not reported so unclear whether they are blind to treatment allocation |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

## 1.4.14 SAMPANTHAVIVAT2012

| Study ID | | SAMPANTHAVIVAT2012 |
|---|---|---|
| Bibliographic reference:<br>Sampanthavivat M, Singkhwa W, Chaiyakul T, Karoonyawanich S, Ajpru H. Hyperbaric oxygen in the treatment of childhood autism: a randomised controlled trial. Diving and Hyperbaric Medicine. 2012;42:128-133. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (random number table) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (only the hyperbaric technicians were aware of allocation) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes (no significant group differences in the number of participants currently receiving risperidone, other medications, nutritional supplements or behavioural therapy) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No (intervention administrators were hyperbaric technicians who were not blind to treatment allocation, but were not involved in outcome assessments and did not reveal allocation to parents, participants |

| | | |
|---|---|---|
| | | or researchers) |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk (High risk for performance bias and low risk for response bias) | | |
| Likely direction of effect: Effect size bigger, where high risk | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 1; Control group N: 1 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 1; Control group N: 1 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |

| | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Different for different outcome measures:<br>Yes for positive treatment effect measures<br>Unclear for adverse events (unclear if 4 weeks sufficient follow-up duration to detect potential longer-term adverse events) |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Different for different outcome measures:<br>Yes for positive treatment effect measures<br>Unclear for adverse events as outcome measure not reported |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Different for different outcome measures:<br>Yes for positive treatment effect measures<br>Unclear for adverse events as identity and blinding of outcome assessors not reported |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different for different outcome assessors:<br>No for parents and unclear for clinicians for positive treatment outcomes<br>Unclear for adverse event outcomes as identity and blinding of outcome assessors not reported |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different for different outcomes:<br>Low risk for positive treatment effect outcomes<br>Unclear/unknown risk for adverse event outcomes | | |
| Likely direction of effect: Effect size smaller (for adverse event outcomes) | | |

## 1.4.15 SANDLER1999

| Study ID | SANDLER1999 |
|---|---|
| Bibliographic reference:<br>Sandler AD, Sutton KA, DeWeese J, Girardi A, Sheppard V, Bodfish JW. Lack of benefit of a single dose of synthetic human secretin in the treatment of autism and pervasive developmental disorder. New England Journal of Medicine. 1999;341:1801-1806. | |
| Guideline topic: Management and support of children and young people on the autism spectrum | Review question number: 4.1 |
| Checklist completed by: Lucy Burt | |
| A. Selection bias (systematic differences between the comparison groups) | |

| | | |
|---|---|---|
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |

| | | |
|---|---|---|
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 2; Control group N: 2 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 2; Control group N: 2 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No (outcome assessors were parents and teachers who were not blind to confounding factors) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

## 1.4.16 UNIS2002

| Study ID | | UNIS2002 |
|---|---|---|
| Bibliographic reference:<br>Unis AS, Munson JA, Rogers SJ, Goldson E, Osterling J, Gabriels R, et al. A randomized, double-blind, placebo-controlled trial of porcine versus synthetic secretin for reducing symptoms of autism. Journal of the American Academy of Child and Adolescent Psychiatry. 2002;41:1315-1321. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: Unclear; Control group N: Unclear | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Unclear |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: Unclear; Control group N: Unclear | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Unclear |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | Different validity and reliability for different measures:<br>Yes - ADOS; EOWPVT; CDI; Aberrant Behaviour Checklist;<br>Unclear - SOS |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different blinding for different measures:<br>No - CDI; Aberrant Behaviour Checklist;<br>SOS: outcome assessors are parents and teachers who are not blind to confounding factors<br>Unclear - ADOS; EOWPVT: outcome assessors not reported so unclear if they are blind to confounding variables |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

## 1.4.17WHITELEY2010

| | | |
|---|---|---|
| Study ID | | WHITELEY2010 |
| Bibliographic reference:<br>Whiteley P, Haracopos D, Knivsberg A-M, Reichelt KL, Parlar S, Jacobsen J, et al. The ScanBrit randomised, controlled, single-blind study of a gluten- and casein-free dietary intervention for children with autism spectrum disorders. Nutritional Neuroscience. 2010;13:87-100. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (allocation performed by independent statistician) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Unclear (insufficient detail reported) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No (intervention administrators were non-blind parents) |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 12; Control group N: 5 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | No |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 12; Control group N: 5 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | No |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | Different for different outcomes: Yes for most outcome measures but unclear for adverse events as outcome measure for recording adverse events not reported so reliability and validity unclear |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Different for different outcomes: Unclear for GARS as identity and blinding of outcome assessors not reported; No for VABS and the ADHD-IV as parent-reported and non-blind to treatment allocation and other potentially confounding factors; No for adverse events as monitored by study nutritionist who was non-blind |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different for different outcomes: Unclear for GARS as identity and blinding of outcome assessors not reported; No for VABS and the ADHD-IV as parent-reported and non-blind to treatment allocation and other potentially confounding factors; No for adverse events as monitored by study nutritionist who was non-blind |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different for different outcomes: Unclear/unknown risk for GARS and adverse events; High risk for VABS and ADHD-IV | | |
| Likely direction of effect: Effect size bigger, where high risk | | |

## 1.4.18WONG2002

| Study ID | | WONG2002 |
|---|---|---|
| Bibliographic reference:<br>Wong V, Sun JG. Research on tongue acupuncture in children with autism. The 9th International Child Neurology Congress and the 7th Asian and Oceanian Congress of Child Neurology; 2002.<br><br>Cheuk DKL, Wong V, Chen WX. Acupuncture for autism spectrum disorders (ASD)(Review). The Cochrane Database of Systematic Reviews. 2011;9:Art. No CD007849. Available from: DOI: 10.1002/14651858.CD007849.pub2. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computer generated randomisation) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (random computerised group allocation for each case) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Unclear (insufficient detail reported) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |

| | | |
|---|---|---|
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | Different validity and reliability for different outcomes:<br>Yes: RLRS; CGI-S<br>Unclear: WeeFIM |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Unclear (outcome assessors were blind, but some outcomes [not reported which ones] had involvement from the parents who were not blind) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (outcome assessors were blind, but some outcomes [not reported which ones] had involvement from the parents who were not blind) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |

## 1.4.19WONG2008

| Study ID | | WONG2008 |
|---|---|---|
| Bibliographic reference:<br>Wong CL. Acupuncture and autism spectrum disorders - an assessor-blinded randomised controlled trial (M Phil). Hong Kong: University of Hong Kong; 2008.<br><br>Cheuk DKL, Wong V, Chen WX. Acupuncture for autism spectrum disorders (ASD)(Review). The Cochrane Database of Systematic Reviews. 2011;9:Art. No CD007849. Available from: DOI: 10.1002/14651858.CD007849.pub2. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 4.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computer generated randomisation) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reoprted with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Unclear (insufficient detail reported) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | No (the conventional education programme differed for each participant which may introduce bias) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |

| | | |
|---|---|---|
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 4; Control group N: 2 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 4; Control group N: 2 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | Different validity and reliability for different measures:<br>Unclear - WeeFIM<br>Yes - all other measures |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Unclear (outcome assessors were blind, but some outcomes [not reported which ones] had involvement from the parents who were not blind) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (outcome assessors were blind, but some outcomes [not reported which ones] had involvement from the parents who were not blind) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |

# 1.5 PSYCHOSOCIAL INTERVENTIONS AIMED AT BEHAVIOUR THAT CHALLENGES

## 1.5.1 AMAN2009

| Study ID | | AMAN2009 |
|---|---|---|
| Bibliographic reference:<br>Aman MG, McDougle CJ, Scahill L, Handen B, Arnold LE, Johnson C, et al. Medication and parent training in children with pervasive developmental disorders and serious behavior problems: results from a randomized clinical trial. Journal of the American Academy of Child and Adolescent Psychiatry. 2009;48:1143-1154.<br><br>Arnold LE, Aman MG, Li X, Butter E, Humphries K, Scahill L, et al. Research Units of Pediatric Psychopharmacology (RUPP) autism network randomized clinical trial of parent training and medication: one-year follow-up. Journal of the American Academy of Child and Adolescent Psychiatry. 2012;51:1173-1184.<br><br>Scahill L, McDougle CJ, Aman MG, Johnson C, Handen B, Bearss K, et al. Effects of risperidone and parent training on adaptive functioning in children with pervasive developmental disorders and serious behavioral problems. Journal of American Academy of Child and Adolescent Psychiatry. 2012;51:136-146. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (the control group had significantly higher scores on ABC-Stereotypy and lower scores on Vineland Adaptive Behavior Scale subscales and fewer participants with average IQ than the experimental group at baseline) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |

| | | |
|---|---|---|
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group? Experimental group N: 20; Control group N: 9 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | No |
| C3 | For how many participants in each group were no outcome data available? Experimental group N: 20; Control group N: 9 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | No |

| | | |
|---|---|---|
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Unclear (no independent measures of reliability or validity reported for the primary outcome measure of Home Situations Questionnaire [HSQ]) |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | No (outcome measures relied on non-blind parent-report and parents were involved in the intervention) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No (outcome measures relied on non-blind parent-report and parents were involved in the intervention) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

## 1.5.2 CARR2006

| Study ID | | CARR2006 |
|---|---|---|
| Bibliographic reference:<br>Carr EG, Blakeley-Smith A. Classroom intervention for illness-related problem behavior in children with developmental disabilities. Behavior Modification. 2006;30:901-924. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (coin tossing) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (the mean severity of illness was greater for the experimental group than the control group. However, reported ANOVAs control for symptom severity) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 1; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 1; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | No |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | No (study-specific outcome measure with no independent reliability or validity data) |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | No (outcome assessors were intervention administrators) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No (outcome assessors were teaching assistants) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

### 1.5.3 SOFRONOFF2004

| Study ID | | SOFRONOFF2004 |
|---|---|---|
| Bibliographic reference:<br>Sofronoff K, Leslie A, Brown W. Parent management training and Asperger syndrome: a randomized controlled trial to evaluate a parent based intervention. Autism. 2004;8:301-317. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear, the paper simply states that participants were randomised as questionnaires were returned) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Unclear (insufficient detail reported) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Unclear (the timing of assessments is not entirely clear from the paper but post-intervention assessments are described as occurring at 1-month and 3-months post-intervention, and if this is accurate, namely that the follow-up periods were calculated from the end of intervention, then the follow-up durations are different for the two active interventions, and unclear for the waitlist control group, as the workshop intervention duration is only one day compared to the six week individual sessions intervention) |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | No (outcome measures were parent-reported and parents were the participants in the intervention and were non-blind) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No (outcome measures were parent-reported and parents were the participants in the intervention and were non-blind) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

### 1.5.4 SOFRONOFF2007

| Study ID | | SOFRONOFF2007 |
|---|---|---|
| Bibliographic reference:<br>Sofronoff K, Attwood T, Hinton S, Levin I. A randomized controlled trial of a cognitive behavioural intervention for anger management in children diagnosed with Asperger syndrome. Journal of Autism and Developmental Disorders. 2007;37:1203-1214. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Unclear (insufficient detail reported) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: Not reported; Control group N: Not reported<br>Following randomization, five families left the study, but information on group allocation of these families is not reported | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Unclear |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: Not reported; Control group N: Not reported<br>Following randomization, five families left the study, but information on group allocation of these families is not reported | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Unclear |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | No (study-specific outcome measure with no independent reliability or validity data) |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | No (parent-rated and parents were non-blind) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No (parent-rated and parents were non-blind) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

# 1.6 PHARMACOLOGICAL INTERVENTIONS AIMED AT BEHAVIOUR THAT CHALLENGES

## 1.6.1 AKHONDZADEH2004

| Study ID | | AKHONDZADEH2004 |
|---|---|---|
| Bibliographic reference:<br>Akhondzadeh S, Erfani S, Mohammadi MR, Tehrani-Doost M, Amini H, Gudarzi SS, et al. Cyproheptadine in the treatment of autistic disorder: a double-blind placebo-controlled trial. Journal of Clinical Pharmacy and Therapeutics. 2004;29:145-150. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computer-generated code) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (sealed opaque envelopes) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes |

| | | |
|---|---|---|
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Unclear (not clear if 8 weeks is sufficient duration to detect adverse events) |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different for different outcomes: No for parent-rated ABC and CARS; Unclear for clinician-rated adverse events |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different for different outcomes: Low risk for positive treatment response outcomes and unclear/unknown risk for adverse event outcomes | | |
| Likely direction of effect: Unknown direction were risk of bias was unclear | | |

### 1.6.2 AKHONDZADEH2008

| Study ID | | AKHONDZADEH2008 |
|---|---|---|
| Bibliographic reference:<br>Akhondzadeh S, Tajdar H, Mohammadi M-R, Mohammadi M, Nouroozinejad G-H, Shabstari OL, et al. A double-blind placebo controlled trial of piracetam added to risperidone in patients with autistic disorder. Child Psychiatry and Human Development. 2008;39:237-245. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computer-generated code) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (sealed opaque envelopes) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |

| | | |
|---|---|---|
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes (placebo identical in appearance in terms of shape, size, colour, and taste) |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group? Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |

| | | |
|---|---|---|
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Unclear (unclear if 10 weeks sufficient duration to observe significant treatment effects, in particular, adverse events) |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk (low risk for primary outcome of behaviour that challenges but for adverse events outcome rating unclear/unknown due to concerns with regards to follow-up duration) | | |
| Likely direction of effect: Not applicable | | |

### 1.6.3 AKHONDZADEH2010

| Study ID | | AKHONDZADEH2010 |
|---|---|---|
| Bibliographic reference:<br>Akhondzadeh S, Fallah J, Mohammadi M-R, Imani R, Mohammadi M, Salehi B, et al. Double-blind placebo-controlled trial of pentoxifylline added to risperidone: effects on aberrant behavior in children with autism. Progress in Neuro -Psychopharmacology and Biological Psychiatry. 2010;34:32-36. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computer-generated code) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (sealed opaque envelopes) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes (participants did not receive any neuroleptic or psychotropic drug treatment within 6 months prior to recruitment and participants did not receive any psychosocial therapies during the trial) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes (placebo was identical in shape, size, colour and taste) |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes (drugs dispensed by a blinded investigational drug pharmacist) |

| | | |
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| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes for positive treatment effects as, if anything, will result in a conservative estimate of effect but for adverse events it is unclear if 10 weeks is a sufficient follow-up duration to observe potential longer-term side effects |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear for ABC as there was a blind outcome rater (and independent outcome rater for positive treatment outcomes and side effects) but the ABC was completed based on parental report and parents will be non-blind to other potentially confounding factors |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk | | |
| Likely direction of effect: Unknown direction | | |

## 1.6.4 CAMPBELL1993

| Study ID | | CAMPBELL1993 |
|---|---|---|
| Bibliographic reference:<br>Campbell M, Anderson LT, Small AM, Adams P, Gonzalez NM, Ernst M. Naltrexone in autistic children: behavioral symptoms and attentional learning. Journal of the American Academy of Child and Adolescent Psychiatry. 1993;32:1283-1291. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method was unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail was reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (there was a significant group difference at baseline [t=2.41, p=0.02] in mean adaptive developmental quotients, as measured by the Gesell Developmental Schedules, with significantly higher mean DQ in the experimental group [mean: 56.8] relative to the control group [mean: 44.9]) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes (matching placebo and naltrexone tablets) |

| | | |
|---|---|---|
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Unclear (identity and blinding of intervention administrators not reported) |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: Not reported Control group N: Not reported<br>Number of people assigned and dropout is not reported | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Unclear |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: Not reported Control group N: Not reported<br>Number of people assigned and dropout is not reported | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Unclear |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Different for different outcomes: Unclear for adverse event outcomes as 6 weeks might not be a sufficient follow-up duration to observe potential longer-term adverse events |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Different for different outcomes: No for adverse event outcomes as the outcome measure was designed by an author specifically for the study with no independent reliability or validity ratings |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Different for different outcomes: Unclear for adverse event outcomes as the identity and blinding of the outcome assessor was not reported |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different for different outcomes: Unclear for adverse event outcomes as the identity and blinding of the outcome assessor was not reported |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different for different outcomes: High risk for adverse event outcomes | | |
| Likely direction of effect: Effect size smaller (for high risk adverse event outcomes) | | |

### 1.6.5 HARDAN2012

| Study ID | | HARDAN2012 |
|---|---|---|
| Bibliographic reference:<br>Hardan AY, Fung LK, Libove RA, Obukhanych TV, Nair S, Herzenberg LA, et al. A randomized controlled pilot trial of oral N-acetylcysteine in children with autism. Biological Psychiatry. 2012;71:956-961. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computer random number generator) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (pharmacy-controlled randomization) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes (drug and placebo were matched on appearance, smell and taste) |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes (parents were intervention administrators and were blinded) |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 2; Control group N: 6 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 1; Control group N: 3 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes (Last Observation Carried Forward) |

| | | |
|---|---|---|
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear for investigator-rated outcome measures and no for parent-rated outcome measures |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

## 1.6.6 HELLINGS2005

| Study ID | | HELLINGS2005 |
|---|---|---|
| Bibliographic reference:<br>Hellings JA, Weckbaugh M, Nickel EJ, Cain SE, Zarcone JR, Reese M, et al. A double-blind, placebo-controlled study of valproate for aggression in youth with pervasive developmental disorders. Journal of Child and Adolescent Psychopharmacology. 2005;15:682-692. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (pharmacy-controlled randomisation) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 3; Control group N: 2 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes (Last Observation Carried Forward) |

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|---|---|---|
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Unclear (unclear if 8 weeks sufficient follow-up duration to detect significant treatment effects, particularly for adverse events) |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No (some outcome measures parent-rated and so non-blind to other potentially confounding factors) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

## 1.6.7 HOLLANDER2010

| Study ID | | HOLLANDER2010 |
|---|---|---|
| Bibliographic reference:<br>Hollander E, Chaplin W, Soorya L, Wasserman S, Novotny S, Rusoff J, et al. Divalproex sodium vs placebo for the treatment of irritability in children and adolescents with autism spectrum disorders. Neuropsychopharmacology. 2010;35:990-998. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (statistically significant [p=0.017] group difference in baseline IQ with the placebo group having a significantly higher IQ [76.1] than the experimental group [52.9]) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes |

| | | |
|---|---|---|
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 2; Control group N: 1 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes (mixed regression models based on available values used to impute missing data) |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Unclear (unclear if 12 weeks sufficient follow-up duration to detect significant treatment effects, particularly for adverse events) |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No (some outcome measures parent-rated and so non-blind to other potentially confounding factors) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

## 1.6.8 JOHNSON&JOHNSON2011

| Study ID | | JOHNSON&JOHNSON2011 |
|---|---|---|
| Bibliographic reference:<br>Johnson & Johnson Pharmaceutical Research & Development, L. L. C. Risperidone in the Treatment of Children and Adolescents With Autistic Disorder: A Double-Blind, Placebo-Controlled Study of Efficacy and Safety, Followed by an Open-Label Extension Study of Safety. ClinicalTrials.gov NCT00576732; 2011. Avaialble from: http://clinicaltrials.gov/ct2/show/results/NCT00576732.<br><br>Kent JM, Kushner S, Ning X, Karcher K, Ness S, Aman M, et al. Riseridone dosing in children and adolescents with autistic disorder: a double-blind, placebo-controlled study. Journal of Autism and Developmental Disorders. 2012; Epub available ahead of print. Available from: http://link.springer.com/article/10.1007%2Fs10803-012-1723-5. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Unclear (insufficient detail reported) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | No (statistically significant group difference in the number of participants receiving concomitant antihistamines with a higher percentage of participants in the placebo group [20%; N=7] receiving these drugs relative to the active treatment groups [low- |

| | | |
|---|---|---|
| | | dose group: 7%, N=2; high dose group: 3%, N=1]) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 11; Control group N: 8 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 1; Control group N: 1 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes (Last Observation Carried Forward) |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Different for different outcomes:<br>Yes for positive treatment outcomes<br>Unclear for adverse event outcomes (unclear if 6 weeks is sufficient follow-up duration to observe potential longer-term adverse events) |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (the rater of the ABC is not reported and if parent-completed it will be non-blind to other important confounding and prognostic factors) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different for different outcomes:<br>Low risk for positive treatment outcomes<br>Unclear/unknown risk for adverse event outcomes | | |
| Likely direction of effect: Effect size smaller (for adverse event outcomes) | | |

### 1.6.9 KING2001

| Study ID | | KING2001 |
|---|---|---|
| Bibliographic reference:<br>King BH, Wright M, Handen BL, Sikich L, Zimmerman AW, McMahon W, et al. Double-blind, placebo-controlled study of amantadine hydrochloride in the treatment of children with autistic disorder. Journal of the American Academy of Child and Adolescent Psychiatry. 2001;40:658-665. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes (taste- and colour-matched placebo) |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

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|---|---|---|
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Unclear (5 weeks may not be a sufficient duration to observe adverse events) |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Different for difference outcome measures: For parent-rated ABC outcome assessors were blind to treatment assignment but not to other potentially confounding factors, for investigator-rated CGI the blinding of the outcome assessor is not reported and for adverse event outcome measures neither the identity nor the blinding of outcome assessors is reported |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different for difference outcome measures: For parent-rated ABC outcome assessors were blind to treatment assignment but not to other potentially confounding factors, for investigator-rated CGI the blinding of the outcome assessor is not reported and for adverse event outcome measures neither the identity nor the blinding of outcome assessors is reported |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Unclear for ABC and CGI outcome measures and high risk for adverse events | | |
| Likely direction of effect: Where high risk, effect size smaller (adverse events) | | |

## 1.6.10MARCUS2009

| Study ID | | MARCUS2009 |
|---|---|---|
| Bibliographic reference:<br>Marcus RN, Owen R, Kamen L, Manos G, McQuade RD, Carson WH, et al. A placebo-controlled, fixed-dose study of aripiprazole in children and adolescents with irritability associated with autistic disorder. Journal of the American Academy of Child and Adolescent Psychiatry. 2009;48:1110-1119.<br><br>Varni JW, Handen BL, Corey-Lisle PK, Guo Z, Manos G, Ammerman DK, et al. Effect of aripiprazole 2 to 15 mg/d on health-related quality of life in the treatment of irritability associated with autistic disorder in children: a post-hoc analysis of two controlled trials. Clinical Therapeutics. 2012;34:980-992. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Unclear (no baseline statistical comparisons between groups reported) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Unclear (paper states 'Double-blind' but gives no further detail with regards to who is blinded, i.e. participant, parent, investigator, intervention administrator, |

| | | |
|---|---|---|
| | | outcome assessor) |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Unclear (paper states 'Double-blind' but gives no further detail with regards to who is blinded, i.e. participant, parent, investigator, intervention administrator, outcome assessor) |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 9; Control group N: 14 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 1; Control group N: 3 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes (Last Observation Carried Forward) |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Unclear (unclear if follow-up duration of 8 weeks is sufficient to detect significant treatment effects, in particular, adverse events) |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Unclear (paper states 'Double-blind' but gives no further detail with regards to who is blinded, i.e. participant, parent, investigator, intervention administrator, outcome assessor) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (paper states 'Double-blind' but gives no further detail with regards to who is blinded, i.e. participant, parent, investigator, intervention administrator, outcome assessor) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |

## 1.6.11 OWEN2009

| Study ID | | OWEN2009 |
|---|---|---|
| Bibliographic reference:<br>Owen R, Sikich L, Marcus RN, Corey-Lisle P, Manos G, McQuade RD, et al. Aripiprazole in the treatment of irritability in children and adolescents with autistic disorder. Pediatrics. 2009;124:1533-1540.<br><br>Aman MG, Kasper W, Manos G, Mathew S, Marcus R, Owen R, et al. Line-item analysis of the aberrant behavior checklist: results from two studies of aripiprazole in the treatment of irritability associated with autistic disorder. Journal of Child and Adolescent Psychopharmacology. 2010;20:415-422.<br><br>Varni JW, Handen BL, Corey-Lisle PK, Guo Z, Manos G, Ammerman DK, et al. Effect of aripiprazole 2 to 15 mg/d on health-related quality of life in the treatment of irritability associated with autistic disorder in children: a post-hoc analysis of two controlled trials. Clinical Therapeutics. 2012;34:980-992. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computer random number generator) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (pharmacy-controlled randomization) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |

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|---|---|---|
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Unclear (paper states 'Double-blind' but gives no further detail with regards to who is blinded, i.e. participant, parent, investigator, intervention administrator, outcome assessor) |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Unclear (paper states 'Double-blind' but gives no further detail with regards to who is blinded, i.e. participant, parent, investigator, intervention administrator, outcome assessor) |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 8; Control group N: 15 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | No (but as the greater dropout rate is in the placebo condition there is not the concern that dropout is due to adverse events) |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 1 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes (Last Observation Carried Forward) |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Unclear (unclear if follow-up duration of 8 weeks sufficient to detect significant treatment effects, in particular, adverse events) |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Unclear (paper states 'Double-blind' but gives no further detail with regards to who is blinded, i.e. participant, parent, investigator, intervention administrator, outcome assessor) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (paper states 'Double-blind' but gives no further detail with regards to who is blinded, i.e. participant, parent, investigator, intervention administrator, outcome assessor) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |

## 1.6.12 REZAEI2010

| | | |
|---|---|---|
| Study ID | | REZAEI2010 |
| Bibliographic reference:<br>Rezaei V, Mohammadi M-R, Ghanizadeh A, Sahraian A, Tabrizi M, Rezazadeh S-A, et al. Double-blind, placebo-controlled trial of risperidone plus topiramate in children with autistic disorder. Progress in Neuro-Psychopharmacology and Biological Psychiatry. 2010;34:1269-1272. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computer random number generator) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (sealed, opaque envelopes) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

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|---|---|---|
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Unclear (unclear if 8 weeks follow-up duration a sufficient length of time to detect significant treatment effects, however if this is true it will lead to a conservative estimate of treatment effects, and thus study quality was not downgraded on this basis) |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (parents did input into the outcome assessment. However, completion of the scale by a blinded rater was considered sufficient to ensure reduction of the risk of detection bias) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

## 1.6.13 RUPPRISPERIDONE2001

| Study ID | | RUPPRISPERIDONE2001 |
|---|---|---|
| Bibliographic reference:<br>Aman MG, Holloway JA, McDougle CJ, Scahill L, Tierney E, McCracken JT, et al. Cognitive effects of risperidone in children with autism and irritable behavior. Journal of Child and Adolescent Psychopharmacology. 2008;18:227-236.<br><br>Anderson GM, Scahill L, McCracken JT, McDougle CJ, Aman MG, Tierney E, et al. Effects of short- and long-term risperidone treatment on prolactin levels in children with autism. Biological Psychiatry. 2007;61:545-550.<br><br>Arnold LE, Vitiello B, McDougle C, Scahill L, Shah B, Gonzalez NM, et al. Parent-defined target symptoms respond to risperidone in RUPP autism study: customer approach to clinical trials. Journal of the American Academy of Child and Adolescent Psychiatry. 2003;42:1443-1450.<br><br>Arnold LE, Farmer C, Kraemer HC, Davies M, Witwer A, Chuang S, et al. Moderators, mediators, and other predictors of risperidone response in children with autistic disorder and irritability. Journal of Child and Adolescent Psychopharmacology. 2010;20:83-93.<br><br>McDougle CJ, Scahill L, Aman MG, McCracken JT, Tierney E, Davies M, et al. Risperidone for the core symptom domains of autism: results from the study by the autism network of the research units on pediatric psychopharmacology. American Journal of Psychiatry. 2005;162:1142-1148.<br><br>Research Units on Pediatric Psychopharmacology Autism Network. Risperidone in children with autism and serious behavioral problems. New England Journal of Medicine. 2002;347:314-321.<br><br>Research Units on Pediatric Psychopharmacology Autism Network. Risperidone treatment of autistic disorder: longer-term benefit and blinded discontinuation after 6 months. American Journal of Psychiatry. 2005;162:1361-1369.<br><br>Scahill L, McCracken J, McDougle CJ, Aman M, Arnold LE, Tierney E, et al. Methodological issues in designing a multisite trial of risperidone in children and adolescents with autism. Journal of Child and Adolescent Psychopharmacology. 2001;11:377-388. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (significantly greater scores on ABC Inappropriate speech subscale [p=0.03] in the control group and a trend for |

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| | | significantly lower scores on VABS Daily Living subscale [p=0.07] and ABC Stereotypy [p=0.09] in the control group [RUPP2002]) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group? Experimental group N: 3; Control group N: 18 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | No (higher dropout in placebo group) |

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| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes (Last Observation Carried Forward) |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Unclear (follow-up duration of 8 weeks may not be sufficient to detect significant treatment effects, in particular, adverse events. For instance, 6-month follow-up in 43 participants followed longitudinally [ANDERSON2007] showed weight gain increased from 2.7kg at 8 weeks to 5.6kg at 6 months) |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (the ABC outcome measure is parent-completed) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different for different outcomes: Low risk for positive treatment outcomes and unclear/unknown risk for adverse event outcomes | | |
| Likely direction of effect: Unknown direction where risk of bias is unclear | | |

## 1.6.14 SHEA2004

| Study ID | | SHEA2004 |
|---|---|---|
| Bibliographic reference:<br>Shea S, Turgay A, Carroll A, Schulz M, Orlik H, Smith I, et al. Risperidone in the treatment of disruptive behavioral symptoms in children with autistic and other pervasive developmental disorders. Pediatrics. 2004;114:e634-e641.<br><br>Pandina GJ, Bossie CA, Youssef E, Zhu Y, Dunbar F. Risperidone improves behavioral symptoms in children with autism in a randomized, double-blind, placebo-controlled trial. Journal of Autism and Developmental Disorders. 2007;37:367-373. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | No (more participants in the experimental group received concomitant medications for other medical conditions [N=36; 90%] than participants in the placebo group [N=26; 66.7%]) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Unclear (paper states 'Double-blind' but gives no further detail with regards to who is blinded, i.e. participant, parent, |

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|---|---|---|
| | | investigator, intervention administrator, outcome assessor) |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Unclear (paper states 'Double-blind' but gives no further detail with regards to who is blinded, i.e. participant, parent, investigator, intervention administrator, outcome assessor) |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 2 (SHEA2004); 2 (PANDINA2007); Control group N: 5 (SHEA2004); 4 (PANDINA2007) | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 1 (SHEA2004); 0 (PANDINA2007); Control group N: 0 (SHEA2004); 0 (PANDINA2007) | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |

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| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Unclear (unclear if follow-up duration of 8 weeks sufficient to detect significant treatment effects, in particular, adverse events) |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Unclear (paper states 'Double-blind' but gives no further detail with regards to who is blinded, i.e. participant, parent, investigator, intervention administrator, outcome assessor) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (paper states 'Double-blind' but gives no further detail with regards to who is blinded, i.e. participant, parent, investigator, intervention administrator, outcome assessor) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |

## 1.6.15 TROOST2005

| Study ID | | TROOST2005 |
|---|---|---|
| Bibliographic reference:<br>Troost PW, Lahuis BE, Steenhuis M-P, Ketelaars CEJ, Buitelaar JK, van Engeland H, et al. Long-term effects of risperidone in children with autism spectrum disorders: a placebo discontinuation study. Journal of American Academy of Child and Adolescent Psychiatry. 2005;44:1137-1144. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (although the randomisation sequence was generated externally, it is not clear if allocation was concealed from investigators) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Unclear (although the paper states that drugs were supplied by the pharmacist as matching capsules in identical packages it is not clear who the pharmacist was supplying |

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|---|---|---|
| | | to, i.e. investigators, participants, parents, and thus it is not clear whether the intervention administrator was blinded) |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0 Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (the ABC outcome measures are based on parent-report and thus are non-blind to other potentially confounding factors) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

# 1.7 BIOMEDICAL INTERVENTIONS AIMED AT BEHAVIOUR THAT CHALLENGES

## 1.7.1 BENT2011

| Study ID | | BENT2011 |
|---|---|---|
| Bibliographic reference:<br>Bent S, Bertoglio K, Ashwood P, Bostrom A, Hendren RL. A pilot randomized controlled trial of omega-3 fatty acids for autism spectrum disorder. Journal of Autism and Developmental Disorders. 2011;41:545-554. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computer-generated randomisation list) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (study reports that the randomisation list was prepared by persons not involved in the study but gives no further detail) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (significant baseline group difference [p=0.03] for Clinical Global Impression-Severity [CGI-S] scores with greater severity in the experimental group [mean=4.6] than in the control group [mean=4.2]) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes (placebo had same texture, taste and appearance) |

| | | |
|---|---|---|
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes (parents were intervention administrators and paper tested adequacy of blinding by asking carers at the end of the study: "do you think your child was taking omega-3 fatty acids or placebo?" and no statistically significant group differences were found in the percentage of carers who believed their child had been receiving omega-3 [40% in the omega-3 group and 64% in the placebo group, p=0.39]) |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 5; Control group N: 3 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 1; Control group N: 1 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes (participants who discontinued medication were asked to return for outcome assessments and where participants did their data was included in the analysis) |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Different for different outcomes: Unclear/unknown for adverse events as unclear outcome measure for recording adverse events |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different for different outcomes: No for Aberrant Behaviour Checklist (ABC) and Behavior Assessment System for Children (BASC) as parent-rated; and Unclear/unknown for Peabody Picture Vocabulary Test (PPVT), Expressive Vocabulary Test (EVT), and adverse events as identity of outcome assessors (and blinding to other potentially confounding factors) not reported |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

## 1.7.2 HASANZADEH2012

| | | |
|---|---|---|
| Study ID | | HASANZADEH2012 |
| Bibliographic reference:<br>Hasanzadeh E, Mohammadi M-R, Ghanizadeh A, Rezazadeh S-A, Tabrizi M, Rezaei F, et al. A double-blind placebo controlled trial of ginkgo biloba added to risperidone in patients with autistic disorders. Child Psychiatry and Human Development. 2012;43:674–682. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computer-generated code) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (sealed, opaque envelopes) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes (participants did not receive any neuroleptic or psychotropic drug treatment within 6 months prior to recruitment and participants did not receive any psychosocial therapies during the trial) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes |

| | | |
|---|---|---|
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Unclear for adverse event outcomes as 10 weeks may not be a sufficient follow-up duration to observe potential longer-term adverse events |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Unclear for adverse event outcomes as no reliability or validity data for the checklist used |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear as outcome measures included parental report and parents would be non-blind to other potentially confounding factors |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different for different outcomes: Unclear/unknown risk for adverse event outcomes | | |
| Likely direction of effect: Unknown direction where unclear risk | | |

### 1.7.3 JOHNSON2010

| Study ID | | JOHNSON2010 |
|---|---|---|
| Bibliographic reference:<br>Johnson CR, Handen BL, Zimmer M, Sacco K. Polyunsaturated fatty acid supplementation in young children with autism. Journal of Developmental and Physical Disabilities. 2010;22:1-10. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Unclear (insufficient detail reported) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No (open label) |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No (open label) |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | Different for different outcomes: Unclear/unknown for behavioural observation outcome measures as only 20% of behavioural observations were double-coded and no standardized coding schedule used so reliability and validity of this outcome measure unclear |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Different for different outcome measures: No for CBCL/1.5-5 and MSEL |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different for different outcome measures: No for CBCL/1.5-5 and MSEL |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different for different outcomes: High risk for CBCL/1.5-5 and MSEL | | |
| Likely direction of effect: Effect size bigger, where high risk | | |

### 1.7.4 KERN2001

| Study ID | | KERN2001 |
|---|---|---|
| Bibliographic reference:<br>Kern JK, Miller VS, Cauller L, Kendall R, Mehta J, Dodd M. Effectiveness of N,N-dimethylglycine in autism and pervasive development disorder. Journal of Child Neurology. 2001;16:169-173. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (pharmacy-controlled randomisation) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (statistically significant [p=0.0003] baseline group differences for the Lethargy subscale of the Aberrant Behavior Checklist [ABC] with the experimental group showing greater severity than the control group) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Unclear (insufficient detail reported) |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Unclear (identity and blinding of intervention administrator unclear) |

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|---|---|---|
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 2; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 1; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | No (outcome and outcome measure under-specified) |

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|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | No (non-standardized outcome measure with no reliability or validity data) |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes (parents were blinded to treatment assignment) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No (parents non-blind to other potentially confounding factors) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |

### 1.7.5 PIRAVEJ2009

| Study ID | | PIRAVEJ2009 |
|---|---|---|
| Bibliographic reference:<br>Piravej K, Tangtrongchitr P, Chandarasiri P, Paothong L, Sukprasong S. Effects of Thai traditional massage on autistic children's behavior. Journal of Alternative and Complementary Medicine. 2009;15:1355-1361. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (unclear method of randomisation) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (the treatment group had lower scores of hyperactivity, hyperactivity index, and sleep-related problems at baseline) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Different blinding for different care administrators. The sensory integration teacher was blind to treatment allocation, the masseuse was not blind to treatment allocation |

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| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Different for different outcomes:<br>CPRS and CTRS - Yes<br>Sleep observations - Unclear |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Different blinding for different outcomes:<br>CTRS - teacher rated and the sensory integration teacher was blind to treatment allocation<br>CPRS and sleep observations - parent rated and parents were not blind to treatment allocation |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different blinding for different outcomes:<br>CTRS - teacher rated and it is unclear whether the sensory integration teacher was blind to confounding factors<br>CPRS and sleep observations - parent rated and parents were not blind to confounding factors |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different for different outcomes:<br>CTRS - Low risk<br>CPRS and sleep observations - High risk | | |
| Likely direction of effect: Effect size bigger, where high risk | | |

## 1.7.6 ROSSIGNOL2009

| Study ID | | ROSSIGNOL2009 |
|---|---|---|
| Bibliographic reference:<br>Rossignol DA, Rossignol LW, Smith S, Schneider C, Logerquist S, Usman A, et al. Hyperbaric treatment for children with autism: a multicenter, randomized, double-blind, controlled trial. BMC Pediatrics. 2009;9:21. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 5.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (paper states that allocation was concealed [from all investigators, participants, parents, nursing staff, and all other clinical staff] but no details on method of allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes (no significant baseline group differences in age, gender, number of participants using medications, nutritional supplements or ABA, or on any of the outcome measures) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes (no significant baseline group differences in number of participants using medications, nutritional supplements or ABA and participants were not allowed to begin any new therapies or stop any current therapies during the trial) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes (procedures were developed and applied in order to as closely match the two conditions as possible, including using |

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| | | matching equipment, covering control switches, inflating and deflating the chambers in the control condition to simulate pressure changes, and masking the sounds from the chambers) |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No (intervention administered by non-blind hyperbaric technician) |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk (low risk for response bias and high risk for performance bias) | | |
| Likely direction of effect: Effect size bigger, where high risk | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 4; Control group N: 3 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 3; Control group N: 3 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Unclear for adverse event outcome (unclear if 4 weeks is a sufficient follow-up duration to detect potential longer-term adverse events) |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes for most outcomes, no for adverse event outcome where a standardized outcome measure was not used |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes for most outcomes, no for adverse event outcome where the outcome assessor was the intervention administrator who was non-blind to treatment assignment |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No for most outcomes as parent-rated and parents would be non-blind to other potentially confounding factors; no for the adverse event outcome measure as rated by the intervention administrator; unclear for CGI as unclear if the clinician was blinded to other potentially confounding factors |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different for different outcomes: Low risk for all positive treatment effects and high risk for adverse event outcome | | |
| Likely direction of effect: Effect size smaller, where high risk for adverse event outcome | | |

# 1.8 PSYCHOSOCIAL INTERVENTIONS AIMED AT ADAPTIVE BEHAVIOUR

## 1.8.1 DAWSON2010

| Study ID | | DAWSON2010 |
|---|---|---|
| Bibliographic reference:<br>Dawson G, Rogers S, Munson J, Smith M, Winter J, Greenson J, et al. Randomized, controlled trial of an intervention for toddlers with autism: the early start denver model. Pediatrics. 2010;125:e17-e23. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | No (the experimental] group reported an average of 5.2 hours/week in other therapies, whereas the control group reported an average of 9.1 hours/week of individual therapy and an average of 9.3 hours/week of group interventions) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |

| | | |
|---|---|---|
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 3 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 1 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Different for different outcomes: No for RBS as parent-completed and unclear/unknown for DSM-IV clinical diagnosis as blinding of outcome assessors not reported |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear for most outcomes, no for RBS as parent-completed |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different for different outcomes: Unclear/unknown for the Vineland Adaptive Behaviour Scale (VABS), high risk for Repetitive Behavior Scale (RBS) and high risk for DSM-IV clinical diagnosis | | |
| Likely direction of effect: Effect size bigger, where high risk | | |

## 1.8.2 PAJAREYA2011

| Study ID | | PAJAREYA2011 |
|---|---|---|
| Bibliographic reference:<br>Pajareya K, Nopmaneejumruslers K. A pilot randomized controlled trial of DIR/Floortime parent training intervention for pre-school children with autistic spectrum disorders. Autism. 2011;15:563-577. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes (equivalent number of children in each group were on medication and attended a preschool programme. There were also no significant difference in the number of hours of other psychosocial interventions [including speech therapy, behavioural therapy and occupational therapy] with the control group receiving 3.3 hours and the intervention group receiving 3.1 hours) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |

| | | |
|---|---|---|
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 1; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes (Last Observation Carried Forward) |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Different for different outcome measures: Unclear for the parent-rated FEDQ as no independent reliability and validity data for the Thai-version of this outcome measure |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Different for different outcome measures: No for the FEDQ as the questionnaire was parent-rated and parents were involved in the intervention so the outcome assessment was non-blind |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different for different outcome measures: No for the FEDQ as the questionnaire was parent-rated and parents were involved in the intervention so the outcome assessment was non-blind |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different for different outcomes: High risk for parent-rated FEDQ | | |
| Likely direction of effect: Effect size bigger, where high risk | | |

### 1.8.3 RICKARDS2007

| Study ID | | RICKARDS2007 |
|---|---|---|
| Bibliographic reference:<br>Rickards AL, Walstab JE, Wright-Rossi RA, Simpson J, Reddihough DS. A randomized, controlled trial of a home-based intervention program for children with autism and developmental delay. Journal of Developmental and Behavioral Pediatrics. 2007;28:308-316.<br><br>Rickards AL, Walstab JE, Wright-Rossi RA, Simpson J, Reddihough DS. One-year follow-up of the outcome of a randomized controlled trial of a home-based intervention programme for children with autism and developmental delay and their families. Child: Care, Health and Development. 2009;35:593-602. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (drawing of lots) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (blind selection of folded cards from bowl with an independent observer for validation) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |

| | | |
|---|---|---|
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 2; Control group N: 4 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 2; Control group N: 4 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Unclear (although some outcome measures were assessed by a blinded psychologist, many outcome measures relied on non-blind parent- or teacher- report) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (although some outcome measures were assessed by a blinded psychologist, many outcome measures relied on non-blind parent- or teacher- report) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |

### 1.8.4 ROBERTS2011

| Study ID | | ROBERTS2011 |
|---|---|---|
| Bibliographic reference:<br>Roberts J, Williams K, Carter M, Evans D, Parmenter T, Silove N, et al. A randomised controlled trial of two early intervention programs for young children with autism: centre-based with parent program and home-based. Research in Autism Spectrum Disorders. 2011;5:1553-1566. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computer random number generator) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (central allocation) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (experimental group had a higher proportion of children with a diagnosis of autistic disorder than the control group, 87.5% relative to 69%, and the control group had a higher proportion of non-ASD diagnoses, 17.2% relative to 0%. The experimental group also had a lower Griffiths developmental quotient score than the control group, 57 relative to 66.5) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes |

| | | |
|---|---|---|
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 7; Control group N: 4 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 7; Control group N: 4 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias (only one participant dropped out after the start of the intervention) | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes (with the exception of the Parent Perception Questionnaire as this was a study-specific, and non-standardized, measure) |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Unclear (despite blinding outcome assessors, all but one of the outcome measures relies on interview with parent and parents were non-blind to group assignment and other potentially confounding factors and were also part of the intervention so problems with self-assessment) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (despite blinding outcome assessors, all but one of the outcome measures relies on interview with parent and parents were non-blind to group assignment and other potentially confounding factors and were also part of the intervention so problems with self-assessment) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias (with the exception of the RDLS) | | |
| Likely direction of effect: Effect size bigger | | |

### 1.8.5 SMITH2000

| | | |
|---|---|---|
| Study ID | | SMITH2000 |
| Bibliographic reference:<br>Smith T, Groen AD, Wynn JW. Randomized trial of intensive early intervention for children with pervasive developmental disorder. American Journal on Mental Retardation. 2000;105:269-285. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (random number table) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (group assignment performed by independent statistician) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |

| | | |
|---|---|---|
| D3 | A valid and reliable method was used to determine the outcome | Different for different outcome measures: Unclear/unknown for the Reynell Developmental Language Scale as although this outcome measure is commonly administered to children with autism it has not been validated in an autistic population and participants fall outside the age range for this test at endpoint. Also unclear/unknown for the Achenbach Child Behavior Checklist as this outcome measure not validated in autism population. No for the Family Satisfaction Questionnaire as the psychometric properties of outcome measure not tested |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Different for different outcomes: No for Achenbach Child Behavior Checklist and Family Satisfaction Questionnaire as parent- or teacher-completed and parents and teachers non-blind |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different for different outcomes: Unclear/unknown for the Vineland Adaptive Behaviour Scale (VABS) as although administered by blinded outcome assessor based on interview with non-blind parent rather than direct behavioural observation and no for Achenbach Child Behavior Checklist and Family Satisfaction Questionnaire as parent- or teacher-completed and parents and teachers non-blind |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different for different outcomes: Unclear/unknown for the Vineland Adaptive Behaviour Scale (VABS), high risk for Achenbach Child Behavior Checklist and Family Satisfaction Questionnaire and unclear/unknown for the Reynell Developmental Language Scale | | |
| Likely direction of effect: Effect size bigger, where high risk | | |

# 1.9 PSYCHOSOCIAL INTERVENTIONS AIMED AT SPEECH AND LANGUAGE

## 1.9.1 GATTINO2011

| Study ID | | GATTINO2011 |
|---|---|---|
| Bibliographic reference:<br>Gattino GS, Riesgo RDS, Longo D, Leite JCL, Faccini LS. Effects of relational music therapy on communication of children with autism: a randomized controlled study. Nordic Journal of Music Therapy. 2011;20:142-154. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computer random number generator) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (central allocation - conducted by external investigator, concealed from study investigators and delivered directly to intervention administrators) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Unclear (insufficient detail reported) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |

| | | |
|---|---|---|
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Unclear for CARS social communication outcome measure as no independent reliability/validity data for this composite score |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes (blinded external outcome assessors) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Yes (blinded external outcome assessors) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

### 1.9.2 HOWLIN2007

| Study ID | HOWLIN2007 |
|---|---|
| Bibliographic reference:<br>Howlin P, Gordon RK, Pasco G, Wade A, Charman T. The effectiveness of picture exchange communication system (PECS) training for teachers of children with autism: a pragmatic, group randomised controlled trial. Journal of Child Psychology and Psychiatry. 2007;48:473-481.<br><br>Gordon K, Pasco G, McElduff F, Wade A, Howlin P, Charman T. A communication-based intervention for nonverbal children with autism: what changes? who benefits? Journal of Consulting and Clinical Psychology. 2011;79:447-457. | |
| Guideline topic: Management and support of children and young people on the autism spectrum | Review question number: 6.1 |
| Checklist completed by: Odette Megnin-Viggars | |

| A. Selection bias (systematic differences between the comparison groups) | | |
|---|---|---|
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (randomised using online randomisation programme) |

| | | |
|---|---|---|
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (DTG children had a significantly higher ADOS language impairment score [mean=3.4] than those in the ITG [2.7] and NTG [2.5] and children in the ITG had a significantly higher nonverbal developmental quotient [25.9] than children in the DTG [22.7]) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |

| | | |
|---|---|---|
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 5 (ITG); 7 (DTG); Control group N: 1 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | No |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 4 (ITG); 0 (DTG); Control group N: 1 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes (Last Observation Carried Forward) |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Unclear for behavioural observations as these outcome measures were assessed using an observation schedule designed specifically for this study and only 10% of observations were double-coded so reliability and validity is unclear |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | No (rated by non-blind investigators) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No (rated by non-blind investigators) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

### 1.9.3 LIM2010

| Study ID | | LIM2010 |
|---|---|---|
| Bibliographic reference:<br>Lim HA. Effect of "developmental speech and language training through music" on speech production in children with autism spectrum disorders. Journal of Music Therapy. 2010;47:2-26. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Unclear (insufficient detail reported) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | No (unclear if 4 days is a sufficient follow-up duration to observe significant treatment effects) |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Unclear (outcome measure was designed by the investigator for the study with no independent reliability/validity data, however, video recordings of assessment sessions were double-coded with high inter-rater reliability) |

| | | |
|---|---|---|
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes (blinded outcome assessors) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Yes (blinded outcome assessors) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

### 1.9.4 WELTERLIN2012

| Study ID | | WELTERLIN2012 |
|---|---|---|
| Bibliographic reference:<br>Welterlin A, Turner-Brown LM, Harris S, Mesibov G, Delmolino L. The home TEACCHing program for toddlers with autism. Journal of Autism and Developmental Disorders. 2012;42:1827-1835. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Unclear (insufficient detail reported) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Unclear (unclear if 12 weeks a sufficient follow-up duration to detect significant treatment effects) |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |

| | | |
|---|---|---|
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Unclear (identity and blinding of outcome assessor/s are not reported) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (identity and blinding of outcome assessor/s are not reported) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |

### 1.9.5 WHALEN2010

| Study ID | | WHALEN2010 |
|---|---|---|
| Bibliographic reference:<br>Whalen C, Moss D, Ilan AB, Vaupel M, Fielding P, Macdonald K, et al. Efficacy of TeachTown: Basics computer-assisted intervention for the Intensive Comprehensive Autism Program in Los Angeles unified school district. Autism. 2010;14:179-197. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Unclear (insufficient detail reported) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes (all participants receiving Intensive Comprehensive Autism Program [ICAP] for 27-30 hours a week) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: Not reported; Control group N: Not reported | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Unclear |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 1 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Unclear for the Brigance Inventory of Child Development scale as there are no independent reliability and/or validity data reported |

| | | |
|---|---|---|
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Unclear (identity and blinding of outcome assessors not reported) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (identity and blinding of outcome assessors not reported) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |

### 1.9.6 YODER2006B

| Study ID | | YODER2006B |
|---|---|---|
| Bibliographic reference:<br>Yoder P, Stone WL. A randomized comparison of the effect of two prelinguistic communication interventions on the acquisition of spoken communication in preschoolers with ASD. Journal of Speech, Language, and Hearing Research. 200b6;49:698-711.<br><br>Yoder PJ, Lieberman RG. Brief report: randomized test of the efficacy of picture exchange communication system on highly generalized picture exchanges in children with ASD. Journal of Autism and Developmental Disorders. 2010;40:629-632. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computer random number generator) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (authors state that assignment was concealed but provide no detail about the method for concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (although some baseline differences were controlled for, such as baseline group differences in the Mullen expressive language score [higher for RPMT group than PECS group] and object-exchange turns [higher for PECS group than for RPMT group], correction was only performed where time 1 variables correlated with time 2 and 3 variables. Therefore, no covariate was entered to control for group differences on the ADOS social algorithm [higher in RPMT group] as this variable was not significantly correlated with the outcome variable in the YODER2010 paper, however, authors do not report correlations or corrections for this variable for the outcomes reported in YODER2006B paper) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |

| | | |
|---|---|---|
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | No (parents in the RPMT group chose to receive more hours of training [mean: 10.6 hours] than parents in the PECS group [mean 7.9 hours]. In addition, the number of hours of 'other intervention' increased between the treatment and follow-up periods, and this increase was greater for the PECS group [4 hours] than for the RPMT group [-0.3 hours]) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group? Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |

| | | |
|---|---|---|
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Unclear for behavioural observation outcome measures (only 20% of behavioural observations were double-coded and no standardized coding instrument was used so reliability and validity of this outcome measure unclear) |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Unclear for behavioural observation outcome measures (identity and blinding of outcome assessor not reported) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear for behavioural observation outcome measures (identity and blinding of outcome assessor not reported) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias for behavioural observation measures | | |
| Likely direction of effect: Unknown direction | | |

# 1.10 BIOMEDICAL INTERVENTIONS AIMED AT SPEECH AND LANGUAGE

## 1.10.1 ALLAM2008

| Study ID | | ALLAM2008 |
|---|---|---|
| Bibliographic reference:<br>Allam H, Eidine NG, Helmy G. Scalp acupuncture effect on language development in children with autism: a pilot study. Journal of Alternative and Complementary Medicine. 2008;14:109-114. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (random numbers table) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (results of randomisation were made available to the investigator in sealed envelopes) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Unclear (insufficient detail reported) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |

| | | |
|---|---|---|
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Unclear (no validity or reliability information reported for any outcome measures) |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Unclear (no details of outcome assessors reported) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (no details of outcome assessors reported) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |

## 1.10.2 ZHOU2008

| Study ID | | ZHOU2008 |
|---|---|---|
| Bibliographic reference:<br>Zhou H, Zhang P. The effect of language therapy combined with point massage on communication disability in autism children. China Pratical Medical. 2008;3:24-26.<br><br>Cheuk DKL, Wong V, Chen WX. Acupuncture for autism spectrum disorders (ASD)(Review). The Cochrane Database of Systematic Reviews. 2011;9:Art. No CD007849. Available from: DOI: 10.1002/14651858.CD007849.pub2. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (method of randomisation is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Unclear (insufficient detail reported) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |

| | | |
|---|---|---|
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Unclear (no validity or reliability information reported for any outcome measures) |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Unclear (no details of outcome assessors reported) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (no details of outcome assessors reported) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |

# 1.11 PSYCHOSOCIAL INTERVENTIONS AIMED AT IQ AND ACADEMIC SKILLS

## 1.11.1 ROGERS2012

| Study ID | | ROGERS2012 |
|---|---|---|
| Bibliographic reference:<br>Rogers SJ, Estes A, Lord C, Vismara L, Winter J, Fitzpatrick A, et al. Effects of a brief Early Start Denver Model (ESDM)-based parent intervention on toddlers at risk for autism spectrum disorders: a randomized controlled trial. Journal of the American Academy of Child and Adolescent Psychiatry. 2012;51:1052-1065. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computer generated algorithm) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (central allocation) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (children in the experimental group had a higher mean ADOS Social Affect score [mean 34.14] than children in the control group [mean 29.45] , and children in the control group had higher imitation and nonsocial orient scores [means 3.78 and 8 respectively] than children in the experimental group [means 2.53 and 7 respectively]) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |

| | | |
|---|---|---|
| B1 | The comparison groups received the same care apart from the intervention(s) studied | No (significant differences in number of intervention hours received between groups with the control group receiving more weekly hours of intervention [mean=3.68] than the experimental group [mean=1.48]) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: Not reported; Control group N: Not reported | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Unclear |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: Not reported; Control group N: Not reported | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Unclear |

| | | |
|---|---|---|
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Different validity and reliability for different outcome measures: Unclear/unknown for imitative sequences and orienting to social stimuli and joint attention measures |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Different for different outcome measures: Unclear/unknown for ADOS-T (outcome assessor reported as 'laboratory personnel' and blinding of outcome assessors not reported) and MSEL and imitative sequences, orienting to social stimuli and orienting to joint attention measures (identity and blinding of outcome assessors not reported); No for CDI and VABS (parent-rated or based on parental report and parents were non-blind and involved in the intervention) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different for different outcome measures: Unclear/unknown for ADOS-T (outcome assessor reported as 'laboratory personnel' and blinding of outcome assessors not reported) and MSEL and imitative sequences, orienting to social stimuli and orienting to joint attention measures (identity and blinding of outcome assessors not reported); No for CDI and VABS (parent-rated or based on parental report and parents were non-blind and involved in the intervention) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different for different outcome measures: Unclear/unknown risk for ADOS-T and MSEL; High risk for CDI, VABS and imitative sequences, orienting to social stimuli and orienting to joint attention measures | | |

| |
|---|
| Likely direction of effect: Effect size bigger where high risk |

# 1.12 BIOMEDICAL INTERVENTIONS AIMED AT IQ AND ACADEMIC SKILLS

## 1.12.1 WONG2010A

| Study ID | | WONG2010A |
|---|---|---|
| Bibliographic reference:<br>Wong VC-N, Sun JG. Randomized controlled trial of acupuncture versus sham acupuncture in autism spectrum disorder. Journal of Alternative and Complementary Medicine. 2010a;16:545-553. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computer generated randomisation) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (randomisation carried out by an independent statistician) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |

| | | |
|---|---|---|
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes (control condition was sham acupuncture) |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias (High risk for performance bias and low risk for response bias) | | |
| Likely direction of effect: Effect size bigger, where high risk | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Different validity and reliability for different outcomes:<br>Yes - Griffiths Mental Developmental Scale, Ritvo-Freeman Real Life Scale and Reynell Language Developmental Scale<br>No - WeeFIM |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes (outcome measures were taken by independent research assistants who were blind to treatment allocation) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Yes (outcome measures were taken by independent research assistants who were blind to treatment allocation) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

## 1.12.2WONG2010B

| Study ID | | WONG2010B |
|---|---|---|
| Bibliographic reference:<br>Wong VC-N, Chen W-X, Liu W-L. Randomized controlled trial of electro-acupuncture for autism spectrum disorder. Alternative Medicine Review. 2010b;15:136-146. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computer generated randomisation) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (results were in sealed envelopes) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (the study reports that children continued with their conventional interventions or education programmes for ASD, but no further information reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes (control condition was sham acupuncture) |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| Unclear/unknown risk of bias (High risk for performance bias and low risk for response bias) | | |
| Likely direction of effect: Effect size bigger, where high risk | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 1; Control group N: 4 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 1; Control group N: 3 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Different validity and reliability for different outcomes<br>Yes - RFRLS; CGI-I; ABC; RDLS; PEDI<br>Unclear - WeeFIM |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes (all outcome assessors were blind to treatment allocation) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different blinding for different outcome measures:<br>No - RFRLS; CGI-I; ABC; PEDI; parent rated and parents are not blind to confounding factors<br>Unclear - RDLS; WeeFIM; outcome assessor not reported so unclear if they are blinded to confounding factors |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

# 1.13 BIOMEDICAL INTERVENTIONS AIMED AT SENSORY SENSITIVITIES

## 1.13.1 BETTISON1996

| Study ID | | BETTISON1996 |
|---|---|---|
| Bibliographic reference:<br>Bettison S. The long-term effects of auditory training on children with autism. Journal of Autism and Developmental Disorders. 1996;26:361-374. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (nsufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes (attention-placebo condition) |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |

| | | |
|---|---|---|
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias (High risk for performance bias and low risk for response bias) | | |
| Likely direction of effect: Effect size bigger, where high risk | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Different for different outcomes: No for SSQ and SP as non-standardized assessment and no validity data available for this outcome measure |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different for different outcome: No for SSQ, SP and DBC as parent-completed (and teacher-completed for DBC) so non-blind to other potentially confounding factors; Unclear for ABC as outcome measure based on interview with parents so unclear if blind to other potentially confounding factors; and unclear for PPVT and LIPS as unclear if outcome assessors were blind to other potentially confounding factors |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

## 1.13.2FAZLIOGLU2008

| Study ID | | FAZLIOGLU2008 |
|---|---|---|
| Bibliographic reference:<br>Fazlioğlu Y, Baran G. A sensory integration therapy program on sensory problems for children with autism. Perceptual and Motor Skills. 2008;106:415-422. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors | Unclear (randomisation method is unclear) |

| | | |
|---|---|---|
| | equally across groups) | |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes (groups matched on age, sex and level of functioning) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes (both groups were attending special education classes at the centre) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |

| | | |
|---|---|---|
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Unclear (identity and blinding of outcome assessors not reported) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (identity and blinding of outcome assessors not reported) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |

### 1.13.3 SILVA2009

| Study ID | | SILVA2009 |
|---|---|---|
| Bibliographic reference:<br>Silva LMT, Schalock M, Ayres R, Bunse C, Budden S. Qigong massage treatment for sensory and self-regulation problems in young children with autism: a randomized controlled trial. American Journal of Occupational Therapy. 2009;63:423-432. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | No (there were caveats to randomisation process) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (groups were not comparable on parent-rated measures of social communication and autism composite and teacher-rated measures of sensory problems) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (the study reports that parents agreed not to begin any additional interventions once the study had started, but it is not clear what interventions children were already involved in throughout the duration of the study) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |

| | | |
|---|---|---|
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | No (there was a five-month post-intervention follow-up for the treatment group, but not the control group) |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Different validity and reliability for different outcome measures:<br>Yes - ABC and PDDBI<br>Unclear - SSC as this measure was created by the research group and no independent measures of validity or reliability are reported |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Different blinding for different outcome measures:<br>No - PDDBI parent measures as parent were involved in delivering the intervention and were not blind to the treatment allocation<br>Unclear - PDDBI teacher measures as no blinding of teachers reported.<br>Unclear - ABC and SSC as the rated not reported |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different blinding for different outcome measures:<br>No - PDDBI parent and teacher measures as parents and teachers are not blind to confounding variables<br>Unclear - ABC and SSC as the rated not reported |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different risk for different outcomes:<br>Unclear/unknown risk: ABC, SSC and PDDBI teacher measures<br>High risk: PDDBI parent measures | | |
| Likely direction of effect: Effect size bigger, where high risk | | |

## 1.13.4 SILVA2011B

| Study ID | | SILVA2011B |
|---|---|---|
| Bibliographic reference:<br>Silva LMT, Schalock M, Gabrielsen K. Early intervention for autism with a parent-delivered Qigong massage program: a randomized controlled trial. American Journal of Occupational Therapy. 2011b;65:550-559. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (randomisation was done by a random number generator) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 4; Control group N: 1 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 4; Control group N: 1 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Different for different outcomes:<br>Yes - PDDBI<br>Unclear - ASPI, Sense and self-regulation checklist |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | No (outcomes were parent-rated and parents were delivering the intervention and were not blind to treatment allocation) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No (outcomes were parent-rated and parents were not blind to confounding and prognostic factors) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

# 1.14 PSYCHOSOCIAL INTERVENTIONS AIMED AT COEXISTING MENTAL HEALTH PROBLEMS

## 1.14.1 CHALFANT2007

| Study ID | | CHALFANT2007 |
|---|---|---|
| Bibliographic reference:<br>Chalfant AM, Rapee R, Carroll L. Treating anxiety disorders in children with high functioning autism spectrum disorders: a controlled trial. Journal of Autism and Developmental Disorders. 2007;37:1842-1857. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method is unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |

| | | |
|---|---|---|
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 4; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Unclear |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 4; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Unclear |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Different validity and reliability for different outcomes:<br>CATS - unclear as no independent validity or reliability is reported<br>All other measures are valid and reliable |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | No (parent- and self-reported outcome measures non-blind and blinding of teachers to group assignment not reported) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No (all outcome assessors non-blind to other potentially confounding factors) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

## 1.14.2 DRAHOTA2011

| | | |
|---|---|---|
| Study ID | | DRAHOTA2011/WOOD2009 |
| Bibliographic reference:<br>Drahota A, Wood JJ, Sze KM, Van Dyke M. Effects of cognitive behavioral therapy on daily living skills in children with high-functioning autism and concurrent anxiety disorders. Journal of Autism and Developmental Disorders. 2011;41:257-265.<br><br>Wood JJ, Drahota A, Sze K, Har K, Chiu A, Langer DA. Cognitive behavioral therapy for anxiety in children with autism spectrum disorders: a randomized, controlled trial. Journal of Child Psychology and Psychiatry. 2009;50:224–234. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computer generated sequence) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (the study reports that the allocation of participants was concealed from investigators, but method of concealment is not reported) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (groups were not comparable in relation to coexisting conditions at baseline) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |

| | | |
|---|---|---|
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | No (no three-month follow-up data available for the waitlist control group) |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 3; Control group N: 1 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Blinding different for different outcomes:<br>MASC - No blinding; self-report and parent-rated<br>PCIQ - No blinding; parent-rated<br>CGI and ADIS-CSR- Outcome assessors were independent graduate evaluators who were blind to treatment allocation<br>VABS - Unclear as based on interview with non-blind parents rather than direct behavioural observation |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Blinding different for different outcomes:<br>MASC - No blinding; self-report and parent-rated<br>PCIQ - No blinding; parent-rated<br>CGI and ADIS-CSR- Outcome assessors were independent graduate evaluators who were blind to confounding factors<br>VABS - Unclear as based on interview with non-blind parents rather than direct behavioural observation |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Detection bias different for different outcomes:<br>MASC and PCIQ - High risk<br>ADIS-CSR and CGI - Low risk<br>VABS - Unclear/unknown risk | | |
| Likely direction of effect: Effect size bigger, where high risk | | |

## 1.14.3REAVEN2012

| Study ID | | REAVEN2012 |
|---|---|---|
| Bibliographic reference:<br>Reaven J, Blakeley-Smith A, Culhane-Shelburne K, Hepburn S. Group cognitive behavior therapy for children with high-functioning autism spectrum disorders and anxiety: a randomized trial. Journal of Child Psychology and Psychiatry. 2012;53:410-419. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computer generated sequence) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 3; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Unclear |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 4; Control group N: 3 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Different blinding for different outcomes:<br>ADIS-P: Outcome assessors were independent clinical evaluators, but the ADIS-P is based on a parent interview and parents were not blind to treatment allocation<br>CGIS-I: Outcome assessors were blind to treatment allocation |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different blinding for different outcomes:<br>ADIS-P: Outcome assessors were independent clinical evaluators, but the ADIS-P is based on a parent interview and parents were not blind to confounding factors<br>CGIS-I: Outcome assessors were blind to treatment allocation |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Detection bias different for different outcomes:<br>ADIS-P: Unclear/unknown risk of bias<br>CGI: Low risk | | |
| Likely direction of effect: Unknown direction, where unclear risk | | |

## 1.14.4 SOFRONOFF2005

| Study ID | | SOFRONOFF2005 |
|---|---|---|
| Bibliographic reference:<br>Sofronoff K, Attwood T, Hinton S. A randomised controlled trial of a CBT intervention for anxiety in children with Asperger syndrome. Journal of Child Psychology and Psychiatry. 2005;46:1152-1160. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (method of randomisation unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 7 (N=3 in child-only group; N=4 in child + parent group); Control group N: 3 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 7 (N=3 in child-only group; N=4 in child + parent group); Control group N: 3 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | No (outcomes were parent-rated and parents were not blind to allocation of treatment) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | No (outcomes were parent-rated and parents were not blind to confounding factors) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |

# 1.15 PHARMACOLOGICAL INTERVENTIONS AIMED AT COEXISTING MENTAL HEALTH PROBLEMS

## 1.15.1 ELILILLY2009

| Study ID | | ELILILLY2009 |
|---|---|---|
| Bibliographic reference:<br>Eli Lilly and Company. A Randomized, Double-blind Comparison of Atomoxetine Hydrochloride and Placebo for Symptoms of Attention-Deficit/Hyperactivity Disorder in Children and Adolescents With Autism Spectrum Disorder. ClinicalTrials.gov NCT00380692. Available from: http://clinicaltrials.gov/ct2/show/NCT00380692.<br><br>Harfterkamp M, van de Loo-Neus G, Minderaa RB, van der Gaag R-J, Escobar R, Schacht A, et al. A randomized double-blind study of atomoxetine versus placebo for attention-deficit/hyperactivity disorder symptoms in children with autism spectrum disorder. Journal of the American Academy of Child and Adolescent Psychiatry. 2012;51:733-741. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computer random number generator) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (pharmacy-controlled randomization) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |

| | | |
|---|---|---|
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (nsufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 5; Control group N: 3 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes (Last Observation Carried Forward) |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Unclear (unclear if 8 weeks is a sufficient duration to detect significant treatment effects, particularly adverse events) |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear (most outcome measures are parent-reported or teacher-reported and as such are non-blind to other potentially confounding factors) |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

# 1.16 PSYCHOSOCIAL AND PHARMACOLOGICAL INTERVENTIONS AIMED AT COEXISTING MEDICAL OR FUNCTIONAL PROBLEMS

## 1.16.1 CORTESI2012

| Study ID | | CORTESI2012 |
|---|---|---|
| Bibliographic reference:<br>Cortesi F, Giannotti F, Sebastiani S, Panunzi S, Valente D. Controlled-release melatonin, singly and combined with cognitive behavioural therapy, for persistent insomnia in children with autism spectrum disorders: a randomised placebo-controlled trial. Journal of Sleep Research. 2012;21:700-709. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computerised random number generator) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Yes |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unlcear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Yes |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Different blinding for different comparisons: No for all comparisons involving CBT |

| | | |
|---|---|---|
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Different blinding for different comparisons: No for all comparisons involving CBT |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Different risk for different comparisons: High risk for all comparisons involving CBT | | |
| Likely direction of effect: Effect size bigger, where high risk | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Melatonin only: 4<br>CBT only: 4<br>CBT and Melatonin: 2<br>Placebo group: 6 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Melatonin only: 6 (2 excluded from analysis due to missing actigraph data)<br>CBT only: 7 (2 excluded from analysis due to missing actigraph data)<br>CBT and Melatonin: 5 (2 excluded from analysis due to missing actigraph data)<br>Placebo group: 8 (2 excluded from analysis due to missing actigraph data) | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Different blinding for different outcomes: Yes for actigraph data (for all comparisons), No for CSHQ for comparisons involving CBT, Yes for CSHQ for melatonin and placebo comparison |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different blinding for different outcomes: Yes for actigraph data (for all comparisons), No for CSHQ for comparisons involving CBT, unclear/unknown for CSHQ for melatonin and placebo comparison |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different blinding for different outcomes: Low risk for actigraph data (for all comparisons), high risk for CSHQ for comparisons involving CBT, unclear/unknown risk for CSHQ for melatonin and placebo comparison | | |
| Likely direction of effect: Effect size bigger, where high risk | | |

## 1.16.2 GRINGRAS2012

| Study ID | | GRINGRAS2012 |
|---|---|---|
| Bibliographic reference:<br>Gringras P, Gamble C, Jones AP, Wiggs L, Williamson PR, Sutcliffe A, et al. Melatonin for sleep problems in children with neurodevelopmental disorders: randomised double masked placebo controlled trial. British Medical Journal. 2012;345:e6664. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Lucy Burt | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computerised random number generator) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Yes (treatment packs were dispensed by the pharmacy at each site) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Unclear (insufficient detail reported) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes (placebo matched on external and internal appearance) |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes (parents and trial staff were blind to treatment allocation) |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |

| | | |
|---|---|---|
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 5; Control group N: 9 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Unclear:<br>Sleep diaries: Validity and reliability is unclear<br>TESS: Unclear who recorded information or how |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes (parents and trial staff were blind to treatment allocation) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different for different outcomes:<br>No: Sleep diaries as parents are not blind to confounding factors<br>Unclear: TESS as outcome assessor not reported |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

# 1.17 BIOMEDICAL INTERVENTIONS AIMED AT COEXISTING MEDICAL OR FUNCTIONAL PROBLEMS

## 1.17.1 HANDEN2009

| Study ID | | HANDEN2009 |
|---|---|---|
| Bibliographic reference:<br>Handen BL, Melmed RD, Hansen RL, Aman MG, Burnham DL, Bruss JB, et al. A double-blind, placebo-controlled trial of oral human immunoglobulin for gastrointestinal dysfunction in children with autistic disorder. Journal of Autism and Developmental Disorders. 2009;39:796-805. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 6.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computerised system) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Unclear (insufficient detail reported) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unlcear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes (placebo matched on appearance, taste and consistency) |

| | | |
|---|---|---|
| B3 | Individuals administering care were kept 'blind' to treatment allocation | Unclear (paper states 'double-blind' but gives no further detail with regards to who is blinded, i.e. parent, investigator, intervention administrator, outcome assessor) |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 5 (low dose group); 8 (moderate dose group); 7 (high dose group)<br>Control group N: 5 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 0; Control group N: 0 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes (Intention To Treat [ITT] analysis used) |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |

| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
|---|---|---|
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Different for different outcomes: Unclear/unknown for gastrointestinal symptom outcome and adverse events outcomes as the MGIS has not been validated in an autistic population and the outcome measure used to assess adverse events unclear |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Unclear (paper states 'double-blind' but gives no further detail with regards to who is blinded so unclear if parent-rated and/or clinician-rated outcome assessors were blinded) |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different for different outcomes: No for parent-rated as even if parents blinded to treatment assignment they will be non-blind to other potentially confounding factors and unclear for all other outcome measures as blinding of outcome assessors is unclear |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Unclear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |

# 1.18 PSYCHOSOCIAL INTERVENTIONS AIMED AT IMPROVING THE IMPACT OF AUTISM ON THE FAMILY

## 1.18.1 TONGE2006

| Study ID | | TONGE2006 |
|---|---|---|
| Bibliographic reference:<br>Tonge B, Brereton A, Kiomall M, Mackinnon A, King N, Rinehart N. Effects on parental mental health of an education and skills training program for parents of young children with autism: a randomized controlled trial. Journal of the American Academy of Child and Adolescent Psychiatry. 2006;45:561-569.<br><br>Tonge B, Brereton A, Kiomall M, Mackinnon A, Rinehart NJ. A randomised group comparison controlled trial of 'preschoolers with autism': a parent education and skills training intervention for young children with autistic disorder. Autism. In press, 2012. Available from: http://aut.sagepub.com/content/early/2012/09/11/1362361312458186.abstract.. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 7.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Yes (computer random number generator) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | No (Children in the control group were significantly older than either of the experimental groups [p=0.005], and had a higher PEP-R DQ [p=0.026], and Reynell expressive [p=0.002] and comprehension [p=0.006] language scales. The PEAC group also had significantly more autism symptoms on the CARS [p=0.009] and the DBC-ASA [p=0.039] than the control group. Controls also had significantly lower scores on the VABS daily living [p=0.004] and socialization [p=0.008] domains than the PEBM group. Finally, the PEBM group had significantly higher scores than the PEAC group on the VABS communication [p=0.004], socialization [p=0.007], and motor [p=0.049] domains) |

| | | |
|---|---|---|
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| Unlcear/unknown risk of bias | | |
| Likely direction of effect: Unknown direction | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | No (for the comparison against treatment-as-usual) |
| B3 | Individuals administering care were kept 'blind' to treatment allocation | No |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group? Experimental group N: 2; Control group N: 0 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available? Experimental group N: 2; Control group N: 0 | |

| | | |
|---|---|---|
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |
| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Different for different outcome measures and different comparisons:<br><u>Experimental versus attention-placebo comparison:</u><br>Impact on family outcomes: Parent-rated so non-blind to other potentially confounding factors but due to attention-placebo comparison blind to treatment allocation<br>VABS scale: Outcome assessor is a blinded clinician but based on parental interview and simultaneous child observation. As the comparison involves an experimental versus attention-placebo condition parents may be judged to be blind to treatment allocation but would be non-blind to other potentially confounding factors<br>DBC scale: Comparison involved attention-placebo condition so parent-rated outcome measures may have been blind to treatment condition (with only the active ingredient differing between the two experimental groups). However, as parent-rated, outcome assessors would have been non-blind to other potentially important confounding factors<br>CARS, PEP-R and Reynell Language Scale: |

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| | | Blinded outcome assessor<br>Combined treatment versus no treatment comparison:<br>Impact on family outcomes: Non-blind parental report<br>VABS scale: Outcome assessor is a blinded clinician but based on parental interview and simultaneous child observation and parents non-blind<br>DBC scale: For the combined treatment versus no treatment comparison the parents would have been non-blind to both treatment allocation and other potentially confounding factors<br>CARS, PEP-R and Reynell Language Scale: Blinded outcome assessor |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Different for different outcome measures and different comparisons:<br>Experimental versus attention-placebo comparison:<br>Impact on family outcomes: Parent-rated so non-blind to other potentially confounding factors but due to attention-placebo comparison blind to treatment allocation<br>VABS scale: Outcome assessor is a blinded clinician but based on parental interview and simultaneous child observation. As the comparison involves an experimental versus attention-placebo condition parents may be judged to be blind to treatment allocation but would be non-blind to other potentially confounding factors<br>DBC scale: Comparison involved attention-placebo condition so parent-rated outcome measures may have been blind to treatment condition (with only the active ingredient differing between the two experimental groups). However, as parent-rated, outcome assessors would have been non-blind to other potentially important confounding factors<br>CARS, PEP-R and Reynell Language Scale: Blinded outcome assessor<br>Combined treatment versus no treatment comparison:<br>Impact on family outcomes: Non-blind |

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| | | parental report<br>VABS scale: Outcome assessor is a blinded clinician but based on parental interview and simultaneous child observation and parents non-blind<br>DBC scale: For the combined treatment versus no treatment comparison the parents would have been non-blind to both treatment allocation and other potentially confounding factors<br>CARS, PEP-R and Reynell Language Scale: Blinded outcome assessor |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Different for different outcome measures and different comparisons:<br><u>Experimental versus attention-placebo comparison:</u><br>Impact on family outcomes: Unclear/unknown risk<br>VABS scale: Low risk<br>DBC scale: Unclear/unknown risk<br>CARS, PEP-R and Reynell Language Scale: Low risk<br><u>Combined treatment versus no treatment comparison:</u><br>Impact on family outcomes: High risk<br>VABS scale: Unclear/unknown risk<br>DBC scale: High risk<br>CARS, PEP-R and Reynell Language Scale: Low risk | | |
| Likely direction of effect: Effect size bigger, where high risk | | |

# 1.19 ADVERSE EVENTS ASSOCIATED WITH PHARMACOLOGICAL INTERVENTIONS

## 1.19.1 CAMPBELL1978

| Study ID | | CAMPBELL1978 |
|---|---|---|
| Bibliographic reference:<br>Campbell M, Anderson LT, Meier M, Cohen IL, Small AM, Samit C, et al. A comparison of haloperidol and behavior therapy and their interaction in autistic children. Journal of the American Academy of Child Psychiatry. 1978;17:640-655. | | |
| Guideline topic: Management and support of children and young people on the autism spectrum | | Review question number: 7.1 |
| Checklist completed by: Odette Megnin-Viggars | | |
| A. Selection bias (systematic differences between the comparison groups) | | |
| A1 | An appropriate method of randomisation was used to allocate participants to treatment groups (which would have balanced any confounding factors equally across groups) | Unclear (randomisation method was unclear) |
| A2 | There was adequate concealment of allocation (such that investigators, clinicians and participants cannot influence enrolment or treatment allocation) | Unclear (insufficient detail reported with regards to allocation concealment) |
| A3 | The groups were comparable at baseline, including all major confounding and prognostic factors | Unclear (no examination of potential pre-intervention group differences and thus group comparability was unclear) |
| Based on your answers to the above, in your opinion was selection bias present? If so, what is the likely direction of its effect? | | |
| High risk of bias | | |
| Likely direction of effect: Effect size bigger | | |
| B. Performance bias (systematic differences between groups in the care provided, apart from the intervention under investigation) | | |
| B1 | The comparison groups received the same care apart from the intervention(s) studied | Unclear (insufficient detail reported) |
| B2 | Participants receiving care were kept 'blind' to treatment allocation | Yes |

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| B3 | Individuals administering care were kept 'blind' to treatment allocation | Yes |
| Based on your answers to the above, in your opinion was performance bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| C. Attrition bias (systematic differences between the comparison groups with respect to loss of participants) | | |
| C1 | All groups were followed up for an equal length of time (or analysis was adjusted to allow for differences in length of follow-up) | Yes |
| C2 | a. How many participants did not complete treatment in each group?<br>Experimental group N: 1; Control group N: 1 | |
| | b. The groups were comparable for treatment completion (that is, there were no important or systematic differences between groups in terms of those who did not complete treatment) | Yes |
| C3 | For how many participants in each group were no outcome data available?<br>Experimental group N: 1; Control group N: 1 | |
| | b. The groups were comparable with respect to the availability of outcome data (that is, there were no important or systematic differences between groups in terms of those for whom outcome data were not available). | Yes |
| Based on your answers to the above, in your opinion was attrition bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |
| D. Detection bias (bias in how outcomes are ascertained, diagnosed or verified) | | |
| D1 | The study had an appropriate length of follow-up | Yes |
| D2 | The study used a precise definition of outcome | Yes |
| D3 | A valid and reliable method was used to determine the outcome | Yes |

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| D4 | Investigators were kept 'blind' to participants' exposure to the intervention | Yes |
| D5 | Investigators were kept 'blind' to other important confounding and prognostic factors | Unclear |
| Based on your answers to the above, in your opinion was detection bias present? If so, what is the likely direction of its effect? | | |
| Low risk of bias | | |
| Likely direction of effect: Not applicable | | |