

Self-harm: longer-term management

Self-harm: longer-term management in adults, children and young people

National Clinical Guideline Number X

**National Collaborating Centre for Mental Health
Commissioned by the
National Institute for Health and Clinical Excellence**

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TABLE OF CONTENTS

1	PREFACE.....	9
1.1	<i>National Clinical Guidelines.....</i>	9
1.1.1	What are clinical guidelines?	9
1.1.2	Uses and limitation of clinical guidelines	10
1.1.3	Why develop national guidelines?	11
1.1.4	The National Collaborating Centre for Mental Health.....	11
1.1.5	From national guidelines to local protocols	11
1.1.6	Auditing the implementation of guidelines	12
1.2	<i>The Self-Harm: Longer Term Management Guideline.....</i>	12
1.2.1	Who has developed this guideline?	12
1.2.2	For whom is this guideline intended?	12
1.2.3	Specific aims of this guideline	13
1.2.4	The structure of this guideline	13
2	Introduction to self-harm	14
2.1	<i>The Behaviour</i>	14
2.1.1	Terminology	14
2.1.2	How common is self-harm?	14
2.1.3	Methods of self-harm.....	15
2.1.4	Outcomes: repetition and suicide	15
2.1.5	Why do people self-harm.....	16
2.1.6	Motives for adolescent self-harm.....	16
2.1.7	The Meaning of Self-Harm.....	17
2.1.8	Factors that are associated with self-harm	17
2.1.9	Special Groups	19
2.1.10	Service provision for self-harm	20
2.1.11	Professional Attitudes to self-harm and service users' experience.....	21
2.2	<i>Treatment and Management in the NHS.....</i>	21
2.2.1	Detection, recognition and referral in primary care.....	21
2.2.2	Assessment	22
2.2.3	Pharmacological treatments.....	23
2.2.4	Psychological treatments.....	23
2.2.5	Harm Reduction	23
2.2.6	Consent, Capacity, and Confidentiality	24
2.2.7	Risk and Recovery	24
2.2.8	Partnerships with other sectors.....	24
2.2.9	Looked After Children	24
2.3	<i>Training</i>	24
2.4	<i>Economic costs of self-harm</i>	25
3	Methods used to develop this guideline.....	27

1	3.1	Overview.....	27
2	3.2	The scope.....	27
3	3.3	The Guideline Development Group.....	28
4	3.3.1	Guideline Development Group meetings.....	28
5	3.3.2	Service users and carers.....	28
6	3.3.3	Special advisors.....	29
7	3.3.4	National and international experts.....	29
8	3.4	Review questions.....	29
9	3.5	Systematic clinical literature review.....	31
10	3.5.1	Methodology.....	31
11	3.5.2	The review process.....	31
12	3.5.3	Data extraction.....	34
13	3.5.4	Synthesising the evidence.....	36
14	3.5.5	Presenting the data to the Guideline Development Group.....	38
15	3.5.6	Method used to answer a review question in the absence of appropriately designed, high-quality research.....	41
16	3.5.7	Forming the clinical summaries and recommendations.....	41
17	3.6	Health economics methods.....	42
18	3.6.1	Search strategy for economic evidence.....	43
19	3.6.2	Inclusion criteria for economic studies.....	45
20	3.6.3	Applicability and quality criteria for economic studies.....	46
21	3.6.4	Presentation of economic evidence.....	46
22	3.6.5	Results of the systematic search of economic literature.....	46
23	3.7	Stakeholder contributions.....	47
24	3.8	Validation of the guideline.....	47
25			
26	4	Experience of care.....	49
27	4.1	Introduction.....	49
28	4.2	Personal accounts – People who self-harm.....	49
29	4.2.1	Introduction.....	49
30	4.2.2	Personal account A.....	50
31	4.2.3	Personal account B.....	53
32	4.2.4	Personal account C.....	56
33	4.3	Personal accounts – carers.....	60
34	4.3.1	Introduction.....	60
35	4.3.2	Carer account A.....	60
36	4.4	Review of the qualitative literature.....	64
37	4.4.1	Introduction.....	64
38	4.4.2	Evidence search.....	64
39	4.4.3	Studies considered.....	64
40	4.4.4	Service user experience of self-harm.....	65
41	4.4.5	Access and barriers to services.....	78

1	4.4.6	Experience of treatment for self-harm.....	82
2	4.4.7	Engagement with services and suggestions for service improvement	88
3	4.4.8	Social support.....	92
4	4.4.9	Carer experiences	94
5	4.4.10	Healthcare professionals' attitudes, knowledge and experience	100
6	4.4.11	From evidence to recommendations	110
7	4.5	Recommendations	114
8	5	Training.....	118
9	5.1	Introduction	118
10	5.1.1	Evidence search	118
11	5.1.2	Studies considered	119
12	5.2	Training on healthcare professionals knowledge and attitudes	120
13	5.2.1	The impact of training: non mental health professionals	120
14	5.2.2	The impact of training: mental health professionals.....	123
15	5.2.3	The impact of training: healthcare professionals working in emergency	
16		departments	125
17	5.3	Training on conducting risk and needs assessment	128
18	5.4	From evidence to recommendations	130
19	5.4.1	Health Economic Evidence	131
20	5.5	Recommendations	131
21	5.6	Research Recommendations	132
22	5.7	134
23	6	Psychosocial assessment.....	134
24	6.1	Introduction	134
25	6.2	Risk and protective factors	134
26	6.2.1	Introduction.....	134
27	6.2.2	Clinical review protocol	134
28	6.2.3	Studies considered	135
29	6.2.4	Clinical evidence for risk factors for repetition (non-fatal outcome).....	136
30	6.2.5	Clinical evidence for risk factors for completed suicide.....	145
31	6.2.6	Narrative review – risk factors for repetition.....	154
32	6.2.7	Narrative review – risk factors for completed suicide.....	156
33	6.2.8	Clinical evidence summary - adults	157
34	6.2.9	Clinical evidence for risk factors in young people	160
35	6.2.10	Narrative review – young people	164
36	6.2.11	Clinical evidence summary – young people	165
37	6.2.12	Narrative review for older adults	166
38	6.2.13	Clinical evidence for risk factors in subgroups.....	166
39	6.2.14	Clinical evidence summary – subgroups.....	169
40	6.2.15	Prevalence of psychiatric disorder in patients who self-harm	170
41	6.2.16	Clinical evidence for protective factors.....	170

1	6.2.17	Clinical evidence summary – protective factors	173
2	6.2.18	Narrative reviews – social care and adversity as risk factors	173
3	6.3	<i>Risk assessment scales</i>	178
4	6.3.1	Introduction.....	178
5	6.3.2	Clinical review protocol	178
6	6.3.3	Studies considered	179
7	6.3.4	Methods	180
8	6.3.5	Scales that predict suicide	181
9	6.3.6	Clinical evidence summary of scales that predict suicide.....	184
10	6.3.7	Scales that predict a repetition of self-harm	185
11	6.3.8	Clinical evidence summary of scales that predict repetition of self-harm.....	190
12	6.4	<i>Needs Assessment</i>	192
13	6.4.1	Introduction.....	192
14	6.4.2	Narrative reviews.....	193
15	6.5	<i>Psychosocial assessment</i>	194
16	6.5.1	Narrative reviews.....	194
17	6.5.2	Summary	199
18	6.6	<i>Practical aspects of psychosocial assessment</i>	200
19	6.6.1	Introduction.....	200
20	6.6.2	Current practice	200
21	6.7	<i>From Evidence to Recommendations</i>	205
22	6.8	<i>Recommendations</i>	206
23	6.9	<i>Research Recommendation</i>	212
24	7	Psychosocial Interventions	213
25	7.1	<i>Introduction</i>	213
26	7.1.1	Studies considered	214
27	7.1.2	Clinical evidence for psychosocial interventions	218
28	7.1.3	Clinical evidence summary.....	228
29	7.1.4	Narrative review for single trials	228
30	7.1.5	Clinical evidence summary for narrative reviews	240
31	7.1.7	Clinical evidence for interventions for children and young people	244
32	7.1.8	Clinical evidence summary for interventions for children and young people	
33		249	
34	7.1.9	Health economic evidence	250
35	7.1.10	From evidence to recommendations	260
36	7.2	<i>Recommendations</i>	261
37	7.3	<i>Research Recommendations</i>	261
38	7.4	<i>Harm Reduction</i>	263
39	7.4.1	Introduction.....	263
40	7.4.2	Harm minimisation: definition.....	263
41	7.4.3	Clinical review protocol	264

1	7.4.4	Studies considered	264
2	7.4.5	From evidence to recommendations	266
3	7.5	Recommendations	267
4	7.6	Research Recommendation	267
5	8	Pharmacological Interventions	268
6	8.1	Introduction	268
7	8.2	Pharmacological Interventions	268
8	8.2.1	Studies considered	268
9	8.2.2	Clinical evidence for antidepressants versus placebo.....	269
10	8.2.3	Clinical evidence for antipsychotic medication versus placebo or low-dose	
11		antipsychotic medication	269
12	8.2.4	Clinical evidence for other pharmacological medication versus placebo.....	270
13	8.2.5	Clinical evidence summary.....	272
14	8.2.6	Health economic evidence	273
15	8.3	Safer Prescribing.....	273
16	8.3.1	Studies considered	273
17	8.3.2	Narrative review.....	274
18	8.3.3	Clinical evidence summary.....	275
19	8.4	Evidence to recommendation	275
20	8.5	Recommendations	276
21	9	Consent, Capacity, and Confidentiality	277
22	9.1	Introduction.....	277
23	9.2	Mental Capacity	277
24	9.2.1	Mental Capacity Act 2005	277
25	9.2.2	Advance decisions.....	279
26	9.2.3	Young people	280
27	9.2.4	Capacity and Advance Decisions in the context of self-harm	280
28	9.3	Principles into Practice.....	281
29	9.4	Confidentiality.....	282
30	9.5	Safe Guarding	283
31	9.6	Recommendations	284
32	10	References	287

Appendices 1-17 are in separate files.

1 PREFACE

This guideline has been developed to advise on the long term management of self-harm and follows on from '*Self-harm: The short-term physical and psychological management and secondary prevention of self-harm in primary and secondary care*' (NICE, 2004). 'Self-harm: short-term management' includes guidance for the treatment of self-harm within the first 48 hours of an incident. This guideline is concerned with the longer term psychological treatment of self-harm, and does not include recommendations for the physical treatment of self-harm.

The guideline recommendations have been developed by a multidisciplinary team of healthcare professionals, people who self-harm, their carers and guideline methodologists after careful consideration of the best available evidence. It is intended that the guideline will be useful to clinicians and service commissioners in providing and planning high-quality care for people who self-harm while also emphasising the importance of the experience of care for people who self-harm and their carers (see Appendix 1 for more details on the scope of the guideline).

Although the evidence base is rapidly expanding there are a number of major gaps, and future revisions of this guideline will incorporate new scientific evidence as it develops. The guideline makes a number of research recommendations specifically to address gaps in the evidence base. In the meantime, it is hoped that the guideline will assist clinicians, people who self-harm and their carers by identifying the merits of particular treatment approaches where the evidence from research and clinical experience exists.

1.1 NATIONAL CLINICAL GUIDELINES

1.1.1 What are clinical guidelines?

Clinical guidelines are 'systematically developed statements that assist clinicians and patients in making decisions about appropriate treatment for specific conditions' (Mann, 1996). They are derived from the best available research evidence, using predetermined and systematic methods to identify and evaluate the evidence relating to the specific condition in question. Where evidence is lacking, the guidelines incorporate statements and recommendations based upon the consensus statements developed by the Guideline Development Group (GDG).

Clinical guidelines are intended to improve the process and outcomes of healthcare in a number of different ways. They can:

- provide up-to-date evidence-based recommendations for the management of conditions and disorders by healthcare professionals
- be used as the basis to set standards to assess the practice of healthcare professionals

- form the basis for education and training of healthcare professionals
- assist people who self-harm and their carers in making informed decisions about their treatment and care
- improve communication between healthcare professionals, people who self-harm and their carers
- help identify priority areas for further research.

1.1.2 Uses and limitation of clinical guidelines

Guidelines are not a substitute for professional knowledge and clinical judgement. They can be limited in their usefulness and applicability by a number of different factors: the availability of high-quality research evidence, the quality of the methodology used in the development of the guideline, the generalisability of research findings and the uniqueness of individuals who self-harm.

Although the quality of research in this field is variable, the methodology used here reflects current international understanding on the appropriate practice for guideline development (Appraisal of Guidelines for Research and Evaluation Instrument [AGREE]; www.agreetrust.org; AGREE Collaboration, 2003), ensuring the collection and selection of the best research evidence available and the systematic generation of treatment recommendations applicable to the majority of people who self-harm. However, there will always be some people and situations for which clinical guideline recommendations are not readily applicable. This guideline does not, therefore, override the individual responsibility of healthcare professionals to make appropriate decisions in the circumstances of the individual, in consultation with the person who self-harms and/or their carer.

In addition to the clinical evidence, cost-effectiveness information, where available, is taken into account in the generation of statements and recommendations of the clinical guidelines. While national guidelines are concerned with clinical and cost effectiveness, issues of affordability and implementation costs are to be determined by the National Health Service (NHS).

In using guidelines, it is important to remember that the absence of empirical evidence for the effectiveness of a particular intervention is not the same as evidence for ineffectiveness. In addition, and of particular relevance in mental health, evidence-based treatments are often delivered within the context of an overall treatment programme including a range of activities, the purpose of which may be to help engage the person and provide an appropriate context for the delivery of specific interventions. It is important to maintain and enhance the service context in which these interventions are delivered; otherwise the specific benefits of effective interventions will be lost. Indeed, the importance of organising care in order to support and encourage a good therapeutic relationship is at times as important as the specific treatments offered.

1.1.3 Why develop national guidelines?

The National Institute for Health and Clinical Excellence (NICE) was established as a Special Health Authority for England and Wales in 1999, with a remit to provide a single source of authoritative and reliable guidance for service-users, professionals and the public. NICE guidance aims to improve standards of care, diminish unacceptable variations in the provision and quality of care across the NHS, and ensure that the health service is person centred. All guidance is developed in a transparent and collaborative manner, using the best available evidence and involving all relevant stakeholders.

NICE generates guidance in a number of different ways, three of which are relevant here. First, national guidance is produced by the Technology Appraisal Committee to give robust advice about a particular treatment, intervention, procedure or other health technology. Second, NICE commissions public health intervention guidance focused on types of activity (interventions) that help to reduce people's risk of developing a disease or condition or help to promote or maintain a healthy lifestyle. Third, NICE commissions the production of national clinical guidelines focused upon the overall treatment and management of a specific condition. To enable this latter development, NICE has established four National Collaborating Centres in conjunction with a range of professional organisations involved in healthcare.

1.1.4 The National Collaborating Centre for Mental Health

This guideline has been commissioned by NICE and developed within the National Collaborating Centre for Mental Health (NCCMH). The NCCMH is a collaboration of the professional organisations involved in the field of mental health, national service-user and carer organisations, a number of academic institutions and NICE. The NCCMH is funded by NICE and is led by a partnership between the Royal College of Psychiatrists and the British Psychological Society's Centre for Outcomes Research and Effectiveness, based at University College London.

1.1.5 From national guidelines to local protocols

Once a national guideline has been published and disseminated, local healthcare groups will be expected to produce a plan and identify resources for implementation, along with appropriate timetables. Subsequently, a multidisciplinary group involving commissioners of healthcare, primary care and specialist mental health professionals, service-users and carers should undertake the translation of the implementation plan into local protocols taking into account both the recommendations set out in this guideline and the priorities set in the National Service Framework for Mental Health (Department of Health, 1999) and related documentation. The nature and pace of the local plan will reflect local healthcare needs and the nature of existing services; full implementation may take a considerable time, especially where substantial training needs are identified.

1.1.6 Auditing the implementation of guidelines

This guideline identifies key areas of clinical practice and service delivery for local and national audit. Although the generation of audit standards is an important and necessary step in the implementation of this guidance, a more broadly based implementation strategy will be developed. Nevertheless, it should be noted that the Care Quality Commission will monitor the extent to which Primary Care Trusts, trusts responsible for mental health and social care, and Health Authorities have implemented these guidelines.

1.2 THE SELF-HARM: LONGER TERM MANAGEMENT GUIDELINE

1.2.1 Who has developed this guideline?

The GDG was convened by the NCCMH and supported by funding from NICE. The GDG included one service user and two carer representatives, and professionals from psychiatry, clinical psychology, general practice, nursing, and social care.

Staff from the NCCMH provided leadership and support throughout the process of guideline development, undertaking systematic searches, information retrieval, appraisal and systematic review of the evidence. Members of the GDG received training in the process of guideline development from NCCMH staff, and the service user and carers received training and support from the NICE Patient and Public Involvement Programme. The NICE Guidelines Technical Adviser provided advice and assistance regarding aspects of the guideline development process.

All GDG members made formal declarations of interest at the outset, which were updated at every GDG meeting. The GDG met a total of 13 times throughout the process of guideline development. It met as a whole, but key topics were led by a national expert in the relevant topic. The GDG was supported by the NCCMH technical team, with additional expert advice from special advisers where needed. The group oversaw the production and synthesis of research evidence before presentation. All statements and recommendations in this guideline have been generated and agreed by the whole GDG.

1.2.2 For whom is this guideline intended?

This guideline will be relevant for adults and young people who self-harm.

The guideline covers the care provided by primary, community, secondary, tertiary and other healthcare professionals who have direct contact with, and make decisions concerning the care of, adults and young people who self-harm.

The guideline will also be relevant to the work, but will not cover the practice, of those in:

- occupational health services

- social services
- the independent sector.

1.2.3 Specific aims of this guideline

The guideline makes recommendations for the longer term management of self-harm. It aims to:

- evaluate the role of specific psychological, psychosocial and pharmacological interventions in the longer term treatment of self-harm
- evaluate the role of psychological and psychosocial interventions in combination with pharmacological interventions in the longer term treatment of self-harm
- evaluate the role of specific service-level interventions for people who self-harm
- integrate the above to provide best-practice advice on the longer term care of individuals who self-harm
- promote the implementation of best clinical practice through the development of recommendations tailored to the requirements of the NHS in England and Wales.

1.2.4 The structure of this guideline

The guideline is divided into chapters, each covering a set of related topics. The first three chapters provide a summary of the clinical practice and research recommendations, and a general introduction to guidelines and to the methods used to develop them. Chapter 4 to Chapter 9 provide the evidence that underpins the recommendations about the longer term treatment and management of self-harm.

Each evidence chapter begins with a general introduction to the topic that sets the recommendations in context. Depending on the nature of the evidence, narrative reviews or meta-analyses were conducted, and the structure of the chapters varies accordingly. Where appropriate, details about current practice, the evidence base and any research limitations are provided. Where meta-analyses were conducted, information is given about both the interventions included and the studies considered for review. Clinical summaries are then used to summarise the evidence presented. Finally, recommendations related to each topic are presented at the end of each chapter. On the CD-ROM, full details about the included studies can be found in Appendix 15. Where meta-analyses were conducted, the data are presented using forest plots in Appendix 16 (see Text Box 1 for details).

Text Box 1: Appendices on CD-ROM

Clinical study characteristics tables	Appendix 15
Clinical evidence forest plots	Appendix 16
GRADE evidence profiles	Appendix 17

2 INTRODUCTION TO SELF-HARM

2.1 THE BEHAVIOUR

2.1.1 Terminology

The term self-harm is used in this guideline to refer to any act of self-poisoning or self-injury carried out by an individual irrespective of motivation (Hawton *et al.*, 2003a). This commonly involves self-poisoning with medication or self-injury by cutting. There are a number of important exclusions which this term is not intended to cover. These include harm to the self arising from excessive consumption of alcohol or recreational drugs, or from starvation arising from anorexia nervosa. In the past, terms were used that implied categorisation of self-harm according to motivation. On the one hand 'attempted suicide' was used to describe self-harm in which the primary motivation was to end life and on the other, parasuicide (Kreitman, 1977) was used to describe an act that mimicked suicide but death was not the intended outcome. It became clear that motivation is complex and does not fall neatly into these categories. Terms such as "non fatal deliberate self-harm" (Morgan *et al.*, 1975) were preferred as this avoided inferring anything about the motivation behind the behaviour. However the word 'deliberate' has been dropped as this can be considered judgemental and it has been argued that the extent to which the behaviour is 'deliberate' or 'intentional' is not always clear. Those who harm themselves during a dissociative state, often describe diminished or absent awareness of their actions at these times.

2.1.2 How common is self-harm?

Population estimates of the prevalence of self-harm in the community vary considerably. One cross national study of 17 countries found that an average of 2.7% of individuals reported a previous episode of self-harm, but with considerable variation between 0.5% in Italy and 5% in the USA (Nock, 2008). This variation may well reflect the willingness of individuals to report self-harm. In the UK, the adult psychiatric morbidity survey collected self reported data on 'attempted suicide' and 'self-harm' (McManus *et al.*, 2009), according to whether or not the individual reported that they had intended to take their life. Overall 5.6% reported lifetime suicide attempts (6.9% of women and 4.3% of men) with 0.7% reporting this had occurred in the last year. Self reported lifetime history of self-harm (without lethal intent) was slightly less common 4.9% overall (5.4% of women and 4.4% of men). Self-harm can occur at any age but is most common in adolescence and young adulthood.

In Meltzer and colleagues' survey (2001) of 12,529 children and young people aged 5 – 15 years, 1.3% had tried to harm themselves. Data in this survey was collected from parental interviews and when information is obtained directly from young people rates are considerably higher. Hawton & Rodham (2006) conducted a questionnaire survey of 6020 year 11 pupils in the Oxford area. They reported that 13.2% of young people responding had self-harmed at some point in their lives, 6.9% in the previous year. Only

12.6% of those who had harmed themselves had presented to hospital, the vast majority of acts of self-harm being “invisible” to professionals. Although rates of self-harm vary between countries, (Madge *et al.*, 2008) research in England, Canada and Australia between 2002 and 2005 indicated that the lifetime rate of self-harm in schools was 12 – 15% (de Leo & Heller, 2004; Ross & Heath, 2002). In contrast only about 5% of all episodes of self-harm occur in people over the age of 65 (Dennis *et al.*, 1997; Draper 1996).

Much of the detailed epidemiological study of self-harm has been based in hospital settings and suggests self-harm might account for over 200 000 hospital attendances in England every year (Hawton *et al.*, 2007). Recent data from Oxford, Manchester, and Derby suggested that rates of hospital presentation for self-harm varied between 400-550 per 100 000 per year for women and 300-400 per 100 000 per year for men (Bergen *et al.*, 2010a). Rates fell by between 8% and 21% over an eight year period (2000-2007) with a more pronounced fall in men.

2.1.3 Methods of self-harm

The methods of self-harm can be divided into two broad groups: self-poisoning and self-injury. Although statistically there may be some differences in motivation and intent between these groups (Sutton, 2007) methods are chosen for a variety of individual and practical reasons, which span both groups. Assumptions can not be made about motivation and intent based on the chosen method of self-harm, and indeed there is good evidence that people often switch methods of self-harm (Lilley *et al.*, 2008a)

Studies of attendance at emergency departments following self-harm show that about 80% have taken an overdose of prescribed or over-the-counter medication (Horrocks *et al.*, 2003), most commonly analgesics or antidepressants. A small percentage of overdoses are of illicit drugs or other substances (household substances, plant material etc). However these figures can be misleading as people who self-poison are more likely to seek help than those who self-injure (Hawton *et al.*, 2002; Meltzer *et al.*, 2002a). General population studies have shown that self-injury may be more common than self-poisoning (Hawton *et al.*, 2002; Meltzer *et al.*, 2002b).

Of those who self-injure, cutting is the most common method (Hawton *et al.*, 2002; Horrocks *et al.*, 2003). Less common methods include burning, hanging, stabbing, swallowing or inserting objects, shooting, drowning and jumping from heights or in front of vehicles.

2.1.4 Outcomes: repetition and suicide

About one in six people who attend an emergency department following self-harm will self-harm again in the following year (Owens *et al.*, 2002); a small minority of people will do so repeatedly. The frequency with which some of the latter group self-harm means that they are over-represented among those who present at an emergency department or receive psychiatric care. There is no good evidence to support the widely voiced opinion that people who harm themselves repeatedly, particularly by cutting, are less likely to die by suicide. Indeed one hospital based study suggested that self-cutting increased

1 suicide risk (Cooper *et al.*, 2005). Repetition of self-harm may occur quickly with up to 1
2 in 10 repeat episodes occurring within 5 days of the index attempt (Kapur *et al.*, 2005)

3
4 Following an act of self-harm the rate of suicide increases to between 50 and 100 times
5 the rate of suicide in the general population (Hawton *et al.*, 2003a; Owens *et al.*, 2002).
6 Men who self-harm are more than twice as likely to die by suicide as women and the risk
7 increases greatly with age for both genders (Hawton *et al.*, 2003b). It has been estimated
8 that one-quarter of all people who die by suicide would have attended an emergency
9 department in the previous year (Gairin *et al.*, 2003). Certain methods of self-harm (for
10 example attempted hanging) may be associated with increased suicide risk (Runeson,
11 2010).

12 **2.1.5 Why do people self-harm**

13 Self-harm does not often result simply from the wish to die. Those who self-harm may do
14 so to communicate with others or influence them to secure help or care. They may self-
15 harm in order to obtain relief from a particular emotional state or overwhelming
16 situation (Hjelmeland *et al.*, 2002).

17
18 One particular intention or motive might predominate or all might co-exist. This means
19 that a person who self-harms repeatedly might not always do so for the same reason each
20 time, or by the same method (Horrocks *et al.*, 2003). Thus assumptions about intent
21 should not be made on the basis of a previous pattern of self-harm; each act must be
22 assessed separately to determine the motivation behind it. Failure to do this can result in
23 the meaning of the act being misunderstood and in an interpretation that the service user
24 finds judgemental or dismissive. This will inevitably lead to a breakdown in the
25 therapeutic relationship, as well as making it less likely that appropriate help will be
26 offered at times when a person is at high risk of suicide.

27
28 Consistent with these differences in intention and motive, people who self-harm might
29 have very different expectations about how health services should respond and what
30 constitutes a good outcome. In particular, people who harm themselves as a way of
31 relieving distress (through cutting, for example) might be compelled to do this as a
32 coping strategy in order to prevent suicide. They are likely to continue to need to do this
33 until they receive appropriate and sufficient psychotherapeutic interventions and
34 support.

35 **2.1.6 Motives for adolescent self-harm**

36 The Child and Adolescent Self-Harm in Europe (CASE) (Hawton & Rodham, 2006) study
37 is the largest and most extensive study of adolescent self-harm (15-16 year olds) in the
38 community. The original study comprised seven countries including England with a
39 modified version recently administered in Scotland (O'Connor *et al.*, 2009a). The method
40 of self-harm most commonly reported in these studies is self-cutting.

41
42 Consistent with the clinical studies, the young people endorsed psychological pain
43 motives more frequently than other motives. 'Wanting to get relief from a terrible state

of mind', 'wanting to die', 'wanting to punish oneself' and 'wanting to show how desperate one was feeling' are the top four motives endorsed by young people across Europe (Hawton & Rodham, 2006; Madge *et al.*, 2008; O'Connor *et al.*, 2009a).

2.1.7 The Meaning of Self-Harm

It can be difficult for people to understand how an apparently self-destructive act such as self-harm can serve a positive purpose or have meaning for people.

Following a qualitative study of 76 women Arnold (1995) argued that self-harm "had evolved as a way of coping with unbearable feelings engendered by painful life experience." For the women who took part in the study it served a range of purposes including; relief of feelings, self-punishment, regaining control and communicating to others. Arnold (1995) suggests that:

" . . successful approaches to helping someone overcome self-injury need to examine fully the purposes served for an individual and the alternatives which may need to be in place before they can leave self-injury behind."

Babiker and Arnold (1997) expand on the functions and meanings of self-harm thus: functions concerned with coping and surviving, functions concerned with the self, functions concerned with dealing with one's experience, functions concerned with self-punishment and sacrifice and functions concerning relationships with others. Other models which explore the meaning of self-harm and may be useful to promote understanding in clinicians include 'The eight C's of self-injury' (Sutton 2007).

2.1.8 Factors that are associated with self-harm

Socio-economic factors and life events

Self-harm occurs in all sections of the population but is more common among people who are disadvantaged in socio-economic terms and among those who are single or divorced, live alone, are single parents or have a severe lack of social support (Meltzer *et al.*, 2002a).

Life events are strongly associated with self-harm in two ways. First, there is a strong relationship between the likelihood of self-harm and the number and type of adverse events that a person reports having experienced during the course of his/her life. These include having suffered victimisation and, in particular, sexual abuse (O'Connor, *et al.*, 2009b; Meltzer *et al.*, 2002a). Second, life events, particularly relationship problems, can precipitate an act of self-harm (Haw & Hawton, 2008; O'Connor, *et al.*, 2010). Many people who self-harm have a physical illness at the time and a substantial proportion of these report this as the factor that precipitated the act (de Leo *et al.*, 1999).

The association between self-harm and mental disorder

Most of those who attend an emergency department following an act of self-harm will meet criteria for one or more psychiatric diagnoses at the time they are assessed (Haw *et al.*, 2001a). More than two-thirds would be diagnosed as having depression although

1 within 12–16 months two-thirds of these will no longer fulfil diagnostic criteria for
2 depression.

3
4 People diagnosed as having certain types of mental disorder are much more likely to
5 self-harm (Skegg, 2005). For this group, the recognition and treatment of these disorders
6 can be an important component of care. In one survey of a sample of the British
7 population, people with current symptoms of a mental disorder were up to 20 times
8 more likely to report having harmed themselves in the past (Meltzer *et al.*, 2002a). The
9 association was particularly strong for those diagnosed as having phobic and psychotic
10 disorders. People diagnosed as having schizophrenia are most at risk and about one-half
11 of this group will have harmed themselves at some time.

12
13 Certain psychological characteristics are more common among the group of people who
14 self-harm, including impulsivity, poor problem-solving, hopelessness, impaired positive
15 future thinking/ goal reengagement, high levels of self-criticism and perfectionism
16 (Brezo, *et al.*, 2005; MacLeod *et al.*, 1997; O'Connor *et al.*, 2009b; Slee *et al.*, 2008). Also,
17 people who self-harm more often have interpersonal difficulties. It is possible to apply
18 diagnostic criteria to these characteristics. This explains why nearly one-half of those
19 who present to an emergency department meet criteria for having a personality disorder
20 (Haw *et al.*, 2001a). However, there are problems with doing this because:

- 21
22 • There is an unhelpful circularity in that self-harm is considered to be one of the
23 defining features of both borderline and histrionic personality disorder.
- 24 • The diagnostic label tends to divert attention from helping the person to overcome
25 their problems and can even lead to the person being denied help (National
26 Institute for Mental Health in England, 2003).
- 27 • Some people who self-harm suggest that the label personality disorder can lead to
28 damaging stigmatisation by care workers (Babiker & Arnold, 1997; Pembroke,
29 1994). Moreover, this stigma may prevent those who self-harm from seeking help
30 (Fortune *et al.*, 2008).

31 *The association between self-harm and alcohol and drug use*

32 About one-half of people who attend an emergency department following self-harm will
33 have consumed alcohol immediately preceding or as part of the self-harm episode
34 (Merrill *et al.*, 1992; Horrocks *et al.*, 2003). For many, this is a factor that complicates
35 immediate management either by impairing judgement and capacity, or by adding to the
36 toxic effects of ingested substances. About one-quarter of those who self-harm will have
37 a diagnosis of harmful use of alcohol (Haw *et al.*, 2001a). Men are more likely to drink
38 before an episode of self-harm than women (Hawton *et al.*, 2003b), and are more likely to
39 be misusing drugs or alcohol, as well as to have higher rates of several risk factors for
40 suicide (Taylor *et al.*, 1999). Substance misuse is associated with hospital admission for
41 self-harm in inpatients discharged from psychiatric care (Gunnell *et al.*, 2008).

42 *The association between self-harm and child abuse and domestic violence*

Child sexual abuse is known to be associated with self-harm (Hawton *et al.*, 2002; Meltzer *et al.*, 2002a; Fliege *et al.*, 2009), especially among people who repeatedly self-harm, as well as a range of mental health problems particularly in adolescence and adulthood for females, and for Looked After Children (Meltzer *et al.*, 2002a). Physical abuse is also implicated in self-harm (Glassman *et al.*, 2007; O'Connor *et al.*, 2009a). Experience of domestic violence (intimate partner violence) is a significant risk factor for self-harm. Compared to controls, in a retrospective cohort study, people suffering from domestic violence were more likely to present with self-harm than controls (Boyle *et al.*, 2006). It is suggested that healthcare professionals explore whether self-harm is an issue when there is evidence of domestic violence (Sansone *et al.*, 2007).

It is important to note that socio-economic factors, such as unemployment and poverty, childhood experiences of abuse, and experiences of domestic violence are all associated with a wide range of mental disorders, as well as self-harm. How these experiences and factors interact needs to be explored and better understood.

The association between sexual orientation and self-harm

Growing evidence supports an association between sexual orientation and self-harm in men and women (Skegg *et al.*, 2003; O'Connor *et al.*, 2009b). In a recent systematic review and meta-analysis (including data from 214,344 heterosexual and 11,971 non-heterosexual people), lesbian, gay and bisexual people were at a heightened risk of self-harm to heterosexual people (King *et al.*, 2008). The evidence for this association, thus far, is strongest for adolescents and younger adults.

2.1.9 Special Groups

Young People

Self-harm /suicidal behaviour is rare in younger children but the incidence increases dramatically from age 14 years. Little is known about the problem of self-harm in younger people. One study found an overall self-harm rate of 29 per 100 000 (ages 10-19) (Clark *et al.*, 2000). An Oxford study, comparing trends in self-harm between 1985 and 1995, found that the largest rise was in 15-24-year-old males (+ 194.1%) (Hawton *et al.*, 1997). A follow-up study (Hawton *et al.*, 2003b) reported that problems faced by the adolescents showed marked gender differences, and differed between age groups and between those carrying out their first self-harm episode and repeaters.

Asian Women

Husain and colleagues (2006) concluded that South Asian women are at an increased risk of self-harm. The demographic characteristics, precipitating factors and recent clinical management are different in South Asian compared to white women. South Asian women may be more likely to self-harm between ages 16-24 years than white women. South Asian women are less likely to attend the ER with a repeat episode of self-harm. Across all age groups the rates of self-harm are lower in South Asian men as compared to South Asian women. However a more recent cohort study of 20,574 individuals from

three UK centres found no increased risk in this group, instead reporting an elevated risk in young black women (Cooper *et al.*, 2010).

Older People

Dennis and colleagues (2005) studied older people with depression. They found that two thirds of this group had significant suicidal intent. Those who self-harmed were more likely to have a poorly integrated social network; loneliness and lack of support from services were identified as important factors in determining suicidal behaviour in older adults.

Lamprecht and colleagues (2005) examined self-harm in older people presenting to acute hospital services over three years. More males (56%) than females (26%) who presented with self-harm were married. The observations suggested an increase in self-harm in men and marriage may no longer be a protective factor among older men.

Dennis and colleagues (2007) confirmed this view finding that the majority of elderly who harmed themselves had high suicide intent and 69% were depressed. Individuals were frequently living alone with an isolated life-style and poor physical health. Barr, Leitner and Thomas (2004) described four characteristics which have been shown to be associated with increased vulnerability in older people who self-harm: increased suicidal intent, physical illness, mental illness and social isolation.

Learning Disability

Very little research deals with the type of self-harm which is the focus of this guideline. Some genetic conditions associated with learning disability increase the likelihood that the individual with that condition will exhibit self-injurious behaviour (Gates, 2003). Wisely & colleagues (2002) identified that endogenous opioids produce a morphine-like effect that can account for the development of some forms of self-harm.

James & Warner (2005) argue that self-harm represents a significant, yet poorly theorised area of concern with respect to women who have learning disabilities – particularly in the context of secure service provision. Their self-harm is meaningful and consideration should be given to how they understand and manage their experiences, cognitions and emotions.

2.1.10 Service provision for self-harm

There are no accurate figures for the number of presentations to emergency departments but extrapolated from registers held at centres in the UK there are around 200,000 attendances in England annually (Hawton *et al.*, 2003b). One hallmark of service provision for self-harm has been its variability. This variability has been consistent over time (Blake & Mitchell, 1978; Kapur *et al.*, 1998; Bennewith *et al.*, 2004). Studies have also suggested under provision with respect to self-harm services. In one study of 32 general hospitals in England only just over half of episodes resulted in a specialist psychosocial assessment and the range 36% to 82%. There was also considerable variation in psychiatric admission (overall 9.5%; range 2.5% to 23.8%), and mental health follow up

(overall 51%; range 35% to 82%) (Bennewith *et al.*, 2004). Possible reasons for poor services include limited resources, a lack of an evidence base for treatments, and the unpopularity of this group of service users among some clinical staff (Kapur *et al.*, 1999).

2.1.11 Professional Attitudes to self-harm and service users' experience

People who self-harm often describe experiencing negative responses from staff in mental health services and emergency departments. This may be linked to professionals' lack of understanding of the behaviour (Arnold, 1995):

Professionals are often terrified by self-injury. Their normal empathy with others' distress and their confidence and ability to help often desert them when faced with someone who persistently hurts themselves. This problem reflects a serious and widespread lack of understanding of self-injury, which results in great inconsistency and inadequacies in services.

As part of writing NICE Clinical Guideline 16: Short-Term Management of Self-harm (NICE, 2004) a series of focus groups were held with service users to establish their experience of professionals' attitude to self-harm. Service Users mentioned approaches that they had found helpful and supportive, but also mentioned less positive responses.

2.2 TREATMENT AND MANAGEMENT IN THE NHS

2.2.1 Detection, recognition and referral in primary care

Available figures suggest that up to 6.6% (Meltzer *et al.*, 2002a) of individuals seen in primary care may have a history of self-harm which may not be identified during the consultation. Some of the factors contributing to this include the tight time constraints upon consultation time, which may not facilitate the development of a confiding relationship/atmosphere in which thoughts/acts of self-harm may be disclosed. Additionally, interactions with members of the primary care team will usually be task related and there is not a culture of routinely asking about self-harm, unless there are features suggesting this. Many healthcare professionals are not educated in risk factors for self-harm and may miss opportunities to detect it. Research interventions in primary care for those who have self-harmed have been made possible by proactive invitation of service users known to self-harm (Bennewith *et al.*, 2002).

Young people who self-harm frequently come to the attention of school teachers and young people's health advisors. Whilst these staff often receive training in how to handle a young person disclosing that they self-harm, this aspect of work causes concern amongst staff who often request further training from local healthcare professionals. In some areas, schools – supported by CAMHS staff – provide universal interventions focussed on the development of emotional literacy and coping skills, in an endeavour to decrease the likelihood of self-harm.

2.2.2 Assessment

Assessments should encompass both an assessment of risk and the wider context and needs of the service user. These assessments are intended to determine the type and intensity of future input required by the service user. One of the main challenges in assessment of risk post self-harm is that there are no risk assessments that can accurately determine the likely risk of repetition. All measures are likely to class too many people at high risk of repetition and possible future death and to misclassify some people as low risk when in fact they are at high risk (Department of Health, 2007). Consequently, NICE *Clinical Guideline 16: Short-Term Management of Self-harm* (NICE, 2004) recommends that healthcare professionals do not use risk assessments alone to decide not to offer follow-up. Subsequent to assessment, the assessing clinician may recommend no follow-up, follow-up in primary care, referral to a Community Mental Health Team, referral for psychological treatment or a recommendation for inpatient admission. In some areas psychiatric liaison teams may offer brief time limited follow-up (1-4 weeks) before discharge or referral on to the CMHT.

Young people

Young people, especially those under the age of 16, on presentation at emergency departments are likely to be admitted to the paediatric ward to await assessment by the CAMHS service prior to discharge. In some areas 17-18 year olds may receive similar treatment, in others they may receive assessment under the protocol used for the treatment of adults. In other respects their treatment will resemble that of adults; firstly addressing any medical issues before moving onto risk and psychosocial assessment. The outcomes following assessment will vary. Some young people will refuse further input from the CAMHS service, in part because the self-harm act and the response from the system may have resulted in at least a temporary resolution of the difficulties precipitating the behaviour. Others will accept an offer of further assessment or therapy although non-attendance at follow-up is a common problem with young people (Piacentini *et al.*, 1995). A small proportion of young people may remain highly suicidal and be referred directly for inpatient psychiatric treatment in Tier 4 services. Depending upon the assessment of the relevant factors contributing to the episode of self-harm, some young people may be referred to Social Services under either Section 17 (Child in Need) or Section 47 (Child in Need of Protection) of the Children Act (HMSO, 2004).

Assessment in Secondary Care Services

Assessment for adults most commonly occurs in the context of the Community Mental Health Team (CMHT) and will focus more broadly on the range of presenting problems of the service user. In many areas the assessment provided will follow the standard documentation of the Care Programme Approach (CPA). The team, as part of this initial assessment, will also conduct a risk assessment and are likely to develop an initial safety plan with the service user and / or carer. As part of the assessment the team will consider the relationship between the self-harm and the other presenting problems of the service user. In some circumstances, the team may not address a service user's self-harm actively as part of the treatment plan if it is believed that this is a result of a particular

psychiatric diagnosis for example, depression. Rather the focus will be on the primary psychiatric diagnosis. In other circumstances where the self-harm is potentially highly lethal, management of self-harm may form the centre of the treatment plan and service users may receive treatments that focus directly on reducing self-harm. These different treatment options and evidence relating to them will be discussed further in Chapter 7.

Whilst significant numbers of young people who self-harm may be managed by staff in Tier 1 (teachers, social workers, GPs), many young people who self-harm are referred for assessment to the Tier 3 CAMHS team. Young people who self-harm will receive an assessment of their wider presenting problems as well as an assessment of self-harm, encompassing an assessment of risk. Subsequent to this assessment, young people are likely to be offered a range of interventions that may or may not focus specifically on the self-harm.

2.2.3 Pharmacological treatments

Drug treatments do not play a direct role in the management of self-harm, however they have a significant indirect part to play in the management of associated conditions. Depression, anxiety, and schizophrenia are associated with a higher risk of self-harm, and the drug treatment of these conditions is documented in their respective guidelines (NICE, 2009a; 2005; 2011; 2009b). There have been reports linking lithium treatment with a reduction in suicidal behaviour (Cipriani *et al.*, 2005). Other coexisting conditions that may increase the risk of self-harm, such as chronic pain, may also lend themselves to drug treatments (NICE, 2009c).

2.2.4 Psychological treatments

Self-harm is associated with a wide variety of psychiatric diagnoses and psychological problems. Psychological treatments offered to service users who self-harm differ to the extent to which self-harm is an explicit goal of the treatment. In routine clinical practice service users will receive a wide range of psychological interventions which may or may not focus primarily on their self-harm. Addressing self-harm may occur in series or in parallel with other interventions the service user is receiving. Treatments for self-harm are discussed in Chapter 7.

2.2.5 Harm Reduction

For many service users a consideration of a 'harm-reduction approach' may be indicated. Whilst the concept and use of a 'harm-reduction' approach has been well established in relation to substance and alcohol misuse, the use of such approach in relation to self-harm has been the focus of much controversy. The use of such an approach raises a number of complex and often inter-related clinical, ethical and legal issues, and requires careful consideration of a number factors, including: the meaning and function of self harm for the individual; the importance of supporting the service user to achieve their own goals and retain their autonomy, dignity and responsibility wherever possible; the need to balance the risks associated with a harm reduction approach versus the risks associated with a 'preventative approach': and the application

of potentially relevant legalisation (HMSO, 1983; 1989; 2004; 2005; 2007a). Further discussion of this issue can be found in Chapter 7.

2.2.6 Consent, Capacity, and Confidentiality

There are many situations in which clinical decisions regarding the longer term treatment and management of self-harm require consideration of relevant legislation. One major development since the publication of the previous NICE self-harm guideline (NICE, 2004) is the introduction of the Mental Capacity Act (2005). The sharing of clinical data and the need to protect the confidentiality of service users are also important issues in the assessment and management of self-harm. Chapter 9 discusses them further.

2.2.7 Risk and Recovery

Following the publication of 'Our health, our care, our say' (Department of Health, 2006a), choice and control are now considered critical components in the development of health and social care policy and practice. It is a policy which supports a 'recovery-oriented' approach which aims to empower people to live a meaningful and purposeful life and which promotes self-management (Shepherd *et al.*, 2008).

Essentially, there is a need to ensure that any risk management plans are 'defensible' rather than 'defensive'. The concept of 'positive risk' taking is highly relevant. This is an approach which both balances the service users quality of life and safety needs of the service user, carers and public and considers the "potential benefits and harms of choosing one course of action over another", (Morgan, 2004; Morgan, 2007).

2.2.8 Partnerships with other sectors

Individuals who self-harm in addition to involvement with healthcare services may also be involved with social care agencies and the voluntary sector. In some areas staff from multiple agencies may work together to provide specific treatments or social care interventions particularly to support service users with long standing histories of self-harm.

2.2.9 Looked After Children

Looked After Children and Adolescents (LACA) may demonstrate far higher levels of psychiatric diagnoses than children in the general population (Meltzer *et al.*, 2001; 2002b; Dimigen, 1999). Children are taken into State care for many reasons, the main being physical and sexual abuse by parents and/or associates. These traumatic experiences often lead to long term psychiatric conditions and thus mental ill health. Interventions for this group of young people may be complex and might include securing longer term placements.

2.3 TRAINING

1 The majority of professionals working in secondary care will have received training in
2 the assessment and management of risk associated with self-harm and suicidal
3 behaviours. Despite this, clinicians frequently report high levels of anxiety around
4 working with service users who self-harm and concern about working with high levels of
5 risk. The “Better Services for People who Self-Harm” project (Royal College of
6 Psychiatrists, 2007) surveyed staff in ambulance services, emergency departments, and
7 mental health services regarding their need for training about self-harm. All groups of
8 staff reported a need for further training, with ambulance staff indicating the greatest
9 need, but even many staff in mental health services felt under-trained in this area.
10 Training in how to treat factors associated with high risk is less widely available and
11 practitioners may rely on safety plans that focus on decreasing access to the means to
12 self-harm and distraction or other crisis skills. Such strategies may help service users
13 manage a short term crisis but are unlikely to resolve more substantive issues leading to
14 self-harm.

15
16 There are a range of training programmes developed for training healthcare
17 professionals who work with people who self-harm, which are reviewed in Chapter 5.

18 **2.4 ECONOMIC COSTS OF SELF-HARM**

19 In addition to the physical and mental impact of self-harm on service users as well as
20 their families and carers, self-harm imposes a significant economic burden both on the
21 health sector and society in general. To date, no formal attempt has been made to
22 quantify the total economic burden of self-harm within the UK. As self-harm is
23 associated with a range of mental disorders rather than a diagnosis, it is difficult to
24 determine resource use and costs attributable directly to self-harm rather than any
25 underlying cause (Sinclair *et al.*, 2010). However, it is clear that the assessment and
26 management of self-harm incurs significant NHS resources, with 101,670 emergency
27 department attendances recorded in 2008/09 due to self-harm (NHS Information Centre,
28 2009). Previously published studies have focused on the immediate costs of self-harm
29 management rather than the wider costs involved in the longer term management of self-
30 harm (Sinclair, 2006).

31
32 A recent UK-based study retrospectively collected health care resource use from a cohort
33 of people who self-harm recruited from a general hospital following an episode of self-
34 harm (Sinclair *et al.*, 2010). The results of the study showed that a cumulative increase in
35 the number of self-harm episodes were correlated with increased healthcare and social
36 services costs within a six-month period, particularly for service users who experienced
37 five or more self-harm episodes. There was significantly more use of psychotropic
38 prescriptions and psychiatric care in those who harmed themselves five times or more
39 during the six-month study period. Care for service users with five or more episodes was
40 characterised by high resource use of psychiatric services in the first seven years after
41 their first episode. Overall, total health care and social service costs were £3,524 (2004/05
42 prices) more per 6 month period for service users who self-harmed on five or more
43 occasions compared with single episode service users. Within the year following the first
44 ever episode of self-harm, inpatient and outpatient psychiatric services accounted for

69% and social services accounted for 19% of total costs. The results of the study highlighted a cumulative effect on health care costs, with increasing episodes of self-harm, particularly for service users with five or more episodes.

The study by Byford and colleagues (2009) estimated the long-term costs, over six years, of a cohort of young people who participated in a RCT following an episode of self-poisoning. Lifetime and current (6-month) costs were calculated and compared to general population controls to explore costs incurred by the UK general public sector. Resource use data included inpatient and day-patient services for psychiatric reasons, pregnancy or child birth, foster or residential care, supported accommodation, special education, prison and criminal justice and social security benefits. Over the longer-term follow-up, the self-poisoning group used substantially more public sector resources in terms of special education, foster care, and residential care or other supported accommodation and social security benefits. They also spent more time in prison or police custody and had a number of hospital attendances for psychiatric reasons, in comparison to the general population control group. Lifetime differences in the costs of key services were large and statistically significant. The self-poisoning group incurred significantly more costs per year in terms of psychiatric hospital contacts, supported accommodation, special education and social security benefits. In total, the self-poisoning group cost over £1,500 per year compared to only £65 per year in the control group (mean difference £1,440; $p < 0.001$).

The indirect costs of self-harm in terms of lost productivity, days lost from work, as well as costs to families and carers are unknown but are likely to be substantial given its prevalence within the UK. Ensuring the efficient use of available healthcare resources will maximise the health benefits for people who self-harm and can potentially reduce costs to the UK healthcare system and society in the long term.

3 METHODS USED TO DEVELOP THIS GUIDELINE

3.1 OVERVIEW

The development of this guideline drew upon methods outlined by NICE (further information is available in *The Guidelines Manual* [NICE, 2009d]). A team of health professionals, lay representatives and technical experts known as the Guideline Development Group (GDG), with support from the NCCMH staff, undertook the development of a patient-centred, evidence-based guideline. There are six basic steps in the process of developing a guideline:

1. Define the scope, which sets the parameters of the guideline and provides a focus and steer for the development work.
2. Define review questions considered important for practitioners and service users.
3. Develop criteria for evidence searching and search for evidence.
4. Design validated protocols for systematic review and apply to evidence recovered by search.
5. Synthesise and (meta-) analyse data retrieved, guided by the review questions, and produce GRADE evidence profiles and summaries.
6. Answer review questions with evidence-based recommendations for clinical practice.

The clinical practice recommendations made by the GDG are therefore derived from the most up-to-date and robust evidence base for the clinical and cost effectiveness of the treatments and services used in the longer term management of self-harm. In addition, to ensure a service user and carer focus, the concerns of service users and carers regarding health and social care have been highlighted and addressed by recommendations agreed by the whole GDG.

3.2 THE SCOPE

Guideline topics are selected by the Department of Health and the Welsh Assembly Government, which identify the main areas to be covered by the guideline in a specific remit (see *The Guidelines Manual* [NICE, 2009d] for further information). The NCCMH developed a scope for the guideline based on the remit. The purpose of the scope is to:

- provide an overview of what the guideline will include and exclude
- identify the key aspects of care that must be included
- set the boundaries of the development work and provide a clear framework to enable work to stay within the priorities agreed by NICE and the National Collaborating Centre, and the remit from the Department of Health/Welsh Assembly Government

- inform the development of the review questions and search strategy
- inform professionals and the public about expected content of the guideline
- keep the guideline to a reasonable size to ensure that its development can be carried out within the allocated period.

An initial draft of the scope was sent to registered stakeholders who had agreed to attend a scoping workshop. The workshop was used to:

- obtain feedback on the selected key clinical issues
- identify which patient or population subgroups should be specified (if any)
- seek views on the composition of the GDG
- encourage applications for GDG membership.

The draft scope was subject to consultation with registered stakeholders over a 4-week period. During the consultation period, the scope was posted on the NICE website (www.nice.org.uk). Comments were invited from stakeholder organisations and the Guideline Review Panel (GRP). Further information about the GRP can also be found on the NICE website. The NCCMH and NICE reviewed the scope in light of comments received, and the revised scope was signed off by the GRP.

3.3 THE GUIDELINE DEVELOPMENT GROUP

The GDG consisted of: professionals in psychiatry, clinical psychology, nursing, social work, and general practice; academic experts in psychiatry and psychology; a service user, and representatives from service user organisations. The carer perspective was provided through topic group discussion with carers. The service user topic group meetings were coordinated between the staff from NCCMH, the service user and carer representative. The guideline development process was supported by staff from the NCCMH, who undertook the clinical and health economics literature searches, reviewed and presented the evidence to the GDG, managed the process, and contributed to drafting the guideline.

3.3.1 Guideline Development Group meetings

Thirteen GDG meetings were held between November 2009 and June 2010. During each day-long GDG meeting, in a plenary session, review questions and clinical and economic evidence were reviewed and assessed, and recommendations formulated. At each meeting, all GDG members declared any potential conflicts of interest, and service user and carer concerns were routinely discussed as part of a standing agenda.

3.3.2 Service users and carers

Individuals with direct experience of services gave an integral service-user focus to the GDG and the guideline. The GDG included a service user and representatives of a national service user group. They contributed as full GDG members to writing the review questions, helping to ensure that the evidence addressed their views and preferences, highlighting sensitive issues and terminology relevant to the guideline, and

bringing service-user research to the attention of the GDG. In drafting the guideline, they contributed to writing the guideline's introduction, Chapter 4 and identified recommendations from the service user and carer perspective.

3.3.3 Special advisors

Special advisors, who had specific expertise in one or more aspects of treatment and management relevant to the guideline, assisted the GDG, commenting on specific aspects of the developing guideline and making presentations to the GDG. Appendix 3 lists those who agreed to act as special advisors.

3.3.4 National and international experts

National and international experts in the area under review were identified through the literature search and through the experience of the GDG members. These experts were contacted to recommend unpublished or soon-to-be published studies, to ensure that up-to-date evidence was included in the development of the guideline. They informed the group about completed trials at the pre-publication stage, systematic reviews in the process of being published, studies relating to the cost effectiveness of treatment and trial data if the GDG could be provided with full access to the complete trial report. Appendix 6 lists researchers who were contacted.

3.4 REVIEW QUESTIONS

Review (clinical) questions were used to guide the identification and interrogation of the evidence base relevant to the topic of the guideline. Before the first GDG meeting, an analytic framework (see Appendix 7) was prepared by NCCMH staff based on the scope and an overview of existing guidelines, and discussed with the guideline Chair. The framework was used to provide a structure from which the review questions were drafted. Both the analytic framework and the draft review questions were then discussed by the GDG at the first few meetings and amended as necessary. Where appropriate, the framework and questions were refined once the evidence had been searched and, where necessary, sub-questions were generated. Questions submitted by stakeholders were also discussed by the GDG and the rationale for not including any questions was recorded in the minutes. The final list of review questions can be found in Appendix 8.

For questions about interventions, the PICO (Patient, Intervention, Comparison and Outcome) framework was used (see Table 1).

Table 1: Features of a well-formulated question on effectiveness intervention – the PICO guide

Patients/population	Which patients or population of patients are we interested in? How can they be best described? Are there subgroups that need to be considered?
Intervention	Which intervention, treatment or approach should be used?
Comparison	What is/are the main alternative/s to compare with the intervention?
Outcome	What is really important for the patient? Which outcomes should be considered: intermediate or short-term measures; mortality; morbidity and treatment complications; rates of relapse; late morbidity and readmission; return to work, physical and social functioning and other measures such as quality of life; general health status?

For questions that were not related to effectiveness (intervention studies), a different question format was used. Please check the question formats in the review protocol (Appendix 8).

To help facilitate the literature review, a note was made of the best study design type to answer each question. There are four main types of review question of relevance to NICE guidelines. These are listed in Table 2. For each type of question, the best primary study design varies, where 'best' is interpreted as 'least likely to give misleading answers to the question'.

However, in all cases, a well-conducted systematic review (of the appropriate type of study) is likely to always yield a better answer than a single study.

Deciding on the best design type to answer a specific review question does not mean that studies of different design types addressing the same question were discarded.

Table 2: Best study design to answer each type of question

Type of question	Best primary study design
Effectiveness or other impact of an intervention	Randomised controlled trial (RCT); other studies that may be considered in the absence of RCTs are the following: internally/externally controlled before and after trial, interrupted time-series
Accuracy of information (for example, risk factor, test, prediction rule)	Comparing the information against a valid gold standard in a randomised trial or inception cohort study
Rates (of disease, patient experience, rare side effects)	Prospective cohort, registry, cross-sectional study

3.5 SYSTEMATIC CLINICAL LITERATURE REVIEW

The aim of the clinical literature review was to systematically identify and synthesise relevant evidence from the literature in order to answer the specific review questions developed by the GDG. Thus, clinical practice recommendations are evidence-based, where possible, and, if evidence is not available, informal consensus methods are used (see Section 3.5.6) and the need for future research is specified.

3.5.1 Methodology

A stepwise, hierarchical approach was taken to locating and presenting evidence to the GDG. The NCCMH developed this process based on methods set out by NICE (*The Guidelines Manual* [NICE, 2009d]), and after considering recommendations from a range of other sources. These included:

- Clinical Policy and Practice Program of the New South Wales Department of Health (Australia)
- BMJ *Clinical Evidence*
- Grading of Recommendations: Assessment, Development and Evaluation (GRADE) Working Group
- New Zealand Guidelines Group
- NHS Centre for Reviews and Dissemination
- Oxford Centre for Evidence-Based Medicine
- Oxford Systematic Review Development Programme
- Scottish Intercollegiate Guidelines Network (SIGN)
- The Cochrane Collaboration
- United States Agency for Healthcare Research and Quality.

3.5.2 The review process

Scoping searches

A broad preliminary search of the literature was undertaken in July 2009 to obtain an overview of the issues likely to be covered by the scope, and to help define key areas. Searches were restricted to clinical guidelines, health technology assessment reports, key systematic reviews and randomised controlled trials (RCTs), and conducted in the following databases and websites:

- British Medical Journal Clinical Evidence
- Canadian Medical Association (CMA) Infobase [Canadian guidelines]
- Clinical Policy and Practice Program of the New South Wales Department of Health (Australia)
- Clinical Practice Guidelines [Australian Guidelines]
- Cochrane Central Register of Controlled Trials (CENTRAL)
- Cochrane Database of Abstracts of Reviews of Effects (DARE)
- Cochrane Database of Systematic Reviews (CDSR)

- Excerpta Medical Database (EMBASE)
- Guidelines International Network (G-I-N)
- Health Evidence Bulletin Wales
- Health Management Information Consortium [HMIC]
- Health Technology Assessment (HTA) database (technology assessments)
- Medical Literature Analysis and Retrieval System Online MEDLINE/MEDLINE in Process
- National Health and Medical Research Council (NHMRC)
- National Library for Health (NLH) Guidelines Finder
- New Zealand Guidelines Group
- NHS Centre for Reviews and Dissemination (CRD)
- OMNI Medical Search
- Scottish Intercollegiate Guidelines Network (SIGN)
- Turning Research Into Practice (TRIP)
- United States Agency for Healthcare Research and Quality (AHRQ)
- Websites of NICE and the National Institute for Health Research (NIHR) HTA Programme for guidelines and HTAs in development.

Existing NICE guidelines were updated where necessary. Other relevant guidelines were assessed for quality using the AGREE instrument (AGREE Collaboration, 2003). The evidence base underlying high-quality existing guidelines was utilised and updated as appropriate. Further information about this process can be found in The Guidelines Manual (NICE, 2009d).

Systematic literature searches

After the scope was finalised, a systematic search strategy was developed to locate all the relevant evidence. Searches were conducted in the following databases:

- CINAHL
- EMBASE
- MEDLINE / MEDLINE In-Process
- Psychological Information Database (PsycINFO)
- Cochrane Database of Abstracts of Reviews of Effects (DARE)
- Cochrane Database of Systematic Reviews (CDSR)
- Cochrane Central Register of Controlled Trials (CENTRAL)
- Health Technology Assessment (HTA) database
- Health Management Information Consortium (HMIC)
- International Bibliography of the Social Sciences (IBSS)
- PsycEXTRA
- PsycBOOKS

The search strategies were initially developed for Medline before being translated for use in other databases/interfaces. Strategies were built up through a number of trial searches, and discussions of the results of the searches with the review team and GDG, to ensure that all possible relevant search terms were covered. In order to assure

comprehensive coverage, search terms for self-harm were kept purposely broad to help counter dissimilarities in database indexing practices, and imprecise reporting of study populations by authors in the titles and abstracts of records.

Reference Manager

Citations from each search were downloaded into Reference Manager (a software product for managing references and formatting bibliographies) and duplicates removed. Records were then screened against the inclusion criteria of the reviews before being quality appraised (see below). The unfiltered search results were saved and retained for future potential re-analysis to help keep the process both replicable and transparent.

Search filters

To aid retrieval of relevant and sound evidence, study design filters were, where appropriate, used to limit searches to systematic reviews, randomised controlled trials and observational studies. The systematic review and RCT filters are adaptations of pre-tested strategies designed by the Centre for Reviews and Dissemination (CRD) and the Health Information Research Unit of McMaster University, Ontario. The observational study filter was developed in-house. The filters, which comprise a combination of controlled vocabulary and free-text retrieval methods, maximise sensitivity (or recall) to ensure that as many potentially relevant records as possible are retrieved from a search.

Date and language restrictions

Systematic database searches were initially conducted in March 2010 up to the most recent searchable date. Search updates were generated on a 6-monthly basis, with the final re-runs carried out in January 2011 ahead of the guideline consultation. After this point, studies were only included if they were judged by the GDG to be exceptional (for example, if the evidence was likely to change a recommendation).

Although no language restrictions were applied at the searching stage, foreign language papers were not requested or reviewed, unless they were of particular importance to a review question. Date restrictions were applied for searches for systematic reviews, and for updates of published reviews only (see Appendix 9). No date restrictions were imposed for the remainder of the searches.

Other search methods

Other search methods involved: 1) scanning the reference lists of all eligible publications (systematic reviews, stakeholder evidence and included studies) for more published reports and citations of unpublished research; 2) sending lists of studies meeting the inclusion criteria to subject experts (identified through searches and the GDG) and asking them to check the lists for completeness, and to provide information of any published or unpublished research for consideration (see Appendix 6); 3) checking the tables of contents of key journals for studies that might have been missed by the database and reference list searches; 4) tracking key papers in the Science Citation Index (prospectively) over time for further useful references.

Full details of the search strategies and filters used for the systematic review of clinical evidence are provided in Appendix 9.

Study selection and quality assessment

All primary-level studies included after the first scan of citations were acquired in full and re-evaluated for eligibility at the time they were being entered into the study information database. More specific eligibility criteria were developed for each review question and are described in the relevant clinical evidence chapters. Eligible systematic reviews and primary-level studies were critically appraised for methodological quality (see Appendix 11 for methodology checklists). The eligibility of each study was confirmed by at least one member of the GDG.

For some review questions, it was necessary to prioritise the evidence with respect to the UK context (that is, external validity). To make this process explicit, the GDG took into account the following factors when assessing the evidence:

- **participant factors** (for example, gender, age and ethnicity)
- **provider factors** (for example, model fidelity, the conditions under which the intervention was performed and the availability of experienced staff to undertake the procedure)
- **cultural factors** (for example, differences in standard care and differences in the welfare system).

It was the responsibility of the GDG to decide which prioritisation factors were relevant to each review question in light of the UK context and then decide how they should modify their recommendations.

Unpublished evidence

The GDG used a number of criteria when deciding whether or not to accept unpublished data. First, the evidence must have been accompanied by a trial report containing sufficient detail to properly assess the quality of the data. Second, the evidence must have been submitted with the understanding that data from the study and a summary of the study's characteristics would be published in the full guideline. Therefore, the GDG did not accept evidence submitted as commercial in confidence. However, the GDG recognised that unpublished evidence submitted by investigators might later be retracted by those investigators if the inclusion of such data would jeopardise publication of their research.

3.5.3 Data extraction

Study characteristics and outcome data were extracted from all eligible studies that met the minimum quality criteria, using a bespoke database and Review Manager 5.0.25 (The Cochrane Collaboration, 2011) and/or Word-based forms (see Appendix 11).

1 In most circumstances, for a given outcome (continuous and dichotomous), where more
2 than 50% of the number randomised to any group were lost to follow-up, the data were
3 excluded from the analysis (except for the outcome 'leaving the study early', in which
4 case, the denominator was the number randomised). Where possible, dichotomous
5 efficacy outcomes were calculated on an intention-to-treat basis (that is, a 'once-
6 randomised-always-analyse' basis). Where there was good evidence that those
7 participants who ceased to engage in the study were likely to have an unfavourable
8 outcome, early withdrawals were included in both the numerator and denominator.
9 Adverse effects were entered into Review Manager as reported by the study authors
10 because it is usually not possible to determine whether early withdrawals had an
11 unfavourable outcome. Where there was limited data for a particular review, the 50%
12 rule was not applied. In these circumstances the evidence was downgraded due to the
13 risk of bias.

14
15 Where some of the studies failed to report standard deviations (for a continuous
16 outcome) and where an estimate of the variance could not be computed from other
17 reported data or obtained from the study author, the following approach was taken.¹
18

19 When the number of studies with missing standard deviations was less than one-third
20 and when the total number of studies was at least ten, the pooled standard deviation was
21 imputed (calculated from all the other studies in the same meta-analysis that used the
22 same version of the outcome measure). In this case, the appropriateness of the
23 imputation was made by comparing the standardised mean differences (SMDs) of those
24 trials that had reported standard deviations against the hypothetical SMDs of the same
25 trials based on the imputed standard deviations. If they converged, the meta-analytical
26 results were considered to be reliable.

27
28 When the conditions above could not be met, standard deviations were taken from
29 another related systematic review (if available). In this case, the results were considered
30 to be less reliable.

31
32 The meta-analysis of survival data was based on log hazard ratios and standard errors.
33 Since individual patient data were not available in included studies, hazard ratios and
34 standard errors calculated from a Cox proportional hazard model were extracted. Where
35 necessary, standard errors were calculated from confidence intervals or p-value
36 according to standard formulae (see the *Cochrane Handbook for Systematic Reviews of*
37 *Interventions*, 5.0.2, Higgins *et al.*, 2009). Data were summarised using the generic inverse
38 variance method using Review Manager.

39
40 Consultation with another reviewer or members of the GDG was used to overcome
41 difficulties with coding. Data from studies included in existing systematic reviews were
42 extracted independently by one reviewer and cross-checked with the existing data set.
43 Where possible, two independent reviewers extracted data from new studies. Where

¹ Based on the approach suggested by Furukawa and colleagues (2006).

double data extraction was not possible, data extracted by one reviewer was checked by the second reviewer. Disagreements were resolved through discussion. Where consensus could not be reached, a third reviewer or GDG members resolved the disagreement. Masked assessment (that is, blind to the journal from which the article comes, the authors, the institution and the magnitude of the effect) was not used since it is unclear that doing so reduces bias (Jadad *et al.*, 1996; Berlin, 2001).

3.5.4 Synthesising the evidence

Meta-analysis

Where possible, meta-analysis was used to synthesise the evidence using Review Manager. If necessary, reanalyses of the data or sub-analyses were used to answer review questions not addressed in the original studies or reviews.

Dichotomous outcomes were analysed as relative risks (RR) with the associated 95% CI (for an example, see Figure 1). A relative risk (also called a risk ratio) is the ratio of the treatment event rate to the control event rate. An RR of 1 indicates no difference between treatment and control. In Figure 1, the overall RR of 0.73 indicates that the event rate (that is, non-remission rate) associated with intervention A is about three-quarters of that with the control intervention or, in other words, the relative risk reduction is 27%.

The CI shows a range of values within which we are 95% confident that the true effect will lie. If the effect size has a CI that does not cross the 'line of no effect', then the effect is commonly interpreted as being statistically significant.

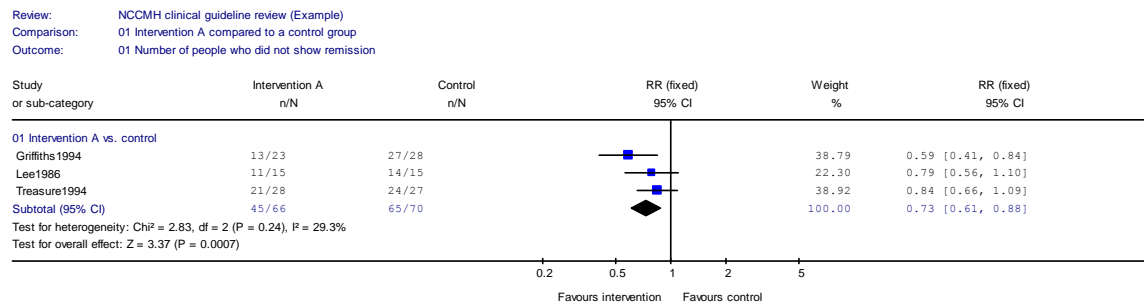


Figure 1: Example of a forest plot displaying dichotomous data

Continuous outcomes were analysed using the mean difference (MD), or standardised mean difference (SMD) when different measures were used in different studies to estimate the same underlying effect (for an example, see Figure 2). If reported by study authors, intention-to-treat data, using a valid method for imputation of missing data, were preferred over data only from people who completed the study.

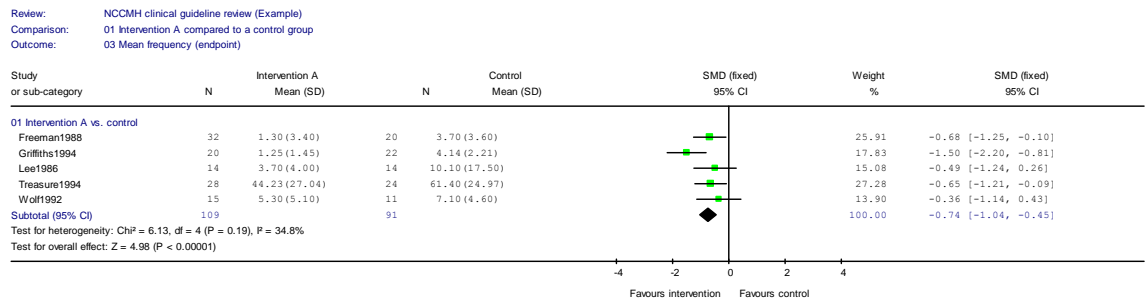


Figure 2: Example of a forest plot displaying continuous data.

Heterogeneity

To check for consistency of effects among studies, both the I^2 statistic and the chi-squared test of heterogeneity, as well as a visual inspection of the forest plots were used. The I^2 statistic describes the proportion of total variation in study estimates that is due to heterogeneity (Higgins & Thompson, 2002). The I^2 statistic was interpreted in the following way based on Higgins and Green (2009):

- 0% to 40%: might not be important
- 30% to 60%: may represent moderate heterogeneity
- 50% to 90%: may represent substantial heterogeneity
- 75% to 100%: considerable heterogeneity.

Two factors were used to make a judgement about importance of the observed value of I^2 : first, the magnitude and direction of effects, and second, the strength of evidence for heterogeneity (for example, p-value from the chi-squared test, or a confidence interval for I^2).

Publication bias

Where there was sufficient data, we intended to use funnel plots to explore the possibility of publication bias. Asymmetry of the plot would be taken to indicate possible publication bias and investigated further. However, due to a paucity of data, funnel plots could not be used questions with limited evidence.

Where necessary, an estimate of the proportion of eligible data that were missing (because some studies did not include all relevant outcomes) was calculated for each analysis.

3.5.5 Presenting the data to the Guideline Development Group

Study characteristics tables and, where appropriate, forest plots generated with Review Manager were presented to the GDG.

Where meta-analysis was not appropriate and/or possible, the reported results from each primary-level study were included in the study characteristics table (and where appropriate, in a narrative review).

Evidence profile tables

A GRADE² evidence profile was used to summarise both the quality of the evidence and the results of the evidence synthesis (see Table 3 for an example of an evidence profile). The GRADE approach is based on a sequential assessment of the quality of evidence, followed by judgment about the balance between desirable and undesirable effects, and subsequent decision about the strength of a recommendation.

For each outcome, quality may be reduced depending on the following factors:

- **study design** (randomised trial, observational study, or any other evidence)
- **limitations** (based on the quality of individual studies)
- **inconsistency** (see Section 3.5.4 for how consistency was assessed)
- **indirectness** (that is, how closely the outcome measures, interventions and participants match those of interest)
- **imprecision** (based on the confidence interval around the effect size).

For observational studies, the quality may be increased if there is a large effect, plausible confounding would have changed the effect, or there is evidence of a dose-response gradient (details would be provided under the other considerations column). Each evidence profile also included a summary of the findings: number of patients included in each group, an estimate of the magnitude of the effect, and the overall quality of the evidence for each outcome.

² For further information about GRADE, see www.gradeworkinggroup.org

Table 3: Example of GRADE evidence profile

Quality assessment							Summary of findings				
							No. of patients		Effect		Quality
No. of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other	Intervention	Control	Relative (95% CI)	Absolute	
Outcome 1											
6	Randomised trials	No serious limitations	No serious inconsistency	No serious indirectness	Very serious ^{1,2}	None	8/191	7/150	RR 0.94 (0.39 to 2.23)	0 fewer per 100 (from 3 fewer to 6 more)	⊕⊕OO LOW
Outcome 2											
3	Randomised trials	No serious limitations	No serious inconsistency	No serious indirectness	No serious imprecision	None	120/600	220/450	RR 0.39 (0.23 to 0.65)	30 fewer per 100 (from 17 fewer to 38 fewer)	⊕⊕⊕⊕ HIGH
Outcome 3											
3	Randomised trials	No serious limitations	Serious inconsistency ³	No serious indirectness	Very serious ^{1,2}	None	83	81	-	MD -3.51 (-11.51 to 4.49)	⊕OOO VERY LOW
Outcome 4											
3	Randomised trials	No serious limitations	No serious inconsistency	No serious indirectness	Serious ¹	None	88	93	-	SMD -0.26 (-0.50 to -0.03)	⊕⊕⊕O MODERATE
Outcome 5											
4	Randomised trials	No serious limitations	No serious inconsistency	No serious indirectness	Very serious ^{1,2}	None	109	114	-	SMD -0.13 (-0.6 to 0.34)	⊕⊕OO LOW
¹ Optimal information size not met.											
² The CI includes both 1) no effect and 2) appreciable benefit or appreciable harm.											
³ Considerable heterogeneity.											

Table 3: Example of GRADE evidence profile

Quality assessment							Summary of findings				
							No. of patients		Effect		Quality
No. of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other	Intervention	Control	Relative (95% CI)	Absolute	
Outcome 1											
6	Randomised trials	No serious limitations	No serious inconsistency	No serious indirectness	Very serious ^{1,2}	None	8/191	7/150	RR 0.94 (0.39 to 2.23)	0 fewer per 100 (from 3 fewer to 6 more)	⊕⊕OO LOW
Outcome 2											
3	Randomised trials	No serious limitations	No serious inconsistency	No serious indirectness	No serious imprecision	None	120/600	220/450	RR 0.39 (0.23 to 0.65)	30 fewer per 100 (from 17 fewer to 38 fewer)	⊕⊕⊕⊕ HIGH
Outcome 3											
3	Randomised trials	No serious limitations	Serious inconsistency ³	No serious indirectness	Very serious ^{1,2}	None	83	81	-	MD -3.51 (-11.51 to 4.49)	⊕OOO VERY LOW
Outcome 4											
3	Randomised trials	No serious limitations	No serious inconsistency	No serious indirectness	Serious ¹	None	88	93	-	SMD -0.26 (-0.50 to -0.03)	⊕⊕⊕O MODERATE
Outcome 5											
4	Randomised trials	No serious limitations	No serious inconsistency	No serious indirectness	Very serious ^{1,2}	None	109	114	-	SMD -0.13 (-0.6 to 0.34)	⊕⊕OO LOW
¹ Optimal information size not met.											
² The CI includes both 1) no effect and 2) appreciable benefit or appreciable harm.											
³ Considerable heterogeneity.											

3.5.6 Method used to answer a review question in the absence of appropriately designed, high-quality research

In the absence of appropriately designed, high-quality research, or where the GDG were of the opinion (on the basis of previous searches or their knowledge of the literature) that there were unlikely to be such evidence, an informal consensus process was adopted. This process focused on those questions that the GDG considered a priority.

Informal consensus

The starting point for the process of informal consensus was that a member of the GDG identified, with help from the systematic reviewer, a narrative review or key study that most directly addressed the review question. Where this was not possible, a brief review of the recent literature was initiated. These were then used as a basis for beginning an iterative process to identify lower levels of evidence relevant to the review question and to lead to written statements for the guideline. The process involved a number of steps:

1. A description of what is known about the issues concerning the clinical question was written by one of the GDG members.
2. Evidence from the existing studies was then presented in narrative form to the GDG and further comments were sought about the evidence and its perceived relevance to the review question.
3. Based on the feedback from the GDG, additional information was sought and added to the information collected. This included studies that did not directly address the review question but were thought to contain relevant data.
4. A summary of statements that directly addressed the review question were then developed.
5. Following this, on occasions and as deemed appropriate by the development group, the report was then sent to appointed experts outside of the GDG for peer review and comment. The information from this process was then fed back to the GDG for further discussion of the statements
6. Recommendations were then developed and could also be sent for further external peer review.
7. After this final stage of comment, the statements and recommendations were again reviewed and agreed upon by the GDG.

3.5.7 Forming the clinical summaries and recommendations

Once the GRADE evidence profiles relating to a particular review question were completed, summary evidence tables were developed (these tables are presented in the evidence chapters). Finally, the systematic reviewer in conjunction with the GDG produced a clinical evidence summary.

After the GRADE profiles and clinical summaries were presented to the GDG, the associated recommendations were drafted. In making recommendations, the GDG took into account the trade-off between the benefits and downsides of treatment as well as other important factors, such as economic considerations, social value judgements³, the requirements to prevent discrimination and to promote equality⁴, and the group's awareness of practical issues (Eccles *et al.*, 1998; NICE, 2009d).

Finally, to show clearly how the GDG moved from the evidence to the recommendations, each chapter has a section called 'from evidence to recommendations'. Underpinning this section is the concept of the 'strength' of a recommendation (Schunemann *et al.*, 2003). This takes into account the quality of the evidence but is conceptually different. Some recommendations are 'strong' in that the GDG believes that the vast majority of healthcare professionals and service users would choose a particular intervention if they considered the evidence in the same way that the GDG has. This is generally the case if the benefits clearly outweigh the harms for most people and the intervention is likely to be cost effective. However, there is often a closer balance between benefits and harms, and some service users would not choose an intervention whereas others would. This may happen, for example, if some service users are particularly averse to some side effect and others are not. In these circumstances the recommendation is generally weaker, although it may be possible to make stronger recommendations about specific groups of service users. The strength of each recommendation is reflected in the wording of the recommendation, rather than by using labels or symbols.

Where the GDG identified areas in which there are uncertainties or where robust evidence was lacking, they developed research recommendations. Those that were identified as 'high-priority' were included in the NICE version of the guideline.

3.6 HEALTH ECONOMICS METHODS

The aim of the health economics was to contribute to the guideline's development by providing evidence on the cost effectiveness of interventions for the longer term management of self-harm covered in the guideline. This was achieved by:

- systematic literature review of existing economic evidence
- decision-analytic economic modelling.

Systematic reviews of economic literature were conducted in all areas covered in the guideline. Economic modelling was undertaken in areas with likely major resource implications, where the current extent of uncertainty over cost

³ See NICE's Social Value Judgements: Principles for the Development of NICE Guidance: www.nice.org.uk/aboutnice/howwework/socialvaluejudgements/socialvaluejudgements.jsp

⁴ See NICE's equality scheme: www.nice.org.uk/aboutnice/howwework/NICEEqualityScheme.jsp

effectiveness was significant and economic analysis was expected to reduce this uncertainty, in accordance with *The Guidelines Manual* (NICE, 2009d). Prioritisation of areas for economic modelling was a joint decision between the Health Economist and the GDG. The rationale for prioritising review questions for economic modelling was set out in an economic plan agreed between NICE, the GDG, the Health Economist and the other members of the technical team. The economic question selected as key issue that was addressed by economic modelling:

- Cost-effectiveness of psychological intervention and Treatment-as-usual for prevention of self-harm repetition among people who self-harm.

In addition, literature on the health-related quality of life of people who self-harm was systematically searched to identify studies reporting appropriate utility scores that could be utilised in a cost-utility analysis.

The rest of this section describes the methods adopted in the systematic literature review of economic studies. Methods employed in economic modelling are described in the respective sections of the guideline.

3.6.1 Search strategy for economic evidence

Scoping searches

A broad preliminary search of the literature was undertaken in July 2009 to obtain an overview of the issues likely to be covered by the scope, and help define key areas. Searches were restricted to economic studies and health technology assessment reports, and conducted in the following databases:

- EMBASE
- MEDLINE / MEDLINE In-Process
- Health Technology Assessment (HTA) database (technology assessments)
- NHS Economic Evaluation Database (NHS EED)

Any relevant economic evidence arising from the clinical scoping searches was also made available to the health economist during the same period.

Systematic literature searches

After the scope was finalised, a systematic search strategy was developed to locate all the relevant evidence. Searches were restricted to economic evidence (including full and partial economic evaluations) and health technology assessment reports, and conducted in the following databases:

- CINAHL
- EconLit

- 1 • EMBASE
- 2 • MEDLINE / MEDLINE In-Process
- 3 • PsycINFO
- 4 • Health Technology Assessment (HTA) database (technology
- 5 assessments)
- 6 • NHS Economic Evaluation Database (NHS EED)

7 Any relevant economic evidence arising from the clinical searches was also
8 made available to the health economist during the same period.

9
10 The search strategies were initially developed for Medline before being
11 translated for use in other databases/interfaces. Strategies were built up
12 through a number of trial searches, and discussions of the results of the
13 searches with the review team and GDG, to ensure that all possible relevant
14 search terms were covered. In order to assure comprehensive coverage,
15 search terms for self-harm were kept purposely broad to help counter
16 dissimilarities in database indexing practices, and imprecise reporting of
17 study populations by authors in the titles and abstracts of records.

18 *Reference Manager*

19 Citations from each search were downloaded into Reference Manager (a
20 software product for managing references and formatting bibliographies) and
21 duplicates removed. Records were then screened against the inclusion criteria
22 of the reviews before being quality appraised. The unfiltered search results
23 were saved and retained for future potential re-analysis to help keep the
24 process both replicable and transparent.

25 *Search filters*

26 The search filter for health economics is an adaptation of a pre-tested strategy
27 filter designed by Centre for Reviews and Dissemination (CRD) (2007). The
28 search filter is designed to retrieve records of economic evidence (including
29 full and partial economic evaluations) from the vast amount of literature
30 indexed to major medical databases such as Medline. The filter, which
31 comprises a combination of controlled vocabulary and free-text retrieval
32 methods, maximises sensitivity (or recall) to ensure that as many potentially
33 relevant records as possible are retrieved from a search. Full details of the
34 filter are provided in Appendix 12.

35 *Date and language restrictions*

36 Systematic database searches were initially conducted in March 2010 up to the
37 most recent searchable date. Search updates were generated on a 6-monthly
38 basis, with the final re-runs carried out in January 2011 ahead of the guideline
39 consultation. After this point, studies were included only if they were judged
40 by the GDG to be exceptional (for example, the evidence was likely to change
41 a recommendation).

42

Although no language restrictions were applied at the searching stage, foreign language papers were not requested or reviewed, unless they were of particular importance to an area under review. All the searches were restricted to research published from 1995 onwards in order to obtain data relevant to current healthcare settings and costs.

Other search methods

Other search methods involved scanning the reference lists of all eligible publications (systematic reviews, stakeholder evidence and included studies from the economic and clinical reviews) to identify further studies for consideration.

Full details of the search strategies and filter used for the systematic review of health economic evidence are provided in Appendix 12.

3.6.2 Inclusion criteria for economic studies

The following inclusion criteria were applied to select studies identified by the economic searches for further consideration:

- Only studies from Organisation for Economic Co-operation and Development countries were included, as the aim of the review was to identify economic information transferable to the UK context.
- Selection criteria based on types of clinical conditions and patients as well as interventions assessed were identical to the clinical literature review.
- Studies were included provided that sufficient details regarding methods and results were available to enable the methodological quality of the study to be assessed, and provided that the study's data and results were extractable. Poster presentations of abstracts were excluded.
- Full economic evaluations that compared two or more relevant options and considered both costs and consequences were included in the review.
- Economic studies were included if they used clinical effectiveness data from an RCT, a prospective cohort study, or a systematic review and meta-analysis of clinical studies. Studies that had a mirror-image or other retrospective design were excluded from the review.
- Studies were included only if the examined interventions were clearly described. This involved the dosage and route of administration and the duration of treatment in the case of pharmacological therapies; and the types of health professionals involved as well as the frequency and duration of treatment in the case of psychological interventions. Evaluations in which medications were treated as a class were excluded from further consideration.
- Studies that adopted a very narrow perspective, ignoring major categories of costs to the NHS, were excluded; for example studies that

estimated exclusively drug acquisition costs or hospitalisation costs were considered non-informative to the guideline development process.

3.6.3 Applicability and quality criteria for economic studies

All economic papers eligible for inclusion were appraised for their applicability and quality using the methodology checklist for economic evaluations recommended by NICE (NICE, 2009d), which is shown in Appendix 13 of this guideline. The methodology checklist for economic evaluations was also applied to the economic models developed specifically for this guideline. All studies that fully or partially met the applicability and quality criteria described in the methodology checklist were considered during the guideline development process, along with the results of the economic modelling conducted specifically for this guideline.

3.6.4 Presentation of economic evidence

The economic evidence considered in the guideline is provided in the respective evidence chapters, following presentation of the relevant clinical evidence. The references to included studies and the respective evidence tables with the study characteristics and results are provided in Appendix 14. Methods and results of economic modelling undertaken alongside the guideline development process are presented in the relevant evidence chapters. Characteristics and results of all economic studies considered during the guideline development process (including modelling studies conducted for this guideline) are summarised in economic evidence profiles accompanying respective GRADE clinical evidence profiles in Appendix 17.

3.6.5 Results of the systematic search of economic literature

The titles of all studies identified by the systematic search of the literature were screened for their relevance to the topic (that is, economic issues and information on health-related quality of life in people who self-harm). References that were clearly not relevant were excluded first. The abstracts of all potentially relevant studies (12 references) were then assessed against the inclusion criteria for economic evaluations by the health economist. Full texts of the studies potentially meeting the inclusion criteria (including those for which eligibility was not clear from the abstract) were obtained. Studies that did not meet the inclusion criteria, were duplicates, were secondary publications of one study, or had been updated in more recent publications were subsequently excluded. Finally, 2 economic studies that fully or partially met the applicability and quality criteria were considered at formulation of the guideline recommendations.

3.7 STAKEHOLDER CONTRIBUTIONS

Professionals, service users, and companies have contributed to and commented on the guideline at key stages in its development. Stakeholders for this guideline include:

- Service users and carer stakeholders: national patient and carer organisations that represent the interests of people whose care will be covered by the guideline
- local patient and carer organisations: but only if there is no relevant national organisation
- professional stakeholders' national organisations: that represent the healthcare professionals who provide the services described in the guideline
- commercial stakeholders: companies that manufacture drugs or devices used in treatment of the condition covered by the guideline and whose interests may be significantly affected by the guideline
- providers and commissioners of health services in England and Wales
- statutory organisations: including the Department of Health, the Welsh Assembly
- Government, NHS Quality Improvement Scotland, the Healthcare Commission and the National Patient Safety Agency
- research organisations: that have carried out nationally recognised research in the area.

NICE clinical guidelines are produced for the NHS in England and Wales, so a 'national' organisation is defined as one that represents England and/or Wales, or has a commercial interest in England and/or Wales.

Stakeholders have been involved in the guideline's development at the following points:

- commenting on the initial scope of the guideline and attending a scoping workshop held by NICE
- contributing possible review questions and lists of evidence to the GDG
- commenting on the draft of the guideline
- highlighting factual errors in the pre-publication check.

3.8 VALIDATION OF THE GUIDELINE

Registered stakeholders had an opportunity to comment on the draft guideline, which was posted on the NICE website during the consultation period. Following the consultation, all comments from stakeholders and others were responded to, and the guideline updated as appropriate. The GRP also reviewed the guideline and checked that stakeholders' comments had been addressed.

1
2 Following the consultation period, the GDG finalised the recommendations
3 and the NCCMH produced the final documents. These were then submitted
4 to NICE for the pre-publication check where stakeholders are given the
5 opportunity to highlight factual errors. Any errors are corrected by the
6 NCCMH, then the guideline is formally approved by NICE and issued as
7 guidance to the NHS in England and Wales.

8

4 EXPERIENCE OF CARE

4.1 INTRODUCTION

This chapter provides an overview of the experience of people who self-harm including different age groups such as adolescents and adults, and special groups such as those with mild learning disabilities, males or those with borderline personality disorder, and their families/carers.

The first section comprises first-hand personal accounts written by people who self-harm and carers, which provide an understanding of self-harm, accessing services, having treatment and caring for someone who self-harms. It should be noted that these accounts are not representative of the experiences of all people who self-harm and therefore can only ever be illustrative. For instance, the accounts are all written by adults who self-harm and most of them used the method of cutting.

The second section of the chapter includes a review of the qualitative literature which provides a basis for the recommendations, found at the end of the final section.

4.2 PERSONAL ACCOUNTS – PEOPLE WHO SELF-HARM

4.2.1 Introduction

The writers of the personal accounts from people who self-harm were contacted through representatives on the GDG and through various agencies that had access to people who self-harm. The people who were approached to write the accounts were asked to consider a number of questions when composing their narratives. These included:

- When did you first seek help for self-harm and whom did you contact? (Please describe this first contact.)
- What helped or did not help you gain access to services? Did a friend or family member help you gain access to these services?
- Do you think that any life experiences led to the onset of the problem? If so, please describe if you feel able to do so.
- In what ways has the self-harm affected your everyday life (such as education, employment and making relationships) and the lives of those close to you?
- What possible treatments were discussed with you?
- What treatment(s) did you receive? Please describe any drug treatment and/or psychological therapy.

- Was the treatment(s) helpful? (Please describe what worked for you and what didn't work for you.)
- How would you describe your relationship with your practitioner(s) (for example, your GP, psychologist or other)
- Did you use any other approaches to help your self-harm in addition to those provided by NHS services, for example private treatment? If so please describe what was helpful and not helpful.
- Do you have any language support needs, including needing help with reading or speaking English? If so, did this have an impact on your understanding of the self-harm or on receiving treatment?
- Did you attend a support group and was this helpful? Did family and friends close to you or people in your community help and support you?
- How has the nature of the problem changed over time?
- How do you feel now?
- If your self-harm has improved, do you use any strategies to help you to stay well? If so, please describe these strategies.

Each author signed a consent form allowing the account to be reproduced in this guideline. Four personal accounts from people with self-harm were received in total.

4.2.2 Personal account A

I started to harm myself when I was 10 years old. I don't remember what was happening in my life at the time, but I know I always felt alone, like I didn't fit in or belong. On paper, I had the perfect family: a Mum and Dad, and a younger sister on whom I doted. Yet feelings of pain and struggle began to surface from an early age, when I was too young to have the words to describe what I was feeling. These feelings became increasingly pronounced and at 13 my self-destruction escalated. I began to harm myself more and more severely, either cutting or burning myself and with little regard for the long-term consequences of my actions. Despite people around me having some inclination about what was happening to me, no one intervened, and my difficulties continued, shrouded in a secrecy that allowed them to get worse.

As I headed towards adulthood, self-harm was still a part of my life on a daily basis. This got much worse in my twenties, when I no longer lived at home, and where I had the freedom and independence for the self-harm to worsen both in frequency and severity. I had always cut myself, but somehow the superficial cuts of my youth no longer satisfied the growing self-loathing and despair that I felt as an adult. The cuts got deeper, and more frequent; they migrated to other areas of my body that could be well concealed, and when this no longer provided the same level of relief, I began to self-poison. I had turned to a range of substances to poison myself with, ranging from

1 significant and life threatening amounts of paracetamol, to other painkilling
2 medication, iron tablets, and psychiatric medication. On one occasion I used
3 weed killer to poison myself. Both cutting and poisoning myself had escalated
4 to the point where they warranted medical intervention. I ended up sitting in
5 an A & E department like so many others, wondering what was going to
6 happen to me, or what people would think, nursing cuts so deep and painful
7 that I would need stitching. The overdosing and self-poisoning required
8 countless hospital admissions to undo the damage to myself. Some of these
9 acts were direct attempts upon my life, and others were in the absence of care
10 over whether I lived or died; I no longer cared. All I wanted was peace inside
11 from the constant struggle and torment.

12
13 There were times when I attended A & E voluntarily, but there were other
14 times when I was taken there by ambulance after becoming unwell or after
15 collapse. This aspect of my self-destruction was painful for those who
16 witnessed it. Although I tried to keep my self-harm private, sometimes I was
17 so unwell that other people in my life needed to know.

18
19 Some friends watched me do these things to myself, tormented and
20 frightened by what was going to happen to me. These relationships waned.
21 People could no longer invest in an attachment to someone who didn't have
22 the will to live anymore. A couple of friends, in particular, attempted to
23 advocate on my behalf to services, to let them know that I needed help and
24 support. It was so hard for me to ask for help, because I believed that I
25 deserved none, and when people did offer their help I was suspicious of it. It
26 was hard for me that people needed to intervene, and it was even harder
27 because it was only when there was a chorus of voices seeking help that there
28 was any action from services.

29
30 I feared statutory services and I didn't want to go to a doctor as I felt so
31 ashamed. Instead, I looked for help in the voluntary sector and attended a
32 support group for women who self-harmed. Here I began to focus solely
33 upon myself as a self-harmer. I was exposed to the harming of others, and this
34 made my harming much worse during this time. In my experience, support
35 groups are unhelpful unless they are well moderated; for me it was an arena
36 in which competitive urges towards self- destruction could rise. Due to this I
37 ended up in A & E countless times for treatment for the cuts and for
38 overdosing.

39
40 My GP became aware of my problems, and I was seen by a psychiatrist, and a
41 CPN. The self-harm was so severe that I was deemed too high a risk for
42 psychotherapy.

43
44 I was prescribed medication (Seroxat) that only worsened my condition, as I
45 entered a world where all I could think about was self-harm. I soon became
46 an inpatient because of the level of risk I posed to myself. Ultimately therapy

1 was offered by an astounding therapist who, with my CPN, recognised that
2 unless some intervention was offered, it was likely that I might end up
3 completing suicide. Self-harm, suicidality and suicide became a messed-up
4 continuum that I found very difficult to pick apart.

5
6 The CPN and therapist worked collaboratively to try and keep me safe. They
7 were on hand to support me in managing my distress and learn to accept help
8 and support and begin to articulate my struggles instead of turning them
9 inwards. Their hard work was matched by my own. At first, the self-harm
10 continued to escalate – the more I talked about everything that hurt, the more
11 I ruminated upon self-destruction. But they persisted, and I persisted. The
12 progress I made was in tiny steps, first just increasing my awareness of why I
13 was self-harming. Countless times I had been asked ‘why I was doing this’
14 but I am not sure I really knew. I just responded to my distress in a physical
15 way, and to begin to do things differently, I had to at first understand the
16 motivation behind the harm.

17
18 No one had ever really talked about what my options were for treatment. In
19 fact the opposite: I have a range of really damaging experiences such as being
20 called a ‘time waster’, or being treated by CPNs as someone who was not
21 willing to engage, and written off as an ‘expected suicide’ by the local crisis
22 intervention team. This couldn’t be it for me. I was told each time I was in
23 hospital that I ‘had to be’ assessed, and that my level of risk meant that people
24 were going to step in and tell me what to do. I never really had a choice,
25 except to choose to take a gamble on those kind individuals who were, by
26 chance, involved in my life, and to learn to get better.

27
28 My relationships with the therapist and my CPN were absolutely crucial to
29 me overcoming the self-harm, as was my relationship with two GPs, who
30 collectively gave me the skills to save my own life. Without their dedication,
31 compassion and commitment I doubt I would be here writing these words for
32 you to read. I was receiving CBT, and soon that and all the support helped me
33 to recognise that the self-harm was only but a symptom of a damaged sense
34 of self and distress that had been rampaging out of control since I was a child.

35
36 Over the years I was prescribed a number of other medications, including
37 oxazepam, chlorpromazine, mirtazapine, quetiapine, lorazepam, temazepam
38 and carbamazepine. I needed none of these – what I needed was someone to
39 hear me and help me, and with patience and care, to explore and overcome
40 these difficulties. Medicating a problem like this was only ever going to be a
41 temporary measure, a prop. I ended up taking three or four medications at
42 any one time, and I should never have been medicated to this level – all it did
43 was perpetuate feelings of dissociation and lack of control.

44
45 There were many life experiences that contributed to my self-harm and
46 distress and medication was not going to remedy these. Mainly these were

related to a sense of autonomy and worth, with a range of invalidating experiences leading me to feel as though I had no right to my emotional experience, and therefore no recourse to expressing or exploring these strains naturally. Everything that I encountered in an emotional way was subsequently subjugated, and an internal process of dismissing my real feelings became second nature. These feelings then popped up somewhere else, where self-harm was used to manage them. Getting better involved re-learning and relating to my emotion, validating my experiences, and developing greater skills at emotional management and regulation.

For a long time I was isolated beyond measure, almost living two lives. I ended up withdrawing from almost all social activity, and gave up my well-paid job because I could no longer sustain the life that I was trying to live. For years I was out of work, with very little else happening in my life except for distress, despair, self-harm and sleeplessness.

Getting better was a long road. When the 2004 NICE self-harm guideline was being developed, I was one of the individuals interviewed and my account of my experiences was used in the guidance. To be able to sit here and write from a different perspective as recovered, as another guideline on self-harm is developed, is an interesting exercise. I now work as a therapist. I know that there was very little access to services when I needed it the most. I was repeatedly met with judgement or contempt from those others involved in my care who never took the time to get to know me, the person behind the harm. So I now run a service called Harmless, which was established out of direct experience of the lack of services for those who self-harm.

The distress that I experience now I relate to in a more managed way – I understand myself so much more and accept that there are times when I will struggle more than others. I also know that no matter what – there is no going back for me. Self-harm is a thing of my past. I have learnt a new way of being, and I believe faithfully that this can happen for other people if we develop and deliver appropriate and needs-led services that are dedicated to meeting people in their distress and helping them to move through this at their own pace.

4.2.3 Personal account B

Disgust. Shame. The look of pity. Intrigue. Fear. These are views I have experienced, and unfortunately become accustomed to, as a 28-year old woman with scars covering my arms. I have not self-harmed for just over 3 years now, but the scars are still on my arms and shall remain there for life.

When I first spoke to someone (a teacher) about my self-harm urges, I was only 14 or 15 years old. She was fantastic and offered me the school

counsellor's services. As I got older and life circumstances took a hold of me, the self-harm in the form of cutting, gradually grew worse.

At the age of about 21, I started attending A&E to be stitched back together. There were times when, unfortunately, the experience at A&E itself left me feeling worthless. There could be one fantastic triage nurse or doctor but their care would be undermined by another nurse, doctor or receptionist whose care or attitude would be cold or their frustration towards me for causing damage to my own body would show. I think there were times when the fact that I am of South-Asian origin, living in a city with a high Asian population, led to pre-judgements being made of me. Doctors assumed that the reason why I had self-harmed was due to a cultural conflict. They did not wait or ask; if they had done so they would have found it was actually due to growing up in an abusive home, and having a child out of wedlock may be a factor, although this was by no means the foundation of my problems.

It is difficult to remember exactly how I felt during the periods of cutting as it is like I was a totally different person to who I am now. I do recall being at a loss, angry and frustrated – I was scared. The fear of hurting others, especially my daughter was very real and this led me to justify my cutting; I was not hurting anyone else, thereby it was all OK. During the time I cut, there was no pain; looking back now it shocks me that I did this to myself. After cutting, however, the pain was excruciating: small cuts stung, big cuts really hurt. But practicalities took over first: how was I going to dress them? Did I need to go to hospital? What was I going to tell my daughter? I did regret the cuts I made because they were not really stating my case for sanity, however they accomplished something – they helped me through an immensely difficult period of my life.

The care and treatment that I have received has been mixed and difficult to label as 'good' or 'bad'. Within each service there are individuals who shine through. It is the triage nurse who took the extra moment to tell me that I should not worry about my daughter and placed a hand gently and reassuringly on my shoulder. It is the doctor who when stitching me up did not rush and make me feel as if I had committed a sin, but instead spoke to me and informed me of the psychiatric liaison team who were available. It is the CPN who comes every day and calls in between visits, listens to what I have to say and does not just fill out the care plan. It is the members of the home treatment team who will take a few minutes out to sit down and not simply check that I am taking my medication. It is the psychiatric consultant who puts away all his notes and lets me explain what is going on in my head without assuming he knows my problems. It is the psychotherapist who does not rush me and allows me to talk or remain silent.

I have had input from GPs, A&E staff, psychiatric unit staff, mental health nurses, CPNs and the home treatment team. Alongside all these individuals I

1 have also been fortunate to have had the support of some of the best
2 counsellors and psychotherapists I could ever wish to meet. All of these
3 people working together, with not just one another but also with me, has, in
4 my opinion, led to my recovery. My own circumstances were made more
5 bearable and workable when services worked together: my therapist
6 understanding the impact the medication I was taking was having on my
7 mood helped me in therapy as I could make sense of my mood swings; my
8 key worker in the housing project knowing the impact the medication was
9 having upon my ability to care for my daughter also helped as it meant social
10 services were not unnecessarily brought into the situation.

11
12 My family have found it difficult to understand my self-harm as well as my
13 bipolar disorder (which was diagnosed around 2004); maybe it is a cultural
14 issue or maybe it is just simply too distressing for them to acknowledge. My
15 friends have taken the time to learn about self-harm and understand that
16 removing all sharp objects only benefits their conscience, and in reality put
17 me at risk because I was more likely to not 'safe self-harm'.

18
19 I have a beautiful 9-year old daughter who is now aware of the story behind
20 my scars. It was not easy explaining self-harm to her, but I knew it was such a
21 big part of me; I needed to tell her because I could not hide it. I wish that
22 everyone could take a leaf out of the innocent book of a child's mind. It is so
23 simple; there is no judgement, just honest questions and accepting responses.
24 She still saw me as 'Mum', but 'Mum who got very sad at times and hurt
25 herself'. Unfortunately there were those who thought I posed a risk to my
26 daughter due to my self-harm, but thankfully they soon realised this was not
27 the case.

28
29 People constantly ask how it is that I have managed to stay 'well' for so long
30 and not self-harm. The true answer is that I do not have a definitive answer. I
31 can only say that I know that therapy really played a major part in my life.
32 The ability to finally have an opportunity to open up that locked box of
33 terrible memories to someone in a safe and supportive environment had a
34 profound impact upon me. Don't get me wrong, it was scary and there were
35 times when therapy itself led to self-harm episodes, but without those terribly
36 tough sessions, I hate to think what my life would be like now. Would I still
37 be self-harming to the degree that I was? Medication, as much as I hate it, also
38 played its part, but only once I began to understand what the tablets were for
39 and how different ones benefited, or, hindered me. Getting the right
40 combination enabled me to be rested (zopiclone), less agitated (lorazepam)
41 and keep my mood stable (lithium/ antidepressants). This in combination
42 with therapy, in combination with supportive professionals, is what has
43 enabled me to now be 'well', a better mother, and a full time student at
44 university studying for, ironically, a psychology degree! I am now in control.

45

1 **4.2.4 Personal account C⁵**

2 The first time I self-harmed was when I was 15 years old. I was taking GCEs
3 and CSEs at school. There was a lot of pressure from my parents as I was
4 going to be the first person in their family to go to college and become a
5 teacher. My grandmother had wanted to teach but poverty intervened and at
6 14 she was a servant in a big house, my mother had a fantasy of teaching but
7 lacked the intellect so it was pretty clear that I was there to fulfill their
8 dreams. I didn't want to become a teacher; I wanted to learn what I wanted to
9 be. I wanted to leave home and see strange things. I wanted to stop living
10 safely and take some risks. I wanted to go out when it was cold without
11 wearing a scarf or cross the road without being that careful. I wanted to drink,
12 take drugs and meet the kind of men I wasn't supposed to.

13 A few weeks before my exams began, having missed the mocks due to illness,
14 I felt as though I was shattering into a thousand pieces. No matter what I did
15 to try and rebuild myself it was the wrong thing. My mother hectored me in
16 to revising to get the results she needed. It was made clear that when I
17 qualified I'd still live in the same town and that I would be expected to
18 support my parents financially. I'd been supporting them emotionally, being
19 their surrogate parents since I was 12 and it was just too much. I later learned
20 that it was when I was around 15 years old that I began to experience bipolar
21 disorder for the first time and that makes a lot of sense. My parents didn't
22 notice, except for the odd moment, that I was under a great deal of stress and
23 then they wrote me off as being difficult. I've spent my whole life being
24 difficult.

25 I found myself out in the dark one night, walking around terraced streets that
26 were too narrow by the day and by the night narrower still so I had to turn
27 my anorectic body sideways to make my way through without banging my
28 bony elbows on the doors as I passed by. It wasn't the best neighbourhood in
29 the world. We had a poly, a town centre and a red light district all within a
30 few hundred yards. Across the main road was the area that even the residents
31 didn't go to at night. At the top of the road was a school in a few acres of
32 ground where my brother's friend had found a hanging body one morning.
33 Not the sort of place you should let your kids roam around after dark.

34 I heard a noise behind me and began to run as fast as my barely strung
35 together body would take me, tripping in the dark knee first on to a pile of
36 glass. The noise behind me was in my head. My school trousers were ruined,
37 my hands were filthy, I was crying but I felt relieved. The nagging and
38 shouting love-in I got when I returned home was spectacular. What was I
39 doing out? Well actually nobody had realized that I wasn't there so I always
40 felt that it was a pretty redundant question. Much emphasis was laid upon
41 how much the family relied upon me and how I had to stop being so dramatic
42 and pass my exams. The relief that I'd felt earlier quickly disappeared.

⁵ Reproduced with permission from: <http://weirdsid.wordpress.com/>
(accessed February 2011)

1 Adding to the pressure was the fact that I'd formed a relationship with
2 someone older from school. I was 15 and he was 18. He was pressuring me
3 into having sex with him; my mother was pressuring me to marry him. I was
4 staying with him because he was joining the army and I thought it would be
5 an escape from the family that held me so tightly against my will. I felt
6 kidnapped in my own home. Life was a mess.
7 I passed the exams and left school. I didn't go onto further education I went
8 out to work. My family was furious especially as one of the jobs I took was in
9 a factory. It suited me well and the money was fantastic and the accidental
10 injuries were frequent. I still have the faded scars on my hands, each one a
11 moment of misery blissfully relieved.
12 I had no idea until I was in my mid forties why I really did what I did. A
13 consultant psychiatrist was doing a study on self-harm and asked me to be
14 part of the study. There was a recorded session with a researcher and I
15 described my experiences of what I did, how it felt, what the outcome was.
16 Even now as I'm typing this I feel the scars on my arm twitching. That's
17 usually a sign that something is stressful and that harm could be on the way. I
18 had to stop wearing earrings because I always felt tempted to pull them out
19 the hard way when I felt my scars twitch.
20 I sat in a room in a psychiatric out patients department. A lovely room with a
21 plant in that I tended each time I went. As the researcher settled herself and
22 set up the recording equipment I had my chat with the plant, watered it,
23 washed its leaves, wasted some time until I had to sit down and begin to talk.
24 I wanted to talk but, like all of these experiences, sometimes you learn truths
25 about yourself that you'd rather you didn't.
26 We talked of when I harmed and the ritual. Had there been any time when I
27 hadn't followed this pattern of harming. Surprisingly yes, a ten-year gap
28 during the time I was conscientiously drinking England dry. Yet another form
29 of self-harm.
30 We talked of why I harmed and the outcome and this is why I can never say
31 that I will stop harming myself. I feel pressure building up inside me when I
32 have mood swings. I have violent moods swings. They're sudden, massive
33 physical attacks that my mind wreaks on my body. I have no control over
34 them but I can gain relief from them. I am a fully inflated balloon waiting to
35 explode loudly. The self-harm is a strip of sellotape over the balloon and a pin
36 piercing the balloon through the sellotape. The balloon deflates slowly, easily,
37 painlessly, and comfortably. It leaves me exhausted, ravaged, a mess of tears,
38 laughter, sadness and joy. It leaves me alive because without it I would surely
39 kill myself.
40 As I harm I get a hit. A legal shot of a drug I never used in my hedonistic days
41 as an abuser. That's probably the truest reason why I won't stop harming.
42 I've tried to stop. I've tried drawing on myself and holding ice and all of the
43 other things that don't come close to stopping me want to die. I have
44 formulated a way of harming safely with the knowledge and consent of my
45 GP and my consultant. It's not ideal but it keeps me alive and scarred as
46 opposed to dead and without a mark.

4.2.5 Personal account D

I first suffered from depression in my late teens and early twenties, after what I had always assumed was the usual teenage angst and drama became more serious. I became withdrawn from my friends and family, and had negative thoughts about myself and those around me. I believed that I was worthless, and I assumed everyone else agreed. At some point – I don't remember the first time – I started cutting myself. I used a razor blade to carve increasingly deep and angry wounds into my arms.

It was at this point that my parents decisively intervened, and involved our GP. I was prescribed antidepressants and referred to a specialist. As this was the mid 1990s, and I was still very new to the terminology of mental health disorders, I don't remember exactly what drugs I took. I visited the psychiatric department of my local hospital as a regular outpatient, and I finally found a person to whom I felt I could really talk. At the time, I didn't really care what qualifications she had – I just knew that, for the first time, I felt that I was managing the problem, and not being managed by it.

With the support of my family, my health improved, and I went on to university – a year older than my peers but more confident in my ability to deal with the stresses and pressures of life. In later years, I was able to identify what I saw as early warnings of a relapse, and manage the symptoms before I lost control.

Fifteen years later, however, in my mid-thirties, I became depressed again. Now with a wife and child, and all the responsibilities that entails, I found that my working environment caused severe anxiety and I quickly lost my ability to manage the symptoms. Eventually, I began cutting myself whilst at work.

It's difficult to say definitively why I cut myself. There was certainly an element of release involved – immediately after cutting, I would feel better, less anxious, and so that feeling of relief became an incentive to cut again. I also believe I wanted to create a physical manifestation of the emotional turmoil – a physical wound is so much more visible and obvious. However, there's a clear paradox here because I didn't want anyone else to see the wounds. Perhaps I was creating this physical evidence to convince myself that there was something wrong.

I went to see my GP seeking some medication that I naively believed would magically make the problem disappear. I was prescribed an antidepressant (mirtazapine), and my doctor also took time to ask me how I felt during the periods of depression and anxiety, and how I felt when I was self-harming. She asked what I thought might be causing the problems. Although I didn't have the answers, I appreciated the questions being asked.

1 I am usually a self-confident and self-reliant person and therefore I found it
2 very difficult to ask for help – it felt like I was exposing myself. Although I
3 had no previous relationship with my GP, she was patient, understanding
4 and sympathetic. As my treatment continued, I found my fortnightly
5 consultations with her to be a useful barometer of my progress.

7 Initially, I withdrew from my ‘normal’ life – I stopped working and spent
8 little time with my family, preferring my own company. I would try to read,
9 but found I could only concentrate for short periods of time before my
10 thoughts would wander. During this time I continued to cut myself when I
11 felt particularly worthless.

13 After several weeks, I was assessed by the local mental health team and
14 referred to a group CBT course. This was a classroom-based course with
15 around eight other service users. I found this of limited use, as I was so
16 anxious at the prospect of joining the group, I found it difficult to concentrate
17 on the content. Also, I had no relationship or rapport with the chap who was
18 delivering the content, so I found what he was saying did not carry much
19 weight.

21 A friend gave me a book produced by the National Self-harm Network about
22 ‘Safe Cutting’. This was useful because, as silly as this might sound, I didn’t
23 want to do any serious damage to myself. Although there were times when I
24 felt suicidal, these were very different from the times I cut myself. When I was
25 cutting myself, the motivation was certainly not to end my life, but to hurt
26 myself – to damage myself.

28 Later on, I was seen by an occupational therapist. These sessions were one to
29 one and focused specifically on my own recovery. Straight away this was
30 more useful and as I built a rapport with the therapist, I found myself
31 participating more with the process. Each week we would agree clear targets
32 and goals – go to the shops three times, speak to my parents, spend time with
33 my son – then we would review those goals the following week. This follow-
34 up was crucial as it allowed me to see what progress I was making – it’s all
35 too easy to just see the bad side of things.

37 It’s fairly obvious that group CBT is far cheaper to provide than the one-to-
38 one therapy. However, in my opinion, it doesn’t deliver anywhere near the
39 value it should. I shouldn’t speak for other members of the group, but the
40 atmosphere within the room was tense and agitated – I’m not sure that
41 anyone was learning much.

43 As, gradually, I started to feel better, I tried to analyse what had made the
44 difference – I think it’s probably an element of everything – the drugs, the
45 various therapies, the GP consultations, the natural cycle of my mental health.
46 The local mental health team invited me to join a reading club (bibliotherapy).

We read short stories and novels, and discussed them as a group. We had all been suffering from mental health conditions, but the group wasn't about that – it was about the books. I found this to be a really useful exercise. It helped me get back into the social habits I had lost whilst I had been ill. The timing was important – I wouldn't have been able to participate in the group unless I had already gone through the therapies I had had up to that point.

4.3 PERSONAL ACCOUNTS – CARERS

4.3.1 Introduction

The methods used for obtaining the carers' accounts were the same as outlined in Section 4.2.1, but the questions included:

- In what way do you care for someone with self-harm?
- How long have you been a carer of someone with self-harm?
- In what ways has being a carer affected your everyday life (such as schooling, employment and making relationships) and the lives of those close to you?
- How involved are/were you in the treatment plans of the person with self-harm?
- Were you offered support by the person's practitioners (for example, their GP, psychologist, or other)?
- How would you describe your relationship with the person's practitioner(s)?
- Have you and your family been offered help or received assessment/treatment by a healthcare professional?
- Did you attend a support group and was this helpful?
- Did any people close to you help and support you in your role as a carer?

4.3.2 Carer account A

My son died in April 2010, so I have written this account from my point of view as his mother and carer. My mother, who suffered from depression and anxiety, also self-harmed and took her life in June of the same year after many previous attempts. I would like to understand what drove them to such desperate methods because neither of them had any particularly awful life events, in fact, generally speaking, the opposite would be the case. But what was going on in their minds must have negated the positive aspects of their lives.

My son began self-harming when he was 13 when we were living in Germany as part of the MOD. My son wrote a suicide note and took an overdose of

1 over-the-counter pain relief drugs with alcohol. Before this event, he had had
2 an argument with a friend about some money he was owed, and I had been a
3 little cross with him because he had taken some things that belonged to his
4 brother. He was taken to a German hospital and when he left the hospital we
5 were told that he should see a child psychologist immediately but the only
6 one available as part of the MOD services was an educational psychologist.
7 He saw this professional for about a year. The main diagnosis was anxiety,
8 and he was given relaxation tapes and taught exercises to control this. The
9 psychologist thought that he would probably try to end his life again, so we
10 were obviously terribly worried about this.

11 At the age of 25 my son attempted suicide again. We were still living in
12 Germany and he was taken to hospital and put under close scrutiny. He had
13 been depressed and was taking medication for this. By this time he had a
14 serious alcohol problem and had experienced withdrawal seizures. He stayed
15 in the unit for about 5 months. The quality of care was very good; he had
16 therapy and self-help, although the language was a bit of a barrier as my son
17 did not speak fluent German. He was prescribed citalopram. After leaving
18 hospital he was assigned to a CBT therapist and saw her every week until we
19 left Germany about 3 months later.

20
21 We left Germany to live in the UK and my son registered with a local GP,
22 taking a copy of the therapist's notes with him. We also asked for his hospital
23 notes to be transferred to the practice, but this didn't happen for several
24 months. He was put on a waiting list for counselling and no copy was taken
25 of the therapist's letter. His prescription was changed to venlafaxine, which
26 was the same medication that my mother was taking.

27
28 Two months later, he was admitted to A & E, after cutting his wrist and
29 taking an overdose of antidepressants, painkillers and iron tablets (he had
30 previously had a bad accident and broken his leg, so he had a lot of pills
31 prescribed for pain). He was put on a ward in a general hospital. I asked what
32 would happen and was told he would probably be sent home after seeing a
33 psychiatrist. I asked to speak to a doctor on the ward so I could make him
34 aware of my son's history, which was arranged and my son then saw a
35 psychiatrist. My son told the psychiatrist that he would not be safe if he went
36 home, and he was admitted to a psychiatric hospital. He was diagnosed with
37 severe depression and treated with high doses of antidepressants. He stayed
38 there for 5 months and was then transferred to the crisis team. He was on a
39 waiting list for CBT and he had about 8 sessions of this about 3 months after
40 he left hospital.

41
42 My son rarely talked about self-harming – when we asked him about the
43 various injuries he had, he would say they were accidental, and it is possible
44 that some of them were, as he was still having withdrawal fits from trying to
45 regulate his alcohol intake. He lived alone, so many of these were not
46 witnessed. His CPN thought that the fits he was having were psychogenic; his

1 psychiatrist seemed convinced the problem was alcohol addiction. His notes
2 show that he did talk about hurting himself to his CPN – describing it as
3 ‘giving himself a good battering’. There is nothing in his notes to say that self-
4 harming was discussed or explored.

5 My son often talked about feelings of emptiness and said that was why he
6 drank. Drinking seemed to put him in touch with his emotions but in an
7 exaggerated way so that he often became very tearful and upset. When he
8 was sober he was often quite distant and withdrawn.

9 My son had always been a quiet child, he was generally very passive,
10 although would have quite severe mood swings, which in early childhood
11 were tantrums and later on would show themselves in outbursts of
12 frustration such as breaking things in his house or hitting himself. He had
13 usually been drinking when he lashed out at himself. He was quite insightful
14 about this and had ways of calming himself such as taking a bath, or using a
15 punch ball. He found dealing with change, such as starting school, very
16 difficult, and because we moved around a lot in Germany he had many
17 changes to deal with. Break ups with a girlfriend usually led to self-harm
18 incidents. He often described himself as worthless and compared himself
19 with his brothers, both of whom were getting on well with their lives, settled
20 with jobs and girlfriends/wives. He had considerable artistic talent, and all of
21 his peers really liked him and thought him very good company, but he didn’t
22 seem to be aware of this and thought people didn’t like him and were
23 laughing or talking about him behind his back.

24
25 My son didn’t have a job for the last 3 years of his life. He didn’t like to be
26 criticised in any way, and inevitably this could happen if he was employed.
27 So he didn’t try to get a job. The drink problem led to several break ups with
28 girlfriends and also to losing respect of his peers. My son was quite naïve – he
29 was taken advantage of by others who borrowed money and didn’t pay it
30 back.

31
32 About 5 months before he died, my son began talking to me about his self-
33 harm; he said the cuts to his face were so that he didn’t do something worse
34 and he talked about how he was planning to end his life and how he
35 proposed to do it. I told the CPN, who advised me to go to my son’s GP. The
36 GP said there was nothing that could be done until my son decided he
37 wanted to stop drinking.

38
39 My son very rarely saw his named GP; he told me that he didn’t understand
40 his problems, and he chose to see more sympathetic doctors from the practice.
41 One of these was very helpful and guided my son to the Addaction team, and
42 also re-referred him back to the CMHT.

43
44 After his re-referral to the CMHT in April 2009, there was no care plan, I
45 asked why and was told it was because he was with the Wellbeing And
46 Access Team, and they didn’t do care plans. I found out later that this team

1 would only normally see a client on about three or four occasions, but my son
2 saw his CPN 37 times.

3
4 Once my son accessed the addiction service, things seems to improve quite a
5 bit. The counsellor was aware of dual diagnosis, which his CPN seemed to
6 not be aware of, and she seemed to have a lot of insight into my son's
7 personality. There seems to have been a proper plan for his treatment, and I
8 think he was taken seriously, instead of just a 'drunk'.

9
10 There was a plan to refer my son for dialectical behaviour therapy as one of
11 the possible diagnoses was severe emotional personality disorder. The
12 referral process started in September 2009, but he was not actually referred
13 until the week before he died in the following April. There was quite a long
14 waiting list so he wouldn't have accessed the therapy for quite a while.

15
16 He only ever saw his psychiatrist when I had made an urgent request – the
17 last time was in February 2010 after he was talking openly about suicide to his
18 addiction counsellor and to me, and because he was physically ill, having lost
19 about 20 kg in weight. The first risk assessment in my son's file, since his re-
20 referral, appears on this date.

21
22 My son did see a private counsellor but I don't know if he discussed self-harm
23 issues with her. He also had contact with a Rethink volunteer and met a few
24 times with them. There was a proposal to go to an art class with support, but
25 my son never acted upon it.

26
27 I was offered carer support – but what I really needed was to be clear about
28 my position as a carer and what I could do to help, and what not to do. Once
29 my son had accessed the secondary mental health services, I was relieved
30 because I thought I could take a 'back seat' and let the professionals help him.
31 But this didn't seem to happen. He had lots of help in getting benefits, but
32 there didn't seem to be any overall plan. I was largely excluded from his
33 treatment – there was no discussion about his care plan and although I think
34 my son didn't mind me knowing about his treatment, there was never any
35 formal acknowledgement of this. My son hadn't signed any of his care plans
36 and the section about discussion with carers all had ticks in the 'NO' boxes.

37
38 I had very little faith in the psychiatrist or the CPN, when I asked at the
39 emergency meeting why there was no care plan or a risk assessment, I was
40 told that I was making the situation worse. But the addiction counsellor
41 seemed to have a real understanding of the link between mental illness and
42 substance misuse, and she seemed to have a very good relationship with my
43 son, he was more open and honest with her than with the other agencies. She
44 had also discussed issues of confidentiality with him and I felt when I talked
45 with her that the boundaries were clear and this was a relief because I didn't

want to feel disloyal or as though I was prying into his life. I knew that anything she said to me was with his permission. I was not offered help by a healthcare professional. I attended a voluntary group with carers who had adult children with similar problems. My family were also supportive.

4.4 REVIEW OF THE QUALITATIVE LITERATURE

4.4.1 Introduction

A systematic search for published reviews of relevant qualitative studies of people who self-harm was undertaken. The aim of the review was to explore the experience of care for people with self-harm, the experiences of carers who care for people who self-harm, and of health care professionals who work with people who self-harm.

4.4.2 Evidence search

Reviews were sought of qualitative studies that used relevant first-hand experiences of people with self-harm and families/carers. For more information about the databases searched see Table 4.

Table 4: Databases searched and inclusion/exclusion criteria for clinical evidence.

Electronic databases	CINAHL, EMBASE, MEDLINE, PSYCINFO, HMIC, IBSS, PsycEXTRA, PsycBOOKS
Date searched	2006 to 25 Jan 2011
Study design	Systematic reviews of qualitative studies, qualitative studies, observational studies
Population	Individuals who self-harm by any method
Outcomes	None specified - any narrative description service user experience with self-harm

4.4.3 Studies considered

At the scoping stage, two recent systematic reviews were found and these were modified in two ways. Firstly, only studies that were relevant to the long term management of people who self-harm were included (for example, studies which focussed exclusively on experience of care in general hospital emergency department settings were excluded) and secondly, the reviews were updated to include studies published through to January 2011.

The first systematic review explored the experience of self-harm and treatment from the perspective of people with self-harm (Taylor *et al.*, 2009). This review involved undertaking a search between 1950 and June 2006 and included a total of 31 studies. Of these, a total of 21 studies were included and narratively reviewed for the purpose of this guideline (please refer to Appendix 15 for study characteristics) and 10 studies were excluded as they focused on shorter rather than longer term management (please refer to Appendix 15 for excluded studies references). The quantitative studies were

not subject to meta-analysis due to the lack of studies providing similar data. They were used instead to provide evidence about the general experiences of a larger population of service users, with the qualitative data used to deepen our understanding through the describing of specific examples and occurrences.

Since the review (Taylor *et al.*, 2009) only included studies published before 2007, an updated search was conducted to capture more recent studies relating to service user, healthcare professionals and carer experience. A total of 2,269 references were identified by the electronic search. Of these references, 2,200 were excluded at the screening stage on the basis of reading the title and/or abstract. The remaining 69 references were assessed for eligibility on the basis of the full text. Overall, 28 qualitative studies and quantitative studies met these inclusion criteria, the characteristics of which have been summarised in Appendix 15. Forty one studies were considered for the review but they did not meet the inclusion criteria so were excluded. The most common reasons for exclusion were if the study focused only on shorter term medical or psychological management of self-harm rather than longer term management, the study did not allude to either the experience of self-harm or treatment, experience of carers or healthcare professionals; non-English articles or dissertations, studies in which experiences of services or reasons for self-harm differ (for example, developing countries).

The second systematic review carried out by Saunders and colleagues (in press) examined attitudes of healthcare professionals and knowledge regarding people who self-harm and is reviewed below. However, only findings relating to longer term management were included. We excluded studies which in the judgement of the reviewers and the GDG had limited relevance to UK health settings (e.g. Elliot, *et al.*, 1992 which examined nurse's views of parasuicide in a developing country).

Further to this, there were three additional studies (Huband & Tantam, 2004; Reece, 2005; Taylor, 2003) that were included on the basis of cross-checking an existing literature review (Bosman & Meijel, 2008) that met the inclusion criteria and a further four studies (Jeffery & Warm, 2002; O'Donovan, 2007; Mackay & Barrowclough, 2005; Hopkins, 2002) were included after crosschecking a recent literature review carried out by McHale & Felton (2010). These were all qualitative studies that examined the experience of self-harm from the perspective of service users or healthcare professionals, the characteristics of which have been summarised in Appendix 15.

4.4.4 Service user experience of self-harm

While reviewing each study, key findings which were relevant to the service user experience of self-harm, were extracted and summarised into a study characteristics table (Appendix 15). The review team listed the themes which emerged from the analysis of these main findings, and these were presented

to the GDG and used to structure this chapter. The findings that emerged under the heading of 'service user experience of self-harm' were:

- Underlying reasons for engaging in self-harm behaviour (e.g. traumatic life events, psychiatric illness, a coping strategy and cultural factors)
- Alternative coping strategies
- Coexisting destructive behaviours
- Physical and psychological consequences of self-harm
- Stigma and misconceptions about self-harm
- Stopping self-harm

These findings appeared in both adult and adolescent populations, however as these populations may differ in their experiences the findings for adolescents were reported separately.

In addition to these different age groups, there were two additional subgroups for which the experience of self-harm may have differed and so these were also reported separately. These included people who self-harm with mild/moderate learning disabilities, and males who self-harm. There were 27 studies (Adler & Adler, 2007; Arnold, 1995; Baker & Fortune, 2008; Burgess *et al.*, 2008; Bywaters & Rolfe, 2002; Camgan *et al.*, 1994; Craigen & Foster, 2009; Crockwell & Burford, 1995; Curtis *et al.*, 2006; Dorer *et al.*, 1999; Fish & Duperouzel, 2008; Harris, 2000; Horne & Csipke, 2009; Huband & Tantam, 2004; Hume & Platt, 2007; Kokaliari & Berzoff, 2008; Kool *et al.*, 2009; Lesniak, 2010; Lewis & Darcy, 2010; Moyer & Nelson, 2007; Polk & Liss, 2009; Ray *et al.*, 2007; Russell *et al.*, 2010; Reece, 2005; Schoppmann *et al.*, 2007; Shaw, 2006; Sinclair & Green, 2005) that fell under the category of service user experience of self-harm.

Reasons behind self-harm

The motivations or underlying reasons for self-harm were commonly reported in the literature. For many people who self-harm, cutting or self-poisoning was a way of life (Reece, 2005). Overall, the majority of studies found that self-harm was linked to traumatic life events, difficulties in interpersonal relationships and experiences of isolation or rejection (Adler & Adler, 2007; Arnold, 1995; Bywaters & Rolfe, 2002; Crockwell & Burford, 1995; Curtis, 2006; Harris, 2000; Horne & Csipke, 2009; Kool *et al.*, 2009; Lesniak, 2010; Ray, 2007; Schoppmann *et al.*, 2007).

Crockwell and Burford (1995) interviewed women who had engaged in multiple suicide attempts by overdose in Canada and were among the first to examine the underlying reasons behind self-harm. They revealed that overall participants had experienced significant life events such as strained or absent relationships with parents, being bullied at school and physical, sexual, or emotional abuse. These life experiences were linked by participants with their self-harm.

In line with these findings, both Harris (2000) and Bywaters and colleagues (2002) conducted studies in the UK which also found that the majority of service user's accounts were strongly characterised by traumatic life events or chronic life problems, including physical and sexual abuse in childhood, the death of family member and again all the participants explicitly linked their self-harm in some way to such experiences. The above findings were replicated in more recent studies carried out in New Zealand (Curtis, 2006) and the US (Lesniak, 2010) thus, strengthening our findings reported. In fact, many participants in the study carried out by Curtis (2006) spoke explicitly of feeling powerless or out of control of some aspect of their lives, often as a direct result of abuse. Likewise, in the study carried out by Lesniak (2010) all of the participants experienced some form of childhood trauma such as emotional, verbal or physical abuse. They felt ill-equipped to deal with these traumatic events and felt they received no parental support or guidance to help them.

In contrast, in a study carried out by Adler and Adler (2007) in the US on females who self-harm it was found that many of the participants did not come from a background of physical or sexual abuse and in fact many had unremarkable childhoods. One female noted:

I've got no history of abuse, and my recollections of my childhood are happy, so why do I self injure? Who knows?

Arnold (1995) conducted semi-structured interviews (n=26) and written questionnaires (n = 50) with women who had a history of self-injury, in order to provide some insight into the act of self-injury and found that many of the childhood experiences which women felt had led them to self-injure were similar to those reported by other researchers. However, sexual abuse, though common, was less prevalent than many authors report.

Other common precipitants of self-harm were ruptures in interpersonal relationships experiences of isolation, loss, abandonment and rejection (Adler & Adler, 2007; Crockwell & Burford, 1995; Horne & Csipke, 2009; Kool *et al.*, 2009; Lesniak, 2010; Ray, 2007; Schoppmann *et al.*, 2007). For many respondents, the lack of connection or, conversely, the existence of a very close connection provided a reason to self-injure (Kool *et al.*, 2009). One participant (Ray, 2007) explains how difficulties in her relationship with her mother were a significant stressor and perhaps triggered her self-injury:

We were extremely close when I was in high school because that's all I had. She was all I had...When I was going through all this stuff, I mean really, really bad depression, my mother was just like, 'I don't want to deal with it'...she was like, 'I'm stepping out'...so I mean I lost the number one person I had in my life.

Many participants voiced some form of abandonment such as neglect, bereavement, fear of being alone or feeling disconnected with those around them (Lesniak, 2010). For others, experiences of breakups, fights, or other forms of rejection led them to self-injure (Adler & Adler, 2007). Romantic traumas were a more significant factor cited by boys (Adler & Adler, 2007). Others mentioned that they engaged in self-injury in order to feel alive or relieve themselves of dissociation (Lewis & Darcy, 2010; Polk & Liss, 2009; Schoppmann *et al.*, 2007). In doing so the visual and tactile perception of the blood played an important role. To feel dampness and warmth meant to be able to perceive one's own body and that meant that the state of alienation had ended and one is 'whole' again (Schoppmann *et al.*, 2007). Moreover, the results suggested that young adults who indicated that they self-harm to manage tension and dissociation also had a stronger intent to self-harm again – at least within the next three months. These individuals also indicated that self-harm produced the effect congruent with the reason set they endorsed (i.e. tension or dissociation reduction). Thus self-harm may be reinforcing because the goals associated with its reasons are achieved and thus produce a desired outcome (e.g. escape from a psychological state). This may partially explain why these individuals report more past self-harm and a stronger intent to self-harm again (Lewis & Darcy, 2010). Moreover, this reason was used in conjunction with other reasons such as venting emotion or striving for control, indicating that people may harm themselves for different reasons on different occasions (Polk & Liss, 2009).

Other reasons reported for self-injury included school stress, over commitment in extracurricular activities, self-punishment and a driving sense of perfectionism (Adler & Adler, 2007; Arnold, 1995; Kokaliari & Berzoff, 2008; Polk & Liss, 2009). Another frequent reason for engaging in self-injury was to provide a form of 'self-punishment' for not meeting expectations of others or themselves (Polk & Liss, 2009). One individual wrote:

I hate who I am. I hate who I was. I hate what I am becoming. If I can work to kill that, even if only to hurt it, I will accomplish my goal. I feel deserving of punishment for my wrongdoings and if that punishment doesn't come from anywhere else, it will come from me.

Perfection was also related to body image, where self-harm offered control over the body (Kokaliari & Berzoff, 2008):

Eating disorders are just another form of self-injury, and all these are based on control, and you know, at that point, I could control my body, and so appear perfect.

Above all, self-harm functioned as a coping mechanism for dealing with intense emotions and an opportunity to regain some control over a person's life (Arnold, 1995; Bywaters & Rolfe, 2002; Harris, 2000; Horne & Csipke, 2009; Huband & Tantam, 2004; Hume & Platt, 2007; Lesniak, 2010; Lewis &

Darcy, 2010; Polk & Liss, 2009; Ray, 2007). For example, one individual (Horne & Csipke, 2009) claimed:

It was a coping mechanism. Everything would build up inside me until I needed some way to release it. Cutting was that release

Similarly, in a study carried out by Ray (2007) on US students, self-injury was described a method of tension release (i.e. 'letting the pain out') or a means of regaining a sense of control. The tendency to doubt their ability to cope with emotional issues, as well as perceptions of being far more sensitive than others was also highlighted. For instance, one service user stated:

I feel things more strongly than most people...or at least the bad emotions much more powerfully than the average person.

Correspondingly, in a study carried out by Huband & Tantam (2004) on women's subjective experience prior to self-injury, the majority of women recalled self-wounding due to an emotional state that intensified over time. Many women consistently spoke to the efficacy and immediacy of self-harm in relieving emotional pain (Huband & Tantam, 2004; Kokaliari & Berzoff, 2008; Ray, 2007):

It is definitely a quick fix...Welcome to McDonald's society, right where we came from, fast food, anything into a sugar high and then it drops!

Furthermore, the effect of self-injury was described as more powerful than other methods of emotional release, including using a punching bag, writing in a journal, and talking to others (Ray, 2007). On the other hand, many interviewees described their experience with self-injury in a manner that suggested it is primarily utilised as a means of avoiding fully processing emotions (Ray, 2007).

Others engaged in self-harm to regain a sense of control over their lives (Arnold, 1995; Polk & Liss, 2009). Many indicated feeling out of control before the self-injury, and that subsequent self-harm led them to feel in control of something in their lives, even if it was just their pain. For example, one participant (Polk & Liss, 2009) reported:

I self-injure for a feeling of control. If I lose control of a situation, I cut to make myself feel that I still have the power to handle the situation.

In contrast, many others viewed self-harm as a consequence of their psychiatric illness and the 'trigger' for accessing help (Sinclair & Green, 2005). Self-harm was a means to get support and attention, because of frustration about not receiving support for their illness (Harris, 2000). They also reported sometimes feeling a strong desire to be admitted, to escape the overwhelming and often uncontrollable emotions leading to self-harm (Harris, 2000). Many

of the women acknowledged experiencing significant depressive episodes, with self-harm seen as a symptom of their depression as well as an attempt of relieving depression (Ray, 2007; Sinclair & Green, 2005).

In another study carried out by Polk and Liss (2009) in the US, self-injury was used by participants as a means to keep from killing themselves or hurting others. However, it should be noted that only one participant indicated that she used self-injury to keep from hurting others. Self-harm was a means to get support and attention, because of frustration about not receiving support for their illness (Harris, 2000). They also reported sometimes feeling a strong desire to be admitted, to escape the overwhelming and often uncontrollable emotions leading to self-harm (Harris, 2000).

The influence of cultural factors on self-harm was also highlighted. In particular, participants suggested that the promotion of an individualistic culture can lead to members of that society being more likely to deal with their feelings alone (Kokaliari & Berzoff, 2008):

I am wondering if it says something about our culture's need to deal with something on your own as opposed to deal with something with other people or with healthy means...You can't rely on other people to help you, and sort of like an independent self-sufficient mentality is pretty widespread.

Attempts to justify the behaviour as sanctioned by pop culture and as a behaviour that is practised by numerous other women also emerged (Ray, 2007).

Co-existing destructive behaviours

Destructive behaviours tended to co-occur with self-injury, including drug and alcohol abuse, over-sleeping and eating disordered behaviour (Arnold, 1995; Huband & Tantam, 2004; Ray, 2007; Sinclair and Green, 2005). Arnold (1995) found that most women who took part in the study engaged in various other sorts of self-harm, in addition to inflicting injuries on themselves. Most notably was the high occurrence of eating disorders, while overdosing and misuse of alcohol and drugs were also common. Moreover, there were numerous other ways in which women saw themselves as engaging in self-harm. These included overwork, over-exercising, staying in abusive relationships, unnecessary and repeated risk-taking and smoking. For some women there seemed to be a trade-off between self-injury and other sorts of self-harm. For example a woman might injure herself less during periods of drug abuse, or might drink less during periods when she was injuring herself.

In another study carried out by Ray (2007) one participant touched on the notion that certain types of self-harm behaviours may be inter-changeable. In discussing the relationship between purging and cutting, she admitted she was looking for the same thing out of both behaviours, specifically a release of

1 pain. Similarly, Sinclair and Green (2005) discovered that co-occurring alcohol
2 misuse dominated for four participants and for these participants abstaining
3 from alcohol was key to the resolution of their self-harm. Looking back, they
4 attributed their use of alcohol to an attempt to escape from difficult emotions
5 but now saw it as precipitating a vicious cycle of low self-esteem and self
6 loathing. Moreover, refraining from drinking led to an increase in self-pride
7 and individuality and an immediate end to their acts of self-harm that
8 required hospital admission. Finally, sleep – or overdose of medication to
9 induce sleep – was cited as an additional alternative release to self-injury
10 (Huband & Tantam, 2004).

11 *Consequences of self-injury: psychological and physical*

12 Many papers reported the physical and psychological consequences in the
13 aftermath of a self-harm episode. In general, the women expressed mixed
14 feelings about self-injury (Ray, 2007). They spoke to the manner in which self-
15 injury brought relief to their suffering and offered them a sense of satisfaction
16 and empowerment. At the same time, many alluded to internalised feelings of
17 guilt and shame after an episode of self-harm (Huband & Tantam, 2004;
18 Lesniak, 2010; Moyer & Nelson, 2007; Ray, 2007). In particular, concern about
19 disappointing or hurting others through self-injury were frequently expressed
20 (Ray, 2007). They also articulated apprehension about hiding evidence of their
21 injuries and the consequences of others discovering them (e.g., having to go
22 back to therapy, losing a job). Moreover, many of the women made comments
23 suggesting that they were dissociated at the time of their self-wounding, for
24 example describing numbness at the time of the wound and of feeling like the
25 cut was to 'another person's arm...not really mine' (Huband & Tantam, 2004). In
26 a recent study carried out by Gordon and colleagues (2010), 106 participants
27 with a history of self-harm completed questionnaires about their emotional
28 reactions during their most recent self-harm episode. They found that people
29 with more frequent self-harm episodes felt more soothed, relieved, calmer
30 and attentive following their most recent self-harm episode suggesting that
31 self-harm may become more reinforcing with reoccurrence.

32
33 Along with the psychological impact of self-harm, the physical consequences
34 of self-harm were also apparent in the service user literature. One of the most
35 prominent physical consequences of engaging in self-harm was the sensation
36 of physical pain. Horne and Csipke (2009) examined the experience of pain
37 sensation in adults and adolescents who self-harm. Some experienced no pain
38 at all and the remainder felt a reduced level of pain. Others explained that
39 there was a certain pain threshold they needed to reach before they could
40 reconnect with themselves again. The issue of pain was addressed in another
41 study carried out by Polk & Liss (2009) with 16.8% reported no pain, 47.7%
42 little pain, 32.3% some pain and 3.2% reported a great amount of pain during
43 self-injury. In a recent study carried out by Gordon and colleagues (2010) they
44 found that the greater the frequency of past self-harm episodes led to more
45 intense feelings of physical pain during their most recent episode.

1 *Stigma and misconceptions about self-injury*

2 Another common finding that surfaced from the service user literature was
3 the mixed reactions of others to their self-injury and the stigma and
4 misconceptions about self-injury. Other people's reactions to their self-harm
5 varied, with some women reporting fairly supportive responses, while others
6 endured quite negative reactions. To a certain extent, others' reactions seemed
7 to determine if the women would continue to be open about their self-harm
8 and potentially even if they would seek help for this behaviour (Ray, 2007). In
9 a study carried out by Baker and Fortune (2008), family, friends and wider
10 society, including medical and mental health services, were often explicitly
11 characterised as judgmental and lacking understanding. Moreover, Dorer and
12 colleagues (1999) revealed that the most commonly perceived reaction of
13 others was distress – generally expressed by parents and often associated
14 with concern. The second most common response, which was largely
15 articulated by parents, was anger. Many adolescents also reported being
16 ignored, whilst others felt that people around them had been overprotective
17 since the overdose. One of the most common responses of peers was to think
18 that the overdose was a stupid action. On the other hand, Burgess and
19 colleagues (1998) discovered that reactions of significant others to the
20 adolescents following the overdose were largely favourable with more
21 persons responding with understanding and wishing to help than responding
22 with anger. Overall, mothers appeared to be more sympathetic than fathers.

23
24 Participants also spoke about various misconceptions about self-injury. The
25 first misconception that was addressed in the literature was that people self-
26 harm in order to gain attention from others or as a cry for help. The majority
27 of participants expressed strong reactions toward individuals who self-harm
28 'for attention.' They spoke of the need to distinguish between, for lack of a
29 better term, 'true' versus 'false self-injurers' (Ray, 2007). Many of the women
30 expressed anger or annoyance toward people who show off their injuries or
31 harm themselves in obvious ways. Conversely, one participant (Ray, 2007)
32 offered a more sympathetic approach to people who harm themselves for this
33 reason:

34
35 *If this person is doing it for attention they obviously need it. Someone who is*
36 *going to take it to that extreme has a lot of problems and they just need*
37 *someone to care. Don't be mean about it. They need help.*
38

39 Some women stressed additional misconceptions about self-injury. One
40 participant criticised the tendency to oversimplify the behaviour by
41 attributing it to a single reason, and emphasised the need to recognise the
42 multitude of factors that can simultaneously contribute to this behaviour.
43 Another participant expressed frustration that so much of what is available to
44 read about self-injury focuses on those who have been sexually abused and
45 stated she does not feel this material applies to her. The women discredited

1 stereotypical images of the 'self-injurer' and emphasised the fact that normal,
2 productive people engage in this behaviour (Ray, 2007).

3 *Experience of recovery*

4 An additional key topic to come out of the service user's accounts was the
5 experience of ending self-injury and the process of recovery. In a US study
6 (Adler & Adler, 2007) the majority of people who had self-injured for a long
7 period had no intention of ever stopping. Others wanted to quit, but
8 recognised its benefits as a coping mechanism and a means of self-expression.
9 Yet, for a small minority their self-harm subsided after many years, either
10 through therapy or with the help of online peer support and education. Many
11 of these people remained in online communications, helping others, as a way
12 of maintaining their abstinence. Kool and colleagues (2009) explored people's
13 experiences and motivations for stopping self-injuring in a sample of
14 inpatients from a psychiatric intensive treatment centre. All respondents
15 indicated that learning how to cope with their inner selves and others was an
16 important skill to reduce and stop self-injury. The analysis demonstrated that
17 the process of stopping self-injury can be divided into several phases such as
18 connecting and setting limits; heightening of self-esteem; gaining an
19 understanding of the self and increasing their sense of autonomy; the use of
20 alternative strategies and finally preventing relapse. The first phase of
21 connecting and setting limits provided a sense of safety that allowed service
22 users to reach out more to others and themselves and to feel their emotions,
23 such as pain and sadness. The second phase entailed the heightening of self-
24 esteem with a further deepening of contact with the self. Respondents
25 indicated that their self-esteem increased because they could see and feel that
26 they were recognised by carers and family and friends as full human beings,
27 with all their faults and imperfections. One of the respondents to Kool and
28 colleagues (2009) stated:

29
30 *The carers told me they did not disapprove of me as a person, but because of*
31 *what I did. For me this meant there was nothing wrong with my character, my*
32 *personality. When I came out of isolation, they saw me as me and I could just*
33 *start again with a clean slate.*
34

35 This growing sense of self-esteem allowed service users to discover their own
36 strengths and creative talents, which, in turn, contributed to a more positive
37 self-image. By putting these talents to use, they succeeded in expressing their
38 emotions in ways other than self-injury. In the third phase service users
39 learned to understand themselves which allowed them to realise that they can
40 control their own lives. Respondents learned to know themselves better and
41 began to understand their own behaviour.

42
43 The fourth phase was one of increasing the service user's s sense of
44 autonomy. They felt that they gradually became better able to make
45 independent decisions about their lives, act upon those decisions, and thus

1 take responsibility for their own behaviour. In this phase, contact with others
2 changed: because of their growing sense of autonomy, the respondents chose
3 for themselves with whom they wanted to forge a connection and with whom
4 they did not. They also determined the content and limitations of their
5 contacts with others. As one of the respondents (Kool *et al.*, 2009) expressed:

6
7 *I got control of my life because I realised I could make choices, I could and was*
8 *allowed to want things for myself and, more importantly, I could stop things.*
9

10 The fifth stage entailed implementing alternative strategies to cope with
11 emotional distress and urges to self-injure and asking for help (Kool, *et al.*,
12 2009). Finally, the sixth phase focused on preventing relapse. Even if they had
13 not engaged in self-injury for a long time, the risk of relapse continued to exist
14 for many. All respondents indicated that they still found it very difficult at
15 certain moments, especially in situations of increasing tension, not to injure
16 themselves (Kool *et al.*, 2009).
17

18 An additional US study (Shaw, 2006) examined how female college students
19 stopped self-injuring and the role (if any) of professional treatment in this
20 process. Not all participants expressed an explicit desire to stop or made a
21 conscious decision to stop. Whether women expressed a desire to stop or not,
22 they all stopped cutting when the psychological symptoms giving rise to self-
23 injury, such as alienation or extreme anxiety, discontinued or reduced in
24 number or intensity. Furthermore, all of the women spoke of the importance
25 of self-initiative or taking control of their lives as essential in their journeys
26 toward stopping (Shaw, 2006). Furthermore, it appears that the women's
27 involvement in self-injury diminished as increasing involvements in life
28 pursuits—such as intellectual interests, career goals, and enlarged social
29 networks—gained prominence in their lives. Relational ties and support from
30 parents, peers, and romantic partners were also of vital significance in helping
31 to stop self-injuring. Participants frequently expressed a desire to satisfy or
32 not concern others as important motivations to stop self-injuring (Shaw, 2006).
33 For others, disclosure was used as a means of reinforcing their commitment to
34 stopping self-injuring and a means of accessing professional treatment. Fear
35 of being labelled “crazy” was a frequently cited deterrent, as well as fear that
36 the behaviour might become increasingly entrenched and out of control.
37 Moreover, the longer women abstained from self-injuring, the easier they
38 found it to resist urges to hurt themselves (Shaw, 2006).

39 *Alternative coping strategies*

40 Alternative coping strategies played an important role in preventing relapse
41 after stopping self-harm. For instance, in a study carried out by Kool and
42 colleagues (2009) almost all participants still felt the urge to self-injure at
43 certain moments and had developed specific strategies to respond to these
44 moments. One respondent said:
45

It is still a daily struggle, but I am taking on the challenge every day. I am like: I know what I am doing this for and it is worth it.

The respondents identified the following strategies: (a) expressing emotions directly, (b) physical exercise, (c) creative activities, and (d) establishing a connection with others. It was important that these alternative activities should control precisely those emotions for which self-injury was previously adopted as a controlling strategy. For example, a respondent who tried to control her aggressive impulses through self-injury indicated that blowing against a piece of fluff or pulling on a rubber band hardly had any effect. However, she could vent her aggression in an acceptable manner by kicking a cushion (Kool *et al.*, 2009).

Similarly, in another study carried out by Schoppmann and colleagues (2007) in Germany, participants engaged in many alternative strategies in order to end feelings of alienation such as jogging, physical labour, listening to loud music and forms of expression which are not in need of verbal communication like, for example, painting. However, all participants stated that self-injury was the most effective way to end the agonising experience of alienation.

I think jogging would give me the same relief but cutting is easier and acts much faster and that is what I want in these moments – a prompt relief.

On the other hand, it is important to note that the use of alternative coping strategies was not always found to be helpful and some believed that alternatives were only temporary solutions (Craigén & Foster, 2009):

There were periods where I managed to assuage the need to self-injure by picking up another healthy or acceptable behaviour, at the urging of a counsellor ... if that makes sense. It didn't really last too long because they were terribly simplistic behaviours that were sort of short-term answers.

Adolescents' experience of self-harm

A study carried out on several US students (Moyer & Nelson, 2007), unveiled some important findings in relation to the origins of self-injury in adolescents. Most learned of self-injury from their friends; they had asked a friend about it or had a friend recommend self-injury to them. The expectations and mental stress placed on these adolescents often became overwhelming, leaving them feeling as though there was no escape, with the exception of self-injury (Moyer & Nelson, 2007). Dorer and colleagues (1999) found that participants had varying reasons for overdosing. The majority of participants reported that when they took the overdose they wanted to die. Other reasons for overdosing were: escaping from painful feelings, to communicate how bad they were feeling, or to get admitted to hospital in order to escape difficult

family situations. This supports the idea that the motivation behind self-harm is unique to the individual and is fluctuant in nature.

Regarding the consequences of self-harm, some adolescents reported that relationships within their family had improved and others felt that it had led them to develop better coping skills (Dorer *et al.*, 1999). An earlier study by Burgess and colleagues (1998) found that most adolescent service users felt that overall the overdose and its aftermath had resulted in improvements in their lives; whereas others felt that it had made things worse for them. When asked how they felt in the aftermath of the self-harm behaviour, many reported feeling ashamed about what they had done. However, almost half of the participants felt that they would probably or definitely take an overdose again in similar circumstances.

In a study carried out by Sinclair and Green (2005), adolescents with a history of self-harm but who no longer harm themselves talked about their experiences in terms of lack of control over their lives and their uncertainty within their family relationships. Specifically, the core finding that emerged from these adolescent's experience of stopping self-injury was '*the resolution of adolescent chaos*'. For these participants, the defining differences that lead them to stop their self-injury were the resolution of their lack of control within the family structure. Family life was recounted as not just chaotic but also failing to provide any validation of their experiences at the time. For many of the adolescents interviewed the sense of autonomy and independence achieved after breaking away from their family allowed them to cut loose from their unpredictable family environments, giving them a sense of purpose and responsibility which gave them enough control to manage their responses to distress in a less self-destructive way (Sinclair & Green, 2005).

Experience of self-harm in people with mild-moderate learning disabilities

Fish and Duperouzel (2008) examined the experiences of people with mild-moderate learning disabilities who self-harm. The common finding throughout the interviews was healthcare professional-service user relationships (both negative and positive aspects), and the way they affect individual ability to cope with stress, emotion and urges to self-harm. Service users reported that healthcare professionals could make them feel that they did not care about their distress when they were slow to respond to their distress, were dismissive of their personal problems or were perceived to be uncaring (Fish & Duperouzel, 2008):

I feel that nobody cares, and when you talk to them, it's "Oh, wait a minute". And when the minute comes it's, like, "I've not got a minute now, I'm doing this now" or "I'm doing that now". In the end you just go in your room and do [self-injure], instead of saying I feel like doing it...

Service users also identified a lack of control over their treatment as a negative aspect of the relationship:

...I wanted to go to a meeting that's discussing my future or what possibly could happen in my future. And they said no., clients are not allowed. I think that's badly wrong...

Conversely, service users reported that when healthcare professionals spent time with them one-to-one and they demonstrated a caring attitude and most importantly recognised their individuality, this has a positive effect.

Service users and some healthcare professionals agreed that self injuring should be allowed. Service users viewed it as a right of theirs and also explained that it was futile to attempt to stop self-harm behaviour:

I think as a self-harmer you should be entitled to what you do to your body as long as it's hurting no-one else's but your own. I feel that I should be entitled to cut up as much as want and when I want. I do feel there are too many people laying the law down as far as I'm concerned as my self-harming.

The feeling of being punished was also highlighted by service users. They explained that this lowered their self-esteem, and as a consequence made them more likely to self-harm:

Well when I've cut up in the past there's your punishment of putting you on a level three for a few months until things get better. That's what they've always done with me. They punish me by putting me on a higher supervision level, increase my supervision level to level three. I'd feel bad, they didn't trust me, once I'd cut. I'm alright, I wouldn't do it again cos I feel better.

Experience of self-harm in males

Only two studies examined the experience of self-harm in males (Russell *et al.*, 2010; Taylor, 2003). With regard to reasons behind self-harm, these were similar to those provided by women with early childhood experiences such as neglect and abuse; experiences of rejection in adulthood; and as a coping strategy and alternative communication method being frequently reported (Taylor, 2003).

Similar to women, guilt and shame were frequent emotions expressed by the males interviewed with one man stating that he felt 'very ashamed' of his self-harm, and another said he ends up 'punishing myself' for it. As well as limiting the degree to which men seek support for their self-harm, this shame may perpetuate the problem by damaging their self-esteem further (Taylor, 2003).

Russell and colleagues (2010) examined the experience of self-harm in four males and found the inability to hold satisfaction or contentment was a

central theme portrayed by all participants. One participant (Russell *et al.*, 2010) illustrates the potency of this issue in the following statement:

Like you were supposed to enjoy a party or you're supposed to enjoy a holiday. At the time you do, but underneath, you didn't, 'cause I always end up in hospital afterwards. My brothers said, oh you're supposed to enjoy it, it's been paid for and that, so I did, but I didn't, 'cause I used to destruct, but I couldn't I couldn't... separate them, happiness and sadness, erm, so I was out there enjoying it, I was enjoying it, but it wasn't lasting, it was like it was a short term thing...

All participants talked about the differences between men's self-harm and women's, as if men's was somehow more real:

I think a lot of men do it, whereas a lot of women do it for sympathy, a lot of men do it out of anger and upset and....

Likewise, in a study carried out by Taylor (2003) the differences between men and women who self-harm was also a prominent theme. Firstly, men tended to injure themselves more severely than women and had less concern about bodily scars. They are more likely to engage in public and violent self-harm, such as punching themselves or a wall or breaking bones.

The concept of masculinity and the misconception that men should be powerful and should conceal their weakness was another prominent theme (Russell *et al.*, 2010; Taylor, 2003). Many of the interviewees felt that the expectation that men are '*stronger*' and '*able to cope*' was a particular issue for men who self-harm. One participant in particular, felt that '*to be seen as a man, you have to be seen as not weak*' (Taylor, 2003, p. 87). Whilst they may try to conceal these feelings; they are likely to find expression in some way. As a result they may resort to self-harm as an expression of their underlying emotions (Taylor, 2003).

4.4.5 Access and barriers to services

In the review of the literature, several findings emerged under the broad heading of 'access and barriers to services' for people who self-harm including stigma, negative attitudes of healthcare professionals and barriers to help-seeking behaviour were also examined. There were 14 studies from which findings of access and barriers to treatment were apparent (Bolger *et al.*, 2004; Brophy *et al.*, 2006; Burgess *et al.*, 1998; Bywaters & Rolfe, 2002; Camgan *et al.*, 1994; Dower *et al.*, 2000; Harris, 2000; Hood, 2006; Horrocks *et al.*, 2005; Kreitman & Chowdhury, 1973; Nada-Raja *et al.*, 2003; Ray, 2007; Rissanen *et al.*, 2009; Schoppmann *et al.*, 2007).

Accessibility

Three studies reported findings that were relevant to the accessibility of services (Bolger *et al.*, 2004; Bywaters & Rolfe, 2002; Burgess *et al.*, 1998). Several participants felt it was essential that services be as accessible as possible by being staffed 24 hours a day, providing walk-in services and minimal waiting times for appointments (Bywaters & Rolfe, 2002). Furthermore, several respondents interviewed explained that they wished they had known about the types of support services available to them before they self-harmed. For instance, many study participants were unaware of local services that provide support to individuals who self-harm (Bywaters & Rolfe, 2002). Finally, it was also suggested that services offer alternatives to clinical support such as having nurses working in the community who can treat self-inflicted wounds (Bywaters & Rolfe, 2002).

Adolescents' experience of accessibility to services

Adolescents, in particular, had a variety of suggestions about how services could be made more accessible for young people who self-harm. It was suggested that services be centrally located. Walk-in services and telephone access as well as decreased wait time for appointments were recommended. Others wished that prior to taking the overdose they had access to the type of professional help that they had subsequently received (Burgess *et al.*, 1998).

Barriers to treatment

Six studies reported findings that were relevant to barriers to treatment (Brophy *et al.*, 2006; Camgan *et al.*, 1994; Dower *et al.*, 2000; Harris, 2000; Hood, 2006; Horrocks *et al.*, 2005). Camgan and colleagues (1994) revealed many problematic issues with regard to communication with professionals. Specifically, inadequate sharing of information by healthcare professionals with service users was perceived as an important problem. Most respondents stated that there was a need for better understanding and more assistance by nurses regarding individual difficulties with problem solving. Harris (2000) found that participants often felt that they were maltreated because their injuries were self-inflicted.

Other important barriers to treatment were highlighted by a study conducted by Harris and colleagues (2000). Firstly, some service users said treatment rooms did not provide privacy, either due to the location of treatment, for example in a waiting room, or lack of respect given by healthcare professionals, for example 'showing off' service users to other members of staff. Finally, some people felt that their need for help was not acknowledged, particularly after no aftercare was arranged. Many said they were not given the opportunity to play an active role in their treatment. In particular, service users perceived that treatments had often been given or forced upon them without any information as to why this was being done. Some respondents explained they had received contact numbers for services at hospital but upon ringing, no-one was there to answer their call. Likewise, service users often

felt a lack of rapport between themselves and healthcare professionals and a general lack of support (Horrocks *et al.*, 2005).

Adolescents' experience of barriers to treatment

In a UK-based study on young people who self-harm (Brophy *et al.*, 2006) some respondents who had previously presented to hospital due to a self-harm episode felt ostracised by healthcare professionals who, it was felt, were 'act[ing] as if to say "not you again"' (p.50). One study (Dower *et al.*, 2000) provided some insight into the reasons behind early termination of follow-up care. Some felt they had got as much out of treatment as possible, felt uncomfortable with the professional providing care or the location of the care, or the care they received was deemed unhelpful. Other adolescents reported that psychiatrists were often unavailable for continued care because they were too busy, or had left the service during the adolescent's treatment period (Hood, 2006).

Help seeking: attitudes towards and barriers

Five studies looked at attitudes and behaviour with regard to help seeking for self-harm in adult populations (Hunter & Cooper, unpublished); Kreitman & Chowdhury, 1973; Nada-Raja *et al.*, 2003; Ray, 2007; Schoppmann *et al.*, 2007). Kreitman & Chowdhury (1973) recruited individuals attending hospital for the first time after a suicide attempt in Edinburgh and carried out individual semi-structured, face-to-face interviews to investigate attitudes to help seeking after completion of formal psychiatric examination. Most of the participants were in favour of seeking help, with the most 'acceptable' form of help being specialist services followed by 'anyone available', 'no-one' and lastly relatives. However, a quarter maintained that seeking help for personal problems was not an acceptable form of behaviour. It must be noted however, that as this study was carried out in the 1970's and therefore the attitudes towards help seeking and services may have changed since, placing limitations on the generalisability of the findings reported.

A cohort study carried out on individuals who self-harm in New Zealand examined help seeking via semi-structured interviews with young adults (Nada-Raja *et al.*, 2003). The main reason given for seeking help were psychological aspects related to self-harm, specifically for self-harm or for an injury relating to self-harm behaviour (Nada-Raja *et al.*, 2003). Moreover, amongst the small percentage of services users that did seek help (only 8%), approximately one third reported attitudinal barriers when seeking help from professionals. In a study carried out by Hunter and colleagues (unpublished), participants lack of continuity of aftercare impacted negatively on their attitudes towards future help-seeking and towards themselves.

Stigma also emerged as an important barrier to seeking help and disclosing to others about their self-harm (Ray, 2007). While all women reported trying to hide the fact of their self-injury, some alluded to the hidden wish that others

1 would acknowledge their distress and care enough to reach out to them in a
2 supportive and accepting manner. The women appeared quite inhibited in
3 their ability to reach out to others for fear that others would not understand
4 and for fear that they would be labelled as attention seekers. Some spoke to a
5 lack of parental understanding in response to their distress. Others expressed
6 the desire to protect their loved ones from their pain (Ray, 2007).

8 Finally, for those who did not seek help attitudinal barriers such as thinking
9 they should be strong enough to handle the problem on their own; thinking
10 the problem would resolve itself; thinking that no-one could help or being too
11 embarrassed to discuss it with anyone. Confidence and trust are also
12 important conditions for seeking and accepting help (Schoppmann *et al.*,
13 2007). The participants described that they would not ask strangers for help or
14 support, for example, an unknown nurse during a night/ weekend shift,
15 because for them strangers are an equivalent to someone who cannot do
16 anything, someone from whom help is not to be expected.

17 *Adolescents' experience of help seeking*

18 Only one study examined the experience of help seeking and barriers to
19 reaching out for support in adolescents in Finland (Rissanen *et al.*, 2009).
20 Three main categories emerged from the analysis: the helpers, factors
21 contributing to help, and help-hindering factors. From the viewpoint of
22 adolescents, any person who knows about their self-harm can be a helper,
23 while adults are felt to be duty-bound to intervene. According to adolescents
24 who self-harm, there is insufficient reliable presence of parents at home. They
25 also feel that school and healthcare personnel could do more to intervene.
26 Factors that enabled help seeking were: becoming conscious of being in need
27 of help; knowledge of self-harm as a phenomena; knowledge of the available
28 help for self-harm; a caring environment; and finally support from friends,
29 peers and parents. Other helpful factors were practical intervention for
30 common problems in adolescence, early intervention, learning to discuss self-
31 harm and emotions and difficult experiences with someone and genuine
32 caring for the adolescent.

34 Factors hindering help-seeking were the following: lack of awareness of being
35 in need of help, an inability to seek help, emotional factors, lack of awareness
36 of self-harm or a lack of awareness of the help available for self-harm.

37 Additional unhelpful factors were unresponsiveness to self-harm,
38 underestimating or overstating the meaning of self-mutilation, remaining
39 silent about self-harm, negative emotional reactions of adults or over
40 expectations of the capability of adolescents to fend for themselves.

41 Knowledge of self-harm as a phenomenon seems to be very important. It
42 emerged in different forms in all three main categories. In fact, knowing facts
43 about self-injury or its existence seems to be a prerequisite for a adolescent
44 who self-harms to become conscious of the need for help and then to seek
45 help (Rissanen *et al.*, 2009).

Overall, several participants pointed out the importance of accessibility of services especially for adolescents and the need for inclusion in planning of their treatment. Common barriers to accessing treatment or engaging fully in treatment were stigma; communication difficulties; negative attitudes of healthcare professionals; and privacy issues.

4.4.6 Experience of treatment for self-harm

In this review, common findings emerged under the broad heading of 'experience of treatment for self-harm', including experience of psychosocial assessment; experience of psychiatric services; experience of constant observation; experience of psychological treatment; and finally experience of medication.

Experiences of psychosocial assessment

Four studies investigated the views of service users with regard to psychosocial assessment (Crockwell & Burford, 1995; Horrocks *et al.*, 2005; Hunter & Cooper, unpublished; Whitehead, 2002). From these four studies, it was clear that not all service users received a psychosocial assessment while in hospital, and for those service users that did, their experience varied across studies.

Service users' insights and anticipation of the psychosocial assessment, and the way in which they interpreted healthcare professionals' management of their assessment, had a large impact on their appraisal of the assessment (Crockwell & Burford, 1995; Hunter & Cooper, unpublished). Participants had a more positive experience of assessment when they were given information about it beforehand (Crockwell & Burford, 1995). Moreover, the relational aspect of assessment was a key determining factor in service users' appraisal of assessment, highlighting the importance of the therapeutic relationship in the provision of care (Hunter & Cooper, unpublished). Participants experienced assessment positively when it involved a beneficial, hopeful engagement with healthcare professionals and when it involved the restoration of hope or the possibility of change in their circumstances (Hunter & Cooper, unpublished; Whitehead, 2002). Another important aspect of assessment was the opportunity to talk to someone (Hunter & Cooper, unpublished), with the majority of participants finding this a valuable experience. However, not all participants felt they were given adequate opportunity and it was not always evaluated as a positive experience. Despite this, most participants expressed a desire to speak to someone about their problems which gave them an opportunity to start thinking about the reasons behind their self-harm.

Conversely, assessment was experienced negatively when the participant felt devalued by the assessor, was treated in a judgemental manner or they felt they were not understood. Similarly, service users who reported being

disappointed with their psychosocial management found fault primarily with their lack of involvement in decisions or when the assessor did not give them sufficient time to talk during the assessment (Whitehead, 2002):

O.K. The first interview was just "so tell us what happened" and he wrote it up and said "um hm, um hm" and wrote notes and he didn't look at me but he was nodding and looking at the other guy. And they looked at each other and exchanged nods. It was very factual like "So what did you take?" and "What happened at the house?" Um, you know I felt like saying "I can understand English, doctor". It was just very factual. They filled out their little form and that was it.

Likewise, in the study carried out by Hunter and colleagues (unpublished) another negative aspect of assessment seemed to be the experience of not being understood, or when healthcare professionals did not seem interested or genuinely engaged in trying to understand the individual reasons behind their self-harm. Furthermore, when participants experienced assessment as invalidating and when assessment seemed to lead nowhere and offer no hope for change, it was experienced negatively and could compound the participant's initial feelings of hopelessness, powerlessness and low self-worth. This study showed that assessments may not have the same salience and importance for users and professionals as assessments are just one single moment in a users life which is likely to be filled with ongoing life difficulties.

Experiences of psychiatric services

Eight studies examined experiences of psychiatric services (Arnold, 1995; Brophy *et al.*, 2006; Bywaters & Rolfe, 2002; Cardell & Pitula, 1999; Dorer *et al.*, 1999; Hume & Platt, 2007; Pitula & Cardell, 1996; Taylor, 2003). Individuals admitted to psychiatric wards had mixed reactions to their care. The admission to a psychiatric ward was often described as frightening and led to a sense of diminished control over their lives (Hume & Platt, 2007). One 34-year-old male said:

I speak positively about it now, but back at the time it was terrible. Locked wards, psychopaths, they used straightjackets and straps.

Moreover, service users often felt a lack of rapport between themselves and healthcare professionals (Arnold, 1995). One participant described a psychiatrist as 'cold, clinical, [and] impersonal' (Arnold, 1995 p.18). In as study carried out by Taylor (2003) several of the male participants had experienced negative incidences with psychiatrists. Comments included 'I don't see them unless I absolutely have to' and 'I made a firm decision not to ever see him again'. The only positive assessment of support from a psychiatrist I encountered was a man who said of his second psychiatrist:

1 *She seems to generally care about my wellbeing. I value her opinion and she is*
 2 *quite nice.*

3
 4 Service users also explained that, while on a psychiatric ward, they sometimes
 5 felt the need to act in exaggerated ways, and even self-harm, in order to get
 6 the attention of staff (Bywaters & Rolfe, 2002).

7
 8 Only two studies looked at the experience of constant observation whilst on a
 9 psychiatric ward, both from the US and both in adult populations (Cardell &
 10 Pitula, 1999; Pitula *et al.*, 1996). In the study carried out by Pitula and
 11 colleagues (1996) on suicidal inpatients, service users' initial responses to
 12 constant observation ranged from discomfort to surprise or anger. On the
 13 other hand, study participants reported feeling safe because of the physical
 14 presence of observers who could prevent them from responding to self-
 15 destructive impulses. Participants reported that the lack of personal privacy
 16 was the most distressing aspect of constant observation. In fact, service users
 17 said that constant observation became almost intolerable after 30 to 36 hours.

18
 19 In a more recent study carried out by Cardell & Pitula, (1999) the majority of
 20 participants expressed positive feelings toward the observers, particularly
 21 when they perceived them as friendly and willing to help. Moreover, a
 22 significant proportion of service users reported that their dysphoria, anxiety,
 23 and suicidal thoughts were decreased by observers who were optimistic, who
 24 provided distraction with activities and conversation, and who gave
 25 emotional support (Cardell & Pitula, 1999). Furthermore, the participants
 26 experienced uncomfortable and at times distressing feelings relating to
 27 observers' attitudes or behaviour, such as a lack of empathy, a lack of
 28 acknowledgement, failure to provide information about constant observation,
 29 lack of privacy or personal space and a feeling of confinement. It is clear from
 30 these two studies that the positive attitude of healthcare professionals,
 31 including empathy and an acknowledgment of the person as a unique
 32 individual, providing information about the function of constant observation
 33 and an effort to combat privacy issues, are essential in improving service user
 34 experience of constant observation. However, it should be noted that this
 35 study was carried out in North America and the implementation and
 36 experiences of constant observation may differ to that of the UK, thus limiting
 37 the generalisability of the findings reported above.

38 *Adolescents' experience of treatment*

39 A UK study reported findings concerning management of young people on a
 40 psychiatric ward (Brophy *et al.*, 2006), where confiscation by staff of objects
 41 that could be used to self-harm increased their feelings of a lack of control and
 42 contributed to the desire to self-harm again. Another study carried out on
 43 young people and adults (Bywaters & Rolfe, 2002) echoed these findings in
 44 that most felt they were merely being watched and did not receive any sort of
 45 therapy for their self-harm. Several adolescents who presented at hospital

after a self-harm episode (Hood, 2006) said they experienced a sense of relief upon being provided with aftercare at a community mental health service. Some women communicated a fear of being on a mixed ward while some older adolescents had negative experiences of being placed on adult wards. However, this was a very small sample size of only ten participants of which five were female.

In contrast to the negative attitudes reported above, Dorer and colleagues (1999) found that the majority of adolescents rated their contact with child and adolescent psychiatric services as positive or very positive. However, almost one third of adolescents rated their stay as negative or very negative. In relation to the benefits of psychiatric consultation, both studies established that the opportunity of *'talking through problems in detail with another person'* was an important aspect. Despite this positive experience, some service users disliked having to tell their story to several different staff members (Dorer *et al.*, 1999).

Experience of psychological treatment

Seven studies examined the experience of psychological treatment for those who self-harm (Burgess *et al.* 1998; Bywaters & Rolfe. 2002; Craigen & Foster, 2009; Crockwell & Burford 1995; Hood, 2006; Huband & Tantam, 2004; Hume & Platt, 2007).

Hume and Platt (2007) found that service users' experiences of therapeutic interventions were strikingly diverse. There was a clear preference for specialist community based interventions, which focus on the provision of immediate aftercare and an acknowledgement that the management of self-harm may not necessarily involve its prevention. In a study carried out by Bywaters *et al.* (2002) many participants welcomed the opportunity to discuss problems associated with their self-harm with a mental health professional. The drawbacks of psychological treatment were few from the participant's perspective, however common disadvantages reported were retelling of their story and opening up to reveal their emotions especially to a stranger. Others were frightened that telling someone their problems would intensify their distress or bring back memories they were trying to repress. Some respondents (Bywaters *et al.*, 2002) appreciated psychological therapy, presumably in a group setting, because it put them in touch with other people like them:

The fact that you talk to other people and there were other people who felt exactly the same as you, no matter what state they were in, no matter what part of life they came from, there were people that felt like you. It felt good to feel that you weren't on your own.

Conversely, in a study carried out by Crockwell & Burford (1995) the stigma associated with an appointment with a psychologist or psychiatrist for some

1 participants was too much to bear and caused individuals to miss their
2 appointments.

3
4 *I hated it. Couldn't stand the psychiatrist... Just thought "I must be crazy"*
5 *that's all that came into my head. That's what I thought "if you see one of*
6 *them, you're crazy".*
7

8 Craigen and Foster (2009) examined the counselling experiences of 10 young
9 adult women with a history of self-injurious behaviour. For those
10 interviewed, the most helpful counsellor behaviours were respectful listening,
11 understanding, and acting as a friend. Furthermore, the women also
12 discussed behaviours that they viewed to be unhelpful which included such
13 things as counsellors who failed to demonstrate understanding and
14 counsellors who forced uninvited ideas upon them.
15 Many of the participants noted that simply talking during sessions was
16 helpful. Almost without exception, the participants considered no-harm
17 contracts ineffective (Craigen and Foster, 2009):

18
19 *I won't make a promise unless I can keep it. Or, I try not to. I need to feel a*
20 *deep sense of obligation to that person and that particular cause to make that*
21 *promise. So that wouldn't have worked for me.*
22

23 Another alluded to the potential dangers of using no-harm contracts. She
24 suggested that counsellors need to provide service users with new improved
25 coping skills before making them stop using their old coping skills. In terms
26 of the focus of treatment, participants did not like counsellors putting too
27 much emphasis on the self-injurious behaviour. Rather, they reflected about
28 the value of counselling that targeted the underlying issues. Asked what they
29 would tell counsellors working with college-aged women who self-injure,
30 most of the women emphasised that it was important for the counsellor to be
31 nonjudgmental. One said:

32
33 *I think the bottom line is to just try not to alienate them further. Because there*
34 *is already the knowledge that what you are doing is very bizarre and not*
35 *normal, and you need to be careful of inadvertently stigmatizing them further.*
36

37 An additional study carried out by Huband and Tantam (2004) found that
38 psychotherapy or counselling was generally experienced as helpful. However,
39 several participants reported 'drifting off' and 'losing the plot' in their therapy
40 sessions, or complained about their therapist enduring silences during which
41 they found it hard to remain focused.

42 *Adolescents' experience of treatment*

43 Burgess and colleagues (1998) found that most adolescents appreciated short-
44 term therapy, mostly on an individual basis. Both adolescents and their
45 parents appreciated 'talking to someone on the outside' with whom the family

had 'no emotional attachment' (Hood, 2006 p.84). However, some adolescent service users thought talking did not make a difference to the way they felt:

I've talked and stuff and I still don't really feel a hell of a lot better...Cause you know sometimes even just talking about it doesn't really help, sometimes just a hug or something would be cool, more helpful than sitting here talking about it... The talking and things didn't really help me too much. I don't feel that it changes anything... It just seems to scare a person, that's about it.

Several participants described situations in which they felt that their therapist did not understand them. These feelings hindered the resolution of the adolescent's problems:

I mean there's lots I'd like to have happen in terms of like client and counsellor relationship....I really still don't feel she quite understands me...I just feel like a lot of times what I say isn't, it feels like it's not valid

Other participants explained that their relationship with their therapist made them feel 'acknowledged', 'heard', 'cared for', 'reassured', 'supported' and 'understood' (Hood, 2006, p. 89). A positive relationship between service user and therapist was often associated with perceived positive outcomes by the service user.

Overall, the experience of psychological therapy was mostly positive in nature, however, there were some drawbacks such as the stigma associated with receiving therapy and retelling of their story.

Experience of medication

Four studies examined service user experience of medication (Hood, 2006; Kool *et al.*, 2009; Shaw, 2006; Smith, 2002). Hood (2006) examined the perspective of several adolescents recruited from community mental health centres in New Zealand with regard to their feelings regarding medication and established that views were mixed. The majority (n =6; 60%) of adolescents interviewed were prescribed antidepressants as part of their management. On the one hand, service users reported (Hood, 2006) that medication helped them cope with their underlying problems; however, not all participants had a positive attitude towards medication especially at the beginning:

I absolutely hated taking my medication when I first started a couple of years ago. Then it became part of my life and a part of being able to live so I just don't get all down about things... I don't know how it works but I mean I know the medication's always an option for me now so if things start to get bad and stay bad then it's here.

Some adolescents felt that the medication did not work for them and had many undesirable side effects.

[B]eing on medication I didn't deal with things or just had trouble with my memory for a while. I didn't know what day of the week it was...I just had no idea where I was or what was happening...

In another study carried out on adults (Smith, 2002) in the UK a more negative view of medication was observed with service users reporting that they felt that medication was seen as a means of shutting them up. Similarly, in a study carried out in the Netherlands (Kool *et al.*, 2009), many participants felt that their emotions were subdued by the medication and as a result they lost their sense of connection with themselves and others. On the other hand, some participants found medications effective in addressing symptoms such as anxiety (Kool *et al.*, 2009; Shaw, 2006).

4.4.7 Engagement with services and suggestions for service improvement

Aftercare for self-harm can include treatment by a wide range of professionals: psychologists, psychiatrists, social workers, nurses, community services, general practitioners. Seventeen studies reported findings that were relevant to engagement with services and suggestions for service improvement (Arnold, 1995; Bolger *et al.*, 2004; Brophy *et al.*, 2006; Burgess *et al.*, 1998; Bywaters & Rolfe, 2002; Camgan *et al.*, 1994; Crockwell & Burford, 1995; Dower *et al.*, 2000; Hood, 2006; Huband & Tantam, 2004; Ray, 2007; Reece, 2005; Schoppmann *et al.*, 2007; Shaw, 2006; Sinclair & Green, 2005; Smith, 2002; Whitehead, 2002).

Common suggestions for service improvement included enhanced continuity of care and specialised training and education on self-harm, along with the provision of better information about self-harm for service users and carers (Arnold, 1995; Bywaters & Rolfe, 2002; Camgan *et al.*, 1994; Dower *et al.*, 2000; Horrocks *et al.*, 2005; Whitehead, 2002). The importance of tact and respect for service users' individuality was another aspect of care that people expressed as necessary for service improvement (Camgan *et al.*, 1994; Whitehead, 2002). What emerged from these studies was that an important factor in determining whether a person's experience of services was helpful was the attitude and approach of the professionals involved. Most of the service users' frustration and discontent with services was caused by the negative or flippant attitudes of healthcare professionals, whether this was expressed in terms of disapproval, disinterest or failure to provide any real help.

Where people felt positive and satisfied with services, this was usually due to the compassionate support offered by individuals (Arnold, 1995). Likewise, Bywaters & Rolfe, (2002) found that overall, service users were more satisfied with their treatment when they felt that the professional was genuinely concerned about them, respected them and did not try to belittle them. Moreover, service users said they wanted healthcare professionals to give

1 them more responsibility for their own management (Bywaters & Rolfe, 2002;
2 Whitehead, 2002). Specifically, the need for clinicians to understand the
3 problem individuals faced rather than focusing on their physical
4 disfigurements was a frequent plea (Bywaters & Rolfe, 2002):

5
6 *Look at the individual, not the harm. Look at the person beyond the scars.*
7 *Scars aren't important. It's the person that did them that's important*
8

9 Several service users felt that hospital staff failed to address the underlying
10 issues and did not have sufficient knowledge about or training in caring for
11 people who self-harm (Arnold, 1995). Many service users suggested that more
12 information should be provided to them about self-harm and its prevalence.
13 In particular, information on how common self-injury is would be helpful.
14 One participant (Arnold, 1995) felt this was important to reduce the shame
15 and stigma associated with self-harm:

16
17 *I used to feel abnormal and weird as I thought I was the only person to do this.*
18 *Information could have helped reduce the shame and isolation this caused me.*
19

20 Women in another study carried out by Reece (2005) expressed a need to be
21 accepted and to be listened to. In particular, they articulated a desire for
22 healthcare professionals to 'reach out' to them as individuals and give them an
23 opportunity to express their 'inner torment' and pain. More recently, Horrocks
24 and colleagues (2005) found that many service users experienced long delays
25 before receiving any aftercare treatment and this led to many feeling
26 disoriented or abandoned. Participants from this study also underlined the
27 importance of professionals focusing on their underlying issues rather than
28 the self-harm itself:

29
30 *It would have been better if someone had understood – the psychological side of*
31 *it they didn't seem bothered about, they should not have put me down for what*
32 *I did but tried to talk to me about it and help me.'*
33

34 In a German study (Schoppmann *et al.*, 2007) participants conveyed the
35 importance of personal relationships and confidence in the intervening
36 person, especially if physical contact is involved.

37
38 *If there would be someone with whom I have no trusting relation I would of*
39 *course not allow a touch, I would not say a word, I would not show a feeling.*
40 *Nothing! Only someone I trust.*
41

42 Similarly, in a study carried out by Huband & Tantam (2004) the women
43 reported on a number of management strategies and their helpfulness.
44 'Having a long-term relationship with one key worker' and 'expressing
45 feelings about the past' were rated overall as the most helpful methods of
46 managing their self-wounding. On the other hand, 'being taught relaxation
47 techniques' was experienced as the least helpful. Indeed, many reported that

1 relaxation actually had the potential to make their self-injury worse, but they
2 had been unable to convince healthcare professionals that this was so. A
3 Canadian study conducted by Crockwell and Burford (1995) on women who
4 had engaged in multiple suicide attempts by overdose established that some
5 participants were satisfied with their aftercare management because they
6 were given the opportunity to talk about the issues that contributed to their
7 self-harm episode. However, some respondents (Crockwell & Burford, 1995)
8 said that they felt they were not given a sufficient amount of time for their
9 appointments:

10
11 *[W]hen I left he gave me a prescription for anti-depressants so we hadn't*
12 *talked, he didn't once say it's O.K. or give me any bit of feedback. He just*
13 *wrote me out a prescription. I'd say I was only in there about 15 minutes, 20*
14 *at the most, and he wrote me out a prescription for anti- depressants and sent*
15 *me on my way.*
16

17 Similar to women, many men prioritised the opportunity to talk about their
18 self-harm and to feel understood by healthcare professionals (Taylor, 2003). In
19 contrast, some service users explained that the lack of opportunity to become
20 involved in discussions about their care made them feel disrespected. One
21 man in particular, commented that his team worker had:

22
23 *never asked questions like you've asked me...[s/he] never asks me about self-*
24 *harm, even after times I've done it.*
25

26 This had left him feeling that his self-harm was '*not taken seriously*', which
27 increased his anger and propensity to self-harm again (Taylor, 2003).
28

29 In a study carried out by Ray (2007) the importance of professionals taking
30 self-injury seriously and acknowledging the depths of the person's pain was
31 highlighted. In particular, the women expressed a preference for practitioners
32 who were direct, proactive, and genuine. For most women, negative
33 experiences with therapy appeared to stem from perceptions of therapists as
34 judgmental, unable to relate, and lacking in knowledge about self-injury (Ray,
35 2007).
36

37 Issues of power and control were important in relationships with counsellors
38 and therapists. Effective therapeutic relationships seemed to be characterised
39 by an equal partnership, with participation in the process of therapy, such as
40 choosing when and how to disclose abuse (Curtis, 2006). Similarly, the
41 confiscation of objects that could be used to self-harm in many cases
42 contributed to a sense of lack of control and an increased desire to self-harm
43 in the future (Smith, 2002).
44

45 In another study (Hume & Platt, 2007) participants were often provided with
46 contact numbers to helping organisations in place of, or in addition to, a
47 referral. Although the majority of participants made use of these numbers,

1 some explained they felt uncomfortable initiating their own aftercare by
2 dialling these organisations. Moreover, several participants in this study were
3 anxious to impress on their friends, family and, in some cases, professionals
4 the importance of managing self-harm rather than its prevention.

5
6 Furthermore, the desire or willingness to engage with a service or source of
7 support for self-harm was not uniform. It was reported that those who were
8 unwilling to engage with treatment were more likely to have been harming
9 themselves over a long period. Similarly, service users who reported a longer
10 commitment to a particular intervention tended to recount feeling satisfied
11 with this service. In contrast, experience of a large number of different
12 interventions was associated with less commitment to, or perseverance with,
13 a particular intervention (Hume & Platt, 2007).

14 *Adolescents' experiences of engagement with service and* 15 *suggestions for improvement*

16 There were many suggestions by young people for improving engagement
17 and service delivery. Firstly, the importance of having services that are
18 informal and staffed by people with experience of mental health disorders
19 was raised as an important issue (Bolger *et al.*, 2004). Moreover, in studies of
20 adolescents conducted in the UK (Burgess *et al.*, 1998; Brophy *et al.*, 2006;
21 Sinclair & Green, 2005), Ireland (Bolger *et al.*, 2004) and New Zealand (Hood,
22 2006), the opportunity to talk was an important aspect contributing to their
23 positive experience of aftercare. In particular, young people hoped that
24 healthcare professionals would (Brophy *et al.*, 2006):

25
26 *...listen and respond in a natural way – showing concern and wanting to*
27 *support you*
28

29 However, not all participants welcomed the opportunity. Similar to adults,
30 the need for their inclusion in planning their treatment was highlighted as an
31 important issue for aftercare (Bolger *et al.*, 2004). Over half of the participants
32 could think of other types of help they would like to have received but had
33 not. These included admission to hospital, individual rather than family
34 appointments and specific help with school problems. Furthermore, respect
35 for the young person and the opportunity to build trusting relationships with
36 professionals were important aspects identified as a major factor in their
37 receptiveness of an intervention (Crockwell & Burford, 1995; Sinclair & Green,
38 2005). These needs were expressed by one individual as follows (Crockwell &
39 Burford, 1995):

40
41 *Listen to what they're saying, believe in them and make them feel like you're*
42 *there for them. I know one thing. I really wanted people to be there for me; if*
43 *they were, it would have made me feel a lot better. I'd say it would help other*
44 *people too. And don't take it lightly, that's another thing. Some people just*

take it lightly and go ‘that’s another one of those teenage phases’ they’re going through” or something like this but it’s not. It’s real!

In a US study conducted on female college students (Shaw, 2006), core aspects of treatment women described as helpful in their passage toward stopping self-injury include an empathic relationship with a professional who sees strengths beyond diagnostic labels and provides an opportunity to discuss self-injuring behaviour. In addition to the relational features, women also welcomed the helpfulness of pragmatic interventions such as verbal plans for dealing with urges to self-injure and concrete methods of managing emotions. Many of the participants expressed a desire to make meaning of their self-injury and explore the logic of their behaviour, but felt that this was lacking in their interventions (Shaw, 2006).

4.4.8 Social support

Eight studies investigated the needs, benefits and drawbacks of social support, which includes web-based support or information (Baker & Fortune, 2008), support from family or friends (Bolger *et al.*, 2004; Hood, 2006), community support groups (Corcoran *et al.*, 2007) and support from other people who self-harm (Hume & Platt, 2007) in helping to cope with self-harm behaviour. Overall, participants emphasised the importance of social support in dealing with their self-harm. In particular, many service users expressed a desire for mutual support and shared understanding from others who have harmed themselves (Hume *et al.*, 2007).

Feelings of isolation and alienation were common amongst service users (Camgan *et al.*, 1994; Hume & Platt., 2007; Ray, 2007; Schoppmann *et al.*, 2007). The notion of being alone surfaced as a significant stressor with self-injury emerging as an antidote and a reaction to loneliness (Ray, 2007). One interviewee (Schoppmann *et al.*, 2007) spoke about how there was no-one she could relate to and no-one she could trust:

I think I felt deserted from everybody. Here you are and nobody is there for me. I couldn’t talk to anybody.

For many service users, isolation and being alone led to feelings of increased restlessness, fear, and anxiety. Self-injury helped to deal with these feelings and to get some relief. (Schoppmann *et al.*, 2007):

I think when I am outside I have social contacts and when I am here, left on my own, perhaps it is the fear of being alone, yes, to be able to stand this, to feel that there is someone, that I am not alone, to feel myself perhaps.

Corcoran and colleagues (2007) examined the role of support groups in women’s management of their self-injury and possible associated difficulties. Belonging emerged as one of the primary feelings experienced, creating a

sense of acceptance and welcome, particularly valued by new members. Belonging was fostered by the anonymous and voluntary nature of the group. Acceptance of differences encouraged participants to express themselves openly and contributed to the development of self-acceptance.

... if I can't accept myself as someone who self-injures or maybe I will get to a stage of someone who has self-injured, you know I've got physical scars, ... how am I going to expect the rest of the world to?

Sharing experiences emerged as a valued aspect of group-membership, which involved a sense of 'genuine empathy' derived from all participants having self-injury in common. Participants often realised that, contrary to previously held beliefs, their experiences were shared by many others, which increased feelings of self-acceptance, thereby reducing feelings of isolation and subsequent desire to self-injure arising from such feelings. Despite this, many participants felt that the depth of sharing could be compromised by the low frequency and time restraints of meetings, sometimes preventing deeper exploration of issues. 'Autonomy' emerged as important, primarily in the group being 'led and run by the participants themselves':

... it's power sharing, ... we're equal, ... we are ... a group of women ... tackling painful issues ... that we have had to deal with ... so we are strong women, ... we don't feel strong all the time but we are equal, ... and the empathy, you couldn't get it ... from ... mental health professionals. ... there is a power difference.

'Positive feeling' emerged as a common experience and led to improved mood and light-heartedness, particularly in relation to their self-injury:

We have a laugh ... , it's not all serious and sometimes I think it can be really healthy to just have a laugh, ... not take it all too seriously which ... [is] hard to do if you're on your own or with people who are worried.

Participants expressed numerous individual changes resulting from group-membership, the most common being increased self-confidence/self-esteem. Moreover, many participants credited group-membership to reduced self-injury. Other changes attributed to group-membership included development of clearer thinking, tapping of inner strengths, discovery of new talents and the ability to do things they had previously been unable to do:

There have been days when I've felt like self-harming and thought I don't want to go to the group, and I've gone and I have come away and I've not wanted to self-harm because it has given me a chance to express myself instead.

A study conducted in the UK examined the impact of self-harm related websites as a form of support for young adults who self-harm (Baker & Fortune, 2008). All participants wrote about understanding and empathy,

when they described what benefit they derived from using the self-harm and suicide websites. By understanding others online, it is possible that website users may feel helpful and useful, and several participants gave this as an important reason for using the sites. Another dominant way of writing about the websites was as if they were communities. Participants stated that they provided emotional support, valuable information and advice, and most importantly, friendship (Baker & Fortune, 2008). These websites were an important coping strategy for those who self-harm with a number of participants stating that their use of self-harm and suicide websites served the same function. Interacting with fellow users was reported as a preferable alternative to self-harm and suicidal behaviours. For some participants, this led to a reduction in the frequency of these behaviours. Participants also wrote about the sites as contributing to their recovery. One reported that the sites had facilitated change *'better than any therapy.'*:

Since using the boards to tell people how I felt and stuff I definitely think the frequency of my s/h has decreased a lot. I know that if I feel I need to do it I can go on the boards or on msn and someone will be there who I can talk to, and get my feelings out as well as being a way to distract myself.

Adolescents' experiences of family support

In a study carried out on adolescents by Bolger and colleagues (2004) most of the respondents stated that their relationship with their parents and other family members was *'good'* or *'improved'* since the self-harm incident. The majority of the respondents mentioned *'having someone to talk to'* as being of benefit to young people in distress. In Hood's (2006) study of New Zealand adolescents and their parents, adolescents were usually less enthusiastic about parental involvement in their treatment. Conversely, parents valued their involvement in their child's treatment decisions. However, most adolescents did acknowledge that having a therapist to mediate allowed them to talk to their parents about issues that they felt they could not raise on their own.

4.4.9 Carer experiences

Seven studies (Byrne *et al.*, 2008; Bywaters & Rolfe, 2002; Hood, 2006; McDonald *et al.*, 2007; Oldershaw *et al.*, 2008; Rissanen *et al.*, 2009, Lindgren *et al.*, 2010) were found that could be categorised under the heading of *'carer experiences'*. The review team extracted common findings that emerged from the analysis of the carer perspectives such as the process of discovery, the psychological impact of self-harm, the understanding of the meaning of self-harm, support needs, parental views on treatment, the effects of self-harm on parenting and family life and the role of carers or parents in their child's recovery and treatment.

Firstly, the process of discovery of self-harm was commonly captured from the carer's perspectives review. Oldershaw and colleagues (2008) found that

for many parents, the process was gradual. At the beginning, many parents had a suspicion about their child's behaviour, often spotting injuries. However, they accepted implausible explanations in the hope that things would improve on its own. For the majority of cases, formal verification of their child's self-harm was often carried out by schools or other outside organisations, in collaboration with the young person. However, despite their initial concerns, many parents reacted to this news by 'brushing it under the carpet' as they felt that the situation would fix itself. Furthermore, the behaviour of outside organisations, such as schools or GPs, was suggested by parents as a key factor in the timing of accessing help. In particular, their attitudes and their willingness to discuss self-harm and give information influenced parental behaviour in the interval between disclosure and referral:

The teacher at the school actually was really quite good. She actually gave me a lot of the background for self-harm, why girls self-harm...she seemed to be quite clued up and in fact it was her that, she was the one that explained to me, a lot of it to me, because I had no idea what it was, what it meant... I don't feel as though I was floundering as much as I think I would have if I hadn't had her advice.

All parents from this study advised others in a similar situation to seek help sooner than they had done (Oldershaw *et al.*, 2008).

Another finding emerged was the psychological impact of self-harm on parents. Many parents described strong and lasting emotional reactions to their child's behaviour, including shock, disappointment, helplessness, guilt and fear, a persistent feeling of sadness and a sense of loss (Oldershaw *et al.*, 2008). One of the most prominent psychological reactions, however, was feelings of guilt and shame (Byrne *et al.*, 2008; Hood, 2006; Lindgren *et al.*, 2010; McDonald *et al.*, 2007; Oldershaw *et al.*, 2008). In particular, feelings of helplessness in discovering or preventing their child's self-harm led to increased guilt and shame. Specifically, they felt guilty that their child was unhappy or hurting to such an extent that they would even consider self-harm (McDonald *et al.*, 2007). In response to their children's expressed unhappiness, the mothers questioned their relationships with their children and felt that they may have failed them. This caused deep feelings of blame (McDonald *et al.*, 2007):

It was like, what have I done?...You tend to blame yourself...I wasn't watching, I wasn't caring enough, I wasn't showing enough love, I wasn't giving enough praise.

Interestingly, these emotional reactions are also mirrored in the accounts of healthcare professionals and service users themselves, increasing our confidence in the findings.

1 Many parents 'searched for a reason' for their child's self-harm behaviour.
2 Many felt that circumstances or life events in their own lives, such as
3 marriage breakdowns or losing family members, had caused their child to
4 self-harm. As a consequence, they blamed themselves for its occurrence
5 (McDonald *et al.*, 2007). Another source of guilt for these mothers stemmed
6 from their need to be far more vigilant of their adolescents, after the self-harm
7 was discovered. The mothers reported, amongst other things, having read
8 their child's journals and emails as well as listening in to private
9 conversations, in order to supervise their child's activities more thoroughly
10 (McDonald *et al.*, 2007). One mother commented:

11
12 *It means that you are constantly aware, watching them for any signs...which*
13 *is terrible. You feel like you are sneaking around all the time.*
14

15 Public stigma also led to strong psychological reactions such as a sense of
16 failure, worry, isolation and fear (Byrne *et al.*, 2008; Bywaters & Rolfe, 2002;
17 Hood *et al.*, 2006). For instance, Hood and colleagues (2006) established that in
18 some cases parents were uncomfortable with their adolescent's referral to
19 aftercare because it increased their feelings of failure and they were worried
20 about the stigma attached to it. Interestingly, fathers in this study were found
21 to worry more than mothers about stigmatisation (Hood, 2006). Many felt that
22 better information for the general public was also called for to help alleviate
23 some of the stigmatisation faced by individuals who self-harm (Bywaters &
24 Rolfe, 2002). Mirroring findings of past studies, a recent study carried out by
25 Byrne and colleagues (2008) on the needs of parents and carers experiences of
26 self-harm and services found that the discovery of self-harm was associated
27 with stigma, which exacerbated feelings of isolation and despair:

28
29 *...go around trying to cover up, not discussing it in front of family or friends.*
30 *The biggest thing is the isolation, terror and fear...it's a very harsh journey.*
31

32 The majority of mothers interviewed felt they could not talk to anyone about
33 their child's self-harm as they were aware of the stigmatised nature of self-
34 harm and feared the judgement of others (McDonald *et al.*, 2007). This fear
35 further contributed to the shame they experienced. Finally, self-harm episodes
36 elicited intense anxiety as many feared the risk of repetition while their child
37 waited for appropriate treatment (Byrne *et al.*, 2008). Parents also described
38 feelings of anger and frustration and sometimes this anger was directed at
39 their child, whose behaviour was disrupting their entire family (Byrne *et al.*,
40 2008).

41
42 A third finding from the carer literature was the parents' understanding of
43 repetitive self-harm behaviour and factors relating to it. Oldershaw and
44 colleagues (2008) were the first to investigate parental views of the meaning of
45 their child's self-harm behaviour and the causal factors. They found that
46 parents were sensitive to the behaviour and deeply affected by their
47 experience, however, almost all parents said that their child gave them little

or no explanation for their self-harm. Many of the parents felt that on the outside their children appeared to be ok, but internally they were suffering (Rissanen *et al.*, 2009):

I knew she had problems of some kind, but her problems were bigger and more serious that I could ever imagine and they could not be seen from the outside.

When asked if they had any personal opinions on the causes, common causal factors acknowledged by parents were emotional difficulties; situational difficulties, such as bullying; and personality factors, such as a lack of self-esteem. Most parents recognised that self-harm served a purpose in the young person's life, such as coping with negative emotions or as a means of providing control. (Oldershaw *et al.*, 2008):

I can understand that it's some way of you having some sort of control over your pain, over your life, because you feel totally out of control when you're feeling so depressed or vulnerable or whatever

Carers gave similar causal factors for engaging in self-harm as professionals and service users themselves, thus strengthening these findings. Yet beyond an intellectual understanding, many parents felt they could not come to terms with their child's self-harm behaviour and understated its significance. Most parents struggled to accept self-harm and recognised the numerous 'typical' teenage behaviours that their child could alternatively engaged in and felt regret that their child had 'opted' to self-harm. Ultimately, parents felt that they could not fully understand or empathise with self-harm:

I find that hard to empathise with because it just wouldn't be my way of dealing with it, erm but I can intellectually understand it

An additional finding from the carer literature was the need for support and information about self-harm. Above all, carers expressed the need for support; information about suicidal behaviour in young people; skills for parenting and advice on managing further incidences (Byrne *et al.*, 2008; Bywaters & Rolfe, 2002; Rissanen *et al.*, 2008). Furthermore, advice on how to prevent, or manage further episodes was seen as priority for parents and carers (Byrne *et al.* 2008). The opportunity to avail of support and to share similar circumstances was believed to be extremely important in managing the impact of self-harm (Byrne *et al.*, 2008; Oldershaw *et al.*, 2008):

It would be a relief to be able to talk to someone else who has gone through it. Knowing other people having the same situation really does help. The relief of knowing I'm not the only one.

Another finding that emerged from the carer literature was their views of services and treatments. Firstly, many parents were divided on their feelings about medication. Specifically, concerns about the side effects, withdrawal

1 effects, changing medication and the long-term effects of medication were
2 frequent worries from parents (Hood *et al.*, 2006). Conversely, some parents
3 were happy that their child was on medication because they saw the
4 beneficial nature of the antidepressants.

5
6 Similar to service users, the majority of the parents felt that services failed to
7 provide their children and their parents with adequate or appropriate
8 support. In particular, the lack of a clear care pathway for 16-18-year olds was
9 highlighted. Akin to service user's views, carers highlighted the lack of
10 continuity of care and specifically the long duration spent waiting for
11 CAMHS appointments (Byrne *et al.*, 2008; Hood *et al.*, 2006). Lindgren *et al.*
12 (2010) conducted a study which examined parents' experiences of their
13 daughters' professional care and caregivers at all levels of outpatient and
14 inpatient child, adolescent and adult psychiatric care, acute and emergency
15 care, and primary healthcare in Sweden. The experiences were mixed in
16 nature. With regard to negative experiences, they reported feeling invisible by
17 not being listened to, not being seen, not been taken into account, and being
18 excluded from participating in their daughters' care. On the other hand,
19 parents also experienced feelings of peace and of being comforted, listened to,
20 and taken seriously in some meetings with some professional caregivers.
21 Moreover, caregivers who showed compassion and an honest willingness to
22 help were experienced as genuine, reliable, and helpful, which made them
23 feel valued, validated them as valuable people in their daughters' lives and
24 allowed parents to see some hope for their daughter. Some parents said they
25 found adolescent psychiatrists were often unavailable for continued care
26 because they were too busy, or had left the service during the adolescent's
27 treatment period (Hood *et al.*, 2006).

28
29 In a recent study carried out by Rissanen and colleagues (2009) knowledge of
30 self-injury among healthcare professionals was identified by parents as a
31 helpful factor enabling them to approach self-harm in a professional way.
32 Service users also highlighted the importance of knowledge of self-harm in
33 healthcare professionals, and professionals themselves who were more
34 knowledgeable reported feeling more able in treating people who self-harm.
35 According to the parental descriptions, self help was useful in many ways but
36 was insufficient on its own (Rissanen *et al.*, 2009). Parents also described
37 additional factors that were of help in the relationship between healthcare
38 professional and an adolescent who self-injures. These helpful factors
39 included such things as trustworthiness, professional skills, genuine caring,
40 respecting individuality, sensitivity, speaking about self-harm and the
41 reasons for it, co-operation with the whole family and working
42 communication between nursing units. In addition, parents recognised
43 unhelpful factors such as disinterested attitude, avoiding discussion of self-
44 harm, reproaching or denouncing parents for their child's self-harm and
45 doubting the honesty of parents when talking about the self-harm. Again, the
46 helpful and unhelpful factors reported by parents reflect those of the service

1 users themselves and in some cases healthcare professionals' views (for
2 example the value of communication), increasing our confidence in the
3 findings reported.

4
5 A further finding of importance was the effect of self-harm on parenting and
6 family life. It appeared that self-harm resulted in both negative and positive
7 changes in these areas. With regard to negative changes, self-harm was seen
8 to disrupt family dynamics and impede family functioning (Byrne *et al.* 2008).
9 Many parents reported 'walking on eggshells' around the adolescent, nervous
10 of triggering an episode of self-harm (Oldershaw *et al.*, 2008). This impacted
11 their parenting style and ability to set limits and maintain boundaries. Several
12 parents (Oldershaw *et al.*, 2008) found that they were now constantly aware
13 of what the young person was doing, both discreetly watching them from a
14 distance, and providing increased overt attention and care-giving:

15
16 *It was like looking after a baby again...I was hiding the knives, I was hiding*
17 *any pills...I was knocking on her door every 5 minutes*
18

19 Many parents felt that they had to deny their own needs and make changes to
20 or limit their lifestyle as a direct result of the self-harm. They found
21 difficulties in balancing parenting and meeting the needs of other children,
22 which heightened the psychological impact of self-harm by increasing
23 parental burden, pressure and stress. Many of the mothers in this study felt
24 guilt regarding their diminishing role within the family – as a wife, mother
25 and core of the family (Oldershaw *et al.*, 2008). Dealing with their child's self-
26 harm often took away from their usual roles at work and home, causing them
27 to feel guilty because they believed that they were not meeting the
28 expectations of themselves or others. Four of the mothers interviewed also
29 considered that the extra time, energy and attention spent on child who self-
30 harms meant that they had neglected the mothering of their other children.
31 (McDonald *et al.*, 2007).

32
33 However, parents did feel that self-harm had resulted in some positive
34 changes to family life by strengthening the parent-child relationship
35 (Oldershaw *et al.*, 2008):

36
37 *It's actually helped me break down some of those barriers because she's always*
38 *coming up for cuddles now and actually I don't reject her anymore, and I*
39 *think that's because I want to and I can. So that's...I think that's a really*
40 *positive thing.*
41

42 Finally, carers highlighted the different roles that they played in their child's
43 struggle with their self-harm behaviour and in their recovery. In a study
44 carried out by Rissanen and colleagues (2009) the parents felt that they played
45 a significant role in their child's self-harm, include intervening in the act of
46 self-injuring; giving support for obtaining professional help; showing they
47 care and discussing the self-harm behaviour and factors associated with it.

They wished to help their child express their feelings more appropriately and develop adaptive coping strategies. On the other hand, many of the parents questioned their competencies at disciplining, boundary setting, and re-establishing healthy relationships with their child. Specifically, parents felt that ‘*active disciplining*’ could run the risk of self-harm recurrence, and were left disempowered by self-harm. Problems in communication with adolescents and the incapacity of parents to help were identified as help-hindering factors in this relationship. On the other hand, helpful factors identified by parents were; parental interaction with the adolescent, including showing care and awareness; ensuring professional help and interaction of the parents with each other. In reference to parental involvement in treatment, Hood and colleagues (2006) found that adolescents were usually less enthusiastic about parental involvement, while parents were often very happy to have the opportunity to be involved their child’s therapy.

4.4.10 Healthcare professionals’ attitudes, knowledge and experience

15 primary studies (Cooke & James, 2009; Duperouzel & Fish, 2007; Gibb *et al.*, 2010; Kibler, 2009; Law *et al.*, 2009; Long & Jenkins, 2010; Reece, 2005; Redley, 2010; Roberts-Dobie & Donatelle, 2007; Simm *et al.*, 2008; Smith, 2002; Thompson *et al.*, 2008; Treloar & Lewis, 2008a; Wheatley & Austin-Payne, 2009; Whitlock *et al.*, 2009) were found that were categorised under the broad heading of ‘healthcare professionals’ attitudes, knowledge and experience’. There were a further two reviews identified that fell into this category (McHale & Felton, 2010; Saunders *et al.*, in press). When reviewing the literature, there were a number of findings such as: the identification of self-harm; healthcare professionals’ knowledge and understanding of self-harm; the psychological impact of self-harm on healthcare professionals; attitudes towards self-harm behaviour; views on treatment and services; support needs; views on harm minimisation strategies and finally training needs and experiences.

Identification of self-harm

Three studies reported findings related to ‘identification of self-harm’ (Cooke *et al.*, 2009; Roberts-Dobie & Donatelle, 2007; Simm *et al.*, 2007). For school nurses from a primary care trust, identification of self-harm most commonly occurred when staff were approached by friends of service users and other staff members (Cooke *et al.*, 2009). It was a rare occurrence for the school nurses to be approached by children and young people who self-harm and in fact only one school nurse identified self-harm behaviour this way. Similarly, in a US study conducted by Roberts-Dobie & Donatelle (2007) on school counsellors, the most common methods of discovery were being informed by a fellow student (67%), a classroom teacher (65%), being approached by the person who self-harms (51%) or the counsellor personally recognising the symptoms (48%). These findings highlight the need for all school employees

and peers to be educated about self-injury as they are the primary sources for identification of self-injury. Importantly, in a study conducted on head teachers of primary schools in the UK (Simm *et al.*, 2007) participants noted that the busy nature of school life and demands on time might hide self-harm behaviours from some staff.

Knowledge of self-harm and its causes

There were five studies that explored the topic of knowledge of self-harm and its causes (Cooke *et al.*, 2009; Duperouzel & Fish, 2007; Kibler, 2009; Simm *et al.*, 2007; Thompson *et al.*, 2008). In a study carried out by Simm *et al.* (2007), head teachers of primary schools expressed uncertainty as to what self-harm was and was not. Some participants felt that, if the child does not intend to hurt themselves, then the behaviour does not qualify as self-harm. Others felt that intentionality did not matter in this way. Finally, some participants felt that self-harm had to be repeated behaviour but others considered that behaviour could count as self-harm even if it only happened once. In another study, school nurses' knowledge of self-harm methods was broad, but commonly focussed on 'superficial self-harm' rather than more lethal methods (Cooke *et al.*, 2009).

Understanding of the underlying reasons for self-harm

Regarding the underlying reasons for self-harm (Duperouzel & Fish, 2007) healthcare professionals understood that self-harm was an important coping mechanism and a means of control. This was a common underlying reason quoted by service users themselves, thus strengthening the findings reported. Furthermore, the majority (83%) of US school counsellors were also aware that it is best to be direct with students about stopping the self-injurious behaviour and most participants (80%) also believed it was beneficial to educate students about how and why students self-injure (Kibler, 2009). Ultimately, in a study conducted on experienced community psychiatric nurses (Thompson *et al.*, 2008) the importance of understanding service users in order to have more empathy was highlighted.

Another recent study by Redley (2010) examined clinicians understanding of self-harm by overdose and their experience of psychosocial assessment. Many seen the act as an impulsive one in the face of adverse life events and influenced by drugs or alcohol. On the contrary, a person's motivation or reasons for taking an overdose are given minimal clinical importance. The authors suggest a number of reasons for this. Firstly, paying greater attention to a person's reasons and motivations may lead to provocation if the clinician does not understand, endorse or agree with the person's motivations. Secondly, some of the interviews suggested that being intimate with details people's lives, in order to better understand their reasons for taking an overdose, is not commensurate with the professional role considered necessary to work with these people.

Long and Jenkins (2010) recently examined counsellor's perceptions of self-harm and their view of the role of the therapeutic relationship when working with this group. The counsellors concurred that the therapeutic relationship is central when working with people who self-harm. In particular, they recognised the need for time, a safe and confidential environment, non-judgemental support, unconditional positive regard, empathy, equality and sensitivity as important factors in establishing a rapport and a trusting therapeutic relationship. The findings indicate that the therapeutic relationship for self-harm is vital, complex, long-term and multi-dimensional. Observational skills, listening, identifying personal history, supervision, risk assessment and being person-centred were all identified by counsellors as crucial at the beginning of therapy. Two counsellors commented on the use of no-suicide contracts and both agreed that they were detrimental rather than beneficial, in that they 'protect the counsellor rather than the client' and as it takes away a coping mechanism or 'crutch' for dealing with difficult issues. When discussing the ending of the therapeutic relationship, teaching coping strategies, teaching service users to identify triggers for their self-harm and safer self-harm were described as possible options. Many of the counsellors conceded that the ending of therapy was a difficult task and this should be addressed in training.

Attitudes to self-harm

Sixteen studies examined attitudes of healthcare professionals about self-harm and these were predominantly negative in nature (Cooke *et al.*, 2009; Gibb *et al.*, 2010; Hopkins, 2002; Jeffery & Warm, 2002; Kibler, 2009; Mackay & Barrowclough, 2005; McHale & Felton, 2010; O'Donovan, 2007; Redley, 2010; Reece, 2005; Saunders *et al.*, in press; Smith, 2002; Thompson *et al.*, 2008; Treloar & Lewis, 2008a; Wheatley & Austin-Payne, 2009; Whitlock *et al.*, 2009). Some of the negative attitudes addressed by the literature (for example, that self-injury is a means of seeking attention) were quoted as common misconceptions in the perspectives of service users reported above (Reece, 2005).

A number of studies exposed that many healthcare professionals felt that people who self-harm were labelled as '*attention seeking*' (Cooke *et al.*, 2009; Kibler, 2009; McHale & Felton, 2010; Reece, 2005; Saunders *et al.*, in press; Smith, 2002). For instance, in one study carried out by Kibler (2009) when US counsellors were asked whether most students who self-injure want attention, approximately equal numbers agreed and disagreed with this statement. Also, in the systematic review carried out by Saunders and colleagues (in press) a number of studies indicated an over-representation of attention-seeking as a motive for self-harm. This was found to be less common in psychiatric staff compared with general hospital staff. When asked the reasons why it was felt that people who self-harm were viewed negatively, healthcare professionals frequently cited (Smith, 2002):

A general fear of working with these people and I think the fear is born out of not quite knowing what to do with them, and due to the blame culture professionals have lost confidence in themselves and therefore empathy towards other human beings suffering

Moreover, some healthcare professionals expressed that those who used superficial methods of self-injury were doing so to gain attention, whereas, those engaged in more 'serious' self-harm had different motives (Cooke *et al.*, 2009):

I think there are two groups: those that say they're self-harming, and it's...probably only superficial scratching or whatever and I wonder if it's more attention-seeking or frustration or anything else. And then you get what I call your serious self-harmers that are really abusing or hurting themselves

On the other hand, not all studies highlighted negative attitudes towards individuals who self-harm. The literature review carried out by Saunders and colleagues (in press) identifies two studies where sympathy was reported by at least 40% of healthcare professionals (Friedman *et al.*, 2006; Pallikkathayil & Morgan, 1988). Moreover, in a study carried out by Gibb and colleagues (2010), there were some positive attitudes including 73% of healthcare professionals stating that they could empathise with a person who has self-harmed and 71% believing that their contact was helpful to people who self-harm.

There are a number of factors that may promote negative attitudes, such as the busy nature of the ward, service users being seen as an obstacle to the ward and challenging behaviour. For instance, in a study carried out by Hopkins (2002) the above factors were highlighted when observing two medical wards and interviewing two healthcare professionals from each ward. In particular, the service users were seen as blocking beds as their needs meant beds were occupied for longer than expected. These service users were deemed to have challenging behaviours as they had different requirements than medical patients. While the study had a small sample (only four participants) to draw these conclusions from, they were supported by the additional observations made (Hopkins, 2002). In fact, many healthcare professionals feel that people who self-injure are a difficult group to work with, and this may partially explain the prominence of negative attitudes (Gibb *et al.*, 2010; Smith, 2002; Thompson *et al.*, 2008; Whitlock *et al.*, 2009).

One explanation for this, is that self-harm is often comorbid with many other challenging clinical presentations such as borderline personality disorder and depressive and anxiety disorders, disordered eating, and a history of trauma and abuse (Whitlock *et al.*, 2009). Other possible explanations include the perceived addictive nature of the behaviour and uncertainty about how to best treat or manage self-injurious behaviour (Whitlock *et al.*, 2009). Finally in a study by Gibb and colleagues (2010), healthcare professionals indicated that

1 their greatest difficulties in working with people who self-harm included
2 repetitive self-harm, frustrating and difficult behaviour, communication
3 difficulties, lack of knowledge about mental illness, a lack of effective
4 interventions and time pressure.

5
6 A study carried out by Wheatley and Austin-Payne (2009) on nurses provides
7 some additional insight into why they viewed people who self-harm more
8 negatively than other patients. Interestingly, they found that nurses who
9 reported feeling more negative about peoples who self-harm reported more
10 worry about working with this group. Furthermore, there were non-
11 significant trends suggesting that nurses who reported feeling more effective
12 in their work with people who self-harm reported less negativity and worry
13 about working with this group, although this was not necessarily the case for
14 female nurses. A study carried out by Gibb and colleagues (2010) found that
15 negative attitudes were significantly associated with higher levels of burnout,
16 through high emotional exhaustion and low personal accomplishment.
17 Finally, unqualified nursing staff reported more negativity and worry in
18 working with people who self-harm than qualified nurses, suggesting that
19 knowledge and education plays an important role in attitudes towards self-
20 harm (Wheatley & Austin-Payne, 2009).

21
22 The literature review carried out by Saunders and colleagues (in press)
23 highlighted a number of additional characteristics that play an important role
24 in influencing attitudes such as job role and gender. For example, within
25 general hospital staff, those who were closer to the frontline were increasingly
26 likely to hold negative viewpoints about and behave negatively towards
27 people who self-harm. Furthermore, negative attitudes towards people who
28 self-harm were more prevalent in doctors compared with nurses. Where this
29 was not found the majority of the studies had a participant population which
30 included psychiatric staff. Three studies found that psychiatrists had a more
31 positive attitude towards self-harm, compared to their colleagues of other
32 specialities and the same effect was found in non-medical psychiatric staff
33 and their colleagues (Platt & Salter, 1987; Treloar & Lewis, 2008a; Lonnqvist &
34 Suokas-Muje, 1986). This indicates that psychiatric training and experience
35 goes some way to moderating the effect of job role on healthcare
36 professionals' attitudes. In line with this, exposure of psychiatric staff to
37 people who self-harm was found to improve healthcare professionals
38 attitudes. Nevertheless, the opposite effect was found in general hospital staff.
39 Another potentially moderating effect, identified by the review, was the
40 influence of gender on attitudes. Three studies found that the attitude of male
41 staff towards self-harm were significantly more negative compared to those of
42 female staff. However, authors do highlight that the strong gender-role
43 association, with the tendency for male doctors and female nurses, make
44 results from these studies difficult to interpret.

45

In a study carried out by O'Donavon (2007), an additional area influencing negative attitudes was the impact of the health professionals' views of the differences between their expected and actual roles. In semi-structured interviews O'Donavon (2007) revealed that healthcare professionals felt the focus of their role was prescribing medication rather than developing therapeutic relationships within acute mental health wards. This prevents people from being able to address the reasons for their self-harm and developing alternative coping strategies.

Another justification for negative attitudes portrayed by healthcare professionals is the lack of training and education in the area of self-harm provided to them. A literature review of the factors affecting attitudes to self-harm (McHale & Felton, 2010) found that a lack of education was the primary rationale for negative attitudes which appeared in 18 out of the 19 papers reviewed. Additionally, a recent study carried out by Treloar & Lewis (2008a) on professional attitudes of mental health clinicians and emergency room staff highlighted the importance of training and education on healthcare professionals' attitudes. They found that mental health clinicians had a significantly more positive attitude towards borderline personality disordered patients who self-harm compared to clinicians working in emergency medicine. Another significant finding was that the female clinicians across both mental health and emergency medicine service settings had more positive attitudes towards patients with BPD, although this difference was not significant when controlling for other factors. However, factors such as the frequency of contact with patients with BPD, level of university training completed, and years of clinical experience held by the clinicians across mental health and emergency medicine were not associated with attitude ratings towards such patients. As predicted, clinicians across the mental health and emergency department service settings who had attended prior training specifically in the area of BPD demonstrated significantly more positive attitudes towards working with this patient group (Treloar & Lewis, 2008a).

As well as healthcare professionals' characteristics, the varying characteristics of people who self-harm were also identified as moderating factors on healthcare professionals' attitudes (Saunders *et al.*, in press). For example, negative attitudes were more likely to be expressed towards people who repeatedly self-harm. Negative attitudes are also linked to the professional's perceptions of service users' control of self-harm. Mackay & Barrowclough (2005) asked questions about attitudes within four hypothetical situations offering different control and stability features. The findings indicated that where the problems specified leading to self-harm were within the control of the service user then elevated disapproval was shown. This may imply that feelings of incompetence lead to negative attitudes (Hopkins, 2002; Smith, 2002; Mackay & Barrowclough, 2005; O'Donavon, 2007; Patterson *et al.*, 2007). Service users presenting frequently at hospital challenge healthcare

professionals and their ability to cope with such situations. This could affect their confidence, which further contributes towards negativity (McHale & Felton, 2007). Ramon, Bancroft and Skrimshire (1975) found that the lethality of self-harm is also an influencing factor on nursing and medical staff's attitudes towards self-harm, with sympathy and lethality being positively correlated. This finding was mirrored in a US study (Ansel & McGee, 1971) and an Australian study (Bailey, 1994), both of which found that positive attitudes were more likely to be displayed towards clearly suicidal or despairing patients. Furthermore, Saunders and colleagues (in press) found that healthcare professionals felt more hostility towards people who self-harm than those with a physical illness. This was attributed to distinctions that professionals between legitimate and illegitimate needs, with self-harm being considered illegitimate compared with physical illness and, therefore, less worthy of care.

The emotional impact on healthcare professionals who work with people who self-harm

The literature also highlighted the emotional and psychological impact that working with people who self-harm can have on healthcare professionals (Duperouzel & Fish, 2007; Reece, 2005; Redley, 2010; Thompson *et al.*, 2008). Similar to carers' experiences, self-harm elicited strong emotional reactions in healthcare professionals. Many participants talked about how frustrating and hopeless the work could be, which was linked to service users not getting better or relapsing (Thompson *et al.*, 2008) or when service users continued to self-harm following attempts to talk about their behaviour (Duperouzel & Fish, 2007):

I suppose it's just like beating your head against a brick wall. You still trying to, you're trying to help her and sort her through and sort her life out and she basically just throws it back in your face. That's how it seems; she's throwing it back in your face.

The sense of nurse helplessness in dealing with self-harm was a common feature of the nurses' interviews in one study (Reece, 2005). However, the way in which this helplessness was managed varied with some expressing feelings of frustration and others were expressing feelings of distress. In particular, many of the male nurses conveyed distress and powerful emotional reactions in response to self-harm incidents (Reece, 2005). Participants also felt inadequate and this was mainly attributed to a lack of resources, lack of time and a feeling of futility (Cooke *et al.*, 2009). For others, there was anger towards patients for being 'manipulative'. Furthermore, some participants felt that seeing the physical effects of patients' self-harm were distressing, shocking and at times they felt disgusted (Thompson *et al.*, 2008). However, despite the challenging nature of working with people who self-harm, most participants also felt that 'It can be very rewarding' (Thompson *et al.*, 2008). Both service users' and carers' feelings of guilt and blame were key concerns for

healthcare professionals. They explained that, when someone self-harms, they feel personal guilt alongside an institutional pressure and blame culture (Duperouzel & Fish, 2007):

If we did allow self-harm and something went wrong we'd be dead meat, for want of a better word. It could be said as negligent

With the exception of one participant they all talked about the fear of being blamed for their actions if a patient dies '*Am I gonna have to account for what I have done?*' Feeling responsible was exacerbated by time pressures, having limited resources and feeling unsupported by other statutory services (Thompson *et al.*, 2008). Therefore, not surprisingly, all participants except for one found working with this patient group '*very anxiety provoking*' and on occasion described this anxiety as spilling over into their personal lives (Thompson *et al.*, 2008). Interestingly, service users demonstrated an awareness of this blame-culture but felt it was unfair to hold healthcare professionals responsible for their self-injurious behaviour (Duperouzel & Fish, 2007). Despite most healthcare professionals feeling personally responsible for helping service users get better, there was a clear recognition that – '*It's about putting the responsibility back to them*'. The patient should be seen to have ultimate responsibility for their behaviour and nurses felt it was important to work collaboratively with the patient.

Healthcare professionals' experiences of services and treatments for people who self-harm

An additional finding that emerged from the healthcare professional literature was their experiences of services and treatments available for people who self-harm (Cooke *et al.*, 2009; Smith, 2002; Whitlock *et al.*, 2009). With regard to services available, healthcare professionals explained that other priorities prevented them from giving service users time and space to explore their self-injury (Smith, 2002). Cooke and colleagues (2009) discovered that many of the nurses were uncomfortable with referrals, particularly because it involved weighing up a breach of confidentiality with a duty of care. They were also uncomfortable with the threshold of specialist services because this often resulted in them having to deal with situations they did not feel equipped to handle. Uncertainty about how to best treat the behaviour was common, with only 28.3% of respondents saying that they knew enough to treat people who had self-injured effectively and three-quarters agreeing that this is a subject about which they need more information (Whitlock *et al.*, 2009). The majority of practitioners reported using CBT or DBT treatment approaches and the majority reported that these treatments are only sometimes effective (Whitlock *et al.*, 2009). Moreover, many reported having changed their approach to treatment over time, typically in favour of DBT (Whitlock *et al.*, 2009). Acquisition of coping mechanisms, improvement of life circumstances and enhanced ability to reflect on the underlying causes of distress were identified as the most common reasons for self-injury cessation

following treatment (Whitlock *et al.*, 2009). Furthermore, healthcare professionals making assumptions and being too focused on the physical manifestations, rather than the associated psychological complexities, of self-harm was another central issue (Cooke *et al.*, 2009). In particular, alternative strategies in place of the self-harm behaviour were seen as ‘futile’ by some healthcare professionals:

I feel silly telling them alternative strategies...like to hold an ice cube. They seem futile and I feel like I lose credibility...It seems inadequate – how could it help?

Similar to both carers and service users, healthcare professionals expressed a need for continual support and additional training (Gibb *et al.*, 2010; Smith, 2002; Thompson *et al.*, 2008). Experienced community psychiatric nurses all described the importance of supervision and informal support (Thompson *et al.*, 2008). Most participants felt that they could rely on their colleagues for reassurance and advice. However, there was also a sense that as the team were extremely busy that they wouldn’t want to burden others, so they may not seek support as often as needed (Thompson *et al.*, 2008). In relation to support for service users, healthcare professionals agreed that peer group support is beneficial as ‘to know that other people have had similar experiences can be really helpful’ (Smith, 2002). Further suggestions for improvement, as identified in by the Saunders and colleagues (in press) literature review and by a study conducted by Gibb and colleagues (2010), included further training and an increase in resources such as advice, support, facilities, staff levels, faster assessment and greater flexibility with patient allocations. Healthcare professionals identified a specific training need with regards to taking a psychosocial history of self-harm patients and referring them onto psychiatric services. Healthcare professionals also felt that separating the facilities for people with physical health problems and people who self-harm would be beneficial because of the differing needs of the two groups.

Views on harm minimisation

Three studies also captured staff views on harm minimisation strategies (Duperouzel & Fish, 2007; Reece, 2005; Thompson *et al.*, 2008) (see Chapter 7 for more information on harm minimisation). Some healthcare professionals felt that self-injuring should be permitted because it reduced the risk of more dangerous behaviours (Duperouzel & Fish, 2007):

I don’t have a problem with it. I would let them cut as long as it was done, you know what I mean, where there is less risk of infection. Because, to me, if she’d been allowed to cut she wouldn’t have started swallowing. She wouldn’t have started doing the inserting things like that. Which to me is more life threatening than cutting.

Many nurses expressed a desire for the service users to stop self-harm, but some knew that realistically they, as nurses, could not stop it from happening, only attempt to contain it (Reece, 2005). In a study performed on experienced community psychiatric nurses, all talked about the need to minimise and 'contain risk' and that their role was not necessarily about helping a patient to stop self-harm (Thompson *et al.*, 2008):

I don't actually see it as my aim to stop somebody kind of self-harming. I perhaps see it as maybe acknowledging well that's kind of the way that they're functioning. Maybe we can look at reducing this and making that behaviour as kind of safe as possible

O'Donovan (2007) interviews also raised the area of risk management including the removal of property and one-to-one observations. Nurses acknowledged necessity to ensure safety of service users. However, they felt the measures taken were inappropriate and were contravening people's rights. This conflict results in healthcare professionals feeling uncomfortable with the roles that they are required to work within for service user safety.

Views on training and education

Another finding arising from the literature was the need for training and education in issues relating to self-harm (Cooke *et al.*, 2009; Duperouzel & Fish, 2007; Roberts-Dobie & Donatelle, 2007; Simm, *et al.*, 2007; Smith, 2002; Wheatley & Austin-Payne, 2009). The majority of healthcare professionals believed that they were able to do their job adequately, however, in order to provide better care they suggested that they needed additional training (Smith, 2002). Likewise, in a study carried out by Cooke and colleagues (2009) the need for training in self-harm was raised as an important issue amongst the school nurses, with a number of participants feeling ill-equipped to deal with self-harm issues in an appropriate way. Similarly, in a study carried out by Duperouzel & Fish (2007) service users and healthcare professionals highlighted the need for more staff training in order to understand the behaviour and methods of caring for people who self-harm. It was felt that better understanding would, in turn, improve communication, as service users often felt that healthcare professionals avoided discussing self-harm behaviour with them, despite the value that service users placed on this interaction. Mirroring the views of service users themselves, healthcare professionals also felt that communication about self-harm was difficult, and this was attributed to a lack of confidence, something which training could address (Duperouzel & Fish, 2007):

Training should include lots and lots of different ideas why people – why and what research tell us what causes people to self-harm, because I don't think that it is very well understood. And I also think that we should have training in how to deal with it. And when it is happening there and then, rather than, not just going off your instincts but following what other people are doing.

All healthcare professionals expressed a desire for general mental health and self-harm training and particularly practical tips on management of self-harm (Cooke *et al.*, 2009). Moreover, it was felt to be of importance to look at healthcare professionals' thoughts and feelings surrounding the topic of self-injury (Smith, 2002). Supervision was also thought to be essential, as was peer group support and working as a team (Smith, 2002). Other training suggestions included increasing knowledge levels especially with regard to alternative strategies and general awareness of self-harm, practical tips for managing young people who self-harm, information regarding organisations who deal with self-harm issues, counselling, and learning about different types of self-harm (Cooke *et al.*, 2009). Another key area that was highlighted by school nurses was further education on referrals and in particular, understanding when it's appropriate to refer people onto specialist services, when to seek help and when to refer to child protection services. Finally, training was considered necessary in issues of confidentiality. Specifically, when to inform parents, family support and when to break confidentiality. Most of those who had previously attended training said it had helped increase their confidence in dealing with these issues (Cooke *et al.*, 2009). It was also suggested that involving people who self-harm in the training may help to address the issues of guilt and blame felt by healthcare professionals (Duperouzel & Fish, 2007). Further evidence suggesting more training is necessary is apparent within research completed by Jeffery & Warm (2002). Medical staff and psychiatrists showed limited awareness about self-harm when tested about facts and myths surrounding self-harm. The respondents who had appropriate training were clearer about self-harm which suggest this would be evidence in practice. In an additional study carried out by Roberts-Dobie & Donatelle colleagues (2007) the most commonly identified need expressed by school counsellors in the US was building their knowledge and skills. In addition to more information, counsellors wanted policies and procedures to follow when working with people who self-harm. Learning mentors interviewed in a study carried out by Simm, Roen, & Daiches (2007) described how they had gained new understandings of self-harm from a training course on self-harm. Equally, they felt that colleagues who had little training in this area were not as aware. Particular gaps in knowledge found were in relation to subgroups of the population who are at higher risk of self-harm. Additionally, the findings suggested that training and support to help unqualified staff feel less negative and concerned about working with people who self-harm may be particularly important (Wheatley & Austin-Payne, 2009).

4.4.11 From evidence to recommendations

Service user experiences of self-harm

The evidence from the qualitative literature provides an insight into the experience of people who self-harm and their carers and healthcare

professionals. For many people self-harm is an indication of an underlying problem and the reasons for self-harm vary considerably. For some, self-harm is related to traumatic life events, childhood abuse, psychiatric illness or troubled relationships. For others, self-harm was an important coping mechanism for dealing with feelings of frustration, loneliness or distress. It was also described in the literature as a cry for help, an escape, or as a means of gaining support. Others mentioned that they engaged in self-harm in order to feel alive or relieve themselves of dissociation. Also, the meaning and motivation behind each act may differ considerably from one incident to the next. There were fourteen studies in the literature reviewed that looked at reasons behind self-harm behaviour. Most of the studies were qualitative and used semi structured interviews of mostly adult female participants, and one study had participants as young as 14 and four as young as 16. The mean study sample size was around thirty seven participants and the recruitment varied considerably from inpatient and hospital recruitments to advertisements, self help websites and email interviews. In summary, health and social care professionals should explore the meaning of self-harm for the person, and recognise that each person self-harms for individual reasons.

Self-harm may co-exist with other destructive behaviours such as drug or alcohol misuse. Two particular studies highlighted these destructive behaviours, however, the participants varied from a large sample (n=76) of female subjects who self-injured to male and female subjects (n=20) who had stopped self-harm for at least 2 years. The literature also mentions that these coexisting behaviours may be interchangeable, however, this finding came from a small study of seven participants.

There are mixed attitudes towards ending self-harm and the process of recovery. Some people wanted to stop, whereas others valued it as a vital coping mechanism. There were three studies in the literature that looked at the views of people, both who currently self-injured and those who had stopped.

There is a paucity of evidence that looked at experience of self-harm in males. The male literature implies that there is an expectation that men are '*stronger*' and '*able to cope*' and as a result they may resort to self-harm as an expression of their underlying emotions. There is also a suggestion from the literature, that men tend to injure themselves more severely and are more likely to display public and violent self-harm, but due to the small numbers of studies available these findings need to be replicated in future research. There were only two studies that looked at the experience of self-harm in males and both of these included a small sample size of less than ten participants.

Access, engagement and barriers to services

Although there is considerable variation in the literature, service user's experiences of services are predominantly negative in nature. Service users

1 reported poor access to services including delayed referral for psychosocial
2 assessment and long waiting lists for therapy. Service users reported feeling
3 frustrated when organising their own after care as often they could not reach
4 services through the telephone numbers provided. Health and social care
5 professionals should ensure that people who self-harm (including children
6 and young people, older adults, adults from black and minority ethnic
7 groups, and people with mild learning disability) have access to the full range
8 of assessment and services.

10 Service users face problems with regards to communication with
11 professionals, due to inadequate sharing of information by medical staff.
12 Individuals were not given the opportunity to be involved in decision making
13 about their treatment, as little information was shared. This informed the
14 recommendation that health and social care professionals should ensure
15 service users are fully involved in decision-making about their care, and that
16 they foster service users' autonomy wherever possible. Service users reported
17 a lack of rapport in their relationships with healthcare professionals and poor
18 continuity of care. There were seven studies that highlighted these specific
19 experiences, but care needs to be taken when interpreting these results as the
20 sample sized ranged from three participants to 84. Nevertheless, health and
21 social care professionals should maintain continuity of therapeutic
22 relationships wherever possible, and aim to develop a supportive and
23 engaging relationship with people who self-harm. It is also good practice for
24 health and social care professionals to use the Care Programme Approach
25 (CPA) whenever more than one service is involved to ensure continuity of
26 care.

27 *Experience of treatment*

28 The evidence suggested that the use of an empathetic, non-judgemental
29 approach by practitioners may be associated with a more positive experience
30 of assessment and treatment by service users. The importance of the
31 therapeutic relationship is echoed in a total of eight studies of which the
32 sample size ranged from only three participants to 76 participants, most of
33 which were women from a wide variety of different settings. It is also
34 apparent from the findings that the opportunity to talk was a vital aspect of
35 aftercare for many service users, but not all. This finding is supported by 12
36 studies, of which the total sample size ranged from three participants to 89
37 participants, with the majority having a small to medium sample size
38 recruited from a variety of settings. The population consisted of a mixture of
39 males and females but was mostly young females with an age range of
40 between eight and 60 years old and included a mixture of those who self-
41 injured and self-poisoned. This suggested there is more evidence to support
42 the importance of developing trusting and supportive relationships with
43 people who self-harm.

Service users emphasised the need for professionals to discuss the risks and benefits associated with various medications in order for them to make a more informed decision. This finding is supported by four studies, which were conducted in a variety of non-UK settings. The number of participants ranged from three to 12 participants and included a mixture of males and females, however, they were predominantly young females. This finding might not be applicable to UK.

Social support

Social support in the form of community support groups, support from family and friends and web-site support groups appeared to be important for people who self-harm as feelings of isolation, low self-esteem and alienation are very common amongst this group. However, these voluntary support groups and websites can be destructive if not well moderated and managed. There were a total of eight studies that examined the importance of social support for people who self-harm with a sample size ranging from six to 89 participants, including a mixture of males and females with ages ranging from 14 to 44. These were conducted in a wide variety of different settings and included those who self-poisoned and self-injured. Health and social care professionals could offer advice about local and national resources regarding additional support for people who self-harm.

Overall, there is a lack of evidence examining adolescent's experiences of self-harm and their experiences of care. It should also be noted that most of the evidence examines the experiences of those who self-injure rather than those who self-poison and thus the findings may not generalise to this population.

Carers' experiences

Carers' experiences were reported by a total of seven studies, but in some the sample size was very small, with a range of six to 72 participants. Many parents felt excluded from their children's care planning and treatment. Carers highlighted the need for more information about suicidal behaviour in young people, skills for parenting and advice on managing further incidences. Therefore, when carers are involved in supporting the service user, health and social care professionals should provide written and verbal information on self-harm, as well as information on how to support the person. Similar to service users, carers highlighted the lack of continuity of care and specifically the long duration spent waiting during CAMHs appointments. Finally, many carers found carer support networks and other forms of social support to be helpful in coping with their distress. Health and social care professionals can also support carers by providing information about carer support groups and provide information and contacts in case of a crisis. It is important to note, however, that the majority of the carer literature focused on parents (especially mothers) of adolescents (in particular young women) and thus these findings may not generalise to other types of carers or service users. Moreover, these findings may not apply to parents of people who self-harm

who have not come to the attention of services. Where appropriate, health and social care professionals should ask directly whether the service user wants their families or carers to be involved, subject to the service users' consent and right to confidentiality.

Healthcare professionals' attitude, knowledge and experience

A total of 16 studies reported findings on healthcare professionals' attitudes, knowledge and experience, with sample sizes ranging from only four participants to 290, and a mean sample of 83. Caution must be taken when interpreting the findings of these studies as they were mostly drawn from convenience samples and of the few that reported response rates, these ranged from only 12 to 64%. However, the healthcare professionals in the studies came from a wide variety of professional backgrounds and most included a mixture of male and female staff. The attitudes of staff in the literature reviewed were predominantly negative in nature. People who self-harm were often described by staff as 'attention seekers' and a difficult group to work with.

The literature also highlighted the emotional and psychological impact that working with this group can have on staff members. Some staff members felt that seeing the physical effects of self-harm were distressing and many reported anxiety, frustration and negativity when working with people who self-harm. This is supported by four studies, but the sample size was typically small ranging from nine to 14 healthcare professionals. Caution in interpreting these findings must be taken as the settings varied widely with one study being conducted with healthcare professionals in a medium secure unit for people with mild to moderate learning disabilities who self-injure.

Finally, health and social care professionals, service users and families and carers all highlighted the lack of training and education on self-harm provided to professionals, and professionals expressed a need for continual support. This led to the GDG making a recommendation that all health and social care professionals should be trained in the process of caring for people who self-harm, which includes assessment, treatment and management. They should have routine access to supervision and support. In particular, they should consider the emotional impact of self-harm on both the professional and their capacity to practice competently and empathetically.

4.5 RECOMMENDATIONS

Working with people who self-harm

4.5.1.1 Health and social care professionals working with people who self-harm should:

- aim to develop a trusting, supportive and engaging relationship with them

- take account of the stigma and discrimination usually associated with self-harm both in the wider society and the health service
- ensure that people are fully involved in decision-making about their treatment and care
- aim to foster people's autonomy and independence wherever possible
- maintain continuity of therapeutic relationships wherever possible
- use the Care Programme Approach (CPA) whenever more than one service is involved.

4.5.1.2 Health and social care professionals who work with people who self-harm should be:

- familiar with local and national resources, as well as organisations and websites that offer information and/or support for people who self-harm, and
- able to discuss and provide advice about access to these resources.

Access to services

4.5.1.3 Children and young people who self-harm should have access to the full range of treatments and services recommended in this guideline within child and adolescent mental health services (CAMHS).

4.5.1.4 Ensure that children, young people and adults from black and minority ethnic groups who self-harm have the same access to services as other people who self-harm based on clinical need and that services are culturally appropriate.

4.5.1.5 When language is a barrier to accessing or engaging with services for people who self-harm, provide them with:

- information in their preferred language and in an accessible format
- psychological or other interventions, where needed, in their preferred language
- independent interpreters.

Self-harm and learning disabilities

4.5.1.6 People with a mild learning disability who self-harm should have access to the same age-appropriate services as other people covered by this guideline.

4.5.1.7 When self-harm in people with a mild learning disability is managed jointly by mental health and learning disability services, use the CPA.

4.5.1.8 People with a moderate or severe learning disability and a history of self-harm should be referred as a priority for assessment and treatment conducted by a specialist in learning disabilities services.

Families, carers and significant others⁶

4.5.1.9 Ask the person who self-harms whether they would like their family, carers or significant others⁶ to be involved in their care. Subject to the person's consent and right to confidentiality, encourage the family, carers or significant others to be involved where appropriate.

4.5.1.10 When families, carers or significant others⁶ are involved in supporting a person who self-harms:

- offer written and verbal information on self-harm and its management, including how families, carers and significant others⁶ can support the person
- offer contact numbers and information about what to do and whom to contact in a crisis
- offer information, including contact details, about family and carer support groups and voluntary organisations, and helping families, carers or significant others⁶ to access these.

4.5.1.11 CAMHS professionals who work with young people who self-harm should balance the developing autonomy and capacity of the young person with the responsibilities and views of parents or carers.

Training and supervision for health and social care professionals

4.5.1.12 Health and social care professionals who work with people who self-harm (including children and young people) should be trained in the assessment, treatment and management of self-harm.⁷

4.5.1.13 Health and social care professionals who provide training about self-harm should:

- involve people who self-harm in the planning and delivery of training
- ensure that training specifically aims to improve the quality and experience of care for people who self harm; evaluate training with this as an outcome.⁸

⁶ 'Significant other' refers not just to a partner but also to friends and any person the service user considers to be important to them.

⁷ This recommendation also appears in section 5.5 where the data regarding training is presented.

⁸ This recommendation also appears in section 5.5 where the data regarding training is presented.

1 **4.5.1.14** Routine access to senior colleagues for supervision, consultation and
2 support should be provided for health and social care professionals
3 who work with people who self-harm. Consideration should be given
4 of the emotional impact of self-harm on the professional and their
5 capacity to practice competently and empathically.⁹

6

⁹ This recommendation also appears in section 5.5 where the data regarding training is presented.

5 TRAINING

5.1 INTRODUCTION

Until about 10-15 years ago, there was little training in self-harm offered to healthcare professionals in mental health, still less to healthcare professionals in acute hospitals or other services. In many services, the only “training” available was experiential “on the job” training. Typically, responsibility for assessing people who had harmed themselves fell to the most junior trainee psychiatrists, who would receive little supervision or support. These inexperienced trainees would often face people who were in the extremes of distress, and who posed difficult management problems. Within mainstream mental health services there was little training on offer to healthcare professionals that had to care for people, with an ongoing mental health problem, who continued to harm themselves.

An analogous situation also developed in acute hospitals, where people who required hospital treatment as a result of their self-harm, received much of their care from junior doctors and nurses, often with little support from their more senior colleagues.

Over the past 15 years, a wider range of clinical disciplines have become involved in working with people who self-harm. There has been a significant growth in Liaison Psychiatry services, which often have assumed responsibility for delivering care to this group. In some areas, the local crisis services take this role. The development of these new services has generally been associated with improved supervision, support and training of the healthcare professionals involved. The publication of the guideline for the management of self-harm in the first 48 hours (NICE, 2004) highlighted the need for improved training of healthcare professionals. It also stimulated efforts to improve services, such as the project “Improving Services to People who Self-harm” (Palmer, *et al.*, 2006). Specific training for health and social care professionals who work with people who self-harm remains patchy. In this section we review studies directly related to training of healthcare professionals who work in this area, or healthcare professionals who work in emergency departments.

5.1.1 Evidence search

A comprehensive search was developed based on the clinical question (Does the provision of healthcare professionals training improve outcomes?)

Table1: Databases searched and inclusion/exclusion criteria for clinical evidence.

Electronic databases	CINAHL, EMBASE, MEDLINE, PSYCINFO, CENTRAL
Date searched	Database inception to 25 Jan 2011
Study design	RCTs
Population	Health care professionals who work with people who self-harm
Outcomes	Healthcare professionals attitudes, knowledge and psychological impact. Also service user outcomes.

An existing systematic review on healthcare professionals' attitudes (Saunders *et al.*, in press) was identified and studies that were relevant were also reviewed.

5.1.2 Studies considered

A systematic review carried out by Saunders and colleagues (in press) examined attitudes, experience and training needs of healthcare professionals who deal with people who self-harm. This review included both quantitative and qualitative studies, and the systematic search was conducted between 1971 and March 2009. Saunders and colleagues (in press) identified 11 studies that were relevant to training. From this, ten studies (Botega *et al.*, 2007; Crawford *et al.*, 1998; Holdsworth *et al.*, 2001; Gask *et al.*, 2006; May, 2001; McAllister *et al.*, 2009; Patterson *et al.*, 2007; Treloar & Lewis, 2008b; Turnbull & Chalder, 1997; Samuelsson & Asberg, 2002) were selected for inclusion within the current guideline. One study was excluded (Sun, *et al.*, 2007). This study was not included in our review because the training was provided to non-clinical staff.

In addition to the review, a search was conducted based on the clinical question. A total of 1497 references were retrieved from the search. The search identified 11 primary studies which were not already included in the Saunders and colleagues (in press) review. From this, five studies were included (Berlim *et al.*, 2007; Chan *et al.*, 2009; Morriss *et al.*, 1999; Pfaff *et al.*, 2001; Walker & Osgood, 1996) but none of them were RCTs.

Five studies were excluded based on reading the full text (Cross *et al.*, 2007; Issac *et al.*, 2009; Tierney, 1994; Tompkins *et al.*, 2009; Wyman *et al.*, 2008). These studies were excluded because they related to training in non-clinical populations or training in a non-clinical setting (i.e. prisons).

Within the included studies, the focus of training is identified as training focused on knowledge, attitudes and emotional impact of working with individuals who self-harm (Section 5.2) or training focused on risk and needs assessment (Section 5.3)

The GDG felt it was necessary to distinguish between self-harm training for general medical healthcare professionals, mental health professionals and healthcare professionals who work in emergency department because their level of existing training would vary significantly and may not be comparable across groups. Also, despite training for healthcare professionals who work in

emergency departments being more related to the short-term management of self-harm this group also deal with repeat presentations of self-harm in emergency settings, and therefore it is important to examine the impact of training on them. The results from studies have, therefore, been divided initially according the type of training (knowledge and attitudes versus risk assessment) and within that by the healthcare professionals group who were the target of the training. The initial results refer to knowledge and attitudes training (Section 5.2) and the second set of results refer to risk and needs assessment training (Section 5.3).

Twelve studies which look at training have utilised an uncontrolled study design that report the self-report score change before and after training. Four studies have used a control group. See Appendix 15 for details of the individual study designs. Of note, it is important to be cautious in the interpretation of results of studies where no control group has been used, as it is difficult to be clear about the explanation of the results given the high possibility of the presence of selection and performance bias.

These studies were reviewed in a narrative manner.

5.2 TRAINING ON HEALTHCARE PROFESSIONALS KNOWLEDGE AND ATTITUDES

5.2.1 The impact of training: non mental health professionals

Impact of training on knowledge, understanding and skills: non mental health professionals

The impact of training on knowledge, understanding and skills in non mental health professionals was examined by four studies (Berlim *et al.*, 2007; Botega *et al.*, 2007; Chan *et al.*, 2009; & Walker & Osgood, 2000). Berlin and colleagues (2007) conducted a three hour training session, comprising of oral presentations and groups discussions, which emphasised the acquisition of knowledge about suicidal behaviour in clinical and non-clinical hospital staff, as measured by the Suicide and Behaviour Attitude Questionnaire (SBAQ). Following training, both sets of participants felt more capable of helping individuals who attempted suicide (clinical staff pre-training score = 5.56(3.1) and post-test score = 6.8(SD 2.6), $p < 0.0001$; non-clinical staff pre-training score = 5.3(SD 3.2) and post-training score = 6.95(SD 2.5), $p = 0.001$), and reported an improved ability to perceive suicidal behaviours (clinical staff pre-training score = 5.08(SD 2.9) and post-test score = 6.6(SD 2.5), $p < 0.0001$; non-clinical staff pre-training score = 3.68(SD 2.9) and post-training score = 5.49(SD 2.9), $p = 0.001$). Healthcare professionals also felt less helpless when facing suicidal individuals (clinical staff pre-training score = 5.54(SD 3.0) and post-test score = 4.49(SD 2.6), $p = 0.002$; non-clinical staff pre-training score = 4.9(SD 3.2) and post-training score = 3.38(SD 3.1), $p = 0.005$) and were less anxious about

enquiring about a service user's suicidality (clinical staff pre-training score = 4.15(SD 3.2) and post-test score = 2.29(SD 2.7), $p < 0.0001$; non-clinical staff pre-training score = 4.58(SD 3.1) and post-training score = 2.54(SD 3.1), $p = 0.001$). Another area of knowledge improvement, identified by authors, was the understanding of the link between suicidality and mental disorders. Before training, participants in both groups estimated that less than 50% of suicidal service users were suffering from a mental disorder. Training improved this figure to approximately 75% for the clinical, and 67% for the non-clinical personnel. This finding was backed up by similar results from Botega and colleagues (2007) who found that, participants' estimations of the presence of mental disorders within those who died by suicide increased significantly from 40% to 60%. The impact of training on confidence was examined in a qualitative interview by Chan and colleagues (2009). They found that, following training, participants had acquired an increased awareness of the problem of suicide and were more confident in caring for service users with suicide risk. The participants agreed that the programme had helped them to re-examine their existing practices and gain new perspectives on the concept of holistic care.

Additionally, after participating in the education programme, the participants considered themselves more competent in assessing people with suicide risk. Chan and colleagues (2009) also found an increase in knowledge about suicidal behaviour; however, this was not statistically significant at post-training or at six month follow-up.

Work from Walker and Osgood (2000) focused on the development and effectiveness of a 3-hour suicide prevention training programme for long-term care staff working with the elderly. The outcomes measures assessed included knowledge of suicide and suicide prevention, and healthcare professionals' use of prevention practices. The overall mean pre-training score (12.49 (SD 3.9)) was statistically lower than the overall mean post-training score (17.44(SD 3.17)) to a p value of $p < 0.001$. Authors report statistically significant gains on 15 of the 24 items on the knowledge subscale of the questionnaire, however they provide no specific data about these items. Reported areas of improvement include identification of the group with the highest suicide rate, identifying the meaning of "suicide ideation" and the most common method of death by suicide among the elderly. Two areas of confusion for participants, even at post-training assessment, were the differences between primary and secondary interventions and the link between fear of Alzheimer's disease and suicide attempts. In terms of the influence that training had on clinical practice, the overall mean pre-training score (42.65(SD 17.8)) was statistically lower than the overall mean post-training score (42.07(SD 17.82)) to a p value of $p < 0.05$. Additionally, authors report statistically significant improvements on 2 out of the 19 items. These were an increased likelihood of asking a depressed person if he or she is thinking about suicide ($p < 0.001$) and increased likelihood of taking suicide

threats by older people very seriously ($p < 0.01$), however, again, there is no raw data reported and this is only narratively explained.. Even after the training, however, healthcare professionals were still unlikely to utilise assessment tools, including the Life-Satisfaction Quiz, the Depression Scale and the MAST-G (Walker & Osgood, 2000).

Impact of training on attitudes: non mental health professionals

An assessment of training impact on attitudes was examined by four studies (Berlim *et al.*, 2007; Botega *et al.*, 2007; Chan *et al.*, 2009; & Walker & Osgood, 2000).

Chan and colleagues (2009) found there were statistically significant, positive changes post-training in terms of attitudes towards suicide on the overall Suicide Opinion Questionnaire (SOQ) score (pre-training mean = 155.5(10.90), 6 month post-training mean = 159.1(13.71), $p = 0.006$) as well as the Social Disintegration (pre-training mean = 32.46(3.97), 6 month post-training mean = 33.83(4.40), $p = 0.003$) and Personal Defect subscales (pre-training mean = 37.37(3.28), 6 month post-training mean = 37.85(3.53), $p = 0.035$). Within the qualitative findings, participants spoke of changing their attitude to suicide and gaining a new perspective on care, noting that the programme had helped to clarify myths surrounding suicide and that these clarifications led to changes in their attitude towards suicide. Walker and Osgood (2000) found that scores on 14 of the 21 items on the attitude subscale demonstrated a statistically significant shift in a positive direction, with the overall attitude shift being significant to the level of $p < 0.05$ (pre-training mean = 43.4 (7.6); post-training mean = 40.56 (9.8)). Following training, participants were more likely to recognise the importance of understanding the differences between male and female coping styles ($p = 0.05$), more aware of the relationship between the signs of dementia and the risk of suicide ($p = 0.05$), more likely to recognise that older people react to life events in a different way ($p < 0.05$), more likely to appreciate the importance for older people to find new roles to replace people they've lost ($p < 0.05$) and less likely to believe that hopelessness is a "normal" emotion in elderly people ($p < 0.001$). As noted before, however, these p values were only reported narratively and there was no raw data available in the paper.

Two studies (Berlim *et al.*, 2007; Botega *et al.*, 2007) used the Suicide Behaviour Attitudes Questionnaire (SBAQ) to measure attitude change. Berlin and colleagues (2007) found that attitude change was significantly improved for both clinical and non-clinical staff within the 'Feelings toward the suicidal patient' (clinical staff pre-training score = 4.5 (1.7) and post-test score = 2.7(1.7), $p < 0.0001$; non-clinical staff pre-training score = 4.31(2.0) and post-training score = 2.72(2.1), $p < 0.0001$) and 'Professional Capacity' (clinical staff pre-training score = 4.72(2.2) and post-test score = 6.16(2.0), $p < 0.0001$; non-clinical staff pre-training score = 3.84(2.15) and post-training score = 5.46(2.02), $p < 0.0001$) subscales, but not for the 'Right to Suicide' subscale

(clinical staff pre-training score = 6.55(1.4) and post-test score = 6.7(1.41), $p > 0.01$; non-clinical staff pre-training score = 5.77(1.3) and post-training score = 6.05(1.53), $p = 0.001$, $p > 0.01$). A similar result was also found by Botega and colleagues (2007), and the attitude changes remained significant at both 3 and 6 month follow-up.

5.2.2 The impact of training: mental health professionals

Impact of training on knowledge, understanding and skills: mental health professionals

The impact of training on knowledge, understanding and skills in mental health professionals was examined by two studies (Gask *et al.*, 2006; Samuelsson & Asberg, 2002). Samuelsson and Asberg (2002) conducted a 36 hour suicide prevention training session which involved lectures, discussion and case study vignettes. They found an improvement in knowledge about self-harm following training, demonstrated by a significant increase in participants' estimation of suicide risk for two service users who were featured in the training vignettes (case study 1: pre-training mean = 44.5, post-training mean = 63.3, $p < 0.001$; case study 2: pre-training mean = 78.3; post-training mean = 87.5, $p < 0.01$). Additionally, before the programme, 20% of the healthcare professionals did not think psychiatric care was needed for attempted suicide patients compared with 2% after training.

The impact of training on confidence was examined by Gask and colleagues (2006), who evaluated the effects of the Skills Training On Risk Management (STORM) programme. They found statistically significant improvements in healthcare professionals' confidence on all four questions both immediately after training (Item 1: pre-training mean = 54.99(21.59), post-training mean = 70.56(15.89), $p = 0.00$; Item 2: pre-training mean = 52.94(21.32), post-training mean = 69.27, $p = 0.00$; Item 3: pre-training mean = 59.57(21.88), post-training mean = 74.11(0.83), $p = 0.00$; Item 4: pre-training mean = 52.65(22.00), post-training mean = 69.56(0.88), $p = 0.00$;) and at 4-month follow-up (Item 1: pre-training mean = 60.06(19.70), post-training mean = 68.99(1.54), $p = 0.00$; Item 2: pre-training mean = 55.92(21.25), post-training mean = 68.99, $p = 0.00$; Item 3: pre-training mean = 63.62(21.40), post-training mean = 74.42(16.22), $p = 0.00$; Item 4: pre-training mean = 55.11(21.68), post-training mean = 70.24(18.63), $p = 0.00$), as measured by a visual analogue scale. This was subsequently validated by qualitative results from a semi-structured interview. Participants reported specific ways in which the training had altered their clinical practice, predominantly in terms of being able to communicate more effectively with people who have attempted suicide.

Despite the above positive results in terms of confidence and clinical practice, there was no impact of training on skill level amongst healthcare professionals, as measured by the Suicide Intervention Response Inventory

(SIRI), either immediately after training or at 4-month follow-up (Gask *et al.*, 2006).

Impact of training on attitudes: mental health professionals

Three studies considered the effect of training on healthcare professionals' attitudes. Patterson and colleagues (2007) aimed to measure how attitudes of antipathy towards individuals who self-harm change following attendance on a 15 week academic-level course about self-harm and suicide. The participants were 69 qualified healthcare professionals, who were mainly mental health nurses, and antipathy was measured using the Self-harm Antipathy Scale (SHAS). They found that immediately after training, healthcare professionals' level of antipathy towards service users that self-harm was reduced. At 18-month follow-up, this reduction had continued, and the total reduction from baseline was approximately 20%. A control group was also used in this study and the intervention group demonstrated significantly lower antipathy scores at 18-month follow-up. The results from this study are particularly encouraging due to the long-term follow up that was conducted after the completion of the course, and the use of a control group. However, it should be noted that there were no details of the levels of significance for much of the data, and the report of significant findings is based on authors' description.

Samuelsson and Asberg (2002) examined the attitudes of psychiatric personnel towards service users who had attempted suicide before and after a training programme in psychiatric suicide prevention. After the training program, there was a significant overall improvement on the USP-scale (Understanding of suicide attempt patients scale) (pre-training mean = 19.8, post-training mean = 17.1, $p < 0.01$). However, there were no significant differences in understanding and willingness to care in the three case vignettes.

An evaluation of the Skills Training On Risk Management (STORM) training programme (Gask *et al.*, 2006) found a statistically significant improvement in scores on 10 out of the 14 items of the Attitudes to Suicide Prevention Scale (ASPS) immediately after the training. Of these 10 items, 7 of them had been maintained significant improvement at 4-month follow-up (Gask *et al.*, 2006). As well as information about the impact of the training, the study also assessed the healthcare professionals' attitudes to the training programme itself. The key findings related to the relevance of the training to different healthcare professionals levels (i.e. qualified and unqualified) and the levels of engagement in the training from different individuals. Some suggested that the training was more appropriate for qualified healthcare professionals given that, in clinical practice, unqualified healthcare professionals would not conduct formal risk-assessments. There was also some disappointment expressed regarding senior healthcare professionals' unwillingness to engage in the role-plays and lead by example.

The authors postulated that this feedback may be due to the culture of the trust in which the training took place, however, this type of resistance to training may exist in other settings.

5.2.3 The impact of training: healthcare professionals working in emergency departments

Impact of training on knowledge, understanding and skills: healthcare professionals in emergency departments

Four studies investigated the effect of training on knowledge, understanding and skill developments (Holdsworth *et al.*, 2001; McAllister *et al.*, 2009; Treloar and Lewis, 2008b; Turnbull and Chalder, 1997) in healthcare professionals working in emergency departments. Turnbull and Chalder (1997) conducted training with 37 emergency department and ward healthcare professionals on the nature of suicide and self-harm. Of the 37 who participated in the training, 26 participants completed post-training questionnaires. They found that the scores on a self-harm and suicide knowledge questionnaire were significantly higher following training (63% correct answers) compared to the scores prior to training (29% correct responses). Sample topic areas in the questionnaire include epidemiology and risk factors.

However, a weakness of these results is that the authors do not identify the specific areas of knowledge which were improved, thus making it difficult to identify areas of training that are useful. A study by Holdsworth and colleagues (2001) provided a series of workshops for emergency department healthcare professionals aimed to improve healthcare professionals' risk assessment for suicide and self-harm, and their ability to provide effective short-term management of those risks. Self-reports from nurses indicated that nearly all felt training had increased their knowledge and skill-base in relation to self-harm and suicide. Improvements in knowledge included the relationship between completed suicide and non-fatal self-harm; repetition of self-harm and poor problem-solving skills; and reasons for individuals presentation at hospital and subsequent refusal of treatment. Improvements in skills included being able to elicit intent from the service users, as well as working with the carers to provide appropriate responses to the self-harm. At this stage it is important to note that these findings are based on self-report and were not assessed in any other way. Although it is encouraging that healthcare professionals felt more knowledgeable and skilful after they completed training, these findings were not validated by a knowledge or skill-based questionnaire, casting doubt on the results reported. However, further improvements, which were measured by a pre- and post-test assessment, were also identified in the areas of coping and strain felt by healthcare professionals. They revealed that, despite no alteration in the amount of stress placed on healthcare professionals by self-harm presentations, the perceived demand of these cases was reduced in almost

half the participants. Similarly, there was an increase in self-confidence, and ability to cope and engage with self-harm cases, following training.

Treloar and Lewis (2008b) examined the effects of training in mental health and emergency medicine practitioners who attended a clinical education program on borderline personality disorder (BPD) and attitudes towards working with people who self-harm. Training included: research findings on attitudes to BPD, the prevalence, diagnostic criteria, aetiological factors, rates of self-harm and suicide and therapeutic responses to BPD. They found that specific subscales, which related to skill acquisition, demonstrated the strongest impact of training. These included confidence in assessment and referral, and ability to deal effectively with service users with BPD. In comparison, the effect of training on empathic approach and knowledge of hospital regulations was minimal.

McAllister and colleagues (2009) also report on the positive effect of training on healthcare professionals' ability to respond appropriately to people who self-harm. The training involved two hours of interactive discussion, focussed on understanding self-harm, followed by an hour of training in solution-focussed nursing, which works to help healthcare professionals learn to engage with, support and encourage optimism in people who self-harm. Participants felt that the understanding gained from training had allowed them to effectively alter their response and coping styles when dealing with people who self-harm. This was demonstrated through an increased use of strategic assessment and proactive response skills, as well as improved communication ability. A key element underlying the changes in healthcare professionals' behaviour was the shift from focussing on the present situation (i.e. injury containment and trying to provide an immediate cure) to focussing on the long-term (i.e. the overall complexities of the behaviour, its cyclical nature and strategies to alter it). It appears that training has a positive impact on knowledge about self-harm and suicide both within the wider, clinical population and within specific groups (BPD). However, none of these studies had a long follow up; therefore, this effect may not have been maintained after training.

Impact of training on attitudes: A&E healthcare professionals in emergency departments

The effect of training on healthcare professionals' attitudes was examined in five studies (Crawford *et al.*, 1998; May, 2001; McAllister *et al.*, 2009; Treloar & Lewis, 2008b; Turnbull & Chalder, 1997). McAllister and colleagues (2009) found that, following training, nurses from an emergency setting reported a positive attitudinal shift towards individuals who self-harm. In particular, participants felt that the training had highlighted the complexity of self-harm and that this, in turn, reduced the likelihood of them dismissing the service user's care needs or placing blame on them. Participants also recognised how important it is to ensure that service users feel that they can ask for help and

that they do not perceive themselves as a burden. This positive finding was backed up by Crawford and colleagues (1998) who found that, following training, there was a decrease in the number of healthcare professionals who believed that 'patients who had a past history of repeated self-harm were less likely to kill themselves than those who had only tried once'. However, the psychometric properties of the questionnaire utilised to test the knowledge and attitudes of healthcare professionals has not been tested, which casts some uncertainty on the findings reported.

Treloar and Lewis (2008b) examined the effect of a BPD education programme on healthcare professionals' attitudes about self-harm within this specific population, and found an overall improvement in attitudes, with a small to medium effect size. Authors identified some demographic information which potentially moderates the effects of training. They found that female healthcare professionals were more likely to experience a positive attitudinal shift following training, compared to male healthcare professionals. The same was found for healthcare professionals who had previously engaged in undergraduate and postgraduate university training compared to those who had been trained in hospital. Individuals who worked with people who self-harm on a regular basis (i.e. at least fortnightly) and had less than 15 years experience were also more likely to benefit from training.

However, not all studies found a significant influence of training on attitudes. May (2001) used a controlled study design to assess whether the attitudes of emergency department healthcare professionals towards suicidal behaviour could be improved through the use of poster displays and an information pack. The rationale being that these education tools are suitably flexible alternative to formal training as they take into account the time constraints and practical difficulties of offering this to healthcare professionals who work in busy emergency departments. Results demonstrated an improvement in attitudes for the questionnaire subgroup 'Morality and Mental Illness', which contained 5 out of the 16 questions in the outcome measure. However, there was no significant difference in post-intervention attitudes between the control and experimental groups in terms of the other outcome measure subgroups, or the questionnaire as a whole. This indicates that, overall, the educational tools had no effect on improving attitudes. Within the discussion, the author suggests that a hands-on method may be a more appropriate education technique.

Results from a study carried out by Turnbull and Chalder (1997) also indicate that no alteration took place between pre-training and post-training attitudes within healthcare professionals who work in emergency departments however, authors suggest that this may be a result of a high attitudinal scores at the baseline assessment; therefore leaving little room for improvement. Again, the training format may explain the ineffectiveness of the programme as it provides little opportunity for active learning, discussion or relation of

the information in the lecture to personal experience (Patterson *et al.*, 2007). In general, the effect of training on attitudes was positive.

Although two of the studies found that training resulted in a positive shift in attitudes, the non-significant findings from May (2001) and Turnball and Chalder (1997) indicate that the format and method of the training may be an important consideration.

Impact of training on emotional impact: healthcare professionals in emergency departments

A frequently reported problem identified in the Experience of Care chapter (Chapter 4) on healthcare professionals' attitudes, knowledge and experience was the emotional impact that people who self-harm had on the healthcare professionals who work with them; feelings of helplessness, anxiety and anger were repeatedly reported. Two studies looked at these negative emotions, and the influence that training had on them (Holdsworth *et al.*, 2001; McAllister *et al.*, 2009). Holdsworth and colleagues (2001) reported that training helped to decrease healthcare professionals' feelings of anxiety, helplessness and, most dramatically, irritation. However, these results should be interpreted with caution as the same size was too small to reliably test their significance. McAllister and colleagues (2009) found that, by shifting the treatment-focus of the healthcare professionals from immediate solutions to long-term interventions, training allowed them to understand the importance influence that nursing has on an individual's recovery process.

They felt that having knowledge and utilising a framework to guide care (CARE model) allowed them to feel like they had a bigger role to play in the long term recovery process. They also mention how important it is that not just individuals but all healthcare professionals need to practice and adhere to a framework. This may, then, lead to an improvement in emergency practice.

5.3 TRAINING ON CONDUCTING RISK AND NEEDS ASSESSMENT

Impact of risk assessment training: non mental health professionals

Pfaff and colleagues (2001) aimed to determine the effectiveness of a training programme for general practitioners (GPs) in recognising, assessing and managing suicidal ideation in young people. Participants were assessed six weeks post-workshop on their ability to improve the frequency of recognition of at-risk individuals; their frequency of enquiry about suicidal ideation; their accuracy in assessing the degree of risk present; and the frequency and appropriateness of their service user-management strategies. Following training, GP's recognition rate of service users scoring above the cut-off on the CES-D and GHQ-12 increased significantly (by 39.5% and 48% respectively). Moreover, post-training, GPs rated significantly higher proportion of their service users as at risk for suicide (75.5% increase). This occurred despite a

lower proportion of post-workshop service users scoring above the cut-off on the DSI-SS. Participants increased their level of enquiry about suicidal ideation between the pre- and post-workshop audits by 32.5%, although the increase was not statistically significant. Relatively, the GPs' ability to accurately identify those service users above the cut-off on the DSI-SS more than doubled during the post-training period. Of note is the substantial reduction of false negative cases identified by GPs between the two audit periods, with a minimal increase in false positive cases, demonstrating greater precision in detecting service users reporting suicidal ideation. There was little difference between pre- and post training samples in the proportion of participant-identified psychologically distressed service users who received follow-up clinical management. Psychologically distressed service users were significantly more likely to receive clinical management if the GP also rated them at risk for suicide. During the post-workshop phase, four-fifths of the service users judged to be at risk of suicide received clinical management, compared with just over half of the psychologically distressed service users deemed not at risk of suicide. The results demonstrate that enhanced recognition rates do not necessarily imply accompanying changes in service user management and this must be taken into account in future training endeavours.

Impact of risk assessment training: healthcare professionals in emergency departments

Crawford and colleagues (1998) examined the impact of a one-hour teaching session for emergency department healthcare professionals on the quality of psychosocial assessment of service users who self-harm, as measured by examining emergency department case notes. There was an overall improvement in the quality of the psychosocial assessment conducted by the emergency department healthcare professionals, as measured by the completeness of individuals' records. Additionally, there was a substantial increase in the numbers of healthcare professionals who felt that they had the necessary skills in the assessment and management of people who self-harm.

Morriss and colleagues (1999) examined whether training, via role play, modelling, video feedback and group discussion, improved emergency department healthcare professionals' interview skills in suicide risk assessment, management and confidence in dealing with suicidal service users at a one to two month follow-up. Overall, the risk assessment and management skills were retained for at least one month after training. Neither training nor the assessment procedures themselves brought about any changes in general interview skills of the healthcare professionals. However, there were significant improvements in risk assessment with a median score of 4 one month after training compared to a median score of 0.5 one month before training. There was also significant improvements observed in risk management scores of the suicidal service users at one month post training

(median = 5.8) compared to pre-training scores (median = 3) but not for those who received no training. Performance was less satisfactory in relation to the management of the immediate crisis. There was an improvement in the provision of immediate support but only one healthcare professional in each training condition removed potentially lethal weapons. There are a number of limitations that must be noted as they may alter the interpretation of the findings reported. Firstly, the self-assessments may have overestimated the training effects of the package through a halo effect and secondly the assessments made in role played interviews may differ from those carried out in clinical practice.

Impact of risk assessment training: mixed healthcare professionals groups

McAuliffe and Perry (2007) conducted two-day workshops of Applied Suicide Intervention Skills Training (ASIST) for mental health professionals, non-mental health professionals (e.g. rehabilitation therapists) and healthcare professionals and students from local community mental health and social service agencies in Canada. The training programme consisted of a standardised workshop for assessing and responding to suicide risk, and aimed to provide healthcare professionals with a greater understanding of suicide and an opportunity to practice conversing with the suicidal person. Authors found there was an increase ranging from 14-21% in the identification of suicidal risk and a decrease in admissions which healthcare professionals attributed to the clearer process of exploring reasons for dying, reasons for living and an increased focus on reinforcing the service user's protective factors in the community. There was also a 14.5% reduction in the average length of stay for service users admitted with suicidal ideation or attempt. Furthermore, more healthcare professionals assessed their clients for suicide risk, with a 13% increase in the number of healthcare professionals who reported assessing the majority of their service users. The proportion of healthcare professionals that agreed that they had adequate ongoing training in assessment and management of service users with suicide risk increased from 30 to 80%. However, only 24% 'strongly agreed' with this statement demonstrating that suicide assessment and intervention is an area in which healthcare professionals want a great deal of ongoing educational support. Finally, informal feedback from healthcare professionals indicated that having standardised training and a common language regarding risk assessment has resulted in improved inter-professional communication.

5.4 FROM EVIDENCE TO RECOMMENDATIONS

The evidence surrounding training is inconclusive. Moreover, they are studies of poor quality and many studies do not have a control group. Therefore, the results are subject to many biases and the results should be interpreted with caution. In general, there may be a self-report positive effect on healthcare professionals' knowledge, skills, attitudes and the psychological impact of suicide and self-harm. However, due to the nature of the outcome measures

used, there is no assessment of whether this translated into real change in healthcare professionals' behaviour and management. The small number of studies considered in this section also reduces the power of the findings.

An important aspect to consider, when interpreting the findings in the training section, is that the results from all of the training studies rely, in some capacity, on self-report measures and do not independently assess the effect of training on healthcare professionals. The most notable gap in this respect is the lack of service user assessment of healthcare professionals pre and post-training and the lack of randomised controlled studies. Therefore, although healthcare professionals generally report a positive effect of training, it is not possible to know whether this results in actual changes in healthcare professionals behaviour and the management they provide for their service users. Future research should consider a better quality study design (RCT), with objective outcome measures including both self-report and service users' reported outcomes.

Secondly, the length of follow-up used is problematic. The studies with healthcare professionals who work in emergency departments used a particularly short follow-up time and, therefore, it is difficult to know the long term impacts of training programmes on knowledge, skills, attitudes and the emotional impact of suicide and self-harm. Future research should include longer term follow-up period.

Finally, the format of the training varies and it is uncertain what the key element of training is. Given the differences in training models presented within the chapter, other methods for addressing the deficits in care for service users who self-harm should be considered. Investigation into the value of education and supervision would be valuable, particularly if it was guided by service user input.

On the basis of the poor quality of evidence, it is not possible to make any recommendation over any particular form of training.

5.4.1 Health Economic Evidence

No evidence on the cost effectiveness of experience of care for people who self-harm or training for healthcare professionals was identified by the systematic search of the economic literature. Details on the methods used for the systematic search of the economic literature are described in Chapter 3.

5.5 RECOMMENDATIONS

Training and supervision for health and social care professionals

5.5.1.1 Health and social care professionals who work with people who self-harm (including children and young people) should be trained in the assessment, treatment and management of self-harm.¹⁰

5.5.1.2 Health and social care professionals who provide training about self-harm should:

- involve people who self-harm in the planning and delivery of training
- ensure that training specifically aims to improve the quality and experience of care for people who self harm; evaluate training with this as an outcome.¹¹

5.5.1.3 Routine access to senior colleagues for supervision, consultation and support should be provided for health and social care professionals who work with people who self-harm. Consideration should be given of the emotional impact of self-harm on the professional and their capacity to practice competently and empathically.¹²

5.6 RESEARCH RECOMMENDATIONS

5.6.1.1 The effectiveness of training compared with no formal training in assessment and management for healthcare professionals who work with people who self-harm

For healthcare professionals who work with people who self-harm, does the provision of training in assessment and management improve outcomes compared with no formal training?

A well-powered randomised controlled trial should examine the effectiveness of training. Researchers should consider the format and length of training. The outcomes chosen should include both healthcare professionals' and service users' evaluation of the training, and the effect on subsequent knowledge, attitude and behavioural changes. It should include longer-term follow-up of 12 months or more.

Why this is important

Current studies of training have been limited in their assessment of changes in healthcare professionals' knowledge, attitudes and behaviour. Crucially no studies have examined whether training has any impact on service users' experience and outcomes. Healthcare professionals frequently report that treating service users who self-harm is challenging and they are likely to find training helpful as it provides an opportunity to think about and understand this aspect of their work. Studies to date, however, have not looked beyond

¹⁰ This recommendation also appears in section 4.5 where the data regarding the experience of care is presented.

¹¹ This recommendation also appears in section 4.5 where the data regarding the experience of care is presented.

¹² This recommendation also appears in section 4.5 where the data regarding the experience of care is presented.

1 these initial outcomes of training, which are more indicative of satisfaction
2 with training rather than addressing whether training has had an impact on
3 practice, service user experience and outcomes. Future research should
4 consider a wider range of outcomes – for example, attitudes, changes in
5 assessment practice, changes in interventions and improvement in service
6 user experience and outcomes. The longer-term impact of training should also
7 be assessed.
8

6 PSYCHOSOCIAL ASSESSMENT

6.1 INTRODUCTION

The term “Psychosocial assessment” as used here refers to a comprehensive assessment including an evaluation of risk and needs. The assessment of needs is designed to identify those personal psychological and environmental (social) factors that might explain an act of self-harm. This assessment should lead to a formulation, from which a management plan can be developed. This chapter aims to undertake a thorough review of risk and protective factors and the utility of risk assessment scales. The practical aspects of conducting a psychosocial assessment are also discussed.

6.2 RISK AND PROTECTIVE FACTORS

6.2.1 Introduction

Many researchers have investigated risk factors for self-harm (Fliege, *et al.*, 2009; Gratz 2003; Owens, 2002) and for suicide (McLean, *et al.*, 2008; Nock, *et al.*, 2008). However, these studies do not often distinguish risk factors for a first episode of self-harm from those risk factors for repetition of self-harm. Knowledge of those factors associated with self-harm can provide an understanding of the characteristics of those who repeat self-harm or who go on to die by suicide. There will be an overlap between individual risk factors and risk assessment scales (see Section 6.3) which may include combinations of risk factors. Aside from traditional risk factors, we will also consider those factors that may protect against repeated self-harm or suicide. Establishing causal relations between risk factors and outcome is difficult because many studies have been observational. In addition there is often a strong association between different risk factors and measuring one may be a proxy measure for another. However this section is aimed at giving guidance on factors to consider in a clinical assessment, not for predicting risk.

6.2.2 Clinical review protocol

The review protocol, including the review questions, information about the databases searched, and the eligibility criteria used for this section of the guideline, can be found in Appendix 8 (further information about the search strategy can be found in Appendix 9).

Table 5: Clinical review protocol for the review of case identification tools

Component	Description
Review question	What are the risk and protective factors amongst people who self-harm that predict outcomes?

Population	People who self-harm (8 years old or above)
Critical outcomes	Non-fatal repetition; fatal repetition
Electronic databases	CINAHL, EMBASE, MEDLINE, PsycINFO
Date searched	Inception to 25 Jan 2011
Study design	Prospective cohort studies

6.2.3 Studies considered¹³

49 prospective cohort studies (out of 6077 references generated by the search) providing relevant clinical evidence met the eligibility criteria for this review. The GDG decided to include only prospective cohort studies for three main reasons. First, prospective studies are less subject to selection bias and participants' recall bias than retrospective studies. Second, prospective cohort studies could identify temporal relationships between risk factors and outcome which might have implications for management. The third reason was a practical one in order to ensure that the number of studies was manageable within the timeframe of this guideline. Of the 49 studies all were published in peer-reviewed journals. In addition, 41 studies were excluded from the analysis. Further information about both included and excluded studies can be found in Appendix 15.

28 out of 49 prospective studies that reported effect measures such as relative risks, odds ratios or hazard ratios (together with confidence intervals) were selected for possible meta-analysis. These are presented as clinical evidence in Section 6.2.4 (risk factors for non-fatal repetition), 6.2.5 (risk factors for fatal repetition) and 6.2.9 (risk factors for children and young people).

The process for selection of studies for meta-analysis is described below:

- A list of risk factors examined in each of these 28 studies was drawn up.
- The studies that reported the effect measure for the same risk factor were grouped together.
- For each risk factor, a meta-analysis was conducted for studies that reported the same type of effect measure together with 95% confidence interval (e.g. two studies that reported the odds ratio of depression were pooled). If not, a narrative synthesis was presented for those studies that could not be pooled.

Other risk factors that were not reported in such a way as to allow outcomes that could be extracted are included in narrative reviews presented in Section 6.2.6, Section 6.2.7 and Section 6.2.10. These studies either did not report 95% confidence intervals, reported effect measures by sub-groups only (e.g. male or female; single ethnic group), reported p-values only, or a mixture of people

¹³ Here and elsewhere in the guideline, each study considered for review is referred to by a study ID in capital letters (primary author and date of study publication, except where a study is in press or only submitted for publication, then a date is not used).

who self-harmed for the first time or repeatedly self-harmed (in which results were not separable). For the section concerning children and young people, studies were included that recruited participants up to the age of 20 and for the section concerning older adults, one study was identified which included participants of 60 years old or above. These age range were wider than those that might be used in clinical services, but this age range was used because of the age cut offs included in these studies.

6.2.4 Clinical evidence for risk factors for repetition (non-fatal outcome)

All studies in this section included clinical populations recruited after presenting to hospital following an index episode of self-harm. Therefore, the factors examined are those associated with a higher risk of *repetition* of self-harm.

As mentioned in section 6.2.3, all risk factors reviewed below are findings from prospective studies only.

The quality of evidence is presented according to following criteria:

- Study sample – Is the study representative of the population of interest with regard to key characteristics, and is sufficient to limit potential bias to results?
- Loss to follow up – Is the loss to follow up unrelated to key characteristics, and is sufficient to limit potential bias?
- Putative risk factor – Has this been adequately measured in study participants?
- Outcome of interest – Has this been adequately measured in study participants?
- Potential confounders – Have the important confounds been appropriately accounted for, limiting potential for spurious association?
- Statistical analysis – Has the study used appropriate design of study, which limited the potential for presentation of invalid results?

Evidence from each important outcome and the overall quality of evidence are presented. The study characteristics, associated forest plots, and quality assessment items can be found in Appendix 15, Appendix 16 and Appendix 17, respectively.

History of previous self-harm as a risk factor for repetition

Pooled adjusted data

A history of previous self-harm is associated with higher risk of repetition. Three studies (COLMAN2004, JOHNSTON2006 and McAULIFFE2008) were

pooled in the meta-analysis and their combined adjusted odds ratio was 2.7 (95% CI 2.13 to 3.42) with approximately 5000 participants.

The repetition rate for self-harm during follow up (up to 2 years) was as follows; 25% (COLMAN2004), 11% (JOHNSTON2006) and 30% (McAULIFFE2008).

The majority of participants in COLMAN2004 (66%), JOHNSTON2006 (55%) and McAULIFFE2008 (59%) had a prior history of self-harm. Specifically, most participants in COLMAN2004 received a psychiatric diagnosis, half of the participants in JOHNSTON2006 had received previous psychiatric treatment, and a number of participants in McAULIFFE2008 had alcohol problems. Three papers varied in the extent to which they adjusted for current symptoms related to depression. The adjusted factors can be found in Table 6.

Table 6: History of self-harm - adjusted factors

	COLMAN2004	JOHNSTON2006	McAULIFFE2008
Depression	Yes		Hopelessness
Age	yes		Yes
Gender	Yes		Yes
Previous psych treatment		Yes	
Suicide intent			Yes
Method of SH			Yes
Schizophrenia	Yes		
Physical Health	Yes		
Marital Status		Yes	Yes
Employment		Yes	
Ethnic %		Yes	
Education			Yes

The follow-up period ranged from one to two years. The three studies were conducted in Canada, UK and European countries. There was no significant heterogeneity after pooling these studies.

Attenuation of the association following adjustment was examined in the two papers (COLMAN2004 and McAULIFFE2008) which reported both unadjusted and adjusted odds ratio. The pooled unadjusted odds ratio was 5.86 (95% CI 3.23 to 10.65). After adjusting for depression, age and gender, the adjusted odds ratio decreased to 3.81 (95% CI 1.98 to 7.35).

Quality of evidence

<i>Study Sample</i>	All 3 studies meet criteria
<i>Loss to follow up</i>	None of them meet criteria
<i>Putative risk factor</i>	2 of 3 studies meet criteria

<i>Outcome of interest</i>	All 3 studies meet criteria
<i>Potential Confound</i>	1 study meet criteria
<i>Statistical Analysis</i>	All 3 studies meet criteria

1 Pooled unadjusted data

2 Five studies (JOHHNSSON1996, OWENS1994, BRAHE1994, McAULIFFE2008
3 and COLMAN2004) provided raw data and a pooled unadjusted odds ratio of
4 3.09 (95% CI 1.99 to 4.8), an observed heterogeneity ($I^2=52\%$) was calculated.
5 It is important to note that, unadjusted ratios do not take confounding
6 variables into consideration and thus findings may result from association
7 with another unmeasured risk factor.

8 Narrative review

9 Aside from the studies reviewed above, a narrative synthesis of seven other
10 studies (HAW2007, ALLGULANDER1990, KAPUR2006, DIESERUD2000,
11 SIDLEY1999, VAN AAIST1992 and PETRIE1992) with approximately 23,000
12 participants reported a prior history of self-harm as a risk factor for repetition.
13 Of these seven studies, two studies adjusted for confounding variables
14 (HAW2007, KAPUR2006) while the remaining five did not.
15

16 *Depressive symptoms as a risk factor for repetition*

17 Pooled adjusted data

18 People with depressive symptoms are associated with higher risk of
19 repetition. Three studies (COLMAN2004, DIESERUD2003 and
20 CHANDRASEKARAN2008) with about 700 participants were pooled and
21 reported an adjusted odds ratio of 2.63 (95% CI 1.72 to 4.04).
22

23 The repetition rate during follow up was 25% (COLMAN2004), 16%
24 (DIESERUD2003) and 23% (CHANDRASEKARAN2008).
25

26 A lifetime psychiatric diagnosis was reported in the majority of participants in
27 COLMAN2004 (66% major depression), and a few participants in
28 CHANDRASEKARAN2008 (26% depression) at baseline. The breakdown of
29 psychiatric diagnosis was not reported in DIESERUD2003, and depressive
30 symptoms were measured by Beck Depression Inventory in this study. The
31 majority of participants in COLMAN2004 and DIESERUD2003 had prior
32 history of self-harm. In CHANDRASEKARAN2008, only participants
33 presenting who reported their index episode as their first episode of self-harm
34 were included. Those factors adjusted for in each study are found in Table 7.
35
36

37 Table 7: Depressive symptoms - adjusted factors

	COLMAN2004	DIESERUD2003	CHANDRASEKARAN2008
Self-Harm History	Yes	Yes	Included only participants with no history of prior self-harm.
Age	Yes	Yes	
Gender	Yes	Yes	
Suicide intent		Yes	
Schizophrenia	Yes		
Physical Health	Yes		
Other		Self efficacy and esteem	Global assessment of functioning

The follow-up period ranged from one to two years. They were conducted in three different countries. There was no significant heterogeneity reported after pooling the three studies.

Attenuation following adjustment was examined in two of these papers (COLMAN2004 and DIESERUD2003) which reported both unadjusted and adjusted odds ratio. The pooled unadjusted odds ratio was 2.98 (95% CI 0.9 to 9.85). After adjusting for history of prior self-harm, age and gender, the adjusted odds ratio decreased to 2.19 (95% CI 1.25 to 3.81).

Quality of evidence

<i>Study Sample</i>	2 of 3 studies meet criteria
<i>Loss to follow up</i>	1 study meet criteria
<i>Putative risk factor</i>	2 of 3 studies meet criteria
<i>Outcome of interest</i>	All 3 studies meet criteria
<i>Potential Confound</i>	1 study meet criteria
<i>Statistical Analysis</i>	All 3 studies meet criteria

Narrative review

The narrative findings from four studies (SCOLIERS2009, CHRISTIANSEN2007, KAPUR2006 and SIDLEY1999) with about 12,000 participants also found that having depressive symptoms, scoring high on a scale measuring hopelessness, and the current use of antidepressants all increased the risk of repetition of self-harm.

KAPUR2006 and SCOLIERS2009 reported an unadjusted hazard ratio of 1.28 (95% CI 1.14 to 1.44) and relative risk of 1.85 (1.23 to 2.78), respectively.

The majority of participants (over 50%) in most studies had a history of prior self-harm. The use of antidepressants (CHRISTIANSEN2007) as a risk factor was controlled for other confounds, while being hopeless and having other depressive symptoms (SCOLIERS2009, KAPUR2006 and SIDLEY1999) was not controlled for other confounds. SIDLEY1999 reported hopelessness as a short term predictor of repetition (within 6 months).

Psychiatric history as a risk factor for repetition

Pooled unadjusted data

Two studies (JOHNSSON1996 and OWENS1994) with approximately a thousand participants reported raw data that could be used to calculate a pooled unadjusted odds ratio. The pooled unadjusted odds ratio was 3.46 (95% CI 2.26 to 5.3). This showed people with psychiatric history might be at a higher risk of repetition, bearing in mind this had not been adjusted for associated confounds. Neither study specified a diagnosis. Data was collected objectively from local psychiatric services' case register in OWENS1994, and from psychiatric records of psychiatric hospital in JOHNSSON1996.

Repetition rate was reported as 40% (JOHNSSON1996) and 12% (OWENS1994) respectively. 48% (JOHNSSON1996) and 35% (OWENS1994) of participants had prior self-harm history before index admission. JOHNSSON1996 reported a breakdown of diagnosis (68% with personality disorder, 35% with major depressive disorder), while OWENS1994 reported 33% of participants had past psychiatric contact. None of the aforementioned variables were adjusted for in the pooled ratio. There might be confounding factors that limit the strength of findings.

JOHNSSON1996 conducted the study in Sweden for five years and OWENS1994 followed up participants for one year in UK.

Quality of evidence

<i>Study Sample</i>	All studies meet criteria
<i>Loss to follow up</i>	None meet criteria
<i>Putative risk factor</i>	All studies meet criteria
<i>Outcome of interest</i>	All studies meet criteria
<i>Potential Confound</i>	None meet criteria
<i>Statistical Analysis</i>	None meet criteria

Narrative review

Five other studies with approximately 20,000 participants reported narratively having a psychiatric history (without specifying diagnosis) as a risk factor. Three studies reported separately psychiatric treatment (JOHNSTON2006 and KAPUR2006) and admission to a mental health hospital (CHRISTIANSEN2007) as a significant risk factor even after adjusting for confounding variables. Two studies (HAW2007 and SIDLEY1999) reported the same but only reported unadjusted effects. In HAW2007, psychiatric diagnosis as a risk factor was only reported in participants who

were admitted following their first self-harm attempt (not following subsequent episodes).

Alcohol misuse as a risk factor for repetition

Two studies (KAPUR2006 and WANG2006) reported alcohol misuse as a risk factor for repetition. They could not be meta-analysed as the reported outcomes were not comparable. Both reported adjusted estimates with suicide intent adjusted for in both studies WANG2006 reported an adjusted effect measure of 2.57 (95% CI 1.05 to 6.55). KAPUR2006 reported both unadjusted 1.49 (95% CI 1.34 to 1.66) and adjusted (1.3 95% CI 1.16 to 1.45) hazard ratios. Slight attenuation was observed after adjusting for history of prior self-harm, suicide intent, methods of self-harm, hallucinations, current psychiatric treatment and unemployment.

Narrative review

In two studies (SIDLEY1999 and CHRISTIANSEN2007) the outcomes were not extractable for meta-analysis. CHRISTIANSEN2007 reported alcohol or drug abuse as an independent risk factor being adjusted for other confounds, while SIDLEY1999 reported this as risk factor without adjusting for confounds.

Schizophrenia related symptoms as a risk factor for repetition

Outcomes were extracted for two studies; however, they could not be pooled. KAPUR2006 reported hallucinations at an unadjusted hazards of 1.82 (95% CI 1.56 to 2.14) and COLMAN2004 reported a lifetime history of schizophrenia had an unadjusted odds ratio of 4.24 (95% CI 2.3 to 7.79). After adjusting for prior history of self-harm, depression, age, gender and physical health problem, the adjusted odds ratio became 3.43 (95% 1.77 to 6.66).

Narrative review

Three other studies (CHRISTENSEN2007, VAN AAIIST1992 and WANG2006) with about 2,857 participants reported that schizophrenia related symptoms were associated with higher risk for repetition. These three studies' findings were not adjusted for confounds, and should be subject to cautious interpretation. A diagnosis of schizophrenia (VAN AAIIST1992), hallucinations (KAPUR2006) and presence of any psychotic symptom (WANG2006) were reported as risk factors in these studies.

Employment status as a risk factor for repetition

Being unemployed might be a risk factor for repetition. Outcomes were extracted from three studies (JOHNSTON2006, OWENS1994 and KAPUR2006), however, they could not be pooled because they were not comparable. JOHNSTON2006 reported being unemployed as a risk factor with an adjusted odds ratio of 1.41 (95% CI 1.06 to 1.87), adjusted for prior history of self-harm, previous psychiatric treatment, marital status.

KAPUR2006 reported an unadjusted hazards ratio of 1.77 (95% CI 1.56 to 2.02), after adjusting for prior history of self-harm, current psychiatric treatment, alcohol misuse, suicide plans and hallucinations, the adjusted ratio lowered to 1.38 (95% CI 1.2 to 1.59). OWENS1994 provided raw data and an unadjusted odds ratio was calculated with 2.44 (95% CI 1.36 to 4.38).

Similarly, JOHNSTON2006 and KAPUR2006 reported “registered sick” as a risk factor for repetition. An adjusted odds ratio of 1.67 (95% CI 1.12 to 2.51) was reported and KAPUR2006 reported unadjusted hazards ratio of 2.17 (95% CI 1.83 to 2.57). After adjustment, the adjusted hazards ratio attenuated to 1.42 (95% CI 1.18 to 1.71).

Narrative review

Three other studies (BRAHE1994, DIESERUD2000, PETRIE1992) with approximately 1,537 participants reported being unemployed as a risk factor. These studies reported unemployment as a risk factor without adjustment for other confounds.

One study (BRAHE1994) also reported early retirement as a risk factor for repetition.

Gender as a risk factor for repetition

Pooled adjusted data

Two studies (CHEN2010 and SCOLIERS2009) reported females were at a higher risk for repetition. They were pooled resulting in an adjusted risk ratio of 1.96 (95% CI 1.22 to 3.15). Adjusted factors can be found in Table 8.

Table 8: Gender – adjusted factors

	CHEN2010	SCOLIER2009
Self-harm History		
Depression		Yes
Age	Yes	Yes
Method of self-harm	Yes	
Anxiety		Yes
Education		Yes
Other		SCL-90 symptoms

The pooled *unadjusted* risk ratio of the same two studies was 1.8 (95% CI 1.2 to 2.71). CHEN2010 reported repetition rate of 9.5% over 4 years, while SCOLIERS2009 reported overall repetition rate of 30% over 5 years.

34% of participants had prior self-harm history in SCOLIERS2009. CHEN2010 did not report this information. The majority of participants were younger than 40 years old (SCOLIERS2009) and mean age was 37 years old

(CHEN2010). Most of the participants were married and have less than 10 years of education (CHEN2010). Other important demographics such as employment or clinical variables were not reported in CHEN2010. SCOLIERS2009 reported that 61% of their participants had high anxiety scores and 46% had high depression scores at follow up, but these factors were adjusted for in the statistics model.

Both studies followed up participants for about 5 years. CHEN2010 was conducted in Taiwan and SCOLIERS2009 was conducted in Belgium.

10 **Quality of evidence of the meta-analysis**

<i>Study Sample</i>	1 of 2 studies meet criteria
<i>Loss to follow up</i>	None meet criteria
<i>Putative risk factor</i>	1 of 2 studies meet criteria
<i>Outcome of interest</i>	All studies meet criteria
<i>Potential Confound</i>	None meet criteria
<i>Statistical Analysis</i>	All studies meet criteria

11 **Pooled unadjusted data**

Four studies (JOHNSSON1996, KRARUP1991, OWENS1994 and CHANDRASEKARAN2008) reported raw data that could be used to calculate unadjusted odds ratio. However, the pooled unadjusted odds ratio had a wide confidence interval and thus there was no clear indication of the direction of the effect if any. (OR unadjusted 1.01 (95% CI 0.5 to 2.04)). A moderate heterogeneity was also observed ($I^2=53\%$), which might be explained by the uncontrolled confounding variables.

19 **Quality of evidence of pooled, unadjusted odds ratio**

<i>Study Sample</i>	3 of 4 studies meet criteria
<i>Loss to follow up</i>	1 study meet criteria
<i>Prognostic factor</i>	3 of 4 studies meet criteria
<i>Outcome of interest</i>	All studies meet criteria
<i>Potential Confound</i>	None meet criteria
<i>Statistical Analysis</i>	1 of 4 meet criteria

20 **Narrative review**

In studies where outcomes were not extractable, ZAHL2004 reported young female multiple repeaters (more than 2 episodes) were at higher risk compared with repeaters with 2 or less episodes and this finding only applies to females.

On the contrary, one study (CHRISTIANSEN2007) reported being male was at higher risk of repetition of suicide attempt. Another (HEATH2008) suggested there were no gender differences in risk of repetition, based on a female majority college sample. However, the finding was unadjusted for potential confounds, which should be subject to careful interpretation.

Marital status as a risk factor for repetition

Pooled unadjusted data

Not being married or single status might be at higher risk of repetition. Four studies (BRAHE1994, CHANDRASEKARAN2008, JOHNSON1996 and OWENS1994) with approximately 1,700 participants reported raw data that could be used to calculate a pooled unadjusted odds ratio. The finding was not significant, with an unadjusted OR 1.36 (95% CI 0.85 to 2.16), and subject to heterogeneity ($I^2=63\%$). Both BRAHSE1994 and OWENS1994 reported not being married as a risk factor. Nevertheless, the reported statistics in both studies were limited as they were unadjusted.

Quality of evidence

<i>Study Sample</i>	3 of 4 studies meet criteria
<i>Loss to follow up</i>	1 of 4 studies meet criteria
<i>Putative risk factor</i>	3 of 4 studies meet criteria
<i>Outcome of interest</i>	All studies meet criteria
<i>Potential Confound</i>	None meet criteria
<i>Statistical Analysis</i>	2 of 4 of the studies meet criteria

Narrative review

Three other studies (JOHNSTON2006, KAPUR2006 and DIESERUD2000) with about 15,000 participants narratively reported not being married as a risk factor. Findings from KAPUR2006 and DIESERUD2000 were unadjusted for confounds and therefore of limited conclusiveness. JOHNSTON2006 reported an adjusted odds ratio of 1.39 (95% CI 1.09 to 1.76), which was adjusted for prior self-harm history, psychiatric treatment, employment status and ethnicity.

Suicide intent as a risk factor for repetition

Pooled unadjusted data

Two studies (OWENS1994 and DIESERUD2003) were pooled to report an unadjusted odds ratio of 0.9 (95% CI 0.32 to 2.52) providing no conclusive evidence there was also substantial heterogeneity of the studies ($I^2=78\%$). Suicide intent was defined as suicide threat or leaving note in OWENS1994, and a cut off score on the suicide intent scale was used in DIESERUD2003.

1 **Quality of evidence**

<i>Study Sample</i>	All studies meet criteria
<i>Loss to follow up</i>	None meet criteria
<i>Putative risk factor</i>	All studies meet criteria
<i>Outcome of interest</i>	All studies meet criteria
<i>Potential Confound</i>	None meet criteria
<i>Statistical Analysis</i>	1 of 2 studies meet criteria

2 **Narrative review**

3 Two studies with about 10,000 participants reported associations with having
4 a suicidal plan (KAPUR2006), and carrying a suicide letter (WANG2006) is
5 associated with higher risk of repetition. Both studies were adjusted for
6 different sets of confounding factors.

8 However another study (HAW2003a) did not find lethality nor intent scores
9 for the index episode associate with repetition of self-harm.

10 **6.2.5 Clinical evidence for risk factors for completed suicide**

11 All studies in this section included clinical populations recruited after
12 presenting to hospital following an index episode of self-harm and followed
13 prospectively. Therefore, the factors examined are associated with higher risk
14 for repetition of self-harm, leading to fatal outcome.

16 All risk factors reviewed below are findings from prospective studies only.

17 Quality of evidence is presented according to following criteria:

- 18 • Study sample – Is the study representative of the population of interest
19 with regard to key characteristics, and is sufficient to limit potential
20 bias to results?
- 21 • Loss to follow up – Is the loss to follow up unrelated to key
22 characteristics, and is sufficient to limit potential bias?
- 23 • Putative risk factor – Has this been adequately measured in study
24 participants?
- 25 • Outcome of interest – Has this been adequately measured in study
26 participants?
- 27 • Potential confounders – Have the important confounds been
28 appropriately accounted for, limiting potential for spurious
29 association?
- 30 • Statistical analysis – Has the study used appropriate design of study,
31 which limited the potential for presentation of invalid results?

32 Evidence from each important outcome and overall quality of evidence are
33 presented. The study characteristics, associated forest plots, and quality

1 assessment items can be found in Appendix 15, Appendix 16 and Appendix
2 17, respectively.
3

4 *History of prior self-harm as a risk factor for completed suicide*

5 **Pooled adjusted data**

6 Two studies (NORDENTOFT1993, SUOKAS2001) with 1992 participants were
7 pooled and reported an adjusted hazard ratio of 2.17 (95% CI 1.53 to 3.09)
8 with the general population as reference group. As comparison, COOPER2005
9 reported an unadjusted hazard ratio of 2.97 (95% CI 1.6 to 5.5).

10
11 10.5% (NORDENTOFT1993) and 6.7% (SUOKAS2001) of the participants
12 respectively completed suicide during the follow-up since their index
13 episode.
14

48% of participants (SUOKAS2001) had prior history of self-harm before the index episode, and the exact percentage was not reported in the other study. 60% of participants (SUOKAS2001) had previous psychiatric treatments, 28% had a diagnosis of alcoholism and 15% had a personality disorder (NORDENTOFT1993). Nevertheless, in another study 40% reported no history of mental health problems (NORDENTOFT1993). Adjusted factors can be found in Table 9.

Table 9: History of self-harm – adjusted data

	NORDENTOFT1993	SUOKAS2001
Age	Yes	
Gender		Yes
Previous psychiatric treatment		Yes
Suicide intent		“wish to die”
Living alone	Yes	

Data were collected from death register and records. The follow-up period ranged from 10 to 14 years.

Quality of evidence

<i>Study Sample</i>	All studies meet criteria
<i>Loss to follow up</i>	None of them meet criteria
<i>Putative risk factor</i>	All studies meet criteria
<i>Outcome of interest</i>	All studies meet criteria
<i>Potential Confound</i>	None of them meet criteria
<i>Statistical Analysis</i>	All studies meet criteria

Narrative review

Seven other papers (ALLGULANDER1990, CHRISTIANSEN2007, COOPER2005, HAW2007, SKOGMAN2004, SUOKAS1991 and ZAHL2004) with approximately 37,000 participants narratively reported a prior history of self-harm as risk factor for completing suicide. Four studies (CHRISTIANSEN2007, COOPER2005, HAW2007 and SKOGMAN2004) had adjusted this finding for other confounding variables. Two papers suggested prior self-harm history was gender specific. One paper (SKOGMAN2004) reported male repeaters were at higher risk of completing suicide, by contrast, another reported (HAW2007) female repeaters were at higher risk as opposed to females with less episodes of self-harm. Three other papers (ALLGULANDER1990, SUOKAS1991 and ZAHL2004) reported this as an unadjusted, independent factor.

Suicide intent as a risk factor for completed suicide (repetition with fatal outcome)

Pooled adjusted data

Three studies (SUOKAS2001, BJORNAAS2009 and COOPER2005) with approximately 10,000 participants were pooled. Suicide intent was defined differently in the three studies (see Table 10). Nevertheless, there was evidence of increased risk for those with high intent with a pooled hazard ratio of 2.7 (95% CI 1.91 to 3.81) being observed.

Table 10: Suicide intent – adjusted factors

	SUOKAS2001 -wish to die	BJORNAAS2009 -subjective intent is suicidal	COOPER2005 -avoidance of discovery
Self-Harm History	Yes		
Gender	Yes	Yes	
Previous psychiatric treatment	Yes	Seen by psychiatrist	Yes
Alcohol misuse		Yes	
Physical health	Somatic disease		Yes
Substance abuse		Yes	Alcohol misuse
Socioeconomic status		Yes	
Others			Not living close with relatives

Quality of evidence

<i>Study Sample</i>	All studies meet criteria
<i>Loss to follow up</i>	None of them meet criteria
<i>Putative risk factor</i>	2 of 3 studies meet criteria
<i>Outcome of interest</i>	All studies meet criteria
<i>Potential Confound</i>	1 of 3 studies meet criteria
<i>Statistical Analysis</i>	All studies meet criteria

Narrative review

Five studies with approximately 5,560 participants narratively reported suicide ideation as risk factor for subsequent completed suicide. Meta-analysis was not appropriate because none of the outcomes were comparable. Findings from three studies (SKOGMAN2004, SUOKAS2001, BJORNAAS2009) had been adjusted for confounds. The reported wish to die (SUOKAS2001) and suicidal motive (BJORNAAS2009) were reported as risk factors, and suicidal ideation was found to be a risk factor for females only in SKOGMAN2004. Two studies (SUOKAS1991 and LONNQUIST1991) did not

adjust for confounds. Of which, SUOKAS1991 reported the severe intention to die was predictive of subsequent suicide during follow up.

Being male as a risk factor for completed suicide

Pooled adjusted data

Two studies (CHEN2011 and SUOKAS2001) with 2000 participants were pooled to report an adjusted hazard ratio of 2.66 (95% CI 1.72 to 4.11).

Suicide following index episode of self-harm was 4.4% (CHEN2011) and 6.7% (SUOKAS2001). All participants at index episode were admitted for self-poisoning in SUOKAS2011, and 43% were admitted for overdose in CHEN2011.

48% had prior history of self-harm and 60% received previous psychiatric treatment (SUOKAS2001). No such information was provided in CHEN2011.

The two papers varied in the factors they adjusted. The adjusted factors can be found in Table 11.

Table 11: Male – adjusted factors

	CHEN2011	SUOKAS2001
Prior history of self-harm		Yes
Age	Yes	
Previous psychiatric treatment		Yes
Suicide intent		Yes
Method of self-harm	Yes	
Physical Health		Somatic disease

The follow up period ranged from 7 to 14 years, with one conducted in Taiwan and the other in Finland. There was no significant heterogeneity after pooling these studies.

Quality of evidence

<i>Study Sample</i>	All studies meet criteria
<i>Loss to follow up</i>	1 of 2 studies meet criteria
<i>Putative risk factor</i>	All studies meet criteria
<i>Outcome of interest</i>	All studies meet criteria
<i>Potential Confound</i>	None of them meet criteria

Pooled unadjusted data

Two studies (CHEN2011 and COOPER2005) reported unadjusted hazards ratio and a pooled unadjusted hazards ratio of 2.72 (95% CI 1.78 to 4.16) was calculated. It is important to note that, unadjusted ratios do not take confounding variables into consideration and thus findings may result from association with another unmeasured risk factor. Only one study (CHEN2011) reported both adjusted and unadjusted hazards ratio. After adjusted for age and methods of self-harm, attenuation was observed from unadjusted hazards of 3.46 (95%CI 1.92 to 6.26) to adjusted hazards of 2.47 (95% CI 1.28 to 4.75).

Narrative review

SKOGMAN2004 reported an adjusted odds ratio of 1.92 (95% CI 1.08 to 3.39), adjusted for history of prior self-harm.

Four other studies with about 3,764 participants reported men were at higher risk of completing suicide after they have been admitted following their index episode. One study (HOLLEY1998) was adjusted for confounds, and two others (LONNQUIST1991, SUOKAS1991) were unadjusted for confounds. One study (RYGNESTAD1997) separately analyzed men and women samples, and found males were at higher risk of subsequent suicide if they were over age of 30 and divorced. One study (HAW2007) reported female frequent repeaters were at increased risk of completed suicides as opposed to less frequent repeaters and non-repeaters.

Physical health problem as a risk factor for completed suicide (repetition with fatal outcome)**Pooled adjusted data**

Two studies (COOPER2005 and HOLLEY1998) with approximately 8800 participants were pooled to report adjusted hazard ratio of 1.59 (95% CI 0.93 to 2.72) with the general population as reference group. HOLLEY1998 defined physical health problem as chronic, high mortality and significant impairment to functioning. It was not specified in the other study.

Less than 1% of participants (COOPER2005) and 6% (HOLLEY1998) completed suicide during follow up, while 15.5% repeated self-harm (COOPER2005).

51% of participants (COOPER2005) had prior history of self-harm, and it was not reported in the other study. 69% of participants had major depression, 24% had neuroses, and 35-43% reported the use of alcohol as a factor identified in the attempt (HOLLEY1998). None of the psychiatric diagnosis

information was provided in COOPER2005. At least 67% participants were unemployed (HOLLEY1998). Adjusted factors can be found in Table 12.

Table 12: Physical health – adjusted factors

	HOLLEY1998	COOPER2005
Self-Harm History	Yes	
Previous psychiatric treatment	Previous psychiatric admission	Yes
Gender	Yes	
Suicide intent		Avoided discovery
Alcohol misuse	“Alcohol as a factor”	Yes
Method of Self-harm	Violent method used	Cutting
Psychiatric diagnosis	Yes	
Marital status	Yes	
Socioeconomic status	Yes	
Others		Not living close to relatives

Data were collected from death register and records, while risk factors assessed were collected from assessment forms. The follow-up period varied from about 4 years (COOPER2005) to 13 years (HOLLEY1998).

Only COOPER2005 reported also an unadjusted hazard ratio of 2.68 (95% CI 1.3 to 5.5), while HOLLEY1998 did not.

Quality of evidence

<i>Study Sample</i>	1 of 2 studies meet criteria
<i>Loss to follow up</i>	None of them meet criteria
<i>Putative risk factor</i>	All studies meet criteria
<i>Outcome of interest</i>	All studies meet criteria
<i>Potential Confound</i>	1 of 2 studies meet criteria
<i>Statistical Analysis</i>	All studies meet criteria

Alcohol abuse as a risk factor for completed suicide (repetition with fatal outcome)

Pooled adjusted data

Two studies (BJORNAAS2009 and COOPER2005) with approximately 9,000 participants were pooled to report an adjusted hazard ratio of 1.42 but the wide confidence interval included the possibility of a small protective effect (95% CI 0.7 to 2.8), there was also high heterogeneity observed. ($I^2=65\%$). COOPER2005 reported an unadjusted hazard ratio of 2.11 (95% CI 1.23 to 3.63) and BJORNAAS2009 did not.

Table 13: Alcohol abuse – adjusted factors

	COOPER2005 - Alcohol misuse	BJORNAAS2009- Alcohol abuse
Self-Harm History		
Previous psychiatric treatment	Yes	Seen by psychiatrists before
Gender		Yes
Suicide intent	Avoided discovery	Yes
Method of Self-harm	Cutting	
Socioeconomic status		Yes
Others	Not living close to relatives	Level of consciousness

Less than 1% of participants (COOPER2005) and 7% (BJORNAAS2009) completed suicide during follow up.

51% of participants (COOPER2005) had prior history of self-harm, and it was not reported in BJORNAAS2009. BJORNAAS2009 reported 12% were addicted to opiates, and 53% had no alcohol abuse history. None of the psychiatric diagnosis information was provided in COOPER2005. Both studies adjusted for participants' psychiatric history as confounding variables. BJORNAAS2009 adjusted for gender and participants' socioeconomic status.

Data were collected from death register and records, while alcohol misuse or abuse assessed were collected from psychiatric assessments. The follow-up period varied from about four years (COOPER2005) to 20 years (BJORNAAS2009).

Attenuation was examined in two of these papers (COOPER2005 and BJORNAAS2009) which reported both unadjusted and adjusted odds ratio. The pooled unadjusted odds ratio was 1.52 (95% CI 0.79 to 2.94). After adjusting for previous psychiatric history, and suicide intent, the adjusted odds ratio was attenuated to 1.42 and the confidence interval included no effect (95% CI 0.7 to 2.88).

Quality of evidence

<i>Study Sample</i>	All studies meet criteria
<i>Loss to follow up</i>	None of them meet criteria
<i>Putative risk factor</i>	1 of 2 study meet criteria
<i>Outcome of interest</i>	All studies meet criteria
<i>Potential Confound</i>	1 of 2 studies meet criteria
<i>Statistical Analysis</i>	All studies meet criteria

Narrative review

One study (BECK1989) reported an association reporting both adjusted and unadjusted odds ratio (which could not be pooled with the above hazards

ratio). However, its wide confidence interval limits the conclusions that can be drawn from this study.

There is lack of evidence to show association between the time of alcohol consumption and the index episode of self-harm. HOLLEY1998 reported an adjusted hazard ratio of 1.1 (95% CI 0.6 to 2.3), providing no evidence of whether there was an effect. This study did not specify the time period between alcohol consumption and the episode of self-harm either. 69% of participants had major depression, 24% had neuroses, and 35-43% reported the use of alcohol as a factor at the attempt (HOLLEY1998). Data was based upon A&E records of whether alcohol was used as a factor in the suicide attempt.

Psychiatric history as a risk factor for completed suicide (repetition with fatal outcome)

Pooled adjusted data

Two studies (COOPER2005 and HOLLEY1998) with approximately 9,000 participants found no evidence of association with adjusted hazard ratio of 1.22 (95% CI 0.56 to 2.64), which resulted in high heterogeneity ($I^2 = 62\%$). Therefore, the meta-analysis result was inconclusive. COOPER2005 reported an unadjusted hazard ratio of 2.11 (95% CI 1.22 to 3.65), and it was not reported in the other study.

Table 14: Psychiatric history - adjusted data

	HOLLEY1998	COOPER2005
Self-Harm History	Yes	
Gender	Yes	
Suicide intent		Avoided discovery
Alcohol misuse	"Alcohol as a factor"	Yes
Method of Self-harm	Violent method used	Cutting
Physical health problems	Yes	Yes
Marital status	Yes	
Socioeconomic status	Yes	
Others		Not living close to relatives

Quality of evidence

<i>Study Sample</i>	1 of 2 studies meet criteria
<i>Loss to follow up</i>	None of them meet criteria
<i>Putative risk factor</i>	1 of 2 studies meet criteria
<i>Outcome of interest</i>	All studies meet criteria
<i>Potential Confound</i>	1 of 2 studies meet criteria
<i>Statistical Analysis</i>	All studies meet criteria

Narrative review

Six studies reported with approximately 12,000 participants narratively reviewed psychiatric history as risk factor for completed suicide. Four studies (LONNQUIST1991, SKOGMAN2004, SUOKAS2001 and CHRISTIANSEN2007) have adjusted their findings for confounds and therefore were more robust in its result. These studies did not report a specific psychiatric diagnosis, of which, past psychiatric contact (SKOGMAN2004) and being admitted to mental health hospitals (CHRISTIANSEN2007) were also regarded as similar factors. The other two papers (SUOKAS1991, LONNQUIST1991) did not adjust their findings and reported psychiatric history as an independent risk factor.

6.2.6 Narrative review – risk factors for repetition

Studies included in this section concern risk factors that cannot be included in meta-analysis because outcomes reported are not suitable. These studies either did not report 95% confidence intervals, reported effect measures by sub-groups only (e.g. male or female; Asians or non-Asians etc), reported p-values only, or a mixture of people who self-harm for the first time or repeatedly self-harm (in which results were not separable). However, these factors should not be overlooked.

Age as a risk factor for repetition

A meta-analysis was not possible due to the difference in age range reported in different studies (CHEN2010, SCOLIERS2009 and WANG2006).

Narrative review

Eight studies reported youth as a risk factor for repetition; however their definition of “youth” had a wide age range. CHEN2010 reported the lowest age range (below 25) as a risk factor. SCOLIERS2009 defined youth as an age range of between 20 to 49 (majority of population age below 40), HAW2007 reported age range below 45 and WANG2006 reported age range below 40. However, two studies (CHEN2010 and HAW2007) did not provide information on psychiatric diagnosis which might be a confounding factor. Four earlier studies (ALLGULANDER1990, JOHNSSON1996, KRARUP1991 and VAN AAST1992) reported young age as a risk factor, without defining the age range. The mean age of two studies was approximately 40 (ALLGULANDER1990 and JOHNSSON1996), and the majority of participants in KRARUP1991 were aged between 20 to 39. However, findings from three studies (all except ALLGULANDER1990) were unadjusted for confounds, which limited the strength of the evidence.

Method of self-harm as a risk factor for repetition

Two papers reported different self-harm methods as a predictor of future repetition. The findings from all papers were adjusted for age, and one paper (CHRISTIANSEN2007) adjusted for some psychiatric disorders. The two papers reported gassing as an important predictive factor, followed by self-

cutting (CHRISTIANSEN2007) or self-poisoning (CHEN2010). LILLEY2008b reported people who self-cut are more likely to have a prior history of self-harm, and more likely to repeat (47%) compared with people who self-poison (31%). Of those who repeated, a third of them switched methods.

Ethnicity as a risk factor for repetition

COOPER2006a reported young South Asian women were significantly more likely to self-harm than white women in the same age group. However, an erratum published in 2008 corrected the findings and it was no longer statistically significant. Nevertheless, the rates of self-harm remained higher in South Asian females aged 16 to 24 years old compared to white females in same age group.

JOHNSTON2006 reported a higher repetition in areas of high non-white ethnic density.

COOPER2010 reported young black women in three UK cities were more likely to self-harm, however, the risk in young South Asian people varied between the three cities in which they conducted their study. The study showed ethnic minority groups for both genders were less likely to present to emergency departments after an episode within the study hospitals with further episodes of self-harm. However, ethnic minority groups may have higher rates of other risk factors such as unemployment; therefore unadjusted associations should be interpreted cautiously.

Living situation as a risk factor for repetition

Three studies reported living alone as a risk factor for repetition. People who were not living with family or friends (KAPUR2006), not living at home (VAN AAIIST1992), and living alone (PETRIE1992) were at higher risk of repetition. However, these factors were not being adjusted for confounds. One study reported people living alone on the day of attempt (CHRISTIANSEN2007) were also at higher risk.

Other risk factors for repetition

The following risk factors were supported by a smaller evidence base from two studies or only one. Clinical risk factors include personality disorders (HAW2007and JOHNSSON1996), anxiety disorders (CHRISTIANSEN2007and SCOLIERS2009) and substance (drug and alcohol) misuse (DIESERUD2000 and CHRISTIANSEN2007). Demographic risk factors include a lower education level (CHRISTIANSEN2007 and SCOLIERS2009). Personal history risk factors include having a criminal record (HAW2007and SIDLEY1999), history of abuse (KAPUR2006 and YEO1993), poor parents' mental health or family history of suicide (JOHNSSON1996 and VAN AAIIST1992), and unhappy childhood (KRARUP1991). Individual psychological characteristics risk factors include poor problem-solving capacity (DIESERUD2003 andMCAULIFFE2008), low self-appraisal and self-

efficacy (DIESERUD2003) and poor emotion regulation (HEATH2008). Common current problems as risk factors are stress (CHANDRASEKARAN2008), poor physical health (COLMAN2004), relationship problems with partner or friends (HAW2007 and KAPUR2006), problems at work (KAPUR2006), and moving from a rural area to an urban city (WANG2006).

6.2.7 Narrative review – risk factors for completed suicide

Studies under this section cannot be included in meta-analysis because outcomes reported are not suitable. These studies either did not report 95% confidence intervals, reported effect measures by sub-groups only (e.g. male or female; Asians or non-Asians etc), reported p-values only, or a mixture of people who self-harm for the first time or repeatedly self-harm (in which results were not separable). However, these variables should not be overlooked as possible risk factors.

Depressive symptoms as a risk factor for completed suicide

Three studies reported depressive symptoms as a risk factor for suicide following index episode of self-harm. Variables include depression (SKOGMAN2004), high hopelessness scores (COOPER2005) and use of antidepressants (CHRISTIANSEN2007). Only one study (COOPER2005) did not adjust for confounds.

Older age as a risk factor for completed suicide

Five studies with approximately 11,300 participants narratively reported age as a risk factor for completing suicide. However, all of them reported different age ranges. Moreover, meta-analyses were not appropriate because none of the outcomes were comparable. Three studies adjusted for confounds. Of which, SKOGMAN2004 defined those aged over 50 were at higher risk, RYGNESAD1997 defined those aged over 30 were at higher risk, and NORDENTOFT1993 reported an “increasing age” without specifying age range. The other two studies did not adjust for confounds. COOPER2005 reported that those aged above 35 years old were at higher risk, and SUOKAS1991 reported an “advancing age” as a risk factor for completing suicide.

Violent index attempt as a risk factor for completed suicide

Four papers with approximately 52,000 participants reported that a violent attempt is indicative of subsequent suicide. RUNESON2010 compared different methods of self-harm. RUNESON2010 reported self-cutting and self-poisoning had similar risk level. They reported those who attempted suicide by hanging, strangulation or suffocation had the worst prognosis after adjusting for age, gender, education, coexisting psychiatric morbidity. HOLLEY1998 had also adjusted for the same confounds, in addition to marital status, socioeconomic status, prior self-harm history and physical

comorbidity. However, SKOGMAN2004 reported this association was restricted to men. LONNQUIST1991 did not adjust for its finding, and reported the degree of lethality was a risk factor predicting subsequent suicide.

Other risk factors for completed suicide

The following risk factors were supported by a smaller evidence base that had only two or fewer studies as support. A non-impulsive index attempt (SUOKAS1991), the method of self-harm (jumping off from heights) (CHRISTIANSEN2007 and RUNESON2010) and avoidance of discovery of attempt (COOPER2005) may be risk factors. Living alone (NORDENTOFT1993) or not living with close relatives (COOPER2005), being homeless (COOPER2005), living in a lower income area (HOLLEY1998), having no link to parents (CHRISTIANSEN2007) and having legal problems (COOPER2005) may also be risk factors for repetition of self-harm with a fatal outcome.

6.2.8 Clinical evidence summary - adults

Risk factors for non-fatal repetition of self-harm

Key factors with pooled quantitative evidence

Prior self-harm and depressive symptoms are the two risk factors with most support from quantitative and narrative evidence. The majority of participants had self-harmed prior to their index episode. The pooled adjusted or unadjusted odds ratios of prior self-harm as a risk factor are above two. For depressive symptoms, there is a somewhat smaller evidence base. The pooled adjusted or unadjusted odds ratio varied, yet there was still an association. This association should also be interpreted cautiously since a number of different measures of depressive symptoms were used in studies.

Other factors with pooled quantitative evidence

Unspecified psychiatric history has been one of the most commonly reported risk factors. Pooled quantitative synthesis showed some support for this but the findings were not adjusted for important confounds such as age and gender. It is notable key risk factors such as previous self-harm and depression identified above may overlap with this factor. Moreover, these studies did not specify or define what they mean by psychiatric history, therefore uncertainties remained. Nevertheless, there was reasonable support from the studies' reported narrative findings.

Although being female is another commonly reported risk factor for non-fatal repetition, the evidence is mixed and of relatively poor quality. Two studies reported a similar pooled adjusted and unadjusted risk ratio. However, one important limitation is none of the studies adjusted for participants' previous history of self-harm, which is itself an important risk factor. Being female is

often reported as associated with self-harm. The increase in relative risk of repetition in females maybe a consequence of its association with a first episode of self-harm, rather than a repeat episode. By contrast, one study found being male was at higher risk of repetition. Being female maybe a generic risk factor for self-harm, but it may not necessarily be associated with a higher risk of repetition.

There is evidence suggesting being unemployed and registered sick are associated with higher risk of repetition. Although the studies were not pooled quantitatively, each study reported statistically significant relative risk. Similarly, evidence from narrative reviews support this as a risk factor as well.

There is mixed evidence about marital status as a risk factor for repetition of self-harm. Pooled quantitative evidence did not support this as a risk factor. However, there are narrative reviews that suggest an association between not being married and repetition of self-harm.

There is mixed evidence suggesting the possession of a suicide letter or plan may mean the individual is at higher risk for non-fatal repetition. The pooled quantitative evidence did not support this, however, some narrative review support this as a risk factor. From other narrative reviews, there is evidence suggesting a more violent method of index attempt is also predictive of further repetition. Attempts that are regarded as violent include hanging, strangulation, suffocation, and jumping from heights.

Factors from studies reviewed in a narrative manner

Demographics

Youth is a commonly reported risk factor. Data were not synthesised quantitatively because different studies reported different age ranges. It is unclear how some studies define "youth". It is important to note this factor should not be convoluted with the higher prevalence of self-harm amongst young people. Being at risk of self-harm may not be equivalent to being at risk for repeating self-harm.

Specific psychiatric diagnosis

There is a substantial evidence base which suggests schizophrenia and related symptoms maybe a risk factor for repetition. There was some quantitative support which could not be meta-analysed, and remained robust after being adjusted for separately in two studies. Although the evidence base has only been narratively reviewed, schizophrenia as a factor should be considered. Also, alcohol misuse is an additional risk factor with a strong narrative evidence base, as well as unpooled quantitative support.

Risk factors for suicide following self-harm

Key factors with pooled quantitative evidence

Prior self-harm is again reported as a key risk factor for completed suicide. Although the evidence base was weaker than repetition (non-fatal outcome), the quantitative synthesis finding was robust. One limitation from the quantitative evidence is that no common confound was being adjusted for in the studies. Both adjusted and unadjusted relative risks were over two. Nevertheless, a number of studies provide narrative support for this factor. More than half of those studies had individually adjusted for confounds.

Another risk factor, suicide intent is also supported by pooled quantitative evidence, associated with higher risk of suicide following self-harm. The studies might have different definitions but all expressed the intent to die or not be discovered. All studies in the pooled analysis adjusted for participants' previous psychiatric treatment. However, unadjusted data was not provided. Nevertheless, a number of studies provide narrative support for this risk factor.

It is commonly reported that men are at a higher risk of suicide following self-harm. This is supported by pooled quantitative data. Both adjusted and unadjusted relative risks showed significance. A number of studies in the narrative review also provided support for this factor.

Other factors with pooled quantitative evidence

Physical health problems may be a risk factor for completed suicide. Quantitative synthesis suggested mixed evidence for this factor depending if it was adjusted for other factors. The findings did not adjust for both important risk factors such as psychiatric disorder and prior self-harm. In another study, a physical health problem was reported as a risk factor but was not adjusted for other confounds.

It is unclear whether alcohol abuse is a risk factor for completed suicide. Pooled quantitative synthesis does not provide strong evidence. However, other studies which could not be pooled reported higher risk for people who abuse alcohol. It has little support from narrative evidence. The evidence is inconclusive. In addition, the context in which alcohol is used in the self-harm episode is unclear.

Psychiatric history has a reasonable amount of support from narrative evidence, which was reasonably robust with findings being controlled for in majority of the studies. However, a pooled quantitative synthesis did not provide conclusive evidence of an association.

Factors from studies reviewed narratively

It is commonly reported that older age increases the risk of completing suicide. From the existing evidence, the age range varied widely. Some defined as over 30, some as over 50. Some did not define an age range. The

number of studies provides reasonable evidence to suggest older age is associated with a higher risk of suicide following self-harm.

There is evidence from narrative reviews showing violent methods of self-harm associated with a higher risk of suicide following self-harm. Methods may include hanging, strangulation or suffocation.

6.2.9 Clinical evidence for risk factors in young people

Prior self-harm as a risk factor for repetition in young people

Pooled adjusted data

Four studies (CHITSABESAN2003, MIRANDA2008, HULTEN2001 and WONG2008) with about 2,700 participants were pooled to report an adjusted odds ratio of 3.27 (95% CI 2.46 to 4.34). Two studies (MIRANDA2008 and WONG2008) reported self-endorsed attempts, whereas the other two were conducted in clinical setting. Despite the differences in settings, no heterogeneity was found.

Table 15: prior self-harm – adjusted factors

	MIRDANA2008	HULTEN2001	WONG2008	CHITSABESAN2003
Depression			Depressive symptoms	Yes
Age	Yes	Yes		
Gender	Yes	Yes		
Suicide intent			Yes	Yes
Anxiety			Yes	
Substance abuse			Yes	
Psychiatric diagnosis	Yes			
Ethnicity	Yes			
Others			Life stress	parent's mental health; family functioning

15% (CHITSABESAN2003) and 17.2% (HULTEN2001) repeated and 4.5% (WONG2008) and 22.5% (MIRANDA2008) self-reported repetition during follow up.

29% (CHITSABESAN2003) and 38% (HULTEN2001) had a history of self-harm. 15% self-reported multiple suicide attempts in MIRANDA2008. Self-reported prior self-harm was the recruitment criteria in WONG2008.

Therefore, all participants self-endorsed past suicide attempts, of which, 2% attempted within the past year the survey was conducted.

The majority of participants were diagnosed with depression and substance abuse problems in CHITSABESAN2003. About a quarter of participants had various mood and anxiety disorders (MIRANDA2008 and WONG2008). Psychiatric diagnosis was not reported in HULTEN2001. Adjusted factors can be found in Table 14.

Two studies were long term studies ranging in duration from four to six years (MIRANDA2008 and HULTEN2001). The other two were short term studies ranging from 6-12 months (WONG2008, CHITSABESAN2003). Three studies reported an average age of 15, whilst the remaining studies' participants ranged from 15-19 years old.

Quality of evidence

<i>Study Sample</i>	3 of 4 studies meet criteria
<i>Loss to follow up</i>	None of them meet criteria
<i>Putative risk factor</i>	2 of 4 studies meet criteria
<i>Outcome of interest</i>	2 of 4 studies meet criteria
<i>Potential Confound</i>	All studies meet criteria
<i>Statistical Analysis</i>	All studies meet criteria

Narrative review

One study (GROHOLT2006) suggested prior self-harm history as an independent risk factor (unadjusted hazard ratio 2.8 (95% CI 1.39 to 5.64), which has not been adjusted for.

Depressive symptoms as a risk factor for repetition in young people

Pooled adjusted data

Two studies (CHITSABESAN2003 and WONG2008) with approximately 1,200 participants were pooled to report a marginally significant adjusted odds ratio of 1.05 (95% CI 1 to 1.11). However, one study was conducted in a school setting, where students self-report past suicide attempts and related outcomes in a questionnaire. Despite the difference in setting where the studies were conducted, no heterogeneity was found.

15% repeated (CHITSABESAN2003) and 4.5% self-reported repetition (WONG2008) during follow up.

29% had prior history of self-harm (CHITSABESAN2003). Self-reported prior self-harm history was the recruitment criteria in WONG2008. Therefore, all participants self-endorsed past suicide attempts, of which, 2% attempted within the past year the survey was conducted.

The majority of participants were diagnosed with depression and substance abuse problems in CHITSABESAN2003. A quarter of participants had depressive symptoms and a fifth of them had anxiety symptoms in WONG2008. Adjusted factors can be found in Table 16.

Table 16: Depressive symptoms – adjusted factors		
	CHITSABESAN2003	WONG2008
Self-Harm History	Yes	Yes
Suicide intent	Yes	Yes
Anxiety		Yes
Substance abuse		Yes
Others	parent's mental health; family functioning	Life stress

Both studies were conducted over a relatively short duration ranging from six months (CHITSABESAN2003) to one year (WONG2008). Both studies' participants' average age was 15 in UK and Hong Kong respectively.

One study (GROHOLT2006) suggested depressive symptoms as an independent but marginal risk factor (unadjusted hazard ratio 1.05 (95% CI 1.02 to 1.08)), which has not been adjusted for.

Quality of evidence

<i>Study Sample</i>	All studies meet criteria
<i>Loss to follow up</i>	None of them meet criteria
<i>Putative risk factor</i>	None of them meet criteria
<i>Outcome of interest</i>	1 of 2 studies meet criteria
<i>Potential Confound</i>	All studies meet criteria
<i>Statistical Analysis</i>	All studies meet criteria

Narrative review

Three other studies (BRENT1993, NOVAKOVIC2006, GROHOLT2006) with approximately 400 participants reported depression as a risk factor. BRENT1993 reported the diagnosis of major depression at baseline, and affective disorder carried throughout the follow up period predicted repetition in young people. While NOVAKOVIC2006 reported that depressive, anxious and phobic tendencies predicted repetition. GROHOLT2006 reported hopelessness as a risk factor after adjusting for confounds, whereas depression diagnosis was found to be an independent risk factor in this study.

Gender as a risk factor for repetition in young people

Pooled unadjusted data

Three studies (HAWTON1992, MIRANDA2008, WONG2008) with approximately 3,600 participants reported raw data for calculation of unadjusted odds ratio of 1.24 (95% CI 0.7 to 2.17) for the age range of 10 to 19 years old (moderate heterogeneity, $I^2=62\%$). The result found no evidence of an association. MIRANDA2008 reported an adjusted odds ratio of 2.7 (95% CI 0.4 to 16.4), the very wide confidence interval means no conclusion can be drawn on the direction or size of any association.

Repetition rate was reported as 9% (HAWTON1992) and 22.5% (MIRANDA2008) respectively. 20% reported prior self-harm, and 16% had psychiatric treatment history in HAWTON1992 and about a quarter of participants had various mood and anxiety disorders in MIRANDA2008.

As the result was not significant, and confounds such as prior self-harm and psychiatric diagnosis may affect the influence of gender. Evidence for gender as a risk factor for repetition in young people is inconclusive.

Quality of evidence

<i>Study Sample</i>	2 of 3 studies meet criteria
<i>Loss to follow up</i>	None of them meet criteria
<i>Putative risk factor</i>	2 of 3 studies of them meet criteria
<i>Outcome of interest</i>	2 of 3 studies meet criteria
<i>Potential Confound</i>	2 of 3 studies meet criteria
<i>Statistical Analysis</i>	All studies meet criteria

Narrative review

In a narrower age range of 12 to 14, HAWTON2008 reported raw data for the calculation of an unadjusted odds ratio of 1.14 (95% CI 0.66 to 1.98). This has not been pooled with the above study due to the difference in age range.

Age as a risk factor for repetition in young people

Narrative review

One study (HAWTON1992) provided raw data for the comparison of repetition rates between younger adolescents (age 10-14) and older adolescents (age 15-19). The unadjusted odds ratio was 1.09 (95% CI 0.88 to 1.35). The result was insignificant.

Repetition rate for age 10-14 was 7.6% and 9.1% for age 15-19. As the evidence base was weak (only one study), further breakdown of age as a risk factor in an adolescent population is required in future research.

Suicide intent as a risk factor for repetition in young people

1 Pooled adjusted data

2 Two studies (WONG2008 and CHITSABESAN2003) with approximately 1,200
3 participants were pooled and there was no strong evidence of an association
4 with an adjusted odds ratio of 1.45 (95% CI 0.63 to 3.37), and there was
5 considerable heterogeneity ($I^2=84\%$).

7 Table 17: Suicide intent in young people – adjusted factors

	WONG2008	CHITSABESAN2003
Self-Harm History	Yes	Yes
Depression	Depressive symptoms	Yes
Gender	Yes	
Suicide intent	Yes	Yes
Alcohol misuse		Yes
Anxiety	Yes	
Others	Life stress	Parents mental health and family functioning

8 Quality of evidence

<i>Study Sample</i>	All studies meet criteria
<i>Loss to follow up</i>	None of them meet criteria
<i>Putative risk factor</i>	None of them meet criteria
<i>Outcome of interest</i>	1 of 2 studies meet criteria
<i>Potential Confound</i>	All studies meet criteria
<i>Statistical Analysis</i>	All studies meet criteria

9

10 6.2.10 Narrative review – young people

11 Studies under this section cannot be included in an meta-analysis because the
12 outcomes reported are not suitable. These studies either did not report 95%
13 confidence intervals, reported effect measures by sub-groups only (e.g. male
14 or female; Asians or non-Asians etc), reported p-values only, or a mixture of
15 people who self-harm for the first time or repeatedly self-harm (in which
16 results were not separable).

17 However, these factors should not be overlooked as risk factors.

18 *Anxiety as a risk factor for repetition in young people*

19 Three papers (MIRANDA2008, O'CONNOR2009 and NOVAKOVIC2006)
20 narratively reported anxiety symptoms or a diagnosis of anxiety as a risk
21 factor for repetition in young people. Meta-analysis was not appropriate
22 because none of the outcomes were comparable. O'CONNOR2009 was the
23 only study that adjusted its finding for potential confounds such as sexual
24 abuse history, self-esteem, family history or self-harm and sexual orientation

worries. NOVAKOVIC2006 reported anxiety symptoms were an independent risk factor, while MIRANDA2008 reported diagnosis of anxiety disorder as an unadjusted finding but no evidence of association following adjustment.

Other risk factors for repetition in young people

The following risk factors were supported by a smaller evidence base that had only two or fewer studies as support. Clinical variables include any psychiatric diagnosis (MIRANDA2008 and GROHOLT2006), affective disorders (BRENT1993), personality disorders (GROHOLT2006), substance use (WONG2008, MIRANDA2008), psychoticism and neuroticism (NOVAKOVIC2006) and suicidal inpatients (BRENT1993). Those who used violent methods of self-harm (HULTEN2001), and those who were not admitted or referred to psychiatric services after index episode (HAWTON1992) might be at higher risk of repeating. A number of risk factors relating to family were highlighted, such as parents' poor mental health (CHITSABESAN2003 and NOVAKOVIC2006), the death of relative (BRENT1993), family financial problems (BRENT1993 and NOVAKOVIC2006), not living with parents (O'CONNOR2009), and violence in family (NOVAKOVIC2006). Relationship problems with friends (HAWTON2008 and O'CONNOR2009) and migration (NOVAKOVIC2006) might be risk factors. Sexual abuse history and sexual orientation worries were reported in (O'CONNOR2009) as risk factors. Two studies (O'CONNOR2009 and GROHOLT2006) also reported self-esteem might also be a risk factor.

6.2.11 Clinical evidence summary – young people

Based on the evidence review, risk factors for young people are similar to those reviewed in the adults section.

Key factors with pooled quantitative evidence

A history of self-harm is the key risk factor with most support from quantitative synthesis and narrative evidence. The studies have been adjusted for different confounds, yet each study still found significance in this factor. Despite the difference in follow up length and context in which studies were conducted, the risk was similar for all studies. This finding is regarded as quite robust.

Other factors with pooled quantitative evidence

Depression may be a risk factor for repetition. Quantitative synthesis reported only a marginal significant result, after adjusting for important confounds. One limitation of this finding was the difference in settings in which the studies were conducted.

There is a general lack of evidence for gender as a risk factor for repetition in young people. The quantitative synthesis result was not significant and it was

not adjusted for confounds. There is no other narrative evidence that supports gender as a risk factor. Thus, gender as a risk factor in young people remains unknown.

Factors from studies reviewed narratively

Psychiatric diagnosis

A diagnosis of anxiety had some evidence supporting it as a risk factor in young people. However, a major limitation is that most findings had not been adjusted for confounding variables. Substance use had little narrative evidence reporting it as a risk factor. However, it was based on self-report questionnaires conducted in school settings. There is little evidence that support a general psychiatric diagnosis (such as affective disorders) as a risk factor.

Relational problems

There are some risk factors relating to family and friendships that may be unique for young people.

6.2.12 Narrative review for older adults

One study (HAWTON2006) conducted a prospective study in UK with 20 years of follow up, recruiting older adults of 60 years old or above who presented to the general hospital in Oxford following a self-harm episode. 47% of participants were aged between 60-69. 24% had previously self-harmed. Only 15% of the sample received psychiatric care at time of their episode. Repetition rate was 15.3%. It was suggested a previous history of self-harm was the independent risk factor for suicide, with some evidence showing previous psychiatric treatment and high suicidal intent being risk factors as well. There were no direct comparisons of risk factors for older adults and working age adults. However, based on this study, it appeared the risk factors amongst older adults were similar to risk factors for working age adults.

6.2.13 Clinical evidence for risk factors in subgroups

Nine studies with psychiatric diagnosis subgroups were narratively reviewed. Participants in these studies were at risk of self-harm, but may or may not have self-harmed before. Study characteristics for each study can be found in Appendix15.

Depression

OQUENDO2004

This was a prospective study conducted in the US over 2 years and recruited participants who were seeking treatment for depressive problems. 79% had depressive disorder and 21% had bipolar disorder. Of the psychiatric

population, 53% engaged in self-harm. 14% of the sample self-harmed during follow up (with mixture of first episodes or re-attempt). The study reported that a prior history of self-harm, high score on self-reported depression scale and smoking predicted future episodes of self-harm. Pessimism and aggression or impulsivity also had an additive effect. It was also reported that repeaters of self-harm were younger, more pessimistic, impulsive, and had a history of abuse and were frequently comorbid with substance use disorder.

SOKERO2005

This was a prospective study conducted in Finland for 1.5 years screened for patients with depression. All participants had a diagnosis of depression, and 32% engaged in self-harm. The majority of the sample had a psychiatric comorbidity, with anxiety disorder being the most common co-morbidity (54%). 8% of the sample self-harmed during follow-up (with mixture of first episodes or re-attempt). The study reported prior self-harm, lack of a partner (i.e. being single) and chronicity of depression as the most robust risk factors for repetition. They were adjusted for age and gender.

HOLMA2010

This was a prospective study conducted in Finland for 5 years recruiting participants from a hospital that provides secondary care psychiatric services. All participants had DSM-IV diagnoses of Major Depressive Disorder. During follow up 14.5% (n=36/249) of subjects attempted suicide. 73% of these attempts took place during a major depressive episode, 19% during partial remission and 8% during full remission. When looking at the incidence rate of suicide attempts, the study reports an incidence rate of 332 per 1,000 patient-years during major depressive episodes, 62 per 1,000 patient-years during partial remission and 16 per 1,000 years during full remission. The risk of attempting suicide was highest during the first year of observation and furthermore, the amount of time spent in major depressive episodes was also higher in the first year of observation. There are various sociodemographic and clinical factors that are also associated with a high incidence of suicide attempts such as age, lower perceived social support and previous suicide attempt as well as time spent in partial remission but the most robust predictor was time spent in major depressive episodes.

BOLTON2010

This was a prospective study conducted in the US over 4 years. Participants were diagnosed with MDD and were part of a nationally representative epidemiologic sample. During a 3 year follow up, 2.7% (169/6,004) of the sample had made a suicide attempt (incident or recurrent). 1.2% (63/6,004) of the individuals with major depression had made an incident suicide attempt. For this group, significant predictors were age (being younger than 45 years) and anxiety disorders such as panic disorder and post-traumatic stress disorder ($p<0.01$), as well as some personality disorders. For all suicide attempts after follow-up, respondents with factors such as age (less than 45

years) and never being married were more likely to attempt suicide. The study also reports that specific features of MDD such as lifetime suicide ideation and lifetime suicide attempt are associated with suicide attempts, as well as anhedonia, feelings of worthlessness and guilt and the amount of depressive symptoms endorsed.

Mood disorders

NORDSTROM1995

This was a prospective study conducted in Sweden for approximately six years. Participants were recruited from hospitalised patients with mood disorders. 27% engaged in self-harm. The study reported mood disorder patients with self-harm episodes were at a higher risk than those without a mood disorder for completing suicide. Neither age nor gender were found to be a risk factor predicting subsequent suicide. However, it should be noted that findings from this study had not been adjusted for confounds.

Alcohol dependence

HAW2001b

This was a prospective study conducted in UK for about 1-2 years. Participants were admitted to hospital for self-harm. Forty out of 150 patients with alcohol disorders were selected for analysis. 80% of these 40 patients had previous self-harmed, 90% had comorbid psychiatric diagnosis (mostly depression). Repetition was 45% for those with alcohol dependence, and 29% for those without. The study was unable to find strong evidence that people with alcohol dependence were more likely to repeat self-harm than those without. More participants with alcohol dependence had consumed alcohol within six hours of the index episode and those with alcohol dependence were more aggressive, impulsive, and had poorer problem-solving skills.

PREUSS2003

This was a prospective study conducted in the US for five years recruiting participants seeking treatment for alcohol dependence. A large majority of the sample had a substance induced psychiatric disorder (mostly depression). 15% had a history of self-harm. Repetition rate was 29%. The study reported prior self-harm predicts repetition. Being young, being diagnosed with alcoholism or substance misuse induced depression were at a higher risk of self-harm. These factors were adjusted for confounds. Being female and unemployed at baseline were not predictive of repetition; however, they were associated with prior self-harm. We should take note that those who were not followed up were less likely to be Caucasian, had a later onset of alcohol dependence and a higher intake of drinks per day. These could be potential confounds.

Borderline personality disorder

SOLOFF2008

This study was a prospective study conducted in the US for 2 to 5 years. Participants were recruited from both in and outpatient services for borderline personality disorders. 82.5% of the population engaged in self-harm. 19% attempted suicide within a year of study, of which, 92% were prior attempters. The study reported predictors changed over time. In the short term (12 months), a comorbid depression and poor social adjustment increased risk. In the intermediate term (12-18 months), psychiatric hospitalization prior to any attempts, together with poor social adjustment, increased risk. In the long term (2-5 years), psychiatric hospitalization remained a significant risk factor, whereas outpatient medication visits decreased risk. As poor social adjustment carried through short and intermediate period as a risk factor, it was suggested interventions for this population should focus on social adjustment to prevent self-harm.

Schizophrenia**CARLBORG2010**

This was a prospective study conducted in Sweden, which followed participants with schizophrenia spectrum psychosis for 25 years to assess suicide attempts and suicide risks. Participants were recruited from hospital psychiatric wards and 32% had a history of attempted suicide. During the follow up, 8% (18/224) participants died by suicide. There was a strong association ($p < 0.001$) between those who had made a previous suicide attempt and completed suicide during follow up. This paper also reported gender specific specificity, sensitivity, positive predictive values and negative predictive values of attempted suicide and for suicide. The probability for dying by suicide with a previous suicide attempt is 28% in males and 14% in females (and 18% in the total sample). The negative predictive value indicated that there is a low probability that a person with no history of suicide attempt will complete suicide.

6.2.14 Clinical evidence summary – subgroups

The evidence base for risk factors amongst psychiatric subgroups is limited. The population were recruited on the basis of treatment of psychiatric problems, they may or may not have self-harmed before. Therefore, the risk factors may not be indicative of a further repetition of self-harm. It could be a generic risk factor for self-harm. One common risk factor shared across all diagnosis subgroup is prior self-harm. People with psychiatric problem with previous history of self-harm may be more likely to self-harm in the future. In addition, people with diagnosed depression, or other psychiatric induced depression may be associated with higher risk of self-harm.

6.2.15 Prevalence of psychiatric disorder in patients who self-harm

A systematic review conducted by Hawton and colleagues (2011) was adopted in this section for narrative review. This review aimed to explore the extent to which self-harm is associated with psychiatric disorders. The authors included 46 studies, of which 7 were UK based. All participants were recruited after presenting their episode of self-harm at the hospital. Diagnosis was made according to DSM-IV for all ages. They excluded studies where assessment was made only for single disorder, or a retrospective diagnosis. Populations with learning disability and those residing in psychiatric hospitals were excluded.

An overall prevalence rate of 84% (95% CI 75-92%) was observed amongst adults or mixed samples with a very high heterogeneity ($I^2=99\%$) in 30 studies. In the young persons population (up to age of 25), an overall prevalence of 81% was observed with very high heterogeneity ($I^2=97\%$) from 9 studies. Prevalence for specific disorders were reported: 61% (95% CI 41-79%) mood disorders was observed and mostly in females, of which, most frequent diagnosis was depression (52%, 95% CI 43-64%); anxiety had a prevalence of 37% (95% CI 24-52%); substance misuse had a prevalence of 36% (95% CI 22-52%) and alcohol misuse was more common than drug misuse. Prevalence was higher in males for substance misuse; personality disorders had a prevalence rate of 28% (95% CI 18-39%) in all adult populations; adjustment disorders had a prevalence rate of 22% (95% CI 6-45%); lastly psychotic disorders and eating disorders had a prevalence rate of lower than 10% respectively. It was observed that the prevalence rate of multiple diagnosis (94.1%, 95% CI 88-98%) was greater than single diagnosis (75%, CI 63-86%). There were no major gender differences in overall prevalence rates of psychiatric disorders.

The limitations to this review lay in the heterogeneity observed in pooled prevalence rates. This could be due to the variation in diagnostic measures (research or clinical diagnosis) and different definitions of self-harm. And studies were cross-sectional which might be susceptible to unstable diagnosis. Nevertheless, there was a high prevalence rate (around 80 to 90%) of psychiatric disorders (most commonly depression, anxiety and alcohol misuse) amongst people who self-harm. This underlies the importance of careful needs and psychosocial assessment for people who self-harm, in order to treat the underlying disorders and manage their self-harm.

6.2.16 Clinical evidence for protective factors

In this section, we reviewed studies that look at protective factors that might protect against repeated self-harm or suicide. They might serve as a counterbalance to risk factors.

A meta-analysis was not conducted because the outcomes were not comparable across studies. Therefore, studies were narratively reviewed.

Problem solving skills as protective factor

MCAULIFFE2008

This was a prospective study conducted in Ireland for 12 months amongst patients admitted for self-harm. The repetition rate was 20.4%. It was found that amongst those who had self-harmed for the first time, optional thinking ability (i.e. difficulty generating alternative solutions) was associated with repetition within 12 months. This was not the case for repeaters (i.e. had prior self-harm at baseline). They also reported prior self-harm as a risk factor for repetition. Based on the reported risk and protective factors, the authors suggested interventions involving optional thinking skills should be delivered to people immediately after their first self-harm episode in order to prevent further repetition. Men were significantly older than women and more women were married and highly educated than men. The statistical model had adjusted for these factors; therefore this finding is reasonably robust.

MCAULIFFE2006

This was a prospective study with data collected from 12 European regions for 12 months amongst the clinical population. The repetition rate was 29.6%. The authors reported that the strongest dimension of five problem-solving dimensions associated with repetition was passive-avoidance. Passive-avoidance tendency is characterised by pre-occupation with problems, feeling inability to change the gloomy situation, worry about the past and greater likelihood to give in to avoid difficult situations. This finding had been adjusted for gender and age; however, it was diminished when self-esteem was considered in the model. The next best dimension was active handling of problems, which had been adjusted for age and gender as well. It should be noted that 32% participants had drinking problems and the attrition rate was high (48%). Participants who were not followed up were more likely to be men, had lower education level, and had drinking problems. This study suggested improving passive-avoidance (together with self-esteem) and active handling maybe protective against further self-harm, with noted concerns.

SANTOS2009

This was a prospective study conducted in Portugal for nine months amongst people admitted to hospital for self-harm compared with identical matching group who did not self-harm. The repetition rate was 24%. Compared to the matched control group, participants with better problem-solving skills and self-concept were protected against repetition. However, the findings had not been adjusted for confounding variables. The majority of participants were female (82%) and 60% of those who self-harmed were

students. 77% of those who self-harmed mentioned their affective problems and 23.5% of them were on psychotropic drugs. 17.6% participants had psychiatric hospitalization history. The reported outcomes relied on self-report questionnaires completed at home. For these reasons, this study's conclusion should be noted with cautious concerns.

O'CONNOR2011a

This was both a cross-sectional study with data collected at baseline, and prospective study with data collected at follow up in Edinburgh. 550 patients who self-harm were recruited and 320 participants completed the study at a mean follow up period of about 6 months. Repetition rate was 46%, of which 31% repeated more than once between baseline and Time 2. Results from prospective analysis showed poor problem-solving skills were associated with repetition of self-reported self-harm at six months. This association remained after adjustment for prior self-harm and baseline suicidal ideation. It was also found a younger age and being single were risk factors for repetition. However, all outcomes were collected from self-report questionnaires.

Other protective factors

SPIRITO2003

This was a prospective study conducted in the US for three months amongst youths admitted to children's hospital for self-harm. The repetition rate was 12%. This study reported good family environment characteristics (such as general functioning and communication) serve as a protective factor against repetition. However, the effect was lost when depression was factored into the model. Unlike other common findings, prior self-harm, suicide intent or a psychiatric diagnosis did not predict repetition in this sample. It maybe explained by a heterogeneous population as it involved both in and outpatients. Moreover, this was a short term study, which differed from the majority of longer term studies. Repetition rates relied on self-endorsed re-attempts. This study suggested good family functioning and communication may be independently protective against repetition. However, many confounding variables may attenuate the effect.

GROHOLT2006

This study has been included in the narrative review of risk factors amongst children population (Section 6.2.11). One of its finding related to protective factors. Parental bonding (particularly with the father) was found to be an important factor adjusted for other variables (such as hopelessness, number of diagnosis).

PETRIE1992

This was a prospective study conducted in New Zealand for six months amongst a clinical population. Repetition rate was 11% and 2% of this

included a fatal outcome. This study reported a good sense of coherence was more closely related to future attempts than depression, hopelessness or self-esteem. However, this had not been adjusted for confounding variables. The study also found prior self-harm, unemployment and living alone as risk factors for repetition. In fact, over half of the participants (54%) had a history of self-harm. These risk factors may reduce the effect of sense of coherence when they were considered together in the statistical model. This study suggested sense of coherence maybe independently protective against repetition. However, it is subject to the influence of other potential confounds.

A number of factors may have a protective effect and they were mentioned in Section 6.2.6. Individual psychological characteristics such as problem solving capacity (DIESERUD2003, MCAULIFFE2008), self-appraisal and self-efficacy (DIESERUD2003) and emotion regulation (HEATH2008) may have protective effects.

6.2.17 Clinical evidence summary – protective factors

The evidence base for protective factors is not strong. Some narrative evidence show problem-solving skills are protective for further repetition. It is unclear whether the effect may diminish after adjusting for other confounding variables. In younger populations, there is some evidence regarding a healthy family environment and parental bonding as protective factors for further repetition.

6.2.18 Narrative reviews – social care and adversity as risk factors

It is important to note the absence of some commonly reported social risk factors in the reviews above, such as: childhood experience of physical abuse, sexual abuse, being a ‘looked after child’ and other stressful childhood experiences. These studies are often conducted retrospectively, depending on participants’ recall of their childhood experiences. As a result, these did not meet the inclusion criteria set by the GDG and were not included in the above review. However, these factors cannot be overlooked.

The technical team identified a few relevant systematic or literature reviews that were deemed to cover these risk factors. In addition, some key papers were also provided by some of our GDG members.

It is important to take notice of the limitations to these studies. Retrospective studies are subjected to participants’ recall bias, recalling childhood experiences in particular. Also, the findings from the review and studies did not specify whether these factors are associated with repetition of self-harm or incidence of self-harm behaviour.

Childhood experience of physical abuse

FLIEGE2009 conducted a systematic review targeted at non-suicidal self-harm and found 12 cross-sectional studies reporting association between childhood

experiences of physical abuse and self-harm. STEELE2007 systematically searched for literature in the children and adolescence population and reported a similar association. Similarly, EVANS2005 systematically searched in the adolescence literature (mostly age 12-20) and found 4 studies reporting association between physical abuse and self-harm. Of which, 2 studies conducted multivariate analysis which controlled for confounding variables such as age and gender, and an independent association with suicide attempts remained significant.

Nevertheless, the mechanism between physical abuse and self-harm is not completely understood. GRATZ2003 concluded that the relation between physical abuse and self-harm being inconclusive. The evidence was mixed for both clinical and non-clinical populations. People with a history of abuse are often associated with various psychiatric problems, which are found to be a risk factor for self-harm. Therefore, an independent and direct relationship between physical abuse and self-harm behaviour remains unclear.

Childhood experience of sexual abuse

One prospective study (YEO1993) was identified. 178 patients who presented at the hospital for self-harm were divided into "abused" (8%) or "non-abused" (92%) groups. They were then followed up prospectively for 6 months. 68% of the participants had a history of self-harm, and 54% of them had psychiatric history. An overall repetition of self-harm rate was 15%. The repetition rate of self-harm amongst the sexually abused group was 50% and amongst the non-abused group was 12%. The study concluded that patients with a history of childhood sexual abuse were at a higher risk of repeating self-harm, with a cluster effect of four major risk factors (unemployment, prior self-injury or self-poisoning, and psychiatric illness).

Systematic reviews

FLIEGE2009 found 21 cross-sectional studies reporting associations between childhood experiences of sexual abuse and self-harm. STEELE2007 reported similar findings and suggested sexual abuse maybe a stronger predictor of suicide attempts for male than female adolescences. EVANS2005 reported associations between sexual abuse and self-harm in 5 studies. In addition, the strength of association may depend on the severity of the abuse. In a multivariate analysis, when the psychiatric outcomes (depression, conduct disorders) were controlled for, the independent association was found only amongst the serious abuse cases (involving sexual intercourse). Other less serious abuse experiences lost its significance when other confounds were controlled for. A recent review, CHEN2010 conducted a systematic review (of case-control and cohort studies) to assess the association between sexual abuse and a lifetime diagnosis of psychiatric disorders. The review found a significant association between sexual abuse and many psychiatric disorders, including suicide attempts (OR 4.14, 95% CI, 2.98-5.76). When factors such as age and sex were controlled, the association remained the same. Thirty seven studies were reviewed and 27 of these looked at abuse that occurred in

childhood, two studies looked at adult and childhood abuse and one study looked at adult abuse only. The majority of the population reviewed was female.

In fact, KLONSKY2008 conducted a meta-analysis which cast doubts on the degree of association between childhood sexual abuse and self-harm. 43 studies were included in the analysis and reported a relatively small association (with significant heterogeneity) between sexual abuse and non-suicidal self-harm. The moderator analysis suggested the heterogeneity was not related to age or gender. It was the type of participants (clinical and non-clinical) moderated the effect, where a stronger relation was found between sexual abuse and self-harm amongst the clinical sample. It was reported that studies which controlled for psychiatric variables no longer found association between childhood sexual abuse and self-harm. The authors indicated the possibility of publication bias which inflates the association between sexual abuse and self-harm.

Also, two literature reviews (ROGERS2003 and GRATZ2003) doubted the direct association between childhood sexual abuse and self-harm. The definition of childhood sexual abuse was inconsistent in the literature. The source of information were often collected retrospectively from self-reports or semi-structured interviews, which was easily subject to recall bias. Moreover, the selection of samples was often biased towards clinical samples. From the analysis perspective, different studies controlled for different confounding variables, which makes the establishment of a unique association impossible.

There is evidence to support the link between childhood sexual abuse and self-harm; however, the association is complex as evidence suggests it also interacts with other confounding variables. This may imply childhood sexual abuse can be conceptualized as a proxy risk factor.

Other stressful experiences in childhood

The role of physical and emotional neglect and family history of self-harm maybe risk factors for self-harm but they are relatively less well researched. GRATZ2003 reported the association between neglect and self-harm was inconsistent. However, there was some evidence suggesting emotional neglect has a stronger relation with self-harm compared to physical neglect.

STEELE2007 reported the impaired relationship between parents and children increases the risk of suicide attempts; however, this association was no longer significant when controlled for children's psychopathology. Furthermore, some studies examined childhood separation and the affective quality of childhood attachment as risk factors. However, conclusions cannot be drawn from the very limited amount of low quality studies.

STEELE2007 echoed the narrative findings from the earlier section, where parental psychopathology was associated with adolescence suicidal behaviour in the retrospective studies. It was reported a family history of

1 suicide is a key risk factor, and some evidence suggest the first-degree
2 relatives of suicide victims were at highest risk.

3
4 Klomek and colleagues (2010) reviewed the association of suicidal behaviours
5 and bullying in 31 cross-sectional and longitudinal studies of children and
6 young people. Studies were identified by electronic literature search of
7 PsycNet and MEDLINE (no date specified in search) and by selecting relevant
8 studies from reference lists of articles. This review reports findings that those
9 involved in bullying, as well as victims of bullying have a high prevalence of
10 suicide ideation and suicide attempts. It is unclear whether there is an
11 association between the gender of bullies and the risk of suicide ideation as
12 this review reports inconsistent findings. There may be an association
13 particularly between the frequency of bullying and suicide ideation or
14 attempts in males and females (Klomek *et al.*, 2007). For example, in females,
15 if bullying is infrequent, there is still a risk of suicide ideation/attempt
16 compared to males, where only frequent bullying is associated with suicide
17 ideation (not attempt). This review also reports findings of studies that look
18 at cyber bullying (via the internet or email), however, there is limited research
19 in this area. The main methodological problem of the studies looked at in this
20 section of the review is that the cross-sectional studies only provide evidence
21 for a *correlation* between bullying and suicidality and cannot establish
22 causality, unlike longitudinal studies. This review reports that there is
23 limited (and inconclusive) evidence in longitudinal studies that look at the
24 long-term consequences of bullying and suicidality. Kim and colleagues
25 (2005) conducted a longitudinal study and found that school bullying is a
26 significant risk factor for suicide ideation or behaviour after 10 months,
27 however, these findings were based on Korean adolescents so may not be
28 generalisable to all populations. A recent prospective study by Klomek and
29 colleagues (2009) showed that the association between being bullied (as
30 young as 8) and suicidal behaviour later in life is affected by sex. For
31 example, females who were victims of frequent bullying were associated with
32 making suicide attempts and having suicide ideation later in life but this was
33 not found in males, when controlling for childhood conduct and depression
34 symptoms. The main limitation to examining studies in this review was that
35 there was inconsistent terminology used for bullying, peer victimisation,
36 suicidal thoughts and behaviours.

37 *Looked after children*

38 Stanley (2005) aimed to look at the mental health needs of 80 looked after
39 children who were considered to have high levels of need and were aged
40 between 5-16 years in two local authorities in England. Data from social
41 services case files was analysed to look at health and education, experience of
42 before entering and while being in the looked after system, mental health
43 needs and how these needs were met by services. A set of indicators of need
44 was constructed which included emotional, social,
45 behavioural/developmental and high risk indicators. Children who scored

highly on all indicators were considered to have high need. The majority of the study group were being looked after in foster care or residential care settings and had entered the looked after system because of a range of abuse (mainly physical abuse) or neglect. When looking at the frequency and severity of mental health needs it was evident that there were high levels of low self-esteem, angry or hostile emotions and aggressive behaviour in as much as 50% of the sample. Less frequent behaviours included drug misuse, bullying and absconding. There were high rates of self-harm in the sample which included 7 cases of overdosing, 12 of cutting and 17 cases of other various forms of self-harm. A limitation to this study was that the sample consisted of children who were considered to have high needs and were challenging to the services. The data was limited to records of social services files and there were a limited number of reports from mental health professionals kept on file. This study highlights the need of exploring the occurrence and management of self-harm in looked after children and the need for support and training for carers to deal with working with children and young people who self-harm.

Richardson and Lelliott (2003) reviewed the problems faced by looked after children in regards to their mental and physical health and education. Young people who leave care are at particularly high risk of social disadvantages such as ill health and risk-taking behaviours. Saunders and colleagues (1997) conducted a small study looking at 48 young care leavers and found that 35% of them had engaged in self-harm since the age of 15. Nearly double this number of subjects had reported suicide ideation and 4 out of 10 subjects had made a suicide attempt.

Summary

One prospective study identified reported having a history of childhood sexual abuse is a risk factor for repetition of self-harm. This finding was supported by systematic reviews of retrospective studies. Therefore, this risk factor should be considered in assessments bearing in mind the less robust quality of the largely retrospective research evidence. In addition, there is an association between poor mental health and people with history of childhood sexual abuse. Poor mental health may act as a mediator between history of childhood sexual abuse and self-harm.

6.3 RISK ASSESSMENT SCALES

6.3.1 Introduction

There is increasing emphasis on the assessment of risk in clinical services. Risk assessment in mental health is a broad concept which covers a judgement of the likelihood of an adverse outcome such as suicide or self-harm but also of violence, risk to children, risk of exploitation and environmental risks such as safety in the home. This guideline focuses on risk of self-harm and of suicide. Risk assessment in the UK is carried out by undertaking a clinical interview and this often includes a checklist of risk factors derived from an assessment scale. In the UK, there is no consistency in the risk assessment tools used by different mental health services. Despite the widespread use of these instruments, there is no clear evidence that their use makes any difference to patient outcome. The usefulness of any particular risk assessment scale for repeated self-harm depends on the ability to correctly distinguish all those who do go on to self-harm from those who do not. Whilst the risk of repeated self-harm is important, healthcare professionals will be most concerned about the risk of suicide. This is more difficult to predict given the relative rarity of suicide even in a population at high risk such as those who have self-harmed.

Risk assessment is not the same as risk management and simply assessing risk without developing a management plan contingent on the level and nature of the risk is unlikely to improve patient outcomes. Previous guidelines (NICE, 2004) have emphasised that risk scales should not replace a full psychosocial assessment and there is evidence that the latter is associated with better outcomes (Hickey *et al.*, 2001; Kapur *et al.*, 2002).

A further issue to consider is the context in which the risk assessment takes place, in the emergency department after an episode of self-harm, in the community or at the point of admission to or discharge from an inpatient unit.

6.3.2 Clinical review protocol

The review protocol, including the review questions, information about the databases searched, and the eligibility criteria used for this section of the guideline, can be found in Appendix 8. (Further information about the search strategy can be found in Appendix 9).

Table 18: Clinical review protocol

Review question	For people who self-harm, does formal risk assessment, needs assessment and psychosocial assessment improve outcomes? (Note: Impact of setting/organizational context and content of assessment to be taken into account if data available)
Electronic databases	CINAHL, EMBASE, MEDLINE, PsycINFO

Date searched	Inception to 25 Jan 2011
Study design	Prospective cohort or case-control studies
Patient population	People who experience self-harm (or suicide ideation, where the study clearly reports a history of self-harm). This includes all types of self-harm, irrespective of motive.
Intervention(s)	N/A
Comparison	N/A
Critical outcomes	Prediction of repeated self-harm or suicide measured by sensitivity and specificity values.

1

2 **6.3.3 Studies considered¹⁴**

3 A total of 7,642 references were identified by the electronic search. Of these
4 references, 7,573 were excluded at the screening stage on the basis of reading
5 the title and/or abstract. The remaining 69 references were assessed for
6 eligibility on the basis of the full text. Sixteen prospective cohort and case-
7 control studies providing clinical evidence for risk assessment measures met
8 the eligibility criteria for this section of the guideline. These are; BECK1985,
9 BECK1999, BISCONER2007, CARTER2002, COOPER2006b, COOPER2007,
10 CORCORAN1997, GALFAVY2008, HARRISS2005, KAPUR2005,
11 NIMEUS1997, NIMEUS2000, NIMEUS2002, OSMAN1999, OSMAN2001 and
12 WAERN2010. Seven studies were identified for psychosocial assessment
13 (BERGEN2010b, HAW2003b, HICKEY2001, KAPUR2003, KAPUR2007,
14 OUGRIN2011 and WITTOUCK2010) and two studies were identified for
15 needs assessment (CEDEREKE2007 and KEENE2005).

16

17 For risk assessment, the inclusion criteria are prospective cohort or case-
18 control studies which report sensitivity and specificity data. The populations
19 used in the studies include people who self-harm, or have suicidal ideation,
20 where the study clearly reports a history of self-harm. The studies used scales
21 or tools (these terms are used interchangeably) to predict a repetition of self-
22 harm or suicide.

23

24 Based on reading the full text of studies for risk assessment scales, 56
25 references were excluded because they were: not a self-harm population; not
26 looking at prediction of self-harm or suicide; they did not report sensitivity or
27 specificity, or did not use a risk scale/tool to predict suicide or self-harm.
28 Studies were also excluded if it was unclear how many people in the
29 population self-harmed in the past. Studies that used another scale as a
30 reference standard to measure the outcome of the study were also excluded.
31 Studies that used a case-control design were excluded if the population of the
32 control group was a general and not a self-harm population e.g. give some

¹⁴ Here and elsewhere in the guideline, each study considered for review is referred to by a study ID in capital letters (primary author and date of study publication, except where a study is in press or only submitted for publication, then a date is not used).

examples (GUTIERREZ2009 and OSMAN1998). Further information about both included and excluded studies can be found in Appendix 15.

For a full list of the scales reviewed in this chapter and the studies which have reported the predictive validity of these scales, please see Table 19.

Table 19: Risk assessment scales and corresponding study ID

Scale	Study ID
Beck Hopelessness Scale (BHS)	GALFAVY2008
	NIMEUS1997
	BECK1985,1999
Beck Depression Inventory (BDI)	GALFAVY2008
Scale for suicide ideation (SSI)	GALFAVY2008
	BECK1999
Suicide Probability Scale (SPS)	BISCONER2007
Reasons for Living Inventory (RFL)	OSMAN1999
	GALFAVY2008
Adult Suicide Ideation Questionnaire (ASIQ)	OSMAN1999
	BISCONER2007
Edinburgh Risk of Repetition Scale (ERRS)	CARTER2002
Hamilton Depression Rating Scale (HDRS)	GALFAVY2008
Manchester Self-harm Rule (MSHR)	COOPER2006b, 2007
Global Clinical Assessment (GCA)	COOPER2007
	KAPUR2005
Suicide Assessment Scale (SUAS)	NIMEUS2000
	WAERN2010
Suicide Behaviours Questionnaire - Revised (SBQ-R)	OSMAN2001
Suicide Intent Scale (SIS)	NIMEUS2002
	HARRISS2005
Statistical Model	CORCORAN1997

6.3.4 Methods

The psychometric properties of the scales examined included sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV), using pre-defined cut off scores. Sensitivity and specificity can be calculated using true positive (TP), true negative (TN), false positive (FP) and false negative (FN) values.

In this guideline, sensitivity is defined as the proportion of those who go on to repeat self-harm who have been identified as at high risk of self-harm repetition on the basis of their scores on the risk scale or measure. Sensitivity = $TP / (TP + FN)$. Specificity is defined as the proportion of those who do not go on to repeat self-harm who have been identified as at low risk of self-harm repetition on the basis of their scores on the risk scale or measure. Specificity = $TN / (FP + TN)$. Predictive values may be more useful than sensitivity and

specificity in clinical practice. Positive predictive validity measures the probability that a person with a positive test result really has self-harmed, TP/ (TP+FP). Finally, the negative predictive validity measures the probability that a person with a negative test result really is free of self-harm, (TN/ (FN+TN)).

The guideline development group agreed that the desired psychometric properties of scales would vary according to the outcome being predicted and the context in which the scale would be used. For example, a scale predicting repetition in routine practice should help healthcare professionals identify a person who is at high risk of repeating an episode of self-harm, without including too many who do not repeat i.e. has a low false positive rate. However for a scale predicting suicide, the consequences of missing individuals who go on to die by suicide are so serious that the false negative rate should be very low.

Each study has been narratively reviewed, and we have included details of the impact of setting/organisational context, if available, and the content of assessment scales.

6.3.5 Scales that predict suicide

The six cohort studies that use scales to predict suicide include BECK1985, BECK99, NIMEUS 1997, NIMEUS2000, NIMEUS2002 and HARRISS2005.

The Beck Hopelessness Scale (BHS: Beck *et al.*, 1974a) is a self-report instrument that consists of 20 true-false statements constructed to measure the extent of positive and negative beliefs about the future during the past week in psychiatric patients. Typical items are 'my future seems dark to me' and 'I might as well give up because there is nothing I can do about making things better for myself'. Each of the 20 statements is scored 0 or 1. Responses are summed to give a score of 0 to 20. The severity of hopelessness is rated as 0-3 minimal, 4-8 mild, 9-14 moderate and 15-20 severe.

BECK1985 used the BHS in a cohort study on 207 psychiatric inpatients hospitalised for suicide ideation. 32% had previously attempted suicide. Participants were followed up for 5 to 10 years. The aim was to see if the BHS could predict the eventual number of suicides. Eleven out of 165 participants used in the analysis died by suicide within the study period. The results showed that with a cut off score of 10 or more, the BHS had a sensitivity of 90.9% and a specificity of 50.6% in identifying repetition (reported in Beck *et al.*, 1989). Using the results reported in the paper, we calculated a PPV of 11.6% and NPV of 98.7%. A limitation to drawing conclusions from this study of those with suicidal ideation with little history of self-harm is that it cannot necessarily be extrapolated to guiding the longer term management of those presenting following an episode of self-harm. Another limitation in the interpretation of the results is that this study uses a lengthy follow-up period

of up to 10 years which is not useful in a clinical assessment where the concern is the risk of suicide in the shorter term.

The Scale for Suicide Ideation (SSI) was designed by Beck and colleagues (1979) to assess the severity of suicide ideation in psychiatric patients. It consists of 19 items and each item consists of three alternative statements graded in intensity using a 3-point scale ranging from 0 to 2. The items assess a person's wish to die, their desire to make an active or passive attempt, the duration and frequency of suicide ideation, sense of control over making an attempt and how much preparation they have contemplated. Responses are summed to give a possible total score of 0 to 38. Higher scores are associated with a greater suicide risk. The scale for suicide ideation – current (SSI-C) measures a person's current intensity of specific attitudes, behaviours and plans to commit suicide (Beck *et al.*, 1979) and the SSI at worst point (SSI-W) is rated when the suicide ideation is at the worst point in their lives. The SSI-C and SSI-W have high internal and good concurrent validity (Beck *et al.*, 1997).

Beck and colleagues (1999) used the SSI-C, SSI-W and the BHS in a cohort study on 3,701 outpatients evaluated at the Center for Cognitive Therapy in Pennsylvania, USA. 13.3% of the participants made a prior suicide attempt. Participants were followed up for 15 years. The aim was to see if the scales could predict the eventual number of suicides. Thirty out of 3,701 participants died by suicide. The results showed that with a cut off score of 2 or more, the SSI-C reported a sensitivity of 53%, a specificity of 83% and a PPV of 2.4%. A NPV of 99.5% was calculated from these results. The SSI-W (cut off score of 16 or more) had a sensitivity of 80%, a specificity of 78% and a PPV of 2.8%. A NPV of 99.7% was calculated from these results. The BHS (cut off score of 8 or more) had a sensitivity of 90%, a specificity of 42% and a PPV of 1.3%. A NPV of 99.7% was calculated from these results. There are a number of limitations that must be addressed before coming to any firm conclusions about using these scales to predict suicide. Firstly, the study uses a sample of outpatients and only a small percentage of them have a history of self-harm. Secondly, this study, along with the previous studies by Beck and colleagues, also has a lengthy follow up period, which is not useful for a clinical assessment.

The Suicide Intent Scale (Beck *et al.*, 1974b) is interview administered and designed to measure the level of intent a person has to complete suicide once they have already attempted it. It takes into consideration, behaviour and attitudes before, during and after an episode. The scale comprises of 15 items which are rated on a 2-point likert scale. The total score ranges from 0 to 30 and is calculated by summing the scores of each individual item. The completion time is approximately 10 minutes and it is administered by a trained clinician. The scale can be divided into 2 parts. Part 1 comprises of the first 8 items which measure the objective circumstances of self-harm. Part

2 comprises of the remaining 7 items which measures the thoughts and feelings of a person at the time of self-harm.

HARRISS2005 examined the SIS in a cohort study on 1,049 males and 1,440 females who presented to a general hospital following self-harm. Participants were assessed by members of the psychiatric service or data was obtained by records completed in the emergency department. Participants were followed up for 3 to 7 years (5.2 mean year follow p). The aim was to see if the SIS could predict the eventual number of suicides. Thirty male and 24 female participants used in the analysis died by suicide within the study period. The results showed that with a cut off score of 10, the SIS reported a sensitivity of 76.7%, a specificity of 48.8% and a PPV of 4.2% in male participants. In females, using a cut off score of 14, the sensitivity rate was 66.7%, the specificity was 75.3% with a PPV of 4%. Our calculated NPV score was 98.6% (males) and 99.2% (females). The study also provided scores for Part 1 of the SIS in females. The sensitivity was 75% with a cut off score of 6 and the specificity was 72.6%. The PPV remained at 4% and a NPV which we calculated of 99.4%. If the cut off score is increased to 7, this yielded a higher specificity of 80.9% but a lower sensitivity of 66.7%. This paper does not provide results which combined male and female subjects which make it difficult to generalise to a mixed male and female population of people who self-harm.

NIMEUS2002 used the SIS in a cohort study of 555 participants who were evaluated by a psychiatrist within 12 hours to 5 days following a suicide attempt, and most often as an inpatient of the Medical Intensive Care Unit. The participants were followed up from 10 months to 8 years and 10 months (mean time of 4 years and 6 months). Twenty two participants died by suicide during the follow up period. With a cut off score of 19, the reported sensitivity for the SIS was 59%, the specificity was 77% and that PPV was 9.7%. According the information in the paper, we calculated the NPV to be 97.8%. This study also looked at the predictive value of the SIS with participants who were aged 55 years and above. Ten out of 88 participants in this age group died by suicide during follow up. The reported sensitivity, specificity and PPV were 90%, 60% and 23%, respectively. We calculated the NPV to be 97.9%.

NIMEUS1997 used the BHS in a cohort study on 212 suicide attempters evaluated in the Medical Intensive Care Unit and during psychiatric hospitalisation. Participants were asked to participate in a suicide research program and were followed up for a mean time of 4 years and 4 months. Thirteen out of 212 participants used in the analysis died by suicide. The results showed that with a cut off score of 9, the BHS reported a sensitivity of 77%, a specificity of 42% and a PPV of 8%. Using the results reported in the paper, we calculated a NPV of 96.5%. When a cut off score of 13 was used the

sensitivity was still 77% but with a specificity of 61.3% and a PPV of 13% (calculated NPV was 97.6%).

The Suicide Assessment Scale (SUAS) was developed by Stanley and colleagues (1986) and is a clinician-rated scale designed to measure changes in levels of suicidality over time. It consists of 20 items and each item is rated on a 4 point likert scale. Typical items are: 'sadness and despondency', 'hostility' and 'anergia'. Ratings are interview based and the completion time is approximately 20-30 minutes.

NIMEUS2000 used the SUAS in a cohort study of 191 suicide attempters evaluated in a Medical Intensive Care Unit and asked to participate in a suicide research program. They were followed up for 12 months and 8 out of 191 died by suicide during this time. The results showed that with a SUAS cut off score of 39 the sensitivity of the scale was 75%, the specificity was 86% and the PPV was reported as 19.4%. One important note about this study is that due to the low prevalence of suicides, the study used a case control design to calculate the predictive validity, by comparing the suicide cases with a matched control of 40 participants who did not die by suicide. Using data from the study we calculated a NPV of 98.7%. A major limitation to drawing a firm conclusion about the usefulness of this scale to predict suicide, based on this study, is that a case control method was used for the analysis of predictive values and therefore any interpretations cannot be generalised to make a clinical assessment.

6.3.6 Clinical evidence summary of scales that predict suicide

Table 20: Scales that predict suicide

Study ID	Scale (cut-off score)	Sensitivity (%)	Specificity (%)	PPV (%)	NPV (%)	Prevalence (%)
BECK1985	BHS (≥ 10)	91	50.6	11.6	98.7	11/165 (6)
BECK1999	BHS (≥ 8)	90	42	1.3	99.7	30/3701 (0.8)
	SSI-W (> 16)	80	78	2.8	99.7	30/3701 (0.8)
	SSI-C (≥ 2)	53	83	2.4	99.5	30/3701 (0.8)
NIMEUS1997	BHS (9)	77	42	8	96.5	13/212 (6)
NIMEUS2000	SUAS (39)	75	86	19	98.7	8/191 (4)
NIMEUS2002	SIS (19)	59	77	9.7	97.8	22/555 (3)
HARRISS2005	SIS (10 for male)	76.7	48.8	4.2	98.6	30/1049 (2)
	SIS (14 for female)	66.7	75.3	4	99.2	24/1440 (1)

There are six studies (all cohort designs) which looked at predicting a fatal outcome such as suicide in people who have self-harmed. A scale that has a sensitivity of 100% means that there will be zero FN identified by the scale

and therefore it will be unlikely to miss any cases that will then go on to die by suicide. The scale that reported the highest sensitivity of 91% and the lowest FN rate of 1 is the BHS used by BECK1985. However, there are major limitations to the interpretations of these results, such as the use of a small sample of mainly suicide ideators and a lengthy follow up period of 5 years. Furthermore, the BHS would identify 76 false positives for every true positive, severely compromising its clinical utility.

Another drawback for these scales is that they all have low PPV (between 1-13%) therefore identifying many false positives which makes them of limited use. The low PPV scores are a result of the low prevalence of suicide. A final point to note is that the follow-up period is extremely long in some studies (between 4 to 15 years), in order to increase prevalence. It is greatest concern to healthcare professionals to be able to predict suicide in the next few weeks and months. In the shorter term, the PPV of these scales will be even lower. For these reasons, the use of scales to predict the risk of suicide cannot be recommended in clinical practice.

6.3.7 Scales that predict a repetition of self-harm

The 6 cohort design studies that look at non fatal outcomes include KAPUR2005, CARTER2002, COOPER2006b, COOPER2007, CORCORAN1997, GALFAVY 2008 and WAERN2010.

The Manchester Self-Harm Rule (MSHR: COOPER2006b) is a clinician-rated screening tool designed for the initial assessment of self-harm patients in emergency departments. It is comprised of four questions assessing: history of self, past or present psychiatric treatment, and whether the service user has used a benzodiazepine overdose. The assessment of risk is divided into two categories: perceived low risk and perceived moderate/high risk.

COOPER2006b used the MSHR in a cohort study on consecutive service users who presented themselves to five hospital emergency departments following self-harm. The participants were followed up for 6 months and 373 out of 2,095 service users made a repeat attempt of self-harm, 14 of which died by suicide. The reported sensitivity, specificity, PPV and NPV was 97% (95% CI 95 to 98), 26% (95% CI 24 to 29), 22% (95% CI 20 to 24) and 97% (95% CI 96 to 99), respectively.

COOPER2007 conducted an analysis on people who self-harm and present to an emergency department, 8,825 of whom completed the MSHR and 8,722 of whom had a Global Clinical Assessment (GCA) completed by emergency department clinicians or mental health specialists. The participants were followed up for 6 months. 1,506 of the MSHR service users and 1,481 of the GCA patients made a repeat attempt of self-harm, 59 of which died by suicide. For the MSHR, the reported sensitivity, specificity, PPV and NPV, was 94% (95% CI 92 to 95), 26% (95% CI 24 to 27), 21% (95% CI 19 to 21) and

96% (95% CI 94 to 96), respectively. For the GCA the reported scores were 85% (95% CI 83 to 87) sensitivity, 38% (95% CI 37 to 39) specificity, 22% PPV (95% CI 21 to 23) and 92% (95% CI 91 to 93) NPV.

KAPUR2005 conducted a cohort study using a GCA to examine the risk of repetition in 3,828 people who presented to a hospital emergency department following self-harm. The assessment was done by emergency department clinicians and mental health staff. For the purpose of this guideline, we will present the findings of the mental health staff assessment. Participants were followed for 12 months and 549 patients repeated self-harm, 18 of which died by suicide. The reported sensitivity, specificity, PPV and calculated NPV was 17% (95% CI 14.1 to 20.5), 92% (95% CI 90.7 to 92.6), 26% (95% CI 21.3 to 30.2) and 87%, respectively.

Kreitman & Foster (1991) developed a clinical and research scale to predict the repetition of self-harm within 12 months. The Edinburgh Risk of Repetition Scale (ERRS) has 11 variables which include history of psychiatric treatment, marital status and age between 25-54 years old. A positive answer for each item is scored as one and responses are summed to give a possible total score of 0 to 11. The ERRS for research use has specific weightings for each item when it is scored.

Hawton & Fagg (1995) conducted two one-year cohort studies on 1,180 people assessed in routine clinical practice at a UK general hospital following a suicide attempt. The study aimed to compare the performance of a clinical version of the ERRS (with non weighted items), a research version (with weighted items) and a shorter version (comprised of 6 items) of a scale developed in Edinburgh in 1974 (Buglass & Horton, 1974). Performance was examined in two ways. Firstly, based on the method used by Kreitman & Foster (1991), that is, based on suicide attempts where a repeat attempt within that year indicated repetition (analysis type a). Secondly, based on individual persons (rather than episodes of attempts) where a repeat attempt within a one-year period indicated repetition, measured by hospital re-admission (analysis type b). The results showed that there was little difference in the performance of the clinical and research versions of the ERRS scales when compared to each other, using analysis type a. These results were compared to analysis type b, where both versions performed more poorly than in analysis type a. The performance for the Buglass and Horton scale was similar to the clinical version of the ERRS, using analysis b. It is important to note that this study does not report sensitivity and specificity data and has been reviewed to illustrate the background and development of the ERRS.

CARTER2002 used the ERRS scale by rating the items based on clinical interview, service user self-report and case notes. This cohort study used 1,317 people who self poisoned and presented for hospital treatment. The participants were followed up for 12 months and 180 participants made a

repeated presentation for self poisoning. A cut off score of 8 or more for male subjects and 6 or more for female subjects was used. The ERRS reported a sensitivity of 26%, a specificity of 84%, a PPV of 21%. We calculated an NPV of 86.7%.

The following scales, as well the BHS and the SSI scales, which have been described above, was used in a study by GALFAVY2008.

The Hamilton Depression Rating Scale (HDRS: Hamilton, 1960) is a clinician-rated scale and consists of 17-items designed to measure the severity of depressive symptoms in people diagnosed with affective disorder of depressive type. Scores on each item are measured on a 5-point likert scale ranging from 0 to 4 (0 = absent, 1 =mild or trivial, 2 = moderate, 3 = moderate, 4 = severe), or they can be measured on a 3-point scale (0 = absent, 1 = slight or doubtful, 2 = clearly present). The total score is the sum of the item scores and can range from 0-53. A score of 0-7 is considered clinical remission, ≥ 20 is low severity. It is advised to have two raters independently score a patient at the same interview and the administration time is approximately 20 to 30 minutes.

The Beck Depression Inventory (Beck & Steer, 1987) is a self-report instrument that consists of 21 items constructed to measure the current severity of depression in psychiatric patients. Each of the items is rated on a four-point scale with scores ranging from 0-3). Responses are summed to give a possible total score of 0 to 63. The severity of depression is rated as 0-9 minimal, 10-16 mild, 17-29 moderate and 30-63 severe.

The Reasons for Living Inventory (RFL: Linehan *et al.*, 1983) is a 48-item self-report measure designed to assess beliefs and expectations for wanting to live as an alternative to suicide in adults and adolescents. As such, the scale is one of the few instruments that assess protective factors or beliefs buffering against suicidal behaviour, rather than focusing on risk factors. Typical items are: "I believe I can find a purpose in life, a reason to live" and "I believe I can find other solutions to my problems." Each item of the inventory is rated at 6 levels of importance ranging from 1 ("not at all important") to 6 ("extremely important"). Based on factor analyses with adults, the RFL consists of six domains of reasons for living: 1) survival and coping beliefs, 2) responsibility to family, 3) child related concerns, 4) fear of suicide, 5) fear of social disapproval, and 6) moral objections. The RFL yields a total score as well as six subscale scores corresponding to each of the above domains.

GALFAVY2008 conducted a cohort study with 304 depressed psychiatric research centre participants, 54% of whom had a history of previous self-harm. Participants were administered the BHS, SSI, RFL, HDRS and the BDI and were followed up for 2 years. 52 participants made a suicide attempt during follow up, 4 of whom died by suicide. The BHS (cut off score 5) had a

sensitivity of 0%, a specificity of 100%. We calculated the NPV as 82.8%. The SSI (cut off score 10) reported a sensitivity of 54%, a specificity of 75%. We calculated the PPV as 30.8% and the NPV as 88.7%. The RFL (0.25 probability cut off) scale reported a sensitivity of 35% and a specificity of 79%. We calculated the PPV as 25.5% and the NPV as 85.4%. The HDRS (cut off 2) had a sensitivity of 4% and a specificity of 94%. We calculated the PPV as 12% and the NPV as 82.5%. The BDI (cut off 16) had a sensitivity of 31% and a specificity of 83%. We calculated a PPV of 27.3% and a NPV of 85.3%.

The SUAS has been described in Section 6.3.5. WAERN2010 used a modified version of the SUAS (Nimeus *et al.*, 2006) in a cohort study on 162 service users admitted to an emergency ward and interviewed following a suicide attempt. Participants were followed up for 6 months and 61 participants repeated a suicide attempt, including 5 suicides. The results showed that with a cut off score of 24 SUAS reported a sensitivity of 61% and a specificity of 40%. Using the results reported in the paper, we calculated a PPV of 38% and NPV of 62.9%.

CORCORAN1997 used a statistical model created by entering 11 predictor variables into a logistic regression analysis to identify people who are at high risk of repeated self-harm. The variables included items such as any previous act of self-harm, main method of self-harm used, alcohol taken at the time of the act etc. (For more details on the method used for identification of these variables please refer to the original paper). 122 participants were admitted to a general or psychiatric hospital following an episode of self-harm and had their data entered into a computer. Participants were followed up for 6 months, in which 26 participants had repeated self-harm. Results were reported for a range of cut-point probabilities, ranging from 0.2 to 0.5. With a cut-point probability of 0.2 (which has the highest sensitivity score) the analysis gave a sensitivity of 96%, a specificity of 81%. Using the results reported in the paper, we calculated a PPV of 60% and NPV of 99%. It is important to note that there was data for 100 participants (from the original sample total of 212 participants) that could not be entered into the analysis as there was incomplete information for at least one of the 11 variables. The study did report, however, that there was no difference between the excluded and included participants in regards to the predictor variables.

The search identified three case control design studies (BISCONER2007, OSMAN1999, OSMAN2001), which met our inclusion criteria. The studies look at non fatal outcomes and report the sensitivity and specificity of the following scales.

The Suicide Probability Scale (SPS) by Cull & Gill, (1988) is a 36-item, self report measure designed to measure the probability of suicidal behaviour in adults and adolescents aged 14 and older. Individuals rate the frequency of their subjective experience and past behaviours using a four-point Likert scale

1 ranging from 'none or a little of the time' to 'most or all of the time'. It has a
2 total weighted score and four subscales based on factor analysis:
3 hopelessness, suicide ideation, negative self-evaluation and hostility. Typical
4 items include: 'I feel so lonely I cannot stand it'; 'In order to punish others I
5 think of suicide', 'Things seem to go well for me'; and 'I feel I tend to be
6 impulsive.' The suicide probability score can be interpreted in relation to an
7 assessed risk level: A score of 0-24 represents a subclinical risk level, 25-49
8 represents a mild risk level, 50-74 represents a moderate risk level, and 75-100
9 represents a severe risk level.

10
11 The Adult Suicidal Ideation Questionnaire (ASIQ; Reynolds, 1991) is a 25-item
12 self-report measure designed to measure the frequency of suicidal thoughts in
13 clinical and non clinical adult populations. There are 25 descriptions of
14 negative thoughts and behaviours that a person may experience over one
15 month. Individuals rate the frequency of their experience and behaviours
16 using a 7-point likert scale ranging from 0 ("I never had this thought") to 6
17 ("almost every day") and this yields a total score with a corresponding T
18 score and percentile score.

19
20 BISCONER2007 conducted a sensitivity and specificity analysis for the SPS
21 and the ASIQ in a case control study on inpatients from an acute psychiatric
22 hospital. Participants were divided into either Group 1 (n=25) as those who
23 were admitted for suicide ideation or gesture (suicide risk group), or Group 2
24 (n=42) who were admitted for admitted for other reasons (comparison group)
25 but also had a history of suicide gestures. The aim was to determine the
26 extent to which the SPS and the ASIQ could correctly classify subjects into
27 their groups. The results showed that with a cut off score of 50, the SPS
28 reported a sensitivity of 52% and a specificity of 78%. We calculated a PPV of
29 70.8% and a NPV of 60.9%. The ASIQ, with a cut off score of 31, reported a
30 sensitivity of 51% and a specificity of 78%. We calculated the PPV of 72% and
31 a NPV of 59.5%.

32
33 The Suicide Behaviours Questionnaire (SBQ) was designed by Linehan (1981)
34 to measure past suicidal thoughts and behaviour. It is a self-report measure
35 comprising of 34 items. To date many different versions of the SBQ have been
36 used and furthermore, OSMAN2001 validated a revised version, the SBQ-R.
37 This is a self report measure comprising of 4 items, each touching on a
38 different domain of suicidal behaviour. These include; past suicide attempt
39 (Item 1), frequency of suicide ideation (Item 2), threat of suicidal behaviour
40 (Item 3) and finally the likelihood of a future attempt (Item 4). Each item is
41 scored using a weighted summary score and the total score ranges from 3 to
42 18. For Item 1, response is scored on a 4 point likert scale ranging from 1
43 (never) to 4 (I have attempted suicide), the total score, therefore, ranging from
44 1 to 4.

OSMAN2001 used the SBQ-R in a case control study on psychiatric inpatients. They grouped adult participants into a suicidal risk subgroup (n=51) based on hospital admission for recent suicide attempts or serious threats, or a non suicidal risk subgroup (n=69) for patients who were admitted for other reasons. The adolescent participants were also divided into a suicidal risk and a non suicidal risk subgroup based on this criteria. The analysis used a SBQ-R total score and Item 1 only, from the SBQ-R to distinguish suicidal vs. non suicidal individuals. The results showed that with a cut off score of 8, in adults, the SBQ-R reported a sensitivity of 80%, a specificity of 91%, a PPV of 87% and a NPV of 86%. In adolescents, the reported sensitivity was 87%, specificity was 93%, PPV was 90% and the NPV was 99%. For Item 1 of the SBQ, for adults, the sensitivity was 80%, specificity 97%, PPV 85% and NPV was 87%. For adolescent the reported scores were a sensitivity of 100%, specificity of 96%, PPV of 95% and a NPV of 100%.

OSMAN1999 used the ASIQ and the RFL scale in a case control study on psychiatric inpatients. They grouped the participants into a 'suicide attempter group' (n=75) and a psychiatric control group (n=130). The suicide attempter group had made prior or current suicide attempts with an established intent to die. This was measured from assessments by intake staff using various other scale measures (Minnesota Multiphasic Personality Inventory-2, SIS, BHS, The Positive and Negative Affect Scale) as well as the ASIQ and RFL. Group assignment was further endorsed by a review of medical records. The control group did not have a history of suicide attempt. The results showed that the sensitivity (the proportion of suicide attempters that were correctly identified as suicide attempters) using a cut off score of 14 in the ASIQ identified the maximised sensitivity of 96% and maximised specificity (the proportion of psychiatric controls who were correctly identified as non suicide attempters) of 79%. The reported PPV was 72% and the NPV was 97%. The RFL showed that a cut off score of 3.8 yielded greatest accuracy in giving a sensitivity of 61% and a specificity of 81.5%. The reported PPV was 65.7% and the NPV was 75.5%.

6.3.8 Clinical evidence summary of scales that predict repetition of self-harm

Table 21: Scales that predict repetition of self-harm (prospective cohort studies)

Study ID	Scale (cut-off score)	Sensitivity (%)	Specificity (%)	PPV (%)	NPV (%)	Prevalence (%)
KAPUR2005	GCA	17	92	26	86.8	549/3828 (14)
CARTER2002	ERRS (>8 for male, >6 for female)	26	84	21	87.6	180/1317 (13)

	female)					
COOPER2006b	MSHR	97	26	22	97	373/2095 (17)
COOPER2007	MSHR	94	26	21	96	1506/8825 (17)
	GCA	85	38	22	92	1481/8722 (16)
CORCORAN1997	Statistical Model (0.2)	96	81	60	99	26/112 (23)
GALFAVY2008	HDRS (2)	4	94	12	82.5	52/304 (17)
	BDI (16)	31	83	27.3	85.3	52/304 (17)
	BHS (5)	0	1	n/a	82.8	52/304 (17)
	SSI (10)	54	75	30.8	88.7	52/304 (17)
	RFL (0.25)	35	79	25.5	85.4	52/304 (17)
WAERN2010	SUAS (24)	61	40	38	62.9	61/162 (37)

1

2 **Table 22:** Scales that predict repetition of self-harm (case-control studies)

Study ID	Scale (cut-off score)	Sensitivity (%)	Specificity (%)	PPV (%)	NPV (%)
BISCONER2007	SPS (50)	52	78	70.8	60.9
	ASIQ (31)	51	78	72	59.5
OSMAN1999	ASIQ (14)	96	79	72	97
	RFL (3.8)	61	81.5	65.7	75.5
OSMAN2001	SBQ-R (8) Adults	80	91	87	86
	SBQ-R (8) Adolescents	87	93	90	99

3

4 There were ten studies (3 case control and 7 cohort designed) which looked at
5 predicting a repetition of self-harm. Sensitivity, specificity, PPV and NPV
6 scores from case control studies may be less generalisable to a real world
7 clinical context than those obtained from cohort studies. The GDG came to
8 the consensus that the evidence to recommendations would be derived from
9 studies which used the stronger prospective cohort design.

10

11 The prospective studies were examined in more detail to describe the sample
12 and the sample size so we could assess the utility and generalisability of the
13 findings and precision of the estimates. All studies with the exception of one
14 included participants who presented to an emergency department following
15 self-harm. The length of follow-up used by these studies varied between 6
16 months to 3 years. The tool that reported the highest sensitivity of 97% was
17 the MSHR used by COOPER2006b. The limitation of this tool in terms of its
18 clinical utility was its low specificity of only 26%. All the scales had relatively

low positive predictive values ranging from 12% to 60%. This means that many individuals were wrongly identified as people who would repeat self-harm, thus limiting the clinical utility of these scales and possibly resulting in unnecessary intervention in some individuals.

6.4 NEEDS ASSESSMENT

6.4.1 Introduction

While psychosocial assessment includes several components, the most important are the assessment of needs and the assessment of risks. The assessment of needs is designed to identify those personal (psychological) and environmental (social) factors that might explain an act of self-harm. This assessment should lead to a formulation, based upon which a management plan can be developed. The main components of an assessment of need after self-harm therefore include:

- Social situation (including current living arrangements, work and debt)
- Personal relationships (including recent breakdown of a significant relationship)
- Recent life events and current difficulties
- Psychiatric history and mental state examination, including any history of previous self-harm and alcohol or drug use
- Enduring psychological characteristics that are known to be associated with self-harm
- Motivation for the act.

Information about the psychiatric, social and psychological factors and contexts of the act can then be brought together into a formulation that describes the antecedents of the episode of self-harm. The formulation should therefore include:

- Long-term vulnerability factors including early loss or separation from parents, difficult relationships with parents signified by rejecting or overprotective parenting styles, or abuse in early life. Although sexual abuse has been associated with self-harm, emotional or physical abuse are also important. Enduring psychological characteristics and psychiatric problems.
- Short-term vulnerability including current difficulties in relationships and lack of social support, work or health-related problems, drug and alcohol misuse, or exacerbation of psychological symptoms.
- Precipitating factors are likely to be stressors experienced in the few days immediately prior to self-harm. Again relationship problems, financial worry, anniversaries, deaths or other losses can act as precipitators to the act of self-harm.

6.4.2 Narrative reviews

The following section summarises two studies identified, which examined the assessment of need in people who self-harm.

CEDEREKE2007 aimed to look at the specific needs of people who have self-harmed by using a comprehensive needs assessment tool - the Camberwell Assessment of Need (CAN). Semi-structured interviews were conducted for participants (N=140) one month and twelve months following emergency treatment for a suicide attempt. The CAN looks at whether a need exists (as rated by a service user) and the severity of the need in 22 areas of 'every-day living'. The most common areas of need were 'safety to self (self-harm), psychological distress and physical health'. The aim of the study was to investigate the help that service users receive from services (formal help) as well as from friends and family (informal help). Also, to examine whether help from services was considered adequate and lastly, whether the amount of help received and its level of adequacy differed between service users who repeated suicide attempts during follow up. There were 23 who repeated self-harm between one and twelve months and 117 who did not. The results showed that after one month, a high rate of formal and informal help was received in the most common areas of need, mentioned above. But in areas of need such as intimate relationships, and needs in daytime activities, company and sexual expression, there was little (formal or informal) help received. After twelve months, the need for 'safety to self' fell but the highest rate of help received was still in this area and psychological distress. There was no difference between repeaters and non-repeaters in that they rated the same main need areas and the same severity of need. Furthermore, the help received did not differ at one month after the index episode of self-harm. After twelve months, however, repeaters had significantly more needs such as 'safety to self, psychological distress, intimate relationships', to name a few. In regards to the help received, repeaters received more help for psychological distress, intimate relationships and company. Both groups found help from services to be adequate but with the exception of needing more information.

KEENE2005 conducted a descriptive cross-sectional study to look at the assessed needs and service use of a self-harm population. This population comprised people who had self-harmed by self-poisoning, asphyxiation, cutting, burning and other self inflicted injuries. The first part of this study aimed to look at the assessment of need including mental health and substance misuse need. The second part assessed the inter-agency service use of this population, such as health and social care services, and compared it to utilisation patterns of a wider emergency department population. Results showed that 53% (n=427) had an assessed mental health problem, 18% with drug or alcohol problems and 15% with a dual diagnosis. Only 10% had no assessed need. Results also looked at the proportion of each assessed need group and their referral to the relevant external agencies. 70% of those who

had self-harmed and had mental health problems were referred to mental health services, 64% with drug problems to a drug agency and 35% with alcohol problems were referred to an alcohol agency or for detoxification from alcohol. Overall, 37% of those with at least one assessed need were referred to mental health services, 3% to a drug agency, 6% to an alcohol agency, 15% to social services, 16% to a GP, 15% to follow-up or out-patient and 9% were discharged with no further service. When comparing those who self-harm and the rest of the emergency department population over 3 years it can be seen that the former are three times more likely to contact social services and ten times more likely to attend drug or alcohol agencies. This study described the service use of a small population of those who had self-harmed in the hope that inter-agency integrated care services can provide a better service for this population and help inform the development of integrated care initiatives.

6.5 PSYCHOSOCIAL ASSESSMENT

6.5.1 Narrative reviews

The following section summarises studies identified, which examine the psychosocial assessment of people who have self-harmed. Some studies that are relevant to answering our clinical question, investigated whether receiving an assessment had an effect on repetition of self-harm or adherence to treatment (OUGRIN2011, HICKEY2001, WITTOUCK2010, KAPUR2007 and BERGEN2010b). These studies compared groups of participants who received an assessment with those who did not or those who were given TAU. A further two studies (HAW2003b and KAPUR2003) looked at these outcomes but did not make a comparison between groups of participants in their study design.

HICKEY2001 conducted a study where they looked at people who presented to hospital over two years following self-harm, comparing those who received a psychosocial assessment and those who were discharged from hospital without an assessment, and whether these participants differed in characteristics and subsequent self-harm. A psychiatric team conducted the assessments in a general hospital in the UK. When comparing their characteristics, the non assessed participants (n=145) were more likely to have a history of self-harm ($p<0.02$), were recorded as showing difficult behaviour ($p<0.02$), were uncooperative during physical examination ($p<0.05$), took early discharge from the emergency department ($p<0.0001$) and were less likely to have further healthcare arrangements made ($p<0.0001$), compared to the assessed participants (n=101). The non assessed group also had more cases of self-poisoning (74%) as opposed to cases of self injury, compared to the assessed group (79%).

In a follow up study, after 12 months of the index presentation, non assessed participants were matched on characteristics (age, sex, type of self-harm) with

assessed participants (control) and there were 88 matched pairs in this comparison. The participants GPs were contacted for information on psychosocial variables of the participants in the one year after the index presentation. There was no significant difference between the groups in terms of psychosocial problems, although these were more common in the non assessed group. According to the Monitoring System data, more non assessed participants repeated self-harm within 28 days of the index episode compared to assessed participants, although this was not statistically significant. After 12 months, 3 times as many non assessed participants repeated self-harm compared to assessed participants. When this data was combined with GP data, the results showed that 37.5% of the non assessed participants repeated self-harm within 12 months compared to 18.2% of the assessed participants. One limitation to this study is that it excluded participants who in current inpatient psychiatric care at the time of the index presentation, so few participants had a history of psychiatric care or self-harm, and so may not be generalisable to all people who self-harm.

KAPUR2007 carried out a large multi centre research project in the UK for people who presented to hospitals following self-harm. They aimed to establish factors associated with receiving or not receiving a specialist psychological assessment and whether this is associated with repetition of self-harm. Taking into account various social and clinical characteristics of the 7,344 participants, and also the type of substance or method they used to self-harm, key characteristics were associated with an increase likelihood of having an assessment in hospital. These were: being aged over 55; having current psychiatric treatment; being admitted into a medical ward and taking antidepressants. A person less likely to receive an assessment is someone who is unemployed, used self-cutting, and chose to self-discharge from hospital and attending a hospital outside working hours. Overall, a repeated subsequent attempt cannot be predicted based on whether one has received or not received an assessment. However, in some hospitals having an assessment appeared to reduce the risk of repeated self-harm and these hospitals tend to have a higher proportion of assessed episodes, whereas in others having an assessment appeared to increase the risk and these hospitals had a lower proportion of assessed episodes. Only 60% of self-harm episodes resulted in as assessment, overall. Of course the findings of this and other similar studies need to be interpreted in the context of their observational design which means that the observed associations may not be causal and could well have been influenced by unmeasured confounders.

BERGEN2010b carried out a survival analysis to examine, firstly, the association between psychosocial assessment by a specialist mental health practitioner following self-harm and a subsequent repeat episode, and secondly, the association between having a psychosocial assessment after an episode and the survival time until the repeat episodes. The setting included three UK centres, where 13,966 participants had made hospital presentation

for a first episode of self-harm in the study period (2003-2005) and 55.6% had received a specialist psychosocial assessment. There were 18,483 repeated episodes of self-harm within the following two years, which included up to the first 6 episodes only, for each person. Participants received a specialist psychosocial assessment for 54.7% of these episodes. The following results look at 'short term repetition' or the time to the first repeat episode. For participants who did not have a history of psychiatric treatment, the risk of repeating an episode of self-harm was 51% (95% CI 42%-58%) less if they received an assessment, compared to not receiving an assessment. Likewise, for participants who do have a history of psychiatric treatment, having an assessment will reduce the likelihood of a repeat episode by 26% (95% CI 8%-34%), compared to not having an assessment, with other variants controlled. For recurrent repetition, for all 6 episodes, results show that participants who did not have a history of psychiatric treatment, the risk of repetition was 57% (95% CI 51%-63%) less if they received an assessment at the last episode, compared to not receiving an assessment, controlling for covariates. Likewise, for those who have a psychiatric treatment history, having an assessment will reduce the likelihood of a repeat episode by 26% (95% CI 11%-41%), compared to not having an assessment.

OUGRIN2011 conducted a randomised controlled trial with adolescents who self-harm to examine whether Therapeutic Assessment (TA) compared to assessment as usual (AAU) improves attendance and engagement during a 3 month follow-up period. This study was set in CAMHS settings in London (U.K). AAU involved standard psychosocial evaluation and standard disposition planning. The TA was carried out by trained healthcare professionals and involved the same components as AAU in addition to a brief therapeutic intervention. When looking at the attendance rate of the first follow up session, results showed that subjects in the TA group had better attendance rates (OR 5.19, 95% CI, 2.22 to 12.10). Subjects were also given the Strengths and Difficulties Questionnaire (SDQ) and the results showed that although there was an improvement in scores for all subjects, there was no significant differences in changes of scores between the groups (MD -0.37, 95% CI (-3.25 to 2.53) and this was also seen in the Children Global Assessment Scale scores (MD 4.49, 95% CI (-0.98 to 9.96). There was insufficient evidence to make any conclusions regarding the difference between therapeutic assessment and assessment as usual. Limitations of this study include a short follow up period, and that the effectiveness of standard clinical practice interventions for adolescents who self-harm is questionable.

WITTOUCK2010 conducted a longitudinal study to examine people who attempted suicide and their compliance with aftercare following standardised psychosocial assessment. The study group were assigned to assessment using the Instrument for Psychosocial Evaluation and Care of Suicide Attempters (IPEO) (n=93) compared to people who attempted suicide who received a non IPEO based psychosocial assessment (n=38). Semi structured interviews were

conducted at 1 (FU1) and 6 (FU2) months follow up after an index episode (with in the study period). Outcomes measured include contact with emergency department staff (during hospital admission), GP and mental health services. The results showed that participants who have no inpatient history (OR=2.73, 95% CI 1.18-6.29) or those who have only had one inpatient admission for treatment (OR=7.15, 95% CI 1.43-35.7) were more likely to receive a IPEO based assessment compared to participants with two or more previous inpatient admissions for treatment. There was no difference between the study groups in terms of the treatment advice received, and compliance with fixed referrals, however, participants in the IPEO group were more likely to have treatment options discussed with them than the non-IPEO group (OR=3.2, 95% CI 1.23-8.45). During FU1, 62% of the participants who visited their GPs did so within one week of their index attempt. There was no difference between the study groups in the number of participants who visited their GP. However, during the period of discharge from hospital to visiting the GP, the non-IPEO group visited their GP 3.6 times less within one week after the index attempt (95% CI 1.1-11.9). During F2 there was no difference in the groups regarding the regularity of visits to a GP. At FU1, there was no difference between the groups in receiving mental health care (MHC), outpatient MHC or pharmacological treatment. However, the non-IPEO group were more likely to receive inpatient MHC than the IPEO group (OR=3.1, 95% CI 1.4-6.8). At FU2, no differences in treatment received remained between the two groups. There was a high dropout rate from FU1 to FU2 of 37% reported in this study.

HAW2003b conducted a prospective study on 135 participants who presented to a general hospital in the UK following self-harm and were given an assessment by the hospital self-harm service. This is a specialist service which aims to provide a rapid psychosocial assessment and aftercare for people who have self-harmed. After the index hospital presentation, participants were followed up for between 12 months to 20 months to assess repetition of self-harm, treatment adherence and satisfaction. One hundred and six patients (79%) reported how satisfied they felt with their psychiatric assessment at follow up and a majority felt that the assessor showed understanding and that their problems were taken seriously.

Only 33 (24%) of the participants who were assessed were offered an outpatient appointment by the self-harm service as there was a criteria for this offer, such as being at high risk for further self-harm. Twenty (61%) of these participants attended their first follow up appointment but there was no statistical difference between the characteristics of these people and those who refused an appointment or did not turn up. Nineteen participants had a follow up interview and most of them were satisfied with the care that they had received by the self-harm service. Four (21%) out of 19 participants who reported satisfaction levels of the treatment received had also reported a further episode of self-harm, whereas, 30 (35%) out of 87 participants who

1 were not offered treatment reported a repeat episode of self-harm. Although
2 the repetition rate of participants who received aftercare was low, there was
3 no statistical difference between these groups.
4

5 The self-harm service provided 53 (39%) participants, who were thought to be
6 at high risk of further self-harm, an emergency telephone number if needed in
7 a crisis. Forty one (77%) of these participants were seen at follow up, and six
8 (15%) reported a repeat episode of self-harm during this period.
9

10 When interpreting the findings of the participants used in this study, it is
11 important to note that this study defined self-harm as including self-
12 poisoning and self-injury but excluded self-cutting that was considered part
13 of a repetitive pattern of self-mutilation. Another limitation to interpreting
14 the findings of this study is that the sample size of participants offered
15 outpatient appointments and interviewed regarding satisfaction of the
16 psychosocial assessment that they received are small. Furthermore,
17 experiences of the psychiatric assessment were measured after the 12-20
18 month follow up period, where 15 participants could not then remember or
19 report on the assessors attitude towards their problems. This study had an
20 original sample of 150 participants presenting to hospital for self-harm.
21 Ninety percent of these received an assessment, however, this study did not
22 compare outcomes between groups of participants who received and did not
23 receive a psychosocial assessment.
24

25 KAPUR2003 conducted a prospective study to look at the differences in six
26 UK hospitals in regards to their management (including rate of psychosocial
27 assessments received by participants) and direct costs associated with
28 participants presenting for self-poisoning. Three of these hospitals had a
29 multidisciplinary self-harm teams consisting of medical or nursing staff as
30 well as social workers who carried out the assessments. Over a 5 month
31 study period there were 1,778 episodes of self-poisoning involving 1,306
32 people aged over 16 years. When looking at differences between hospitals,
33 rates of admission following an episode of self-harm varied from 16.5% to
34 81.3%, rates of psychosocial assessment varied from 28.5% to 57.7%, rates of
35 admission to a psychiatric bed varied from 1.8% to 6.2% and the rate of
36 specific follow-up being arranged by the hospital varied from 16.3% to 58.6%.
37 Hospital costs (including capital charges and general services) ranged from
38 £228 to £422. The rate of repetition varied from 10.3% to 16.1%, but the
39 difference between hospitals was not statistically significant. Furthermore,
40 the rate was similar in the hospitals with a self-harm team (14%) and with no
41 such team (15.2%). 604 participants who had presented in the first 8 weeks of
42 the study were followed up to measure repetition of self-poisoning within 12
43 weeks of their index presentation of which 88 participants (14.6%) repeated
44 self-poisoning. This study found that the repetition rate of participants
45 receiving an assessment was 9.8% compared to 17.9% in those who did not
46 receive an assessment and this association reached statistical significance

1 (p<0.005) even when adjusted for differences in participants' characteristics
2 such as age, sex, substance dependence, previous self-harm and current
3 contact with psychiatric services (adjusted OR 0.42 CI 95% (0.25-0.71),
4 p<0.005). One limitation of this study is that it did not measure rates of
5 repetition in a larger sample. If this had been done, there may have been
6 significant differences noticed in terms of rates of repetition and differences
7 between teaching and district hospitals, hospitals with or without specialist
8 teams and in aspects of management.

9 **6.5.2 Summary**

10 From the evidence review in Section 6.5.1, due to the studies being very
11 different from each other and therefore not meta-analysable, there was
12 insufficient evidence to draw any conclusions regarding the association
13 between psychosocial assessment and improvement in outcomes.
14 Nevertheless, psychosocial assessment is an important part of developing
15 care and management plans for self-harm. Reviews conducted in Section 6.2
16 and 6.3 may inform areas to explore during psychosocial assessment. The
17 following section includes the practical aspects of how to carry out
18 psychosocial assessments.
19

6.6 PRACTICAL ASPECTS OF PSYCHOSOCIAL ASSESSMENT

6.6.1 Introduction

Psychosocial assessment in the emergency department in the immediate aftermath of an episode of self-harm should follow the guidelines for the short-term management of self-harm (NICE, 2004). The same procedures should be followed even in circumstances where the current episode of self-harm follows one or more previous episodes of self-harm.

In the assessment of an episode of self-harm in someone with a previous history of self-harm, emergency department healthcare professionals should ensure that the service user is referred to other sources of support if they are not already involved in services. If they are already involved in services a further self-harm attempt indicates that a review of the current treatment approach may be warranted.

6.6.2 Current practice

A psychosocial assessment following an act of self-harm must be regarded as an opportunity to engage a service user in a collaborative investigation of the complex interplay of factors which led to their act of self-harm.

In addition to the content of the interview, the process of the interview is extremely important. The healthcare professional should demonstrate a non-judgemental empathetic style of questioning so as to engage the service user in disclosure of key information. The assessment should result in the setting of initial management objectives.

The experience of care review (Chapter 4) explored service users' experience of psychosocial assessments. Service users expressed the need for more information about the assessment and the need for more involvement in decision making. Service users highlighted the importance of a therapeutic relationship and a beneficial, hopeful engagement with the staff member, as well as the need to be understood regarding individual reasons behind self-harm. A psychosocial assessment is seen as an opportunity to talk to someone. However, some negative experiences involve service users sometimes feeling devalued, negatively judged and misunderstood.

Starting the assessment

The assessment should be conducted in a suitable room which is private and fit for purpose. After introducing themselves the assessor should state the purpose of the assessment. The assessor should enquire about significant others and offer to include them in the assessment. However, at some point

the service user should be seen alone. The assessment may take an hour or sometimes longer.

The GDG discussed the use of standardised risk assessment devices and measures and concluded that best practice is for the healthcare professional to conduct a thorough clinical assessment. However, checklists or additional tools could be used in keeping with local guidelines to ensure all important areas were covered, see 6.3.

Assessments, particularly in the longer term management of self-harm will generally be conducted by mental healthcare professionals in a variety of settings. A mental healthcare professional should have adequate training and experience and access to supervision (see Chapter 5). At the outset the assessor should ensure that the cultural, gender and any other needs of the service user are addressed as far as possible. It should be acknowledged that enquiry of such preferences at the outset is likely to contribute to the development of engagement and rapport. Service user engagement is essential in achieving a good assessment of risk and needs and builds the foundation for a more successful ongoing contact of the patient with mental health services.

Psychosocial assessment

In general, psychosocial assessment should be conducted as any initial assessment in Mental Health Services. The GDG discussed how to approach assessment of the acts of self-harm and how to interpret this information in formulation and management of risk.

Psychosocial assessment in the longer-term management of self-harm differs in that this is most often occurs outside the emergency department context, in a CMHT, in CAMHS or in an acute psychiatric ward. In these circumstances the assessor often needs to conduct a broader assessment of the service user's mental state, physical health and social circumstances in addition to deriving a comprehensive understanding of the functions of self-harm.

Domains of enquiry

The GDG discussed the domains of enquiry which should combine to form the psychosocial assessment. Each domain is linked with the evidence from the review of risk and protective factors.

The current act of self-harm

Mental health practitioners should enquire about the characteristics (medical seriousness, method, planning, impulsivity, precautions taken to prevent rescue, choice of method) of the act, as well as the service users stated intent for the act, his or her understanding of the likely outcome of the act, any precipitants or triggers and the personal significance of the act . In assessing service users who have repeatedly self-harmed, the mental health

professional should also ask about previous acts of self-harm and assess for similarities and differences between this episode and previous behaviours.

In assessing service users who repeatedly self-harm, deriving a comprehensive understanding of the function or functions of self-harm is particularly important. Healthcare professionals need to bear in mind that self-harm may serve multiple functions and to enquire about intrapersonal functions (e.g. decreased aversive tension, decrease in specific emotions, decreases in dissociation) as well as more overtly observable functions e.g. changes in interpersonal relationships. Research has shown (Klonsky, 2007; Bancroft & Hawton, 1983; Gough & Hawkins, 2000) that mental health professionals are more likely to attribute an interpersonal function to self-harm than service users themselves who report more often that the primary function of the behaviour is an intrapersonal one, most commonly reduction in unpleasant affective states.

In working with service users who engage in more than one type of self-harm e.g. overdoses and cutting, healthcare professionals should be aware that the function or functions of the self-harm may vary across type of behaviour as well as across episode. For example, within the same individual, cutting may serve to decrease anxiety and anger, whereas overdosing may be a response to extreme hopelessness. Engaging the service user in a non-judgmental dialogue about the multiple and varied functions of self-harm as part of an assessment can assist in building a collaborative working relationship around which to develop a treatment intervention. As from the literature review the GDG confirmed that the best predictor of future self-harm is a previous episode, it is incumbent upon all mental health professional working with service users who self-harm repeatedly to understand the likely triggers and functions of self-harm for the individuals that they work with.

In circumstances where the service user engages in self-harm that has a high risk of mortality, healthcare professionals as a priority should ensure that they have as detailed an understanding as possible of the service users' risk factors for their more dangerous behaviours. This may include standard risk factors obtained from the literature (and detailed in this guideline) such as depressed mood but also must include risk factors particular to the service user, so called ideographic risk factors. Focusing only on standard risk factors derived from research runs the risk of ignoring factors crucial to any given service user or factors that occur infrequently in the population (Department of Health, 2006b). In addition, many of the risk factors identified in research studies are static factors e.g. history of self-harm, past psychiatric history, being male, and as such indicate that at a population level a service user with these characteristics is at heightened risk, but says nothing about whether any particular service user is at risk now or what factors would increase or mitigate risk in the near future. In these circumstances, mental health professionals know that they are already working in a context of high risk and

focusing in on the specific personal circumstances (intrapersonal, interpersonal, social) that increase the likelihood of self-harm in the service user they are working with is likely to be more productive. An understanding of the service users' ideographic risk factors also enables mental health professionals to work collaboratively with service users to develop treatment plans that respect the dynamic nature of risk and the relationships between self-harm and other difficulties that service users experience.

Previous acts of self-harm

A detailed review with the service user of their history of self-harm is important following the principles outlined above. Self-harm often begins in adolescence and asking service users about how they first "discovered" self-harm can be useful. This is the most robust risk factor for repeated self-harm and for completed suicide (Please see Section 6.2.4 and 6.2.5).

Suicidal intent

Suicidal intent is the degree to which the individual wished to die at the time of the act. It is very difficult to assess because most people are ambivalent and their intent changes rapidly and frequently. Reported intent is difficult to interpret. Motivation to die or to survive can only be assessed by asking the service user. Lethality should be assessed separately from intent and caution should be exercised in 'reading' intent from the lethality of the act. Many service users may be unaware of the potential lethality of their behaviour. Mental health professionals should therefore enquire about the service users' understanding of the potential lethality of the behaviour and how this related to their intent at the time of the act. This links with the assessment of the meaning of the self-harm and the function which the act serves. There are no widely used standardised measures of these and other motivations and the assessment of suicidal intent which is a core aspect of risk assessment will be based on judgement formed over the course of the psychosocial assessment.

Psychiatric history

A thorough review of symptoms of mental disorders is important. This should include enquiry about symptoms of depression and anxiety, drug and alcohol use, psychotic symptoms, eating problems, post traumatic phenomena, panic, obsessionality, phobias and antisocial behaviour. If symptoms are elicited further enquiry may be indicated. Prevalence of personality disorder amongst service users who repeatedly self-harm is high (Casey & Tyrer, 1990; Dirks, 1998). Healthcare professionals should therefore consider formally assessing for personality disorder if there are indications during the assessment that criteria for these disorders are present. For those service users with a diagnosis of Borderline Personality Disorder healthcare professionals should follow that guideline in the management of the service users presenting problems including the self-harm (NICE, 2009e).

1 ***Recent life events and current difficulties***

2 Interpersonal and financial difficulties should be enquired about in an
3 assessment. If these are not identified and addressed then they may
4 contribute to ongoing risk. Self-harm may follow stressful life events and
5 those with poorer problem-solving skills may be more vulnerable to impact of
6 adverse events. The meaning of the specific event should be explored during
7 the assessment; losses may trigger associations with traumatic events earlier
8 in an individual's life.

9 ***Family and personal relationships***

10 For children and adolescents, family context will always be significant.
11 Completing a genogram will be helpful in eliciting key information about
12 significant family relationships and life events. It is essential to establish who
13 has parental responsibility and who the key care providers are. For looked
14 after children, this information may be difficult and painful to elicit. Liaison
15 will be required with social care professionals.

16
17 There needs to be attention to the local trust's safeguarding policies that
18 include using the Common Assessment Framework. The lead professional
19 agency for Looked After Children and Adolescents is social services. Thus the
20 child's/young person's social worker takes the lead role in the Corporate
21 Parent (the network of professionals around the child/young person). Foster-
22 carers do not have parental responsibility. The extent and nature of parental
23 responsibility is determined by the type of care order. Moving immediately to
24 a multi-agency approach for Looked After Children and Adolescents is
25 essential, not least because of a high number of these children/young people
26 who self-harm have been sexually abused. It may well be that a sensitive
27 assessment post an act of self-harm may enable the child/young person to
28 begin a first time disclosure of abuse. From a child protection perspective this
29 is essential as it may lead to the identification of a serial perpetrator.

30 ***Social situation, environmental issues***

31 This should cover social relationships and functioning, including friendships,
32 training or employment.

33
34 ***Protective factors***

35 Some service users find that an emphasis on eliciting strengths and positive
36 factors is useful. Enquiry should be made about formal and informal support
37 systems, family friends and community activities, sports and leisure, special
38 interests or talents, interest in the arts, educational attainment, faith and
39 beliefs and personal goals and aspirations.

40 ***Formulation of risk and need***

41 Information from the enquiry above psychiatric, social and psychological
42 factors can be brought together into a formulation that describes the
43 predisposing or vulnerabilities, the triggers or precipitants and any current

unresolved issues which may be maintaining a high risk of repeat self-harm or completed suicide.

Initial and longer term management and interventions

The initial management is covered in the short term management guideline for longer interventions (NICE, 2004).

6.7 FROM EVIDENCE TO RECOMMENDATIONS

Based on current literature, it is difficult to draw conclusions regarding the association between psychosocial assessment and improvement in outcomes. Nevertheless, an integrated psychosocial assessment should be regarded as part of the therapeutic process to engage the service user.

A comprehensive psychosocial assessment including an assessment of needs and risk should be carried out on all those who have self-harmed. This includes people from black and minority ethnic groups, children and young people, as well as people older than 65 years of age. Assessment should follow the same principles as for adults who self-harm in each sub-group. From the experience of care chapter, the literature highlights the importance of exploring the meaning and functions of self-harm for each individual. Health and social care professionals should treat each episode in its own right and acknowledge each person who self-harm does so for individual reasons.

Risk assessment

The domains of enquiry in the assessment of risk are linked with the evidence from the review of risk and protective factors.

The following risk factors in particular should be considered when assessing risk of repeated self-harm or suicide: previous self-harm and depressive symptoms. These two factors were supported by pooled quantitative analysis. Based on the evidence review, previous self-harm before an index episode is the most robust risk factor predicting both repetition and suicide following self-harm. The size of the evidence base and the adjustment of confounding variables provide stronger support for this risk factor. Another factor, depressive symptoms is also important but less robust.

Other risk factors such as current and past suicidal intent, and psychiatric illness should also be taken into account. Personal and social context associated with the behaviour and any other specific antecedent factors should be noted. Individual risk and protective factors that may increase or decrease risks associated with repetition of self-harm are important as well. Interpersonal relationships with family or significant others may also lead to possible changes (positive or negative) in the level of risk. It is important to note risk factors often overlap with each other, and measuring one maybe a proxy measure for another. The association between factors does not imply

any causal relations. Therefore, the evidence review in Section 6.2 is only intended to give guidance on factors to consider in psychosocial assessment, and should not be used for predicting risk.

Risk assessment tools and scales

No risk scale can be recommended for use in isolation to distinguish those at risk of repeated self-harm from those who are not. Based on the evidence reviewed, there are major limitations to making a recommendation for the use of a scale alone to predict whether a person who has a history of self-harm will go on to die by suicide. The main limitation is that suicide in nature is a rare outcome, therefore, the prevalence will always be low which makes it difficult for scales, when tested, to correctly identify the probability that a person with a positive test result really has self-harmed.

The results of the risk assessment scales show that it also almost always likely to miss cases that will go on to die by suicide. Furthermore, scales tend to pick up a high number of cases who have been identified as high risk for suicide but who do not then go on to die by suicide, which make them of limited use in its clinical utility.

There are also limitations for making a recommendation for the use of a scale alone to predict a repeated non-fatal episode of self-harm. Although some scales perform well in correctly identifying the number of people who self-harm who were classified as high risk, they perform poorly in correctly identifying those who were categorised at low risk. Also, the scales will identify many individuals as high risk, but who do not go on to self-harm, reducing its clinical utility. As a result, do not use risk tools or scales to predict future repetition or suicide following self-harm. Risk tools and scales should not be used to determine treatment offers or discharge decisions. Risk tools may be considered to prompt, add detail and help structure psychosocial assessments.

In addition, it is also good practice to identify and agree with service users the specific risks for them. Healthcare professionals should differentiate long term and more immediate risks, and monitor any changes in risks and associated factors, and differentiate long term and more immediate risks.

6.8 RECOMMENDATIONS

General principles of care

Managing endings and supporting transitions

6.8.1.1 Anticipate that the ending of treatment, services or relationships, as well as transitions from one service to another, can provoke strong feelings and increase the risk of self-harm. Plan in advance these changes with the person who self-harms and provide additional support, if needed, with clear contingency plans should crises occur. Record plans for transition to another service and share them with other health and social care professionals involved. Give copies to the service user and their family, carers or significant others¹⁵ if this is agreed with the service user.

6.8.1.2 CAMHS and adult health and social care professionals should work collaboratively to minimise any potential negative effect of transferring young people from CAMHS to adult services.

- Time the transfer to suit the young person, even if it takes place after they reach the age of 18 years.
- Continue treatment in CAMHS beyond 18 years if there is a realistic possibility that this may avoid the need for referral to adult mental health services.

6.8.1.3 Mental health trusts should work with CAMHS to develop local protocols to govern arrangements for the transition of young people from CAMHS to adult services, as described in this guideline.

Primary care

6.8.1.4 If a person presents in primary care with a history of self-harm and a risk of repetition, consider referring them to the local community mental health team for assessment. If they are under 18 years, consider referring them to CAMHS for assessment. Make referral a priority when:

- levels of distress are rising, high or sustained
- the risk of self-harm is increasing or unresponsive to attempts to help
- the person requests further help from specialist services
- levels of distress in parents or carers of children and young people are rising, high or sustained despite attempts to help.

6.8.1.5 If a person who self-harms is receiving treatment or care in primary care as well as secondary care, primary and secondary health and social care professionals should ensure they work cooperatively, routinely sharing up-to-date care and risk management plans. In these circumstances, primary health and social care professionals should attend CPA meetings.

¹⁵ 'Significant other' refers not just to a partner but also to friends and any person the service user considers to be important to them.

6.8.1.6 Primary care professionals should monitor the physical health of people who self-harm. Pay attention to the physical consequences of self-harm as well as other physical healthcare needs.

***Psychosocial assessment in community mental health services:
integrated comprehensive assessment of needs and risks***

6.8.1.7 Offer an integrated and comprehensive assessment of needs and risks (see 6.8.1.12-6.8.1.14) as a part of the therapeutic process to understand and engage people who self-harm to initiate a therapeutic relationship.

Assessment of need

6.8.1.8 Assessment of needs should include:

- mental and physical health
- social circumstances and problems
- psychosocial and occupational functioning, coping strategies, and strengths and vulnerabilities
- recent and current life difficulties, including personal and financial problems
- the need for psychological or pharmacological intervention, social care and support, and occupational rehabilitation
- the needs of any dependent children.

6.8.1.9 All people over 65 years who self-harm should be assessed by mental health professionals experienced in the assessment of older people who self-harm. Assessment should follow the same principles as for working-age adults who self-harm (see 6.8.1.7). In addition:

- pay particular attention to the potential presence of depression, cognitive impairment and physical ill health
- include a full assessment of the person's social and home situation, and
- take into account the higher risks of suicide following self-harm in older people.

6.8.1.10 Follow the same principles as for adults when assessing children and young people who self-harm (see recommendation 6.8.1.7), but also include a full assessment of the person's family, social situation, and child protection issues.

6.8.1.11 During assessment, explore the meaning of self-harm for the person and take into account that:

- each person who self-harms does so for individual reasons, and
- each episode of self-harm should be treated in its own right and a person's reasons for self-harm may vary from episode to episode.

Risk assessment

6.8.1.12 When assessing the risks of repetition of self-harm or of suicide, identify and agree with the person who self-harms the specific risks for them, taking into account:

- methods and patterns of current and past self-harm
- current and past suicidal intent
- depressive symptoms and their relationship to self-harm
- any psychiatric illness and its relationship to self-harm
- the personal and social context and any other specific factors preceding self-harm, such as specific unpleasant affective states or emotions and changes in relationships
- specific risk factors and protective factors (social, psychological, pharmacological and motivational) that may increase or decrease the risks associated with self-harm
- coping strategies that the person has used to either successfully limit or avert self-harm or to contain the impact of personal, social or other antecedents
- significant relationships that may either be supportive or represent a threat (such as possible domestic violence or sexual or physical abuse) and may lead to changes in the level of risk
- the differentiation between long-term and more immediate risks.

6.8.1.13 Consider the possible presence of other coexisting risk-taking or destructive behaviours, such as engaging in unprotected sexual activity, exposure to unnecessary physical risks, drug misuse or engaging in harmful or hazardous drinking.

6.8.1.14 When assessing risk, consider asking the person who self-harms about whether they have access to family members', carers' or significant others'¹⁶ medications.

6.8.1.15 In the initial management of self-harm in children and young people, advise parents and carers of the need to remove all medications or, where possible, other means of self-harm available to the child or young person

6.8.1.16 Be aware that all acts of self-harm in older people should be taken as evidence of suicidal intent until proven otherwise.

Risk assessment tools and scales

¹⁶ 'Significant other' refers not just to a partner but also to friends and any person the service user considers to be important to them.

1 **6.8.1.17** Do not use risk assessment tools and scales to predict future suicide
2 or repetition of self-harm.

3 **6.8.1.18** Do not use risk assessment tools and scales to determine who should
4 and should not be offered treatment or who should be discharged.

5 **6.8.1.19** Risk assessment tools may be considered to help structure risk
6 assessments as long as they include the areas identified in
7 recommendation 6.8.1.12.

8 **Developing an integrated care and risk management plan**

9 **6.8.1.20** Summarise the key areas of needs and risks identified in the
10 assessment (see recommendations 6.8.1.8-6.8.1.14) and use these to
11 develop a care plan (see recommendations 6.8.1.23-**Error! Reference**
12 **source not found.**) and a risk management plan (see
13 recommendations 6.8.1.25 and 6.8.1.26) in conjunction with the person
14 who self-harms and their family, carers or significant others¹⁷ if this is
15 agreed with the person. Provide printed copies for the service user
16 and share them with the GP.

17 **6.8.1.21** If there is disagreement between health and social care professionals
18 and the person who self-harms about their needs or risks, consider
19 offering the person the opportunity to write this in their notes.

20

21 *Longer-term treatment and management of self-harm*

22 **Provision of care**

23 **6.8.1.22** Community mental health services, and tier 2 and 3 CAMHS¹⁸,
24 should be responsible for the routine assessment (see 6.8.1.7-6.8.1.11),
25 and the longer-term treatment and management of self-harm.

26 **Care plans**

27 **6.8.1.23** Discuss, agree and document the aims of longer-term treatment in the
28 care plan with the person who self-harms. These aims may be to:

- 29 • decrease or stop self-harm
- 30 • decrease or stop other risk-related behaviour
- 31 • improve social or occupational functioning
- 32 • improve quality of life
- 33 • improve any associated mental health conditions.

34 Review the person's care plan with them, including the aims of
35 treatment, and revise it at agreed intervals of not more than 1 year.

¹⁷ 'Significant other' refers not just to a partner but also to friends and any person the service user considers to be important to them.

¹⁸ Tier 2 CAMHS: primary care; Tier 3 CAMHS: community mental health teams.

6.8.1.24 Care plans should be multidisciplinary and developed collaboratively with the person who self-harms and their family, carers or significant others¹⁹. Care plans should:

- identify realistic and optimistic long-term goals, including employment and occupation
- identify short-term treatment goals (linked to the long-term goals) and steps to achieve them
- identify the roles and responsibilities of any team members and the person who self-harms
- include a jointly prepared risk management plan (see recommendations 6.8.1.25-6.8.1.28)
- be shared with the person's GP.

Risk management plans

6.8.1.25 A risk management plan should be a clearly identifiable part of the care plan and should:

- address each of the long-term and more immediate risks identified in the risk assessment
- address the specific factors (psychological, pharmacological social and relational) identified in the assessment as associated with increased risk, with the agreed aim of reducing the risk of repetition of self-harm and/or suicide
- include a crisis plan outlining self-management strategies and how to access services during a crisis when self-management strategies fail
- ensure that the risk management plan is consistent with the long-term treatment strategy.

6.8.1.26 Update risk management plans regularly for people who continue to be at risk of further self-harm. Monitor changes in risk and specific associated factors for the service user, and evaluate the impact of treatment strategies over time.

Provision of information about the treatment and management of self-harm

6.8.1.27 Offer the person who self-harms with relevant information about, and give time to discuss with them, the following:

- the dangers and long-term outcomes associated with self-harm
- the available interventions and possible strategies available to help reduce self-harm and/or its consequences (see 7.5.1.1 and 7.5.1.2)
- that there is no safe way to self-poison

¹⁹ 'Significant other' refers not just to a partner but also to friends and any person the service user considers to be important to them.

- treatment of any associated mental health conditions (see Sections 7.2 and 8.5).

6.8.1.28 Ensure that people who self-harm, and their families, carers and significant others²⁰ where this is agreed with the person, have access to 'Understanding NICE Guidance' booklet for the short-term management of self-harm (NICE clinical guideline 16), and for the longer-term management of self-harm (NICE clinical guideline XXX).

6.9 RESEARCH RECOMMENDATION

6.9.1.1 The effectiveness of psychosocial assessment with a valid risk scale, compared with psychosocial assessment, for the management of people who self-harm

For people who self-harm, does the provision of psychosocial assessment with a validated risk scale, compared with psychosocial assessment alone, improve outcomes?

This question should be answered using a well-conducted randomised controlled trial. The assessment should be conducted by mental health professionals in community mental health teams. The main outcomes should include both hospital-reported and self-reported repetitions of self-harm. Outcomes such as service users' experience of assessment and the impact on therapeutic engagement should also be included. The duration of the study should be at least 6 months.

Why this is important

There are many different scales aimed at predicting the risk of self-harm and these are widely used in clinical practice. The sensitivity and specificity of these scales are, at best, modest. While individual scales may provide useful prompts for making a psychosocial assessment, it is possible that they may disrupt engagement and encourage clinicians to treat risk as dichotomous rather than continuous. It is therefore important to establish how they are used, how their use is experienced and whether scales do or do not improve tangible service-user outcomes.

²⁰'Significant other' refers not just to a partner but also to friends and any person the service user considers to be important to them.

7 PSYCHOSOCIAL INTERVENTIONS

This chapter provides an evaluation of the evidence for psychosocial interventions for the management and treatment of people who self-harm.

As discussed in the short term guideline (NICE, 2004) self-harm is not a medical diagnosis but a heterogeneous set of behaviours, which can have different meanings in different contexts. Therefore psychosocial interventions need to take account of this complexity (Hjelmeland *et al.*, 2002; O'Connor, *et al.*, 2011b) and recognise that there is no 'one size fits all' intervention for self-harm. A key aim of any intervention is to reduce self-harm through understanding the specific contributing factors in each individual.

7.1 INTRODUCTION

Management of self-harm takes place in a wide range of health and social care settings across child, adolescent and adult services. Provision of self-harm services in the UK appears to be variable, (Kapur *et al.*, 1998; Bennewith *et al.*, 2004) and many individuals do not receive specialist follow up or interventions (Kapur *et al.*, 1999). Self-harm is also a key factor in the treatment of a wide range of psychiatric disorders and difficulties, including borderline personality disorder (Bateman and Fonagy 2009; Clarkin *et al.*, 2007) and substance misuse (Gunnell *et al.*, 2008; Sinclair, Hawton & Gray, 2010a).

The treatment of self-harm can be through distinct stand alone psychological therapies (O'Connor *et al.*, 2011b) or adjunctive treatments which operate alongside standard care such as contact by letter, postcard, telephone or provision of crises cards (Kapur *et al.*, 2010a). The setting in which treatment is provided is also important, for example at home or in community mental health settings. Who provides the treatment also needs to be considered. Generic mental health services and the voluntary sector have important roles in contemporary service provision, and specialist multi-disciplinary self-harm teams in secondary care are becoming increasingly common. Interventions for self-harm may focus on the behaviour itself; or take a more holistic approach by dealing with relationships, cognitions and social factors. Interventions may be delivered individually or in groups. Therapeutic engagement is very important in this group of service users who some professionals might find it hard to treat (Ougrin *et al.*, 2010). There may be some benefit in differentiating between those who have a transient relationship with self-harm, and those people whose self-harm is more enduring over longer periods of time. Despite the range of treatments and

service provision, the evidence to date in terms of the effectiveness of psychological or psychosocial interventions remains unclear.

Aim of review

This review aimed to explore the effect of psychological interventions on the repetition of self-harm. This was selected as the main outcome because of its clinical importance, the relationship of repeat self-harm to suicide, and its inclusion as an outcome in most studies to date. However, it is accepted that this is not always the only outcome of interest in clinical settings. The effect of intervention on a range of psychological factors and engagement with services was therefore also reviewed.

7.1.1 Studies considered²¹

An existing systematic review was identified (Hawton *et al.*, 2011) for which the authors made their data available to the NCCMH team. The review included 49 studies, of which, 5 studies reviewed pharmacological interventions (See Chapter 8). This chapter included 34 studies relating to psychosocial interventions (ALLARD1992; BENNEWITH2002; BROWN2005; CARTER2005; CEDEREKE2002; CLARKE2002; COTGROVE1995; DONALDSON2005; DUBOIS1999; EVANS1999A; FLEISCHMANN2008; GIBBONS1978; GUTHRIE2001; HARRINGTON1998; HAWTON1981; HAWTON1987; HAZELL2009; LIBERMAN1981; MCLEAVEY1994; MORGAN1993; PATSIOKAS1985; SALKOVSKIS1990; SLEE2008; SPIRITO2002; STEWART2009; TYRER2003A; TORHORST1987; TORHORST1988; VAIVA2006; VAN DER SANDE 1997; VAN HEERINGEN 1995; WATERHOUSE1990; WELU1977; WOOD2001). Seven studies looked specifically at interventions treating population with borderline personality disorder (BPD) (BATEMAN2009; GRATZ2006; LINEHAN1991; LINEHAN2006; MCMAIN2009; TURNER2000; WEINBERG2006), and one (EVANS1999B) looked at treatment for personality disorder. These studies would be excluded from the current analysis as they had been reviewed in the NICE guideline for BPD, but a brief summary of the overall findings of these studies was included in Section 7.1.6. Treatment for underlying BPD should be referred to the relevant NICE guideline CG 78 (NICE, 2009e).

Additional systematic searches were undertaken to update the review in January 2011. An additional two studies were identified (CARTER2007, BEAUTRAIS2010). Further to this, an additional unpublished study was identified by contacting researchers known to be working in this area (GREEN2011).

²¹ Here and elsewhere in the guideline, each study considered for review is referred to by a study ID in capital letters (primary author and date of study publication, except where a study is in press or only submitted for publication, then a date is not used).

The categories into which studies in the review (Hawton *et al.*, 2011) had been grouped was maintained (with one exception: intensive interventions in Section 7.1.2).

Psychological interventions included in the meta-analysis (Section 7.1.2) were:

- Problem-solving therapy; cognitive behavioural therapy; psychodynamic therapy; interpersonal problem-solving skills training

Psychosocial, service level interventions included in the meta-analysis (Section 7.1.2) were:

- Intensive interventions; emergency card interventions; telephone supportive contact; postcard interventions

Psychosocial, service level interventions included in the narrative reviews (Section 7.1.4) were:

- long or short term therapy; continuity of therapist; home or outpatient interventions; general hospital admission or discharge to GP; compliance enhancement; case management; and GP letters.

The primary outcome is repetition of self-harm. Other dichotomous outcomes included death by suicide and treatment attendance. Continuous outcomes such as depression, hopelessness, and suicidal ideation scores were also extracted where reported.

The clinical evidence for psychological interventions that had been meta-analysed are presented in Section 7.1.2, followed by narrative reviews of single trial psychosocial interventions in Section 7.1.4. The review of trials for children and young people followed the same sequence in Section 7.1.7.

Table 23 - Summary study characteristics of trials comparing psychological interventions versus treatment as usual

	a. Psychological therapy vs TAU
Total no. of trials (N)	10 RCTs (1458)
Study ID	1) GIBBONS1978 2) PATSIOKAS1985 3) HAWTON1987 4) SALKOVSKIS1990 5) DUBOIS1999 6) GUTHRIE2001 7) TYRER2003a 8) BROWN2005 9) SLEE2008* 10) STEWART2009*
Diagnosis	1) 44% had diagnosis of depressive neurosis, 2% phobic neurosis, 2% affective psychosis, and 1% schizophrenia. No baseline difference between groups. 2) Not reported. No baseline difference in demographics, psychiatric diagnosis, previous attempts, or suicidal intent. 3) Not reported. No baseline difference in demographics, previous psychiatric problems, prior history of self-harm, psychiatric symptoms. 4) Not reported. 5) unclear 6) 55% had psychiatric history. 7) 42% diagnosed with personality disorder.(ICD-10). No difference in baseline characteristics. 8) 68% had diagnosis of substance abuse and 77% major depressive disorder (SCID-DSM-IV); No baseline difference in demographics and psychiatric diagnosis. 9) Not reported. No baseline difference in demographics. 10) Not reported.
Recruitment setting	1) Patients who presented to an A&E department after deliberate self-poisoning. 2) Patients admitted to psychiatric ward for suicide attempt. 3) Patients admitted to general hospital for self poisoning. 4) Patients who were referred by a psychiatrist following antidepressant self-poisoning and assessed in an A&E department. 5) Patients attending emergency department after a suicide attempt. Not hospitalised for more than 24 hours. 6) Patients presenting to hospital after self-poisoning. 7) Patients presenting to hospital after self-harm 8) Patients presenting to hospital after suicide attempt. Received medical/psychiatric evaluation within 48 hours. 9) Patients presenting to hospital/mental health centre following self-harm 10) Patients presenting to a hospital after a suicide attempt, either discharged with referral for community follow up
Number of sessions and treatment length	1) Unclear: number of sessions up to 3 months 2) 10 sessions (60 minutes each) for 3 weeks 3) Average of 3 sessions (Range 1 to 8 sessions lasting 54 minutes). Treatment length not stated. 4) 5 sessions lasting 60 minutes each for 1 month

	<ul style="list-style-type: none"> 5) 5 sessions for 1 month 6) 4 weekly 50 minutes sessions 7) Up to 5 sessions (plus 2 booster sessions) 8) 10 weekly or biweekly sessions for 10 to 20 weeks 9) 12 sessions (plus 3 follow up sessions) for 5.5 months 10) 4 & 7 sessions of 60 minutes each
Country	<ul style="list-style-type: none"> 1)UK 2)USA 3)UK 4)UK 5)France 6)UK 7)UK 8)USA 9)Netherlands 10)Australia
Intervention	<ul style="list-style-type: none"> 1) Home-based problem-solving intervention 2) Non home-based cognitive structuring and problem-solving intervention 3) Non home-based problem-solving intervention 4) Home-based problem-solving intervention 5) Brief psychotherapy 6) Home-based psychodynamic intervention focused on interpersonal problem-solving 7) Non home-based, manual-assisted cognitive behaviour therapy 8) Non home-based cognitive therapy 9) Non home-based cognitive behavioural intervention 10) Non home-based cognitive behavioural and problem-solving interventions
Control	<ul style="list-style-type: none"> 1) Usual care: 54% were referred to their GP, 33% received a psychiatric referral, and 13% received unspecified referral. 2) Non-directive therapy: open discussion about suicidal behaviour, problems, and daily life. 3) GP care (individual support, marital therapy). 4) Usual care. 5) Treatment as usual: attended an assessment by a clinical psychiatrist and upon leaving were followed-up by a psychiatrist or psychologist. 6) Usual care, in most cases assessment by doctor in ED and referral to psychiatry outpatient, addiction services or GP. 7) Normally psychiatric assessment, outpatient care, occasional day-patient care or referral back to GP. 8) Usual care from clinicians in the community. Case managers track patients on regular basis and refer services to community mental health team or social services when necessary. 9) Treatment as usual (e.g. psychotropic medication, psychotherapy, hospitalization). 10) Treatment as usual: community follow up by telephone visits, appointments with the psychiatrist, liaison with the client's GP, or networking with social supports. (no specialized therapy)
Source for primary outcome (repetition) and follow up period	<ul style="list-style-type: none"> 1) Hospital records (plus GP notes) (at 6-12 months) 2) Did not report this outcome 3) Mixture (interviews, GP interviews, hospital).Did not report outcomes for each separately. (at 6-12 months) 4) Hospital records (at 0-6 months and over 12 months) 5) Unclear (at 6-12 months)

	6) Mixture (majority self report repetitions with no hospital treatment; some self-reported re-admission to hospitals and a few identified from computer records) (at 0-6 months) 7) Interviews checked with hospital record (at 6-12 months) 8) Unclear (over 12 months) 9) Interviews checked with hospital record (at 6-12 months) 10) Hospital records (at 0-6 months)
* new studies since short term guideline (NICE 2004)	

1

2 **7.1.2 Clinical evidence for psychosocial interventions**

3 *a) Psychological therapy versus treatment as usual (TAU)*

4 10 studies were combined to investigate the effects of psychological therapy
 5 compared with treatment as usual on the treatment of self-harm. Given the
 6 variation in modality and duration of psychological therapies, components of
 7 standard care, and prevalence of psychiatric disorders in these studies, the
 8 results should be interpreted with caution.

9

10 Psychological therapies included problem-solving therapy, cognitive
 11 behavioural therapy, and psychodynamic interpersonal therapy. They were
 12 conducted either at home (home-based therapies) or in outpatient settings.
 13 Evidence from each important outcome and overall quality of evidence were
 14 presented after each review. The full evidence profiles and associated forest
 15 plots could be found in Appendix 16.

16 **Effects on repetition (up to 6 months)**

17 Three studies (SALKOVSKIS1990, GUTHRIE2001, STEWART2009) measured
 18 repetition up to 6 months since trial entry. Less people from the treatment
 19 group had a repetition of self-harm compared with the TAU group. A
 20 statistically significant relative risk of 0.33 (95% CI 0.15 to 0.72) (K=3, N=171)
 21 was observed. There was no heterogeneity, however, the outcome was of low
 22 quality.

23 **Effects on repetition (6 to 12 months)**

24 Five studies (GIBBONS1978, HAWTON1987, DUBOIS1999, TYRER2003A,
 25 SLEE2008) measured repetition from 6 to 12 months since trial entry. Less
 26 people from the treatment group had a repetition of self-harm compared with
 27 the TAU group. A relative risk of 0.89 (95% CI 0.76 to 1.02) (K=5, N=1067) was
 28 observed but it was not statistically significant. The outcome was of moderate
 29 quality and there was no heterogeneity.

30 **Effects on repetition (more than 12 months)**

31 Two studies (SALKOVSKIS1990, BROWN2005) measured repetition over 12
 32 months since trial entry. Less people from the treatment group had a

repetition of self-harm compared with the TAU group. A statistically significant relative risk of 0.5 (95% CI 0.31 to 0.82) (K=2, N=105) was observed with no heterogeneity. The outcome was of low quality.

Effects on repetition (at last follow up)

As in the review conducted by Hawton and Colleagues (2011) the GDG also considered repetition at its last follow up as an outcome. This approach allowed consideration of the combined findings of all 9 studies. There was a statistically significant 24% reduction in chance of repetition in the treatment group compared with TAU (RR 0.76, 95% CI 0.61 to 0.96) (K=9, N=1323) with acceptable heterogeneity of 30%. The outcome was of low quality.

The results of the above analysis should be interpreted with caution. The source of repetition data varied across the studies. It included a mixture of hospital records, GP interviews, and self-reports. Repetition data from hospital records included only hospital treated episodes, which might underestimate the true number of repetitions that did not require medical attention. Similarly, self-report repetitions might be overestimating the effect detected.

Effects on depression scores (at 6 months)

Four studies measured depression using the Hospital Anxiety and Depression Scale (TYRER2003a) and the Beck Depression Inventory (SLEE2008, GUTHRIE2001 and BROWN2005). There was no evidence of effect in depression scores (SMD -0.33, 95% CI -0.71 to 0.05) (K= 4, N=660) compared with TAU. However, large heterogeneity was observed ($I^2 = 78\%$) and the outcome was of low quality.

Effects on depression scores (at 12 months)

Five studies measured depression using the Hospital Anxiety and Depression Scale (TYRER2003a) and the Beck Depression Inventory (HAWTON1987, SALKOVSKIS1990, SLEE2008 and BROWN2005). There was a statistically significant small to moderate improvement in depression scores, favouring treatment (SMD -0.54, 95% CI -1.01 to -0.07) (K= 5, N=656) compared with TAU. However, a large heterogeneity was observed ($I^2 = 83\%$) and the outcome was of low quality.

Effects on depression scores (over 12 months)

Two studies measured depression using the Beck Depression Inventory (GIBBONS1978 and BROWN2005). There was no statistical significant effect between groups on this outcome (SMD -0.22, 95% CI -0.48 to 0.05) (K= 2, N=225) compared with TAU. No heterogeneity was observed, however, the outcome was of low quality.

Effects on depression scores (at last follow up)

All seven studies reported in the previous paragraphs were combined for reporting depression scores at its last follow up. There was a statistically significant moderate improvement in depression scores (SMD -0.43, 95% CI -0.76 to -0.12) (K=7, N=878) favouring treatment over TAU. However, a large heterogeneity was observed ($I^2=75\%$) and the outcome was of low quality, limiting confidence in drawing any firm conclusions for this particular outcome.

Effects on hopelessness scores (up to 6 months)

Three studies measured hopelessness using the Beck Hopelessness scale (PATSIOKAS1985, STEWART2009 and BROWN2005). There was a statistically significant moderate improvement (SMD -0.52, 95% CI -0.86 to -0.18) (K= 3, N=149) favouring treatment over TAU. No heterogeneity was observed and the outcome was of moderate quality.

Effects on hopelessness scores (at 12 months)

Two studies measured hopelessness using the Beck Hopelessness scale (SALKOVSKIS1990 and BROWN2005). There was no statistically significant difference between groups (SMD -0.7, 95% CI -1.76 to 0.35) (K= 2, N=121). Moreover, a high heterogeneity was observed ($I^2=74\%$) and the outcome was of very low quality.

Number of participants with improved problems (at 4 months)

Two problem-solving trials measured participants' perceived social problems experienced in various life areas (GIBBONS1978, HAWTON1987). There was a statistically significant improvement favouring treatment over TAU (RR 1.28, 95% CI 1.09 to 1.49) (K= 2, N=231). No heterogeneity was observed, however, the outcome was of low quality.

Number of participants with improved problems (at last follow up)

The same two studies measured participants' perceived social problems experienced in various life areas. The last assessment point for GIBBONS1978 is 12 months and 9 months for HAWTON1987. The effect was no longer statistically significant at last follow up (RR 1.32, 95% CI 0.89 to 1.96) (K= 2, N=211). Large heterogeneity was observed ($I^2=81\%$) and the outcome was of very low quality. Compared with the effect observed at four months, this might imply the beneficial effect was not sustained in the longer term.

Effects on suicidal ideation scores (up to 6 months)

Three studies measured suicidal ideation using the Beck Scale for Suicide Ideation (GUTHRIE2001, STEWART2009) and the Scale for Suicide Ideation (PATSIOKAS1985). There was a statistically significant moderate improvement (SMD -0.54, 95% CI -0.92 to -0.16) (K= 3, N=142). No heterogeneity was observed, however, the outcome was of low quality.

Completed suicides at last follow up

Four out of the eight psychological interventions reported number of completed suicides (K=8, N=770). No suicides occurred in the remaining four studies. Since suicide was a rare event, a meta-analysis was not possible. Overall, there were more suicides amongst participants in TAU group (7/382) than the treatment group (2/388). For both HAWTON1987 and TYRER2003a there was only one suicide in each of the treatment arms. In BROWN2005 and SLEE2008 one suicide occurred in each of the control groups, and five suicides occurred in the control group in TYRER2003a. No conclusions could be drawn from these data.

Attendance at treatment

Low attendance rates or missing data might lead to an overestimation of study effects. This issue had been addressed somewhat by employing intent-to-treat analysis for all dichotomous outcomes. Nevertheless, no firm conclusions could be drawn from the below evidence.

All participants in the treatment group completed all sessions of therapy, in contrast to a drop out rate of 21% (9/42) in the comparison group in SLEE2008. Overall 34% in the CBT group and 38% in the problem-solving group completed the sessions as opposed to 26% in the control group in STEWART2009.

Most studies reported adherence data for the intervention group only. In BROWN2005, 50% received 10 or more treatment sessions. 86% (50/58) completed more than half the treatment sessions and 60% (35/58) completed all treatment sessions in GUTHRIE2001. 40% of participants did not attend treatment sessions in TYRER2003a. Finally, 49% completed 1 to 8 sessions and 22% attended no sessions (HAWTON1987).

Summary of treatment components

The treatments in the pooled studies varied in terms of settings, length of treatment, modality of treatment, and were delivered by a range of professionals. Three studies were home-based interventions (SALKOVSKIS1990, GIBBONS1978 and GUTHRIE2001). Social workers or nurses conducted home-visits ranging from 4-5 sessions within 1 to 3 months. Both home-based treatments started within 1 week of the index episode (SALKOVSKIS1990 and GUTHRIE2001). The non-home based interventions were conducted in outpatient or clinic settings. They ranged from 3 to 12 sessions delivered by a range of therapists including psychiatrists, psychologists, counsellors, community psychiatric nurses and social workers. The treatment sessions (where reported) ranged from 50 to 60 minutes each. Common treatment modalities included cognitive therapy, cognitive behavioural therapy, problem-solving therapy, and psychodynamic interpersonal therapy. Most studies did not report details of staff training, however, the majority of the studies employed therapists who had significant experience with people who self-harm. Adherence to protocols was ensured

by video or audio taping treatment sessions in 4 studies (PATSIOKAS1985, GUTHRIE2001, BROWN2005, SLEE2008). HAWTON1987 provided details of training including standard assessment and treatment procedures. Training consisted of specific reading, closely supervised assessment and treatment experience, and attending daily supervision meetings with a senior psychiatrist. SLEE2008 also provided two days of training in standardised protocol. Therapists met biweekly (BROWN2005) or monthly for feedback (SLEE2008).

b) Other psychosocial therapy versus treatment as usual (TAU)

	i. Intensive multi-modal intervention vs TAU	ii. Emergency card vs TAU	iii. Telephone contact vs TAU
Total no. of trials (N)	2 RCTs (270)	2 RCTs (1039)	2 RCTs (821)
Study ID	1) ALLARD1992 2) WELU1977	1)MORGAN1993 2)EVANS1999a	1)CEDEREKE2002 2)VAIVA2006
Diagnosis	1) 87 % (n = 131) had diagnosis of depression, 53% (n= 80) substance abuse diagnosis, 45% (n=68) personality disorder. All according to DSM-III. 2) Not reported	1) Most common diagnosis was depressive disorder (22%) (diagnostic tool was not reported) 2) 85% (n = 707) had a diagnosis of any psychiatric disorder (diagnostic tool was not reported)	1) 91% (n = 197) had diagnosis of mood disorder by DSM-III-R 2) Not reported
Recruitment setting	1) Patients presenting to hospital for a suicide attempt 2) Patients admitted to an A&E department for self-harm	1) Patients admitted to hospital following first episode of self-harm 2) Patients admitted to general hospital following self-harm episode	1) Patients treated in hospital after suicide attempt 2) Patients presenting to hospital after drug overdose
Number of sessions and treatment length	1) Unclear sessions; 12 months 2) Weekly or bi-weekly contacts for 4 months	1) 12 months 2) 6 months	1) 8 months (telephone calls ranged from 20-45 mins) 2) 1 telephone call (duration not specified)
Country	1) Canada 2) US	1) UK 2) UK	1) Sweden 2) France
Intervention	1) Various interventions (e.g. psychoanalytic psychotherapy, psychosocial, drug or	1) Standard care plus emergency green card (emergency card	1)Telephone contact 2)Telephone contact

	behavioural therapy) or therapy provided where needed. 2) Special outreach programme: a community mental health team contacted participants immediately after discharge and at home visit arranged as soon as possible. Various modalities involved	indicating that a doctor was available by telephone and how to contact them) 2) Emergency card plus treatment as usual: participants were provided with an emergency card offering 24-hour service for crisis telephone consultation with an on-call psychiatrist	
Control	1)TAU (No details on usual care other than this group was 'treated by regular personnel of hospital) 2)TAU (routine treatment program: psychiatric consultation at request of treating physician. Participants were given a next day appointment for evaluation at the community mental health team centre. Any further contact after discharge was up to the patient to decide.)	1) TAU (e.g. referral back to the primary healthcare team, psychiatric inpatient admission) 2)TAU	1) TAU 2) TAU (mostly referred back to GP)
Source for primary outcome (repetition) and follow up period	1) Hospital records, coroner's office plus interview with participants and other informants 2) Self report, hospital records and interview with family/friends	1) Hospital, psychiatric and GP records 2) Hospital records	1) Interviews checked against patient and admission charts 2) Self-report and hospital records

1 i) Intensive multi-modal intervention versus TAU

2 In the NICE guideline *Self-Harm: Short Term Management* (NCCMH, 2004),
3 there were six studies grouped under comparison of "intensive intervention
4 plus outreach versus standard aftercare" (ALLARD1992; CEDEREKE2002;
5 HAWTON1981; VAN DER SANDE1997; VANHEERINGEN1995;
6 WELU1977). For this guideline, however, four of these studies were included
7 in other comparisons; either single modality or less intensive treatments
8 (CEDEREKE2002; HAWTON1981; VANHEERINGEN1995; VAN DER

SANDE1997). The remaining two studies (ALLARD1992, WELU1977) were combined to investigate the effects of intensive multi-modal interventions compared with treatment as usual. The two studies included service users presenting to hospital after a suicide attempt. ALLARD1992 and WELU1977 involved the implementation of a range of psychological and pharmacological interventions, which could be combined according to the needs of the service user, including psychoanalytic psychotherapy, behavioural therapy, family counselling and a range of drug treatments amongst others. Wherever possible, the staff involved established contact immediately after the suicide attempt and scheduled visits with the individual.

Effects on repetition (at last follow up)

There was insufficient evidence to determine the clinical effectiveness between intensive intervention and TAU. These studies measured repetition of self-harm, one at 24 months (ALLARD1992), and the other at 4 months follow up (WELU1977). Overall, less people from the treatment group compared with TAU repeated. A relative risk of 0.67 (95% CI 0.18 to 2.49) (K=2, N=245) was observed but it was not statistically significant, with significant heterogeneity ($I^2=74\%$). Also, the results must be interpreted with caution as the study was of low quality. Some possible reasons for this heterogeneity were the difference in the length of follow-up, the difference in the length of treatment (8 months longer in WELU1977) or the time difference in which the studies were conducted (there is almost 20 years difference between studies). The variabilities in the above studies limited drawing conclusions concerning the clinical effectiveness of intensive interventions on repetition of self-harm in the longer term.

Attendance

Data were reported separately for each study. In ALLARD1992, the experimental group attended more sessions by 12 month follow up (Mean 12.35 versus 1.54 sessions; $p<.001$). After the first year participants in the intervention group were referred to standard psychiatric services. At 24 months follow up, the intervention group continued to attend more sessions (Mean 2.11 versus 0.64 sessions; $p=.071$).

Suicides

ALLARD1992 reported suicides during the follow up period of two years. Three suicides were reported in the intensive intervention group versus one in the TAU group. The number of suicides in WELU1977 was unclear. No conclusions could be drawn from this data given the rarity of this outcome.

ii) Emergency card plus TAU versus TAU

Two studies (MORGAN1993, EVANS1999a) were combined to investigate the effects of emergency card use compared with treatment as usual on the treatment of self-harm. These interventions emphasised the importance of

having easy access to on-call professionals in the event of difficulties. In both studies the majority of participants consisted of those who had self-harmed by drug overdose (98% in both studies). However, in MORGAN1993 the participants had no prior history of self-harm, whereas in EVANS1999a, 48% of the participants had a prior history of self-harm. The emergency card treatment consisted of access to either telephone consultation with a trainee psychiatrist (EVANS1999a) or the choice between telephone or face-to-face consultation with a doctor or trainee psychiatrist with the offer of admission to a psychiatric ward if necessary (Morgan1993).

Effects on repetition (at 12 months)

There was insufficient evidence to determine the clinical effectiveness between emergency card intervention and TAU. Both studies (MORGAN1993, EVANS1999a) measured repetition of self-harm at 12 months follow up. Overall, less people from the treatment group compared with TAU repeated. A relative risk of 0.83 (95% CI 0.35 to 1.97) (K=2, N=1039) is observed but it is not statistically significant, with high heterogeneity ($I^2=67\%$) and low quality. Some possible reasons for this high heterogeneity are the differences noted above in prior history of self-harm and the longer treatment period in MORGAN1993 (6 months versus 12 months). This limited our ability to draw any conclusions from this finding.

Suicides

Only one study (EVANS1999a) reported suicides during the follow up period of one year. Two suicides were reported in the emergency card group versus one in the TAU group. No suicides occurred in MORGAN1993. No conclusions can be drawn from this data as it is a single study.

iii) Telephone contact plus TAU versus TAU

Two studies (CEDEREKE2002, VAIVA2006) were combined to investigate the effects of telephone contact compared with treatment as usual on the treatment of self-harm. The active approach of establishing contact with participants aimed to increase motivation and engagement with treatment. Both studies consisted of participants who were treated after a suicide attempt and the majority were repeat attempters. Telephone contact consisted mainly of contact with an experienced therapist over the phone at two different time periods (4 and 8 months in CEDEREKE2002 and 1 and 3 months in VAIVA2006).

Effects on repetition (at last follow up)

There was insufficient evidence to determine the clinical effectiveness between telephone contact plus routine care and TAU. VAIVA2006 reported repetition of self-harm both at one and three months follow up, and CEDEREKE2002 reported one outcome (repetitions between 1 and 12 months). There was no statistical difference between telephone contact and

treatment as usual after a period of one month (RR 0.89, 95% CI 0.62 to 1.28) (K=2, N=674) nor three months (RR 0.79, 95% CI 0.54 to 1.16). No heterogeneity was observed and both of these studies are of moderate quality. No conclusions could be drawn due to the small evidence base.

Treatment attendance (at 12 months follow up)

CEDEREKE2002 found no difference in the number of participants attending treatment (60/83) at least once during the 12 months follow up compared with control group (58/89).

Suicides

Studies reported suicides at follow up of 12 months (CEDEREKE2002) and 13 months (VAIVA2006). Since suicide was a rare event, the results were not meta-analysed. One suicide was reported in both the treatment group and TAU group in CEDEREKE2002 and two suicides were reported in TAU group in VAIVA2006. No conclusions could be drawn from these data.

iv) Postcard interventions plus TAU versus TAU

Two studies (CARTER2005, BEAUTRAIS2010) looked at effectiveness of postcard interventions in addition to TAU compared with TAU alone. The intervention consisted of sending a series of postcards following participants' index presentation of self-harm.

Table 24 - Summary study characteristics of trials comparing postcard interventions versus treatment as usual

	Postcard interventions vs TAU	Postcard interventions vs TAU
Total no. of trials (N)	1 RCT (772)	1 RCT (327)
Study ID	1a) CARTER2005 1b) CARTER2007 (24 months follow up study of CARTER2005)	BEAUTRAIS2010
Diagnosis	43% had diagnosis of any affective disorder, 13% alcohol misuse and/or dependence, 40% other substance related disorders, 22% personality disorder.	Unclear
Recruitment setting	1a & 1b) Patients presenting to hospital toxicology service after DSP	Patients presented to psychiatric emergency services after self-harm/attempted suicide
Treatment length	12 months	12 months
Country	Australia	New Zealand
Intervention	8 postcards sent at 1, 2, 3, 4, 6, 8, 10, and 12 months after discharge plus usual care	6 postcards sent at 2, 6 weeks, 3, 6, 9, 12 months after discharge plus usual

		care
Control	Treatment as usual	Treatment as usual – crisis assessment and referral to in-patient community based mental health services
Source for primary outcome (repetition) and follow up period	Hospital database	Psychiatric emergency services, and hospital medical record

1 *Effects on repetition (at 12 months)*

2 There was insufficient evidence to determine whether there is a clinically
3 significant difference between intervention and TAU during 12 months since
4 trial entry (RR 0.92, 95% CI 0.73 to 1.18) (K=2, N=1099). No heterogeneity was
5 observed and the study was of moderate quality. A follow up study measured
6 repetition at 24 months and found no statistical significant differences
7 between groups (RR 0.93, 95% CI 0.71 to 1.21) (K=2, N=772).

8

9 *Effects on number of episodes per patient*

10 Although the proportions of participants who repeated was not statistically
11 significant between groups, participants in the experimental group had a
12 much lower mean number of self-harm episodes during the first 12 months
13 (CARTER2005, CARTER2007). However, this result had to be interpreted
14 with caution as this was derived from 18 participants with multiple repeated
15 episodes. An unadjusted incidence risk ratio (IRR) showed a significant
16 reduction in the number of repetitions in the treatment group (IRR 0.55, 95%
17 CI 0.35 to 0.87) compared with control group. This difference persisted at two
18 years follow up (IRR 0.49, 95% CI 0.33 to 0.73). BEAUTRAIS2010 reported
19 similar findings with an unadjusted IRR 0.73 (95% 0.56 to 0.95). However,
20 when adjusted for prior self-harm, the effect is no longer significant (adjusted
21 IRR 1.07, 95% CI 0.8 to 1.43). This attenuation in effect after adjustment for
22 prior self-harm might indicate the observed results were derived from small
23 sub-group who repeatedly self-harm.

24 *Suicide*

25 In the first year following trial entry, there were two suicides in the
26 intervention group and four in the control group (CARTER2005). At 24
27 months after trial entry there were still two suicides in the intervention group,
28 but five in the control group (CARTER2007). Both suicides in the intervention
29 group occurred in males, and all but one in the control group were males. The
30 number of suicides was not reported in BEAUTRAIS2010.

31

32 Results should be interpreted with caution as these two postcard studies
33 varied in a number of ways. In CARTER2005 and CARTER2007 more
34 postcards were sent compared with BEAUTRAIS2010. In addition,
35 CARTER2005 and CARTER2007 recruited only people who had self-
36 poisoned, whereas BEAUTRAIS2010 recruited a mixture of self-poisoning and

self-cutting individuals. The postcard intervention might have reduced the number of repeated episodes per participant. This was, however, confounded by the history and chronicity of prior self-harm. An important limitation to note in CARTER2005 and CARTER2007 was the small proportion (less than 20%) of participants who repeated more than once. This highly skewed subgroup might result in an overestimation of the effect of the intervention for most service users. In BEAUTRAIS2010, there were baseline differences between treatment and comparison groups on the history of prior self-harm. After adjustment, the clinical benefit of treatment was no longer valid.

7.1.3 Clinical evidence summary

Psychological therapy (regardless of treatment modality) might be effective in improving outcomes compared with treatment as usual. The uncertainty lies in the variability found in the population, treatment modalities, as well as comparison arms. The variability was reflected by considerable heterogeneity in a number of outcomes.

There was some evidence drawn from summarising the effect of psychological therapies on reducing per protocol repetition (the primary outcome), suicide ideation scores, and mixed evidence on depression and hopelessness scores. However, the quality of these outcomes was poor for several reasons. First, there were variability and uncertainties in terms of the comparability of the population.

Six of nine studies (in meta-analyses) did not report psychiatric diagnosis of their included population. Also, six studies did not report the percentage of the population who had a previous history of self-harm. For those that reported this data, it ranged from 30% to 100% of participants who had at least one previous attempt prior to study entry. Previous history of self-harm might modify the effect of treatment (for example, treatments might be effective for those presenting with their first self-harm episode but not for those with a past history). Second, the treatment sessions and length varied from 3 to 12 sessions (average 6 sessions) delivered from 3 weeks to 5.5 months. Third, the treatment modalities and settings differed across trials. Fourth, it was uncertain whether psychological treatments had any adverse events as these studies did not report data on this.

A number of other psychosocial interventions were reviewed, namely intensive intervention, provision of emergency cards, establishing contact by telephone support and sending postcards to individuals. However, compared with usual care, there was insufficient evidence to determine clinical effects between interventions and routine care in the reduction of the proportion of participants who repeated self-harm. Thus, no conclusions could be made regarding psychosocial interventions on reduction of repetitions of self-harm.

7.1.4 Narrative review for single trials

1 **Table 25 - Summary study characteristics of single trials comparing**
 2 **psychosocial interventions versus other comparator**

	a. Interpersonal problem-solving skills training (IPSST) vs brief problem-oriented therapy	b. Behaviour therapy vs insight-orientated therapy	c. Long term vs short term therapy
Total no. of trials (N)	1 RCT (39)	1 RCT (24)	1 RCT (80)
Study ID	MCLEAVEY1994	LIBERMAN1981	TORHORST1988
Diagnosis	23% had diagnosis of dysthymia, 15% dependent personality disorder, and 13%, alcohol abuse.	All had diagnosis of depressive neurosis. Most met criteria for personality disorder	Unclear
Recruitment setting	Patients admitted to A&E department following self-poisoning.	Patients were referred by the psychiatric emergency service or the hospital A&E department following self-harm.	Patients who had deliberately self-poisoned referred to liaison service of toxicological ward.
Treatment length	5 weeks, follow up over 12 months	10 days, follow up over 24 months	Long term therapy: once a month for 12 months; Short term therapy: once a week for 3 months
Country	Ireland	USA	Germany
Intervention	5 sessions lasting 60 min. Manualised training consisting of instruction, active discussion, reflective listening, modelling, coping strategy, role playing, sentence completion, and prompting.	Inpatient treatment with behaviour therapy plus aftercare at community mental health centre/private therapy	Following hospitalization for self-poisoning (duration: approximately three days) long-term therapy: 1 therapy session per month over 12 months
Control	Brief problem-solving therapy: therapy focused on patient's current problems and prevention by helping patient gain insight into problems; no specific skills training.	Inpatient treatment with insight orientated therapy plus aftercare at community mental health centre/private therapy.	Following hospitalization for self-poisoning (duration: approximately three days) short-term therapy: 12 weekly therapy sessions over a period of three months.
<i>Note.</i> N = Total number of participants. * new studies since short term guideline (NICE 2004)			

a) Interpersonal problem-solving skills training (IPSST) vs brief problem-oriented therapy

MCLEAVEY1994 conducted a small study to compare interpersonal problem-solving skills training (IPSST) with brief problem-oriented therapy (BPT). Thirty four subjects completed treatment and 31 subjects were available after a one year follow up.

Effects on repetition (at 12 months)

There was insufficient evidence to determine clinical difference between IPSST and brief problem-oriented therapy (RR 0.84, 95% CI 0.27 to 2.67). Repetition was assessed as being a "self-poisoning act" within one year of treatment.

Effects on other outcomes

There were no suicides in either treatment group. Results showed that the mean scores of hopelessness measured during the first six months in the experimental group did not differ from control group (SMD 0.07, 95%CI -0.62 to 0.75).

Results reported by the investigators suggest an equal benefit of both treatments in reducing the number of presenting problems and in reducing hopelessness. However, it was reported that IPSST was significantly more effective in interpersonal cognitive problem-solving, self-rated personal problem-solving ability, perceived ability to cope with ongoing problems, and self-perception.

Attendance

Three (15%) subjects in the control group and two (11%) in the treatment group did not complete treatment.

b) Inpatient behaviour therapy versus insight-oriented therapy

One study made the comparison between Inpatient behaviour therapy versus insight-oriented therapy (LIBERMAN1981). Here behaviour therapy covered social skills training, anxiety management, family work, and insight-oriented therapy involving individual therapy, group therapy, psychodrama and family therapy. Both groups received approximately 32 hours of therapy over 10 days.

Effects on repetition

There was insufficient evidence to determine if there was a clinically significant difference between inpatient behaviour therapy and insight-oriented therapy on reducing the likelihood of repetition of self-harm (RR=0.67, 95% CI, 0.13 to 3.3).

Effects on depression scores

After 24 weeks, patients who received behaviour therapy had a large reduction in depression scores (SMD -0.98, 95% CI -1.84 to -0.12) but this effect was not seen at 36 weeks. Behaviour therapy was also of benefit to participants in terms of reported suicide ideation at 6 months and 36 weeks after trial entry.

c) Long-term therapy versus short-term therapy

Only one study made the comparison between long-term and short-term therapy (TORHORST1988). It compared outcomes following 12 monthly therapy sessions with 12 weekly sessions. The type of therapy offered was not specified. Outcomes were measured at the end of treatment for each group.

Effects on repetition

There was insufficient evidence to determine if there was a clinically significant difference between long-term therapy and short-term therapy on reducing the likelihood of repetition of self-harm (RR=1, 95% CI 0.44 to 2.26).

Attendance

The attendance of the long term group 'dropped drastically' by the second session to under 40%, but this was not seen in the 3 month group. The overall attendance rate was very low in both groups (mean sessions for the long term group was 2.6 out of a possible 12 sessions and 3.9 of a possible 12 sessions in the short term group; thus, about 23% attendance compared to about 33% attendance at sessions). Nevertheless, information was available on 97% of the sample at the end of the study.

Effect of treatment on depression

'Self-evaluated depressivity improved considerably more' for participants in the 12 week programme as compared to the 12 month group. Data were not given numerically but on a graph; difference reported to be 'significant'.

Table 26 - Summary study characteristics of single trials comparing psychosocial interventions versus other comparator

	d. Same vs different therapist	e. Home vs outpatient problem-solving therapy	f. General hospital admission vs discharge
Total no. of trials (N)	1 RCT (141)	1 RCT (96)	1 RCT (77)
Study ID	TORHORST1987	HAWTON1981	WATERHOUSE1990
Diagnosis	Uncertain	Not reported	Not mentioned. None had a psychiatric diagnosis of a depressive illness.
Recruitment setting	Patients hospitalized after suicide attempt.	Patients admitted to a general hospital following deliberate self-poisoning.	Patients admitted to A&E department for self-harm. (No immediate medical or psychiatric treatment needs).
Treatment length	3 months	Not stated, up to 60 minutes per session	Not applicable
Country	Germany	UK	UK
Intervention	Short crisis intervention during hospital stay, fixed outpatient appointment with same therapist as was seen in hospital. Motivational interview, letter and assessment of motivation towards therapy.	Domiciliary (home-based) therapy. Open telephone access to the general hospital service / flexible sessions. Treatment was to be brief, and terminated when patients current crisis resolved. During first 2 months of treatment, sessions could be as frequent but during third month, maximum of 2 sessions was allowed.	General hospital admission. No additional treatment or counselling.
Control	Short crisis intervention during hospital stay, fixed outpatient appointment with a different therapist than was seen in hospital.	Outpatient therapy / 1 session per week.	Discharge from hospital.

	Motivational interview, letter, and assessment of motivation towards therapy.		
Note. N = Total number of participants. * new studies since short term guideline (NICE 2004)			

1 d) Same therapist versus different therapist in different settings

2 One study made this comparison (TORHORST1987). All participants received
3 a motivational interview, letter and assessment of motivation towards
4 therapy. This was designed to increase engagement with treatment.
5 Participants in the experimental group then received therapeutic contact with
6 the original hospital therapist in an outpatient setting, whereas participants in
7 the control group received therapy in a specialised suicide prevention centre
8 with a different therapist. This made it hard to assess the effect of treatment.
9 In addition, and despite randomisation, at baseline participants in the same-
10 therapist group had more risk factors for repetition of self-harm than those in
11 the different-therapist group, including being more likely to be older, male
12 and divorced, and having more episodes of self-harm in the year before the
13 index episode. These differences could wholly account for the differences in
14 repetition.

15 *Effects on repetition*

16 There was limited evidence suggesting that there was a clinically significant
17 difference favouring different therapist over same therapist on reducing the
18 likelihood of repetition of self-harm (RR 0.31, 95%CI 0.09 to 1.11).

19 *Attendance*

20 There were significantly more patients in "same therapist" group (49 /68)
21 attended treatment at least once compared with different therapist group
22 (36/73).

23 *Suicide*

24 There was insufficient evidence to determine if there was a clinically
25 significant difference between receiving a different therapist and receiving the
26 same therapist on reducing the likelihood of death by suicide 9 months after
27 treatment (2 suicides in treatment and 3 suicides in control group).

29 *Effects on depression scores*

30 There was no significant difference in depression scores between the groups
31 at 12 months after trial entry (SMD -0.17, 95% CI -0.52 to 0.18).

32 e) Home vs outpatient problem-solving therapy

33 Hawton (1981) compared the delivery of brief problem-orientated counselling
34 in two different ways, namely flexibly-timed home-based therapy (including

access via telephone services to the general hospital psychiatric service) versus treatment in weekly outpatient clinics.

Effects on repetition

During the year following treatment entry the repetition of self-harm was measured. There was no significant difference in repetition which occurred in 5/48 participants in the domiciliary treatment group as compared to 7/48 in the outpatient group (RR 0.71, 95% CI 0.24 to 2.09)

Attendance

A greater number of participants in the domiciliary group attended one treatment session or more (45/48) when compared to the outpatient group (35/48).

Effects on depression scores

There was no significant difference in mean depression scores post treatment (adjusted for pre-treatment differences), in the domiciliary group 2.91 (N=44) and the outpatient group 2.71 (N=44) (F=0.09), which was not statistically significant. After 6 months, domiciliary group mean score 2.49 (N=42) versus outpatient group mean score 2.61 (N=40) (F=0.03), which was not statistically significant. The study did not report standard deviations.

f) General hospital admission versus discharge

One study assessed the effect of general hospital admission versus non-admission in a group of self-harm 'parasuicide' patients attending an emergency room who had 'no immediate medical or psychiatric treatment needs' ([Waterhouse, 1990](#)). In this study no additional treatment was offered to either group, although all patients were advised to contact their GP on discharge. Average length of admission was 17 hours. Only those who did not require hospital admission because of medical or psychiatric needs were included in the study, and the majority of patients were not randomised as they were considered to pose too great a risk to be assigned to the non-admission group. Therefore, the patients included in the study constitute an extremely biased sample.

Effects on repetition

There was insufficient evidence to determine if there was a clinically significant difference between general hospital admission and discharge on reducing the likelihood of repetition (RR=0.77; 95% CI, 0.18 to 3.21).

Effects on hopelessness scores

There was also no significant difference in hopelessness scores as measured after one week (mean 10.29, SD 5.68 versus mean 10.21, SD 4.97), however, the number of patients in each group were not reported for this outcome.

- 1 *Effects on suicidal ideation scores*
- 2 At four months, there was also no evidence of a difference in suicidal ideation
- 3 scores between the two groups (SMD 0.28, 95% CI -0.26 to 0.83).

1 Table 27 - Summary study characteristics of single trials comparing psychosocial interventions versus treatment as usual

	g. Compliance enhancement vs TAU	h. Intensive inpatient and community treatment vs TAU	i. Case management vs TAU	j. Supportive contact vs TAU	k. GP's letter to patient/enhanced care vs TAU
Total no. of trials (N)	1 RCT (516)	1 RCT (240)	1 RCT (467)	1 RCT (1867)	1 RCT (1932)
Study ID	VAN HEERINGEN1995	VAN DER SANDE1997	CLARKE2002	FLEISCHMANN2008*	BENNEWITH2002
Diagnosis	15% had a diagnosis of mood disorder, 3% of anxiety disorder.	32% had diagnosis of mood disorder and adjustment disorder.	17% had psychiatric history, 13% alcohol problems, 3% schizoaffective disorder.	Not reported	Not reported
Recruitment setting	Patients treated in A&E department after a suicide attempt.	Patients admitted to hospital following a suicide attempt.	Patients presenting to hospital for deliberate self-harm	Patients attending an emergency care setting with a diagnosis of self-harm or self-poisoning by medical staff.	Participants found in hospital case register for self-harm.
Treatment length	Unclear	Flexible appointments usually on weekly basis.	Up to 6 months	18 months	Unclear
Country	Belgium	Netherlands	UK	Brazil	UK
Intervention	Compliance enhancement plus usual care - home visits were made to participants who did not keep outpatient appointments, the reasons for not attending appointments	Brief psychiatric unit admission, encouraging participants to contact unit on discharge. CPN assigned to establish therapeutic relationship w patient. Treatment by CPN based on problem-solving approach. Out-	Case management consisting of psychosocial assessment, a negotiated care plan, and 'open access' to case manager who helped patient identify and access suitable services plus	Treatment as usual plus brief intervention ("information about suicidal behaviour as a sign of psychological and/or social distress, risk and protective factors, basic epidemiology,	Letter from GP for consultation in surgery.

	were discussed and the patient was encouraged to attend.	patient therapy plus 24-hour emergency access to unit.	usual care.	repetition, alternatives to suicidal behaviours, and referral options") plus follow up contact (via phone or visits; referral support) at 1, 2, 4, 7 and 11 week(s), and 4, 6, 12 and 18 months).	
Control	Out-patients appointments only; non-compliant participants were not visited.	Usual care. Patients were assigned by the routine clinical service and could consist of all currently available alternative treatments. 75% were discharged from hospital; of these patients, almost 90% were referred to an out-patient clinic. 25% were referred for hospitalisation in a psychiatric clinic.	Usual care consisting of triage, medical and psychosocial assessment and treatment as required. For patients who were admitted from A&E for further treatment, usual treatment generally involved a request for a psychiatric assessment.	Treatment as usual "according to the norms prevailing in the respective emergency departments" (typically treatment for somatic problems).	Usual general practice care. (No structured feedback about patient management. GPs in control group had initiated contact with only (97/642) 15% of patients, compared to (352/612) 58% in intervention group).
<p>Note. N = Total number of participants.</p> <p>* new studies since short term guideline (NICE 2004)</p>					

g) Compliance enhancement versus TAU

Some service users do not attend outpatient appointments arranged after discharge from hospital following self-harm. In a study by van Heeringen (1995), compliance enhancement via a nurse visit at home resulted in significantly more service users attending the outpatient clinic at least once compared to a group of service users who did not receive this extra intervention (129/252 versus 102/256).

Effects on repetition

There was also a substantial but non-significant reduction in the repetition of self-harm during the 12 months after trial entry (RR 0.61, CI 0.37 to 1.02).

Suicides

There was, however, no evidence of a difference between treatment groups in the occurrence of suicides during this period (6/196 versus 7/195).

h) Case management versus TAU

One study made the comparison between case management and treatment as usual (CLARKE2002). The intervention involved case management combined with routine management, including medical and psychiatric assessment. Usual care consisted of triage, medical and psychosocial assessment and treatment as required.

Effects on readmission

There was insufficient evidence to determine if there was a clinically significant difference between nurse-led case management and standard aftercare on reducing the likelihood of people who self-harm being readmitted to hospital (RR=0.85, 95% CI 0.48 to 1.51). However, investigators reported that multiple re-admission was much more common in the experimental group than the control (9/220 versus 2/247). At 36 months follow up, one suicide had occurred in each treatment group.

i) Supportive contact versus TAU

One study conducted as a multicentre investigation in 'suicide attempters' in five low and middle income countries (Brazil, India, Sri Lanka, Iran and China) assessed the effect of brief contact over 18 months by home visits or telephone contacts by a clinician after an information session at the time of discharge from hospital with treatment as usual (FLEISCHMANN2008). Participants were recruited in the emergency departments after their suicide attempts. The intervention included an individual one hour session, in addition to regular follow-up contacts after discharge. The therapist provided information which aided the understanding of suicidal behaviour, and provided contacts or referral options. A person with clinical experience (range of doctors, nurse, psychologist or students in psychology or social work who received 1 day special training) conducted contacts at 1, 2, 4, 7, and 11 weeks,

and 4, 6, 12 and 18 months after discharge. As comparison, treatment as usual was limited to acute management of index suicide attempts. It did not include psychosocial assessment or any treatment. In some sites, participants were discharged to outpatient mental health services.

Effects on repetition

There was no difference in repeat suicide attempts at 18 months (RR 0.98 95% CI 0.7 to 1.37). There were significantly fewer suicides in the experimental group at 18 months (2/872 vs. 18/827) (FLEISCHMANN2008). However these data should be interpreted cautiously as they were based on informant report rather than official data sources and data were not available for those lost to follow up.

Effects on contact with services

It was reported the utilisation of psychological services following self-harm was low in both BIC (5.7%) and TAU (5%) groups. And it was not statistically significant.

j) GP letter versus standard aftercare

One study made the comparison between a GP letter versus standard aftercare (BENNEWITH2002). In this study, which was cluster randomised by GP practice, participants were sent a letter by GPs from practices allocated to the experimental group inviting them to make an appointment for a consultation.

Effects on repetition

There was insufficient evidence to determine whether there was a clinically significant difference between using a GP letter and standard aftercare on reducing the likelihood of repetition of self-harm (RR=1.12, 95% CI 0.94 to 1.34).

Effects on contact with services

During the first six weeks after trial entry, there was no difference between treatment conditions in the number of contacts made with services (351/599 versus 387/681).

k) Intensive inpatient and community treatment versus routine care

One study (VAN DER SANDE1997) compared the impact of brief psychiatric inpatient admission followed by out-patient appointments and 24-hour access to the unit with treatment as usual.

Effects on repetition

There was insufficient evidence to determine whether there was a clinically significant difference on reducing the likelihood of repetition of self-harm at 12 months (RR=1.15, 95% CI 0.67 to 1.98). VAN DER SANDE1997 reported one suicide in the treatment group and two suicides in the TAU group.

1 *Attendance*

2 In VAN DE SANDE1997, more participants attended one or more treatment
3 sessions in the intensive intervention condition (119/140) compared to the
4 comparison group (64/143) at 12 month follow up. However, there was no
5 difference in the mean number of treatment sessions participants attended
6 (SMD 0.11, 95% CI -0.13 to 0.35).

7 *Effects on depression scores*

8 VAN DER SANDE1997 had lower depression scores after 12 months,
9 however, the difference was not significant (SMD -0.31, 95% CI -0.66 to 0.03).

10 *Effects on hopelessness scores*

11 VAN DER SANDE1997 had lower hopelessness scores after 12 months,
12 however, the difference was not significant (SMD -0.26, 95% CI -0.61 to 0.08).

13 **7.1.5 Clinical evidence summary for narrative reviews**

14 This section presented narrative reviews of single trial psychological or
15 psychosocial interventions that could not be meta-analysed.
16 In terms of reducing repetition, there was insufficient evidence of a treatment
17 difference between the following interventions: interpersonal problem-
18 solving skills training versus brief problem-oriented therapy; inpatient
19 behaviour therapy versus insight-oriented therapy; long term (12 months)
20 versus short term (3 months) therapy; general hospital admission versus
21 discharge.

22 There was limited evidence suggesting that the same versus a different
23 therapist is associated with a reduction in self-harm repetition. However, this
24 conclusion was subject to many uncertainties and biases. Thus, based on only
25 a single trial, no conclusions could be drawn.

26 For the same outcome (repetition), compared with routine care, there was
27 insufficient evidence to establish clinical effectiveness for psychosocial
28 interventions such as: case management, supportive contact in low to middle
29 income countries, GP letters, and intensive inpatient and community care.

30 There was a trend showing that enhancing compliance by visiting
31 participants who did not attend an outpatient appointment may reduce
32 repetition 12 months after trial entry. This was based on a single trial of
33 poorer quality and therefore no conclusions could be drawn.

34 **7.1.6 Narrative review for interventions for specific subgroups**

35 This section included brief summary for studies that looked at interventions
36 for specific subgroups, which reported repetition of self-harm as an outcome.
37 For the management of each specific condition, please refer to other NICE
38 guidelines.

39 **Borderline personality disorder**

40 A total of nine studies examined the effectiveness of Dialectical Behaviour
41 Therapy (DBT) for the reduction of self-harm, all in Borderline Personality

Disorder populations (BPD) with a history of self-harm. Eight of these studies have previously been reviewed in the NICE guideline (NCCMH, 2009) on Borderline Personality Disorder (Carter *et al.*, 2010; Koons *et al.*, 2001; Linehan *et al.*, 1991; Linehan *et al.*, 1999; Linehan *et al.*, 2002; Linehan *et al.*, 2006; Turner, 2000; van den Bosch *et al.*, 2002) which can be consulted for further details on the study characteristics and findings. There was also an additional study (McMain *et al.*, 2009) which was published after this guidance was produced.

In summary, the evidence for DBT showed some benefit in reducing rates of self-harm. Two studies (Koons *et al.*, 2001; van den Bosch *et al.*, 2002) displayed significant differences between DBT and TAU in the reduction of self-harm. Two further studies reported significant differences between DBT and community treatment by experts (Linehan *et al.*, 2006) and client centred therapy (Turner, 2000) in reducing self-harm, suicide attempts and suicidal ideation. Most of the evidence is of moderate quality. The sample size in these nine studies ranged from 23 participants to 180 participants with a total of 578 participants. The average duration of DBT treatment was one year with the treatment length ranging from 6 months to one year. Trials all followed the manualised treatment designed by Linehan (1993), although several modified it. DBT, in outpatient settings, was comprised of four treatment components; weekly individual cognitive-behavioural psychotherapy sessions with the primary therapist, weekly skills training groups lasting 2 to 2.5 hours per session, weekly supervision and consultation meetings for the therapists and phone consultation. Participants were encouraged to obtain coaching in the appliance of new effective skills by phoning their primary therapists either during or outside office hours. These results should be interpreted with caution as the populations examined varied considerably with some populations having coexisting substance misuse (Linehan *et al.*, 1999; Linehan *et al.*, 2002; van den Bosch *et al.*, 2002) and some involved women veterans (Koons *et al.*, 2001). The treatment setting also varied greatly including outpatients, primary care and referrals to a community mental health outpatient clinic following emergency department treatment for a suicide attempt. Five out of nine studies compared DBT with TAU, however, there were four studies in which the comparator varied including comprehensive validation therapy (Linehan *et al.*, 2002), community treatment by experts (Linehan *et al.*, 2006), a combination of psycho dynamically informed therapy and symptom-targeted medication management (McMain *et al.*, 2009) and client centred control (Turner, 2000). Finally, participants were mostly women thus limiting the applicability of the findings.

There were two studies that examined Manual Assisted Cognitive Treatment (MACT), a brief cognitive oriented and problem focused therapy against treatment as usual (Evans *et al.*, 1999b; Weinberg *et al.*, 2006). One was in a population of people with personality disturbance within the flamboyant personality cluster (N = 34) who had a history of self-harm aged 16-50 (Evans

et al., 1999b) and the other was in a population with BPD (N = 30) aged 18-40 (Weinberg *et al.*, 2006). The first trial has been reviewed in the short term management guideline for self-harm (NCCMH, 2004) and the second has been reviewed in the BPD guideline (NCCMH, 2009) which can be consulted for further details of study characteristics and findings. In summary, both treatments lasted for six months with a range of 2-6 sessions and incorporated DBT, CBT and bibliotherapy. Evans and colleagues (1999b) found that the rate of self-harm episodes was lower in the MACT group compared to the TAU group but not significantly so. On the other hand, Weinberg and colleagues (2006) found that MACT was associated with significantly less frequent self-harm post-treatment and at 6 months follow up when compared to the TAU group. These results should be interpreted with caution given the following limitations. The participants were mostly women thus limiting the applicability of the findings reported. Both had small sample sizes and the populations differed in their diagnosis with one being diagnosed with BPD and the other population being a mixture of personality disorders within the flamboyant personality cluster.

There was an additional RCT (Doering *et al.*, 2010) that examined the efficacy of transference focused psychotherapy (TFP) compared to treatment by community psychotherapists (CP) in reducing self-harm in 104 female outpatients with BPD. Transference focused psychotherapy is a modified psychodynamic psychotherapy which consists of two 50 minute sessions per week over a period of one year and focuses on the experiences of dysfunctional early relationships. Significantly fewer participants dropped out of the TFP group compared to the CP group (38.5% versus 67.3%), significantly fewer attempted suicide and there was a reduction in need for psychiatric inpatient treatment in the TFP group. However, there were no significant differences in the reduction of self-harm in either group. These findings should be interpreted with caution as this was in a group of women thus limiting the generalisability of the findings. There was also a high dropout rate and a low participation in the follow up assessment with only 47% completing the one year treatment, which might introduce bias favouring results.

A comprehensive review of treatment options for clients with a diagnosis of BPD can be found in the Borderline Personality Disorder NICE guidance (NCCMH, 2009).

Alcohol misuse

An RCT conducted by Crawford and colleagues (2010) looked at the effect of referral for brief intervention for people who had self-harmed and were misusing alcohol. The study was carried out after an earlier trial showed a statistically significant reduction in re-attendance at the emergency department for an unselected group of individuals screened for alcohol misuse and given brief treatment (Crawford, *et al.*, 2004). Alcohol misuse was

1 defined as consuming more than 8 units (for men) or 6 units (for women) per
2 drinking session on a weekly basis, or if participants reported their self-harm
3 was related to the use of alcohol. Participants were recruited from an
4 emergency department following a self-harm episode, and if they met the
5 criteria for alcohol misuse. The brief intervention consisted of an appointment
6 card for a 30 minute session with Alcohol Specialist Nurse (ANS), together
7 with a health information leaflet. The ANS conducted an assessment of
8 current and past drinking behaviour using a person-centred and non-
9 confrontational approach. The control group received a blank card together
10 with the same health information leaflet. There was no statistical significant
11 difference between treatment and control on re-admission for repetition (RR
12 0.62, 95% CI 0.26 to 1.48) at 6 months follow up. There were a number of
13 limitations for this study including the low attendance of appointments in the
14 treatment group (47%) and the high prevalence of probably personality
15 disorder amongst the participants.
16

7.1.7 Clinical evidence for interventions for children and young people

Table 28: Summary study characteristics of trials comparing group psychotherapy versus treatment as usual

	Group psychotherapy vs TAU
Total no. of trials (N)	K=3 (501)
Study ID	1) WOOD2001 2) HAZELL2009* 3) GREEN2011 (in press)
Diagnosis	1) Major depressive disorder in 83-84% of groups. 75% (experimental) and 62% (control) had conduct or oppositional disorder diagnosis (assessed by K-SADS & DSM-IV). 2) 4% had alcohol problems; 0% had substance misuse problems; 57% had depression; 7% had a diagnosis of conduct/oppositional defiant disorder (all assessed by Schedule for Affective Disorders & Schizophrenia for School-age Children (K-SADS)) 3) ~60% depressive disorder; ~30% behavioural disorder
Recruitment setting	1) Referred to child and adolescent mental health service following deliberate self-harm. 2) Patients referred to CAMHS with reported self-harm. 3) Adolescents with 2 or more episodes of SH during previous 12 mths, in CAMHS northwest of UK.
Treatment length	All 6 sessions
Country	1)UK 2)Australia 3)UK
Intervention	Developmental group psychotherapy involved a variety of techniques, including a variety of interventions involving problem-solving and CBT, DBT and group psychodynamic psychotherapy interventions
Control	Routine care

a) Developmental group psychotherapy plus TAU versus TAU

Three studies (WOOD2001, HAZELL2009, GREEN2011) explored the effectiveness of developmental group psychotherapy for adolescents with repeated self-harm. This therapy was designed to tackle difficulties experienced by adolescents by using positive corrective therapeutic relationships. It involved a number of treatment principles including

problem-solving, cognitive-behavioural interventions, dialectical behaviour therapy, and psychodynamic therapy. It comprised of six “acute” group sessions plus routine care, followed by weekly group therapy in the longer term which could be terminated when participants felt ready to leave. HAZELL2009 was a replica of the original study conducted in Australia. GREEN2011 was a larger scale multi-centre study conducted by original developer of the intervention.

Effects on repetition

There was no evidence to determine whether group psychotherapy plus routine care had an effect compared with routine care alone. At 7 (WOOD2001) and 12 months follow up (HAZELL2009, GREEN2011), a relative risk of 0.95 (95% CI 0.63 to 1.45) with a 79% heterogeneity is observed. The heterogeneity might be explained by the large difference in effect size for WOOD2001 being effective, but not for the other two studies.

Effects on suicide ideation and depression scores

There was no evidence of effect when group psychotherapy plus routine care was compared with routine care alone at the last follow up (SMD -0.03, 95% CI -0.21 to 0.15) (K=3, N=471) for suicide ideation scores. Similarly, there was no evidence of effect on depression scores (SMD -0.17, 95% CI -0.52 to 0.18) (K=2, N=129).

Suicides

There were no suicides in treatment nor TAU group (WOOD2001, GREEN2011).

1 Table 29: Summary study characteristics of trials comparing psychosocial interventions versus comparator

	Psychological therapy vs TAU	Emergency card vs TAU	Home based family intervention vs TAU	Standard disposition planning with and without added compliance enhancement
Total no. of trials (N)	1 RCT (39)	1 RCT (105)	1 RCT (162)	1 RCT (76)
Study ID	DONALDSON2005*	COTGROVE1995	HARRINGTON1998	SPIRITO2002
Diagnosis	29% (9/31) had diagnosis of major depressive disorder. 19% (6/31) had diagnosis of alcohol use disorder	6% had major psychiatric disturbance (not specified).	64.5% had diagnosis of major depression. 10.5% had diagnosis of conduct disorder.	37% had a diagnosis of either dysthymia, major depression, oppositional defiant disorder, conduct disorder, alcohol abuse or drug abuse/dependence.
Recruitment setting	Patients presenting to a general paediatric emergency department or inpatient unit of an affiliated child psychiatric hospital after a suicide attempt.	Patients admitted to hospital following self-harm	Participants have no self injury by cutting or hanging but had all self-poisoned. Patients referred to mental health teams in four hospitals.	Patients presenting to hospital after suicide attempt.
Treatment length	6 individual sessions plus 1 family session; maintenance 3 sessions	12 months	5 sessions	8 weeks
Country	USA	UK	UK	USA
Intervention	Skills-based treatment focused on problem-solving and affect management skills; taught problem-solving and cognitive and behavioural strategies and given homework assignments to strengthen skills. Treatment was comprised of two parts: (a) active treatment (first three months) included six individual sessions and one adjunct family session with two additional	Standard care plus emergency green card: green card acted as a passport to re-admission into a paediatric ward in the local hospital.	Home based family therapy plus routine care	Compliance enhancement intervention plus standard disposition planning: single, one-hour session that reviewed expectations for outpatient treatment and factors likely to impede attendance. Addressed treatment misconceptions and encouraged adolescent and parent to make a verbal contract to attend

	family sessions and two crisis sessions available at therapist's discretion; (b) maintenance treatment (last three months) included three sessions.			treatment. Participants were also contacted by telephone at 1, 2, 4, and 8 weeks after discharge regarding their compliance to treatment.
Control	Supportive relationship therapy focused on adolescent's mood and behaviour; unstructured sessions which addressed reported symptoms and problems; specific skills not taught, designed to be close to usual care for this population in this community.	Standard follow-up and treatment from a clinic or child psychiatry department.	Routine psychiatric aftercare. Visits to the clinic by the adolescent and family. A diverse range of interventions, including sessions with psychiatrists and with psychiatric nurses.	Standard disposition planning: treatment based on judgment of psychiatric clinician who conducted the evaluation. Some attempters in both groups had a brief inpatient psychiatric stay prior to receiving outpatient care. Remainder received outpatient care at local mental health centre.
Note. N = Total number of participants. * new studies since short term guideline (NICE, 2004)				

b) CBT versus usual care for children and young people

One small study assessed CBT versus nondirective supportive therapy, which was designed to be as close to usual care for adolescent self-harm patients (DONALDSON2005). Treatment condition focused on problem-solving and affect-management skills. Adolescents were taught problem-solving and cognitive behavioural strategies for affect management. The comparator was supportive in nature and sessions were unstructured. It involved exploratory questioning, encouraging affect, however, specific skills were not taught.

Effects on repetition

There was little difference between psychological therapy and TAU in the number of participants in each group who repeated self-harm at six months after trial entry (RR 1.71, 95% CI 0.35 to 8.29). No participants died by suicide.

Attendance

All participants attended at least one treatment session. There was no statistical evidence of a difference in the mean number of treatment sessions attended in each group (mean 9.70 versus mean 9.50). A greater proportion of control group participants completed treatment (13/21 versus 13/18), but the difference was again non-significant.

Effects on other outcomes

Depression scores at six months after trial entry were somewhat lower in the treatment group, but the small sample size might explain its statistical insignificance (SMD -0.38, 95% CI -1.09 to 0.33). A similar, but not statistically significant finding was reported for suicidal ideation scores at six months (SMD 0.14, 95% CI -0.86 to 0.58).

c) Home based family intervention versus TAU for children and young people

One study (HARRINGTON1998) compared home-based family therapy undertaken by two social work masters-level students with 'standard aftercare' involving no home visits. The experimental intervention involved a single home-based assessment and four treatment sessions at home. All participants were under 16 years old, none of them were seriously suicidal; nearly 90% were female; and over 60% were reported as having major depression. All were routine referrals to mental health services.

Effects on repetition

There was insufficient evidence to determine if there was a clinically significant difference between home-based family therapy and standard aftercare on reducing the likelihood of repetition of self-harm (RR=1.01, 95% CI 0.47 to 2.19). One participant in the experimental treatment group died by suicide and no suicides occurred in the control group.

Attendance

More participants in the home-based group completed treatment (39/84 versus 28/77).

Effects on other efficacy outcomes

There was insufficient evidence to suggest clinically significant difference between home-based family therapy and standard aftercare on reducing hopelessness scores in children and young people (SMD 0.06, 95% CI -0.26 to 0.38), problem-solving scores (SMD -0.04, 95% CI -0.36 to 0.28), nor reducing suicidal ideation scores (SMD -0.13, 95% CI -0.45 to 0.19).

d) Standard disposition planning with and without added compliance enhancement versus standard treatment for children and young people

One study assessed the effect of standard disposition planning with and without an added compliance enhancement intervention in adolescent patients after a self-harm episode (SPIRITO2002).

Effects on repetition

Fewer participants in the intervention group had repeat self-harm episodes at 3 months after trial entry, but the difference was not significant (RR 0.70, 95% CI 0.18 to 2.69). The compliance enhancement group had fewer repeat self-harm episodes compared to participants in the control (mean 0.10 versus mean 0.15). No participants died by suicide.

Attendance

No significant difference was found between the groups in relation to the number of participants attending at least one treatment session (27/29 versus 31/34). While participants in the experimental group (that with compliance enhancement) attended more treatment sessions (mean 7.70 versus mean 6.40) and more completed treatment (17/29 versus 16/34), neither of these differences were significant.

7.1.8 Clinical evidence summary for interventions for children and young people

In the NICE guideline Self-Harm: Short Term Management guideline (NICE, 2004), group psychotherapy was recommended for children and young people based on evidence from a study by WOOD2001. However, results from more recent studies did not replicate the clinical effect observed in WOOD2001. Group psychotherapy plus routine care did not appear to be effective in reducing the repetition of self-harm when compared with routine care alone, amongst adolescents with a history of self-harm. The difference in effect might be explained by differences in the participants. For example, a replication study in Australia (HAZELL2009) and a more recent multi-centre RCT (GREEN2011) used wider referral samples, which

tended to consist of more severe, complex and chronic participants. This contrasted with the single district participant pool used by WOOD2001. Another explanation could be a higher level of service provision and use in routine care in more recent years, which might diminish the relative treatment effect.

For all other studies included in the narrative review, there were no statistically significant findings in reducing the repetition of self harm. There were no differences between treatments such as CBT and home-based family interventions when compared with routine care. Furthermore, there was no evidence showing enhanced compliance had an effect in standard disposition planning amongst children and young people who self-harm.

7.1.9 Health economic evidence

a) Evidence review

The systematic literature search identified two economic studies that assessed the cost effectiveness of specific psychosocial intervention compared with treatment as usual or routine care. Both studies were conducted in the UK (Byford *et al.*, 2003; Byford *et al.*, 1999).

Byford and colleagues (2003) evaluated the cost-effectiveness of manual-assisted cognitive behaviour therapy (MACT) compared with treatment as usual (TAU) for adult patients (16-65 years) with a history of self-harm recruited after presenting with an episode of self-harm. Their analysis was based on the clinical trial by Tyrer and colleagues (2003a). Those requiring inpatient psychiatric treatment, or with psychotic or bipolar disorder, and those with alcohol or drug dependence problem were excluded. The MACT group was given a treatment manual each and offered up to seven sessions of cognitive therapy while those in the TAU group were offered standard treatment which varied between the three studies areas from problem-solving, psychotherapy, GP or voluntary group referral, and short-term counselling. A societal perspective was adopted for the analysis. Resource use items included hospital and community health services, social services, voluntary sector services, community accommodation, criminal justice system and participants' living expenses and productivity losses. The primary outcome measure used in the analysis was the proportion of participants who experienced a repeat episode of self-harm during 12-month follow-up. QALYs were also measured, by calculating EQ-5D utility scores, taken from participants at baseline, six and twelve months.

Total mean cost over 12 months was £13,454 in the MACT group and £14,288 in the TAU group. The reported percentage of participants experiencing a repeat episode of self-harm over the 12 month period of follow-up was 7% lower in the MACT group whilst QALYs were 0.0118 lower in the MACT group. Taking TAU as the base case, the reported incremental cost-effectiveness ratios (ICERs) when compared with MACT were -£120 per 1% reduction in percentage of participants with a repeat episode of self-harm (thus MACT was the dominant strategy) and £66,000 per QALY gained. Cost-effectiveness acceptability curves (CEACs) showed that MACT had

more than a 90% probability of being cost-effective when using the percentage of repeat episodes of self-harm as an outcome. With QALY as an outcome, MACT has higher probability of being cost-effective at a threshold less or equal to £66,000 per QALY. However, at different threshold values, the probability of MACT being more cost-effective ranges between 44% and 88%.

The results of this study are highly applicable to this guideline in terms of the patient population, health care system, interventions and outcomes considered. However, the broader perspective other than NHS and Personal Social Services perspective taken by the study may be relevant to the population resource use but not recommended by NICE (2009d) in guideline development. Other limitations with the study findings were that uncertainty around the effectiveness measures were not presented. Given the small differences between the two treatment groups in terms of QALYs and percentage of repeat self-harm episodes, it is possible that these differences were not statistically significant and may explain why differences in percentage of repeat self-harms but not QALYs favoured the MACT group. In addition, as noted by the authors, the chance that any coping mechanism could possibly improve ones' Quality of Life (QoL) may be plausible. In other words, with self-harm as a coping mechanism, such interventions that results in least reduction in repeat episodes of self-harm may likely be associated with more gain in QoL than others interventions with significant reduction in repeat episodes of self-harm. Consequently, this calls for more caution in the interpretation of the direction of QALYs gain/loss with respect to self-harm interventions.

The second study by Byford and colleagues (1999) evaluated the cost-effectiveness of a home-based social work intervention plus routine care compared with routine care for children and adolescents (age range: 10-16 years) who had self-poisoned. The home-based social work intervention delivered by two psychiatric social workers consisted of an assessment session and four intensive sessions targeted towards intra-familial communication, behavioural techniques and problem-solving. Routine care involved visitation of psychiatrists and psychiatrist nurses in the clinic on an outpatient basis. The analysis was based on a RCT of 6 months follow-up with outcome measure and costs reported for 162 children (77 for routine care and 85 for intervention group). The perspective of the analysis included the NHS, PSS as well as the educational and voluntary sector. Resource use included patient assessment sessions, hospital services (inpatient, day-patient, intensive care unit, outpatient care, accident and emergency department services), GP visits, school nurse and doctor, community psychiatric nurse, counselling, educational welfare officers, educational psychologists, social worker, foster and residential care.

The primary outcome measures used in the study were the suicidal ideation questionnaire and hopelessness scale both of which were completed by the individual, and the Family Assessment Device (a measure of family functioning) completed separately by both young person and their parents. No statistically significant differences were detected in any of the primary outcomes at six months between the two treatment groups. Similarly, no statistically significant differences

in costs between the intervention and routine care (£1,455 vs. £1,751; $p=0.6$) were detected.

Regarding the applicability of this study to the guideline, it has a number of methodological limitations although the participant population, interventions and health care system considered in the study are all relevant. Firstly, there was no synthesis of incremental costs and outcomes or use of QALY as a final outcome measure. Secondly, the short time horizon may not have allowed for full evaluation of all important costs and effects associated with the intervention and thirdly, the uncertainties of the result estimates were tested.

Details on the methods used for the systematic search of the economic literature are described in Section 3.6.1. Information on the methods used and the results reported in the economic studies included in the systematic literature review are presented in the form of evidence tables in Appendix 14.

b) Economic modelling

Introduction – objective of economic modelling

The systematic review of clinical evidence and meta-analysis demonstrated that psychosocial interventions in addition to treatment as usual (TAU) for people who self-harm are clinically effective in reducing the repetition of self-harm episodes when compared with TAU alone. Therefore, an economic model was developed aiming at assessing the cost effectiveness of psychosocial interventions added to TAU relative to TAU alone, for people who self-harm, from the perspective of the NHS and personal social services (PSS)

Economic modelling methods

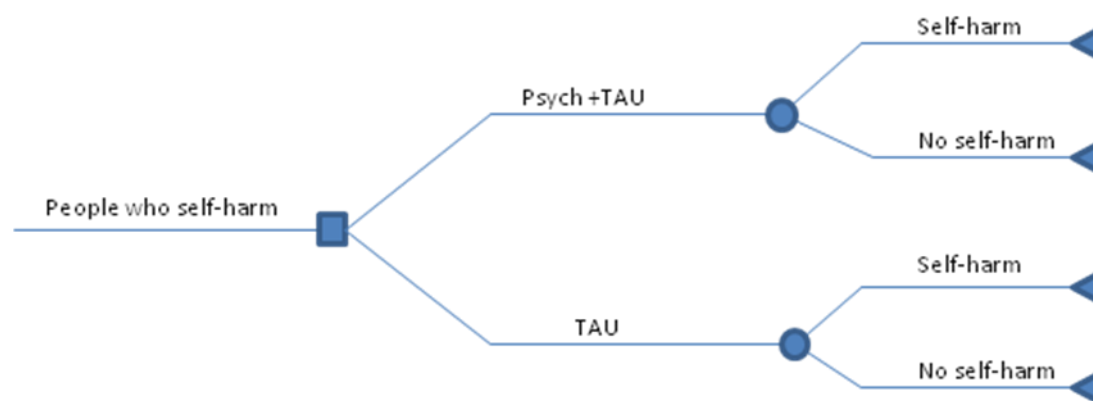
Intervention considered in the analysis

The economic analysis considered interventions that were shown to be effective in reducing the number of self-harm repeat episodes according to the systematic review and meta-analysis of the clinical evidence. The Guideline Development Group (GDG) identified a more realistic psychosocial intervention for reduction of repetition of self-harm episodes to consist of 6 sessions delivered by a skilled and competent mental health worker with each session lasting for 60 minutes while the treatment as usual (TAU) was described to consist of a basic treatment provided by the Community Mental Health Team to service users who self-harm after the initial hospital management of associated acute physical and/or mental health problem. For the group receiving psychosocial interventions, TAU is considered as a baseline intervention with psychosocial intervention serving as an additional intervention. The psychosocial intervention is delivered either at the service user's home or in a clinic.

Model structure

Based on the available clinical effectiveness and relevant outcome data from the systematic review, a simple decision tree was constructed using Excel workbook 2007. According to the model structure, hypothetical cohorts of people aged 8 years and above who self-harm were provided with either psychosocial intervention and TAU or TAU alone. People in each cohort either self-harmed after treatment, or were prevented from self-harming. Given the reported cost interval of 6 months for care of an episode of self-harm (Sinclair *et al.*, 2010b), a 6-month time horizon was taken in assessing costs and effects associated with each intervention compared. A schematic diagram of the decision tree is provided in Figure 3 below.

Figure 3: Model Decision Tree



Costs and outcomes considered in the analysis

The economic analysis adopted the perspective of the NHS and personal social services, as recommended by NICE (2009d). Costs consisted of intervention costs (psychosocial intervention) and costs of treating a repeat episode of self-harm. The cost of TAU was not considered in the analysis, as this was common to both arms of the model. The measure of outcome was the number of people prevented from a repeat episode of self-harm.

Clinical input parameters

Clinical input parameters consisted of the relative risk (RR) of repetition of self-harm associated with provision of a psychosocial intervention compared with TAU, and the baseline risk of repetition of self-harm following TAU alone. Data were derived from the guideline systematic literature review and meta-analysis of clinical evidence. In the base-case analysis, the economic model used the outcome measure assessed at last follow-up period as agreed by the GDG.

Cost data

Cost of psychosocial intervention: The cost of intervention was estimated based on the descriptions of resource use identified from the psychosocial intervention studies

included in the systematic review, confirmed by the GDG to be consistent with clinical practice in the UK. The psychosocial intervention is a brief psychological therapy consisting of 6 sessions which is provided by a nurse (mental health) specialist with each session lasting for 60 minutes. To estimate the intervention cost, the unit cost of a nurse specialist per hour of client contact reported in Curtis (2010) as £91 per hour was used. Calculation of this unit cost was based on the median full-time equivalent basic salary for Agenda for Change Band 6 of the January-March 2010 NHS Staff Earnings for qualified Nurses. The estimation also included the salary oncosts, qualification costs, overheads and capital overheads (Curtis, 2010). Adjustment was made for those intervention provided at service user's home by adding the cost of travel time to hourly cost of client contact. The total mean cost of the psychosocial intervention was then estimated as the average cost of both home-based and non-home-based psychosocial interventions by multiplying the quantity of resource use by the respective unit costs. Table 30 provides details on the estimation of the average intervention costs.

Table 30: Summary of the average costs of psychosocial intervention

Intervention	Resource use	Sessions (A)	Measure of resource use	Unit cost (B)	No of hour (s) per session (C)	Valuation (A*B*C)	Reference
Home-based Psychosocial intervention	Nurse specialist's time	6	Per hour of client contact	£91	1	£546	Curtis, 2010 ; GDG expert opinion
	Nurse specialist travel time	6	Per visit	£1.5	-	£9	Curtis, 2010
					Total for Home-based	£555	
Non-home-based psychosocial intervention	Nurse specialist's time	6	Per hour of client contact	£91	1	£546	Curtis, 2010

					Average cost of psychosocial intervention (Home-based and non-home based)	£550.5	
--	--	--	--	--	---	--------	--

Cost of self-harm: The estimation of cost incurred by a service user following an episode of self-harm was based on a retrospective cost analysis by Sinclair and colleagues (2010b), conducted in the UK. This cost study estimated costs following an episode of self-harm from the perspective of NHS and PSS with a mean follow-up period of 10.9 years which was divided into 6-month cost intervals. Among the 150 participants recruited into the cost study, 78 service users with available resource use in each time period were analysed. Resources measured in the study included primary care services, emergency department services, hospital services like medical and surgical inpatient bed days, outpatient consultations, laboratory investigations, and inpatient psychiatric care. Other resources included were the outpatient psychiatric care, psychotropic prescriptions, social service visits and social service residential placements. The cost estimate was reported as cost per episode of self-harm per 6-month interval and was in 2004/05 price year as £2,994. This estimate was inflated to £3,499 (2010 price year) using Hospital and Community Health Services pay and price inflator (Curtis, 2010). The cost incurred by people prevented from future episodes of self-harm after receiving a psychosocial intervention or TAU was deemed to be negligible, according to the GDG expert opinion. Table 31 provides the details of the clinical and cost input parameters described above with their probability distributions.

Table 31: Summary of the input parameters of the economic model

Parameter	Distribution	Point estimate	Probability distribution	Reference and comment
Baseline risk of repetition of self-harm	Beta	0.33	Alpha=211 Beta= 437	Self-harm Repetition Risk pooling following TAU alone (from 9 meta-analysed studies)
Relative risk (RR)	Log normal	0.76	95% CIs: 0.61 to 0.96	Meta-analysis
Self-harm intervention cost	Gamma	£550.50	Alpha= 6.25 Beta= 88.08	CURTIS, 2010.; price year 2010
6 monthly cost of self-harm episode	Gamma	£3499	Alpha= 2.78 Beta= 1259.72	Sinclair <i>et al.</i> , 2010b; price year 2010

Data analysis and presentation of the results

Two methods were employed to analyse the input parameter data and present the results of the economic analysis.

First, a *deterministic* analysis was undertaken, where data are analysed as point estimates; results are presented as mean total costs and outcomes associated with each intervention. Subsequently, an incremental cost effectiveness ratio (ICER) was calculated, expressing the additional cost per additional unit of benefit associated with one intervention relative to its comparator. Estimation of such a ratio allows consideration of whether the additional benefit is worth the additional cost when choosing one treatment option over another. Alternatively, if one intervention is less costly and more effective than its comparator, then this is obviously the most cost-effective option (*dominant*) and no ICER needs to be calculated.

To test the robustness of the results under different scenarios, one-way and two-way sensitivity analyses were done. The following scenarios were explored:

- A high resource intense scenario comprising of 12 psychosocial sessions delivered by a band 7 clinical psychologist was considered to reflect the possible variations in resource inputs and the associated incremental cost-effectiveness ratio.
- A scenario of 50% variability in the cost of self-harm from Sinclair and colleagues (2010b) was tested to examine the effect on the ICER level since the reported cost of self-harm estimate has wide standard deviation around the mean cost.
- A scenario of 50% variability in cost of intervention was considered to test for the possibility of having a wide variation in the unit cost of home contact with client by a mental health nurse as this was not reported in the Personal Social Service Research Unit (PSSRU) unit cost reference (Curtis, 2010)
- It was assumed that people prevented from self-harming following a psychosocial intervention incurred a negligible future cost. The possibility that these people may incur some cost such as subsequent 4 GP visits (per clinic consultation lasting 17.2 minutes is £53 inclusive direct care cost (Curtis, 2010) was tested to examine the implication of such extra cost on the ICER level.
- Variations in the effectiveness of the psychosocial intervention using the upper and lower values of 95% confidence interval of the relative risk and baseline risk of repetition of self-harm episodes was also tested.

In addition to deterministic analysis, a probabilistic analysis was also conducted. In this case, all model input parameters were assigned probability distributions (rather than being expressed as point estimates), to reflect the uncertainty characterising the available clinical and cost data. Subsequently, 10,000 iterations were performed, each drawing random values out of the distributions fitted onto the model input parameters. This exercise provided more accurate estimates of mean costs and benefits for each intervention assessed (average results from the 10,000 iterations), by

capturing the non-linearity characterising the economic model structure (Briggs *et al.*, 2006).

The baseline risk of repetition of self-harm following a TAU was assigned a beta distribution and the relative risk of repetition of self-harm following a home-based psychosocial intervention compared with TAU alone was assigned a log-normal distribution. The costs estimates were assigned a gamma distribution with the upper and lower range values calculated from wide standard errors around the mean costs to account for the high variability associated with costs estimates. See the details of the types of distribution assigned to each input parameter and methods employed to define their range in Table 31.

Results of probabilistic analysis are presented as mean costs and effects derived on 10,000 iterations, as well as in the form of cost-effectiveness acceptability curves (CEAC), which demonstrate the probability of each intervention being cost-effective at different levels of willingness-to-pay per unit of effectiveness (that is, at different cost-effectiveness thresholds the decision-maker may set).

Results of economic modelling

From the deterministic analysis, the incremental cost-effectiveness ratio (ICER) was evaluated as £3,545 per additional person prevented from repetition of a self-harm episode. This means that for each additional person prevented from repeating an episode of self-harm by choosing a psychosocial interventions plus TAU instead of TAU alone, an additional cost of £3,545 will be incurred. This finding is relatively similar to a more consistent result of probabilistic analysis with an ICER of approximately £3,745 per additional person prevented from repetition of self-harm episode.

Table 32 provides mean costs and the proportion of people prevented from self-harming associated with each intervention assessed in the analysis. The expected mean costs per person from the probabilistic analysis in the psychosocial intervention plus TAU arm was £1,411 and the respective TAU alone was £1124, and the proportion of people prevented from self-harming was 0.75 and 0.67 following the psychosocial intervention and TAU, respectively.

Table 32: Incremental Cost-effectiveness analysis from probabilistic simulations

	Proportion of people prevented from self-harm (95% CI)	Expected cost per person (£) (SD)	Incremental effect (Proportion of people prevented from self-harm)	Incremental cost (£)	ICER (£/additional person prevented from self-harm)
TAU	0.6741(0.6738, 0.6745)	1123.70 (672.58)	-	-	
Psych+TAU	0.7507 (0.7501, 0.7514)	1410.58 (573.62)	0.0766	286.88	3,745.05

Sensitivity Analysis

Deterministic sensitive analysis: The result of the deterministic sensitivity analysis as shown in Table 33 demonstrated that ICER value is fairly robust across most of the range values of the parameters tested. However, the ICER value was highly sensitive to variations in the intervention costs and relative risk of repetition of self-harm. For the resource intense scenario, the ICER estimate was about 3 fold higher compared with that of the realistic option. Less sensitive to the result estimate were the subsequent costs incurred by people prevented from future episodes of self-harm and baseline risk of self-harm following TAU alone.

In two-way sensitivity analysis, different combinations of the intervention cost and relative risk of self-harm repetition gave a rather varied ICER estimates when compared to the baseline ICER value. This shows that with the combinations of different values of cost of intervention and relative risk, the result estimate is yet highly sensitive to the two parameters.

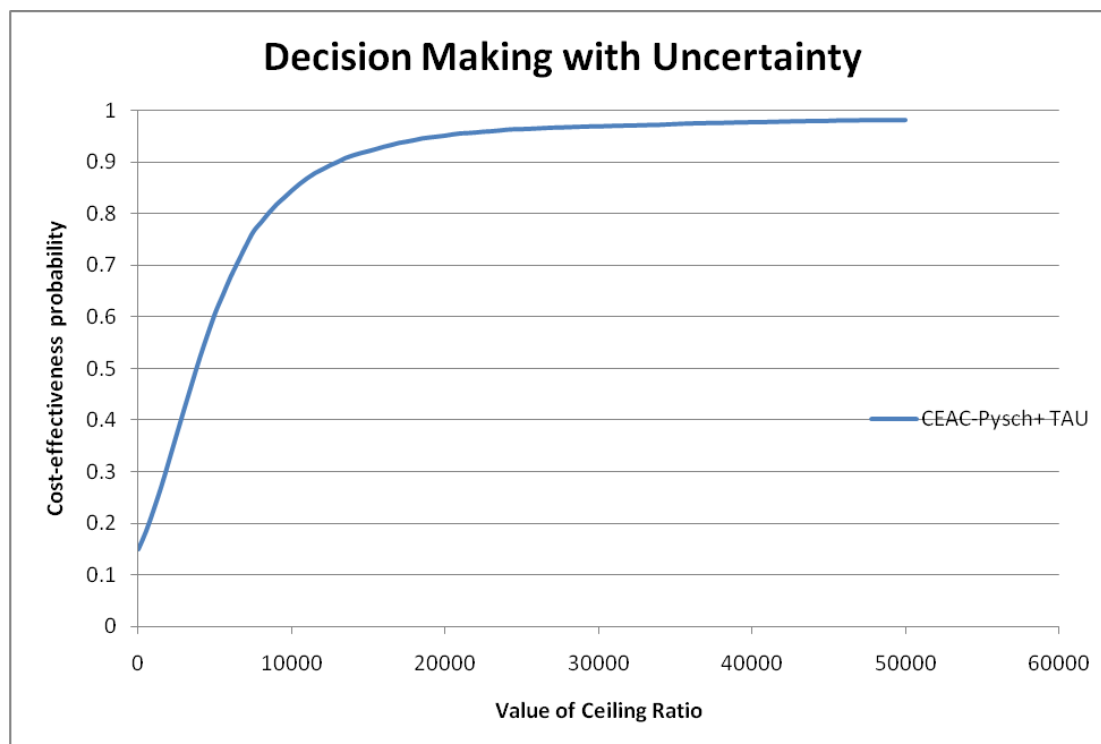
Table 33: Deterministic Sensitivity Analysis

One way sensitivity analysis			
Parameter	Description	Range values	ICER
Baseline mean estimate of ICER			£3,545
Resource intense scenario	Cost of 12 sessions by a clinical psychologist, band 7	£1149	£11,204
Intervention costs	50% variability	£275 to £826	£23 to £7,067
Cost of "no self-harm"	0 to 4 GP clinic visit at £53 per visit	£0 to £212	£3,545 to £3,757
Cost of self-harm	50% variability	£1,749 to £5249	£5,294 to £1,795
Relative risk (0.76)	95% CI range	0.61 - 0.96	£836 to £38,767
Baseline risk (0.33)	95% CI range	0.29 - 0.36	£4,410 to £2,872
Two way sensitivity analysis			
Intervention costs and RR	50% increase in intervention cost and lower CI of RR	£826 & 0.61	£3,003

Intervention costs and RR	50% increase in intervention cost and upper CI of RR	£826 and 0.96	£59,900
Intervention costs and RR	50% decrease in intervention cost and lower CI of RR	£275 & 0.61	Dominant
Intervention costs and RR	50% decrease in intervention cost and upper CI of RR	£275 & 0.96	£17,634

Probabilistic sensitive analysis: The result of the probabilistic sensitive analysis presented as Cost-effectiveness Acceptability Curve (CEAC) in Figure 4 below shows the likelihood that a chosen intervention will be cost-effective relative to the alternative option at various level of willingness to pay threshold (value of ceiling ratio). For example, at willingness to pay threshold of £4,000 and above, the probability that psychosocial intervention plus TAU will be cost-effective if implemented ranges from 52% to 98%.

Figure 4: Cost-effectiveness acceptability curve



Discussion

The economic analysis undertaken examined the cost effectiveness of psychosocial intervention as an additional intervention to TAU compared with TAU alone. The result of the economic modelling showed that to prevent an additional person from repeating an episode of self-harm by choosing sessions of psychosocial intervention delivered by a nurse specialist instead of TAU alone, the NHS will be incurring an additional cost of £3,745. Also demonstrated by this analysis was that the psychosocial intervention plus TAU has a greater likelihood of being cost-effective compared to TAU alone at various willingness to pay (WTP) levels of £4,000 and

above. Hence, choosing the assessed psychosocial intervention will depend more on the service provider's level of willingness-to-pay for an additional person prevented from self-harm repetition.

An important point in this analysis is the resources used to deliver the psychosocial intervention. The model analysed a realistic option as noted by the GDG comprising of 6 sessions delivered by a skilled and competent nurse. Nevertheless, some of the reviewed studies described a varied sessions of up to 12 sessions delivered by a clinical psychologist. Though the benefit of extra sessions and service delivery by a clinical psychologist could not be ascertained from the reviewed studies, it may be worth examining further to identify the advantages and/or possible disadvantages of such intensive option. However, from the sensitivity analysis in Table 33, such an intensive option may be incurring a 3-fold cost increment compared to the realistic option should the benefit of the two options be similar.

Limitations of the analysis

The major issue that may limit the usefulness of this analysis is non-availability of QALYs estimates. Nevertheless, from the reported potential gain of more QALY following TAU compared to QALY less gained following a cognitive oriented MACT intervention in the study by Byford and Colleagues (2003), it is uncertain whether QALY gain or loss is a useful measure of outcome in long-term self-harm management. In the same study, the authors were of opinion that self-harm as a coping mechanism may be associated with improvement in quality of life than other measures used to prevent it.

Another limitation is variation in the modalities of psychological interventions among the studies included in the meta-analysis. Though the probabilistic method used in this analysis accounts substantially for the associated uncertainties, it is important to interpret the result of this analysis with caution especially in relation to the cost of intervention and the relative risk.

7.1.10 From evidence to recommendations

Based on the clinical review summary, there is some evidence showing clinical benefit of psychological interventions in reducing repetition of self-harm episodes, compared with routine care. However, there is considerable uncertainty and heterogeneity with respect to the population, treatment length and treatment modality and settings, which lowers the quality of the evidence. Interventions in the analysis included cognitive-behavioural, psychodynamic, or problem-solving elements. The number of sessions in studies varied with an average of 6 sessions. Therapists in these studies were experienced in working with people who self-harm. They worked collaboratively with service users to identify problems causing distress, or factors maintaining their self-harm.

With reference to the limitations of the health economic analysis in Section 7.1.9, there is need for further research to determine the extent of the benefit of intense

psychosocial intervention, usefulness of QALY as an outcome in self-harm interventions, and the effect of the settings in which the intervention is delivered. Moreover, there are no QALY outcomes measured in the health economic literature, which makes the interpretation of the results difficult.

In light of the clinical and health economic evidence, health and social care professionals may consider providing psychological interventions specifically structured for people who self-harm.

7.2 RECOMMENDATIONS

Interventions for self-harm

7.2.1.1 Consider offering six sessions of a psychological intervention specifically structured for people who self-harm with the specific aim of reducing self-harm. The intervention may include cognitive-behavioural, psychodynamic or problem-solving elements. Therapists should have significant experience of working with people who self-harm, and be able to work collaboratively with the person to identify the problems causing distress or leading to self-harm.

7.2.1.2 Provide psychological, pharmacological, and psychosocial interventions for any associated conditions as described in the relevant NICE guidelines, for example:

- borderline personality disorder (NICE clinical guideline 78)
- depression (NICE clinical guideline 90)
- bipolar disorder (NICE clinical guideline 38)
- schizophrenia (NICE clinical guideline 82)
- alcohol misuse (NICE clinical guideline 115)
- drug misuse (psychosocial interventions or opioid detoxification) (NICE clinical guidelines 51 and 52).²²

7.3 RESEARCH RECOMMENDATIONS

7.3.1.1 The clinical and cost effectiveness of psychological therapy with problem-solving elements, compared with treatment as usual, for people who self-harm

For people who have self-harmed, does the provision of a psychological therapy with problem-solving elements, compared with treatment as usual, improve outcomes? What is the differential effect for people with a past history of self-harm, compared with people who self-harm for the first time? This question should be answered using a well-conducted randomised controlled trial. Consider six sessions of psychological therapy with problem-solving elements, delivered immediately after discharge for the index episode of self-harm. The

²² This recommendation also appears in section 8.5 where the pharmacological data is presented.

therapist should be trained and experienced in working with people who self-harm. Participants' history of previous self-harm, methods used and psychiatric history should be noted. Primary outcomes should include both hospital-reported and self-reported repetitions of self-harm. Other important outcomes, such as quality of life, depressive symptoms, service users' experience and adverse events (for example, distress or exacerbation of symptoms associated with therapy), should be included. The study design should take into account the complex motives that underpin self-harm. Studies needs to be large enough to determine the intervention's costs and cost effectiveness.

Why this is important

Although review of the research evidence suggests that psychological therapy with problem-solving elements offers promise, it is not clear which components are the active ingredients of any such intervention, or whether such an intervention is effective for people with a past history of self-harm compared with those who have self-harmed for the first time. Further, only a few studies have looked at a broad range of outcomes for different populations who self-harm.

7.3.1.2 The clinical effectiveness of low-intensity/ brief psychosocial interventions, compared with treatment as usual, for people who self-harm who dropped out of previous treatment

For people who self-harm who dropped out of previous treatment, does the provision of potentially cheap low-intensity/brief psychosocial interventions, compared with treatment as usual, improve outcomes? This question should be answered using a well-conducted randomised controlled trial. Consider using a variety of approaches, including postcards, emergency cards, phone calls, or the use of electronic media in community mental health settings. The outcomes should include service users' engagement and experience, and hospital-reported and self-reported repetitions of self-harm. Other important outcomes, such as quality of life, depressive symptoms and adverse events (for example, distress or exacerbation of symptoms associated with contact with services), should be included.

Why this is important

People who drop out of treatment are at greater risk of continuing self-harm and completed suicide. If acceptable, alternative approaches, such as the low-intensity contact interventions indicated above, can be relatively easily and widely implemented, with the potential to improve outcomes, at relatively low cost, in individuals who may be otherwise difficult to engage.

7.4 HARM REDUCTION

7.4.1 Introduction

The most desirable outcome for the treatment and care of people who self-harm would be to permanently stop self-harming, recover from any underlying psychiatric disorder and to have a good quality of life. For some people not self-harming may not be immediately attainable. Moreover, for some individuals who self-harm, this may not be possible in the medium to long term and there are individuals for whom self-harm functions to prevent suicide. For many people who self-harm, there will be a period in which the aim of treatment will be to reduce harm to the individual, either by reducing the frequency of self-harm, or reducing the harm associated with acts of self-harm.

This approach to harm reduction has been tried with significant success in helping people with substance misuse (including drug, alcohol, and smoking), and in relation to sexual activity ('safe sex') to prevent transmission of HIV and other sexually transmitted diseases. Indeed, harm reduction has been an acceptable, secondary aim of treatment in a broad range of chronic medical conditions where cure is either not possible or not immediately attainable. The application of this approach to self-harm has been controversial. The GDG nevertheless took the view that harm reduction should be considered in line with the above. In addition, the GDG decided to review the evidence available on the specific approach to harm reduction termed "harm minimisation".

7.4.2 Harm minimisation: definition

The term 'harm minimisation' has been used in a number of ways. For example, Pembroke describes "Harm minimisation is about accepting the need to self-harm as a valid method of survival until survival is possible by other means. This does not condone or encourage self-injury but is about facing the reality of maximising safety in the event of self-harm" (Pembroke, 2007). For some people, self-harm is a way of taking control (see Chapter 4); and treatment regimes that focus on removing control by enforcing abstinence may be counterproductive or even dangerous. For some people, harm minimisation rather than abstinence may be a more realistic goal.

Harm minimisation is sometimes described as "harming oneself safely" (e.g. using a sterile, sharp blade to cut, being aware of the location of veins and arteries, see for example National Self-harm Network, 2000), but many health and social care professionals may find this concept troubling. One concern is that by highlighting the dangers of certain activities, staff may actually be alerting service users to them. Understandably, staff can be worried that this may be seen as condoning or endorsing harmful behaviours. It is widely agreed, however, that poisoning with any substance cannot be done "safely": there is no safe way of self poisoning (NICE, 2004).

7.4.3 Clinical review protocol

The review protocol, including the review questions, information about the databases searched, and the eligibility criteria used for this section of the guideline, can be found in Appendix 8. Further information about the search strategy can be found in Appendix 9.

Review question	For people who self-harm, does the provision of self management and/or harm reduction strategies, compared with no treatment or treatment as usual, improve outcomes?
Electronic databases	CINAHL, EMBASE, MEDLINE, PsycINFO
Date searched	All literature to 25 Jan 2011
Study design	N/A
Patient population	Self-harm population
Intervention(s)	Harm reduction strategies (such as replacement therapy, positive emotion technique etc)
Comparison	N/A
Critical outcomes	Repetition (reduction in frequency or severity)

7.4.4 Studies considered²³

The search strategy generated 4,747 references, in which titles and abstracts were sifted by the technical team. Full papers were retrieved where team members regard them with potential relevance. However, there were no RCTs, no cohort studies that meet our criteria.

The GDG therefore selected 3 publications that would help to illustrate some different approaches to harm reduction in the context of self harm. One paper looked at the different attitudes amongst healthcare professionals in a locality and within national professional organisations to a harm minimisation handbook. The second approach involved teaching adolescents techniques on how to cope better when the urge to self harm occurred so as prevent self-harm, backed up by a process of ward exclusion in the event of self harm. The final study describes using a 'Positive Risk Taking' approach in a female forensic service. These studies do not constitute evidence in our terms.

Narrative review

Pengelly and colleagues (2008) developed a handbook for people who repeatedly self-harm, to encourage collaboration between service users and front-line health professionals. The *Alternatives to Self-harm Handbook* (Pengelly & Ford, 2005) was designed for use within the Selby and York Primary Care Trust. It gives factual information about self-harm, helps identify support networks, and covers areas such as understanding why people self-harm types of therapy of possible benefit and techniques for problem-solving. The booklet also provides advice on harm

²³ Here and elsewhere in the guideline, each study considered for review is referred to by a study ID in capital letters (primary author and date of study publication, except where a study is in press or only submitted for publication, then a date is not used).

1 reduction, including alternative behaviour to help distraction from the urge to self-
2 harm, and some advice on damage limitation.

3
4 Alternative behaviours suggested to help distract a person from the urge to self-
5 harm included pinching , squeezing an ice cube for a short time, using rubber bands
6 'snapping' them on one's wrist, exercising, yoga, kicking and punching something
7 soft such as a pillow.

8
9 Advice on damage limitation techniques included using a clean and sharp blade,
10 avoiding cutting areas near major veins and arteries not sharing instruments used to
11 self-harm so as to avoid infections, and to ensure each person had tetanus protection.
12 The approach also included having access to first aid and a basic knowledge of
13 medical care; avoiding alcohol/drug use in association with self harm as this may
14 lead to more severe wounding; , and finally, to focus on reducing the severity and
15 frequency of episodes..

16
17 This paper reports feedback received about the handbook, from service users,
18 mental health professionals and a solicitor from the York and Selby Primary Care
19 Trust. The Royal College of Psychiatrists and the Nursing and Midwifery Council
20 were also approached for their comments and views.

21
22 Service users were pleased with the handbooks advice on harm reduction as they felt
23 it was encouraging a shift in attitude of professionals who expect service users to
24 stop self-harm completely: reducing the frequency and severity of self-harm was
25 considered a more realistic goal.

26
27 Local healthcare professionals expressed a range of views. For example a psychiatrist
28 expressed the view that service users should decide on which alternatives should be
29 considered. A psychodynamic therapist thought the handbook misunderstood the
30 nature of self harm as an act aimed at harming/hurting oneself; and that harm
31 reduction was missing this point. Moreover, advising on alternative forms could
32 raise legal issues as it may be seen as encouraging self-injury. These behaviours
33 could be misinterpreted or used in excess and are still harmful as they could cause
34 bruising or bleeding, such as if you snap rubber bands on your skin or pinch the skin
35 instead if cutting it. It is more important to understand the meaning of self-harm
36 and the motivation behind it for that individual.

37
38 Perhaps unsurprisingly, the legal view of the handbook from the trust solicitor drew
39 attention to possible legal challenges if it was implemented, but did acknowledge
40 that telling a person not to self-harm, or threatening detention is often unrealistic.
41 The Nursing and Midwifery Council underlined the need for practitioners to consult
42 with a wider clinical team before decisions are made and follow the Code of
43 Professional Conduct. The Royal College of Psychiatrists stressed the importance of
44 a full psychosocial assessment along with offering a comprehensive care package to
45 service users. It is important to note that this handbook was not intended to be a self-
46 help book but to be used as part of a comprehensive care plan.

Livesey (2009) conducted a pre-post design study set in an acute psychiatric inpatient and day patient unit for adolescents who self-harm by cutting or overdosing. The interventions used in this study were two-fold. Firstly, they introduced introduction of a 'no self-harm' policy, also described as a therapeutic contract. The failure to comply with the no self-harm policy resulted in immediate suspension from the unit. Subjects were then called back for an interview with their care giver, to reconsider negotiating their therapeutic contract. Failure to comply a second time would result in discharge from the unit. Secondly, staff encouraged the use of alternative techniques such as ice, rubber bands and marker pens instead of sharp objects. They also encouraged the use of diaries, relaxation, distraction and other therapeutic interventions to address underlying distress and problems that an adolescent may have. The results reported that 2 weeks following the introduction of the new therapeutic regime, the mean number of self-harm episodes recorded per week fell from a 6 month baseline level of 1.2 (SD 1.3) to 0.2 (SD 0.59). There was no control group, the study was in a single unit and the numbers were small.

Birch and colleagues (2011) carried out an audit of self-harm and non fatal overdose seen in 45 women from the Women's Service, who had long-standing and complex mental health problems. The setting comprised of 3 units which the women resided in; a medium secure unit, a community ward and supported community flats. The study analysed the pattern and frequency of self-harm using a positive risk taking (PRT) approach. PRT uses both harm reduction and 'relational security' which is described as developing a relationship with a service user, where the healthcare professional and service user reach a psychological understanding of the meaning of self-harm to that individual and agree on a risk management plan. If the intention of self-harm was communicated, it was met by a response which was supportive but emphasised the importance of acting on feelings in other ways than self-harm. Communication by talking was encouraged in group or individual therapy sessions. The units reflected home-like environments with household objects that could be used to self-harm. Continuous observation was used but not one-to-one observation. The idea behind this approach was that self-harm is an individual's choice and it should not be stopped until other forms of expression are found. PRT aims to work with the self-harm rather than against it. During the study length of 6 years, data was collected from incidence forms that were completed in the unit (from 2004 to 2009). The results showed an overall decrease in the frequency of self-harm during admission and over time, across all 3 units. The study had no control group, had a small number of participants and was undertaken within a single service. The design was essentially an audit.

7.4.5 From evidence to recommendations

The GDG found no evidence to support or to contradict a harm reduction approach for people who self harm. However, the GDG took the view that the resistance to employing harm reduction approaches in this context had no evidential support

whilst there was significant evidence supporting harm reduction strategies in other areas of health care, most notably in the field of drug misuse. The GDG could not make broad generalised recommendations for harm reduction approaches for all people who self harm, but instead opted to, on the basis of GDG consensus, recommend tentative approaches to harm reduction for some people who self harm.

7.5 RECOMMENDATIONS

Harm reduction

7.5.1.1 Consider strategies aimed at harm reduction for people who self-harm.

Reinforce existing coping strategies and develop new strategies as an alternative to self-harm where possible.

7.5.1.2 If stopping self-harm is unrealistic in the short term, consider discussing less destructive or harmful methods of self-harm with:

- the service user, their family, carers or significant others²⁴ where this has been agreed with the service user, and
- the wider multidisciplinary team.

7.6 RESEARCH RECOMMENDATION

7.6.1.1 An observational study exploring different harm-reduction approaches following self-harm

A study should be carried out to investigate the different approaches to harm reduction following self-harm currently in use in NHS settings. This could use survey methodology with all, or a selected sample of, mental health service providers. Audit data should be used to provide a preliminary evaluation of potential utility. Promising interventions might be tested in small-scale pilot randomised controlled trials, which use frequency and severity of self-harm, and standard measures of distress and psychological symptoms, as outcome measures. Other outcomes such as quality of life, service users' experience and adverse events should be included.

Why this is important

Although cessation of the behaviour remains the treatment goal for many professionals providing care to people who self-harm, this may not be realistic or possible in the short term for some individuals. An alternative strategy for services is to reduce the severity and frequency of self-harm. Anecdotally, a variety of approaches to harm reduction are used in health service settings - for example minimising the physical harm associated with episodes or suggesting alternatives to self-harming behaviours. However, the extent to which such management strategies are used across services is uncertain, as is their effectiveness.

²⁴ 'Significant other' refers not just to a partner but also to friends and any person the service user considers to be important to them.

8 PHARMACOLOGICAL INTERVENTIONS

8.1 INTRODUCTION

Many people who self-harm take psychotropic medication (Murphy *et al.*, 2007), often as treatment for underlying conditions such as depression. However evidence for the efficacy of pharmacological interventions to reduce self-harm is lacking. Some research suggests that lithium and clozapine may have specific anti-suicidal properties (Cipriani *et al.*, 2005; Meltzer *et al.*, 2003). Other studies have reported that prescription of certain classes of antidepressants (for example SSRIs) may be associated with an increase in suicidal behaviour particularly in adolescents (Barbui *et al.*, 2009; Fergusson *et al.*, 2005). Those who self-harm are at increased risk of future episodes, including overdoses of medication. There are large differences in the toxicity of medication prescribed to people who self-harm (Hawton *et al.*, 2010).

Other NICE guidance discusses the pharmacological treatment of conditions that may be associated with self-harm (for example, NICE, 2009a; NICE, 2009b; NICE, 2009e). Our aim in the current chapter was to review the randomised controlled trial evidence specifically for pharmacological treatment of self-harm. Because of variation in the toxicity of medication we also include a discussion of studies which could help to inform safer prescribing practices.

8.2 PHARMACOLOGICAL INTERVENTIONS

8.2.1 Studies considered²⁵

An existing systematic review was identified (Hawton *et al.*, 2011) for which the authors made their data available to the NCCMH team. This review included 5 studies (HIRSCH 1982; MONTGOMERY 1979; LAUTERBACH 2008; BATTAGLIA 1999; HALLAHAN 2007). However, the GDG decided to exclude 2 studies (MONTGOMERY 1983 and VERKES 1998) because they looked at people who had a diagnosis of personality disorder. Pharmacological treatment options in the treatment of personality disorder are partly covered in the NICE Borderline Personality Disorder guideline (NICE, 2009e).

Additional systematic searches were undertaken to update the review. The last search was dated in January 2011. No additional studies that met inclusion criteria were found.

²⁵ Here and elsewhere in the guideline, each study considered for review is referred to by a study ID in capital letters (primary author and date of study publication, except where a study is in press or only submitted for publication, then a date is not used).

8.2.2 Clinical evidence for antidepressants versus placebo

One study compared antidepressants with placebo (HIRSCH1982). This was reviewed in the NICE guideline *Self-Harm: Short Term Management* (NICE, 2004) and there were no new studies identified for this comparison. Study characteristics can be found in

Table 34: Summary study characteristics of trials comparing antidepressants versus placebo

	Antidepressants versus placebo
Total no. of trials (N)	1 RCT (N=114)
Study ID	HIRSCH1982
Diagnosis	Not reported
Recruitment setting	Patients were admitted to hospital after deliberate self-poisoning
Treatment length	6 weeks
Country	UK
Prior history of self-harm	Not reported
Intervention	30-60mg mianserin or 75-150mg nomifensine
Control	Placebo
Note. N = Total number of participants.	

There was insufficient evidence to differentiate clinical effectiveness between treatment and placebo on the reduction of repetition during first 6 months of treatment (N=114; RR 1.6, 95% CI 0.63 to 4.04). There was insufficient evidence to determine the effect on death by suicide, or the acceptability of treatment.

Evidence from each important outcome and overall quality of evidence were presented in Table 34. The full evidence profiles and associated forest plots could be found in Appendix 15 and Appendix 16, respectively.

8.2.3 Clinical evidence for antipsychotic medication versus placebo or low-dose antipsychotic medication

Two studies included antipsychotics as one of their treatment arms (MONTGOMERY1979, BATTAGLIA1999). A narrative review for each study was included in the previous NICE guideline on Self-Harm (NICE, 2004) and no new studies had been identified since then. In MONTGOMERY1979, flupenthixol depot (20mg) or placebo was administered every 4 weeks for 6 months. In

BATTAGLIA1999, 12.5 mg of fluphenazine or 1.5 mg fluphenazine was administered once a month for 6 months. Study characteristics can be found in Table 35.

Table 35: Summary study characteristics of trials comparing antipsychotics versus other comparators

	Antipsychotic medication versus placebo or low-dose antipsychotic medication	
Total no. of trials (N)	1 RCT (N=37)	1 RCT (N=58)
Study ID	MONTGOMERY1979	BATTAGLIA1999
Diagnosis	Not reported	79% diagnosis of substance abuse, 35% mood disorder, 29% anxiety disorder.
Recruitment setting	Patients admitted to a general hospital following a suicidal act.	Patients presenting to a psychiatric hospital for suicide attempt.
Treatment length	6 months	6 months
Country	UK	USA
Prior history of self harm	All were repeaters	Suicide attempt within 30 days before study entry and at least 2 prior attempts
Intervention	20mg intramuscular flupenthixol decanoate/4 per week.	Low dose (12mg) fluphenazine decanoate.
Comparison	Placebo	Ultra low dose (1.5mg) fluphenazine decanoate.

There was limited evidence (MONTGOMERY1979) suggesting that there was statistically significant clinical difference between flupenthixol and placebo on reducing repetition of self-harm (N=37; RR=0.29, 95% CI 0.1 to 0.81). Despite the observed effect, a wide variability in the confidence interval was observed due to the small sample size. No statistically significant difference was found between groups regarding treatment compliance (N=37; RR=0.92, 95% CI 0.67 to 1.26). There were a total of 7 drop outs, 2 of which were due to Parkinsonian side effects, and other reasons were not specified. As a result, it was not possible to make a recommendation based on this single trial.

There was insufficient evidence (BATTAGLIA1999) to differentiate clinical effectiveness between 12.5mg and ultra low dose 1.5mg fluphenazine on reducing repetitions during 6 months after trial entry (N=53; RR= 1.28, 95% CI 0.65 to 2.52). There were no suicide deaths reported in either trial arm. It was also unclear how the different dosage reduced the likelihood of leaving treatment early (N=58; RR= 1.12, 95% CI 0.71 to 1.76).

8.2.4 Clinical evidence for other pharmacological medication versus placebo

Two studies (LAUTERBACH2008, HALLAHAN2007) included neither antidepressants nor antipsychotics as their treatment arms, and were narratively reviewed. In LAUTERBACH2008, lithium was administered using a fixed schedule of dose augmentation increased by 200mg per week for 3 to 4 weeks. At 1 year, the doses were reduced by half and discontinued at the 13th month. The majority of the participants had a diagnosis of depression. In HALLAHAN2007, participants were randomized to receive omega-3 fatty acid supplement (n=22) of 1.2g eicosapentaenoic acid (EPA) and 0.9g decosahexaenoic acid (DHA), or placebo for 12 weeks. Four identical capsules were given each morning to each group containing either an active ingredient or placebo. The active capsules contained a total dose which equaled to 2128mg/day of EPA plus DHA. Patients continued to receive psychiatric care. The majority of participants had a diagnosis of personality disorder. Study characteristics could be found in Table 36.

Table 36: Summary study characteristics of trials comparing other medications versus placebo

	Other medications versus placebo	
Total no. of trials (N)	1 RCT (N=167)	1 RCT (N=49)
Study ID	LAUTERBACH2008	HALLAHAN2007
Diagnosis	DSM-IV 76% had diagnosis of major depressive disorder, 19% adjustment disorder, 5% other. Comorbidity: 8% substance use disorder, 7% anxiety disorder, 34% personality disorder.	41% had diagnosis of alcohol misuse and 82% personality disorder
Recruitment setting	Patients presenting to the emergency department following a suicide attempt at one of 5 study centres.	Patients presenting to hospital after deliberate self-harm.
Treatment length	3-4 weeks	12 weeks
Country	Germany	Ireland
Prior history of self harm	44% were repeaters	All are recurrent repeaters
Intervention	Lithium 200mg per week	Omega-3 fatty acid supplement (EPAX 5500 capsules) plus usual psychiatric care
Comparison	Placebo	Placebo plus usual psychiatric care.

There were no statistically significant clinical differences between lithium and placebo on any reported outcomes (LAUTERBACH2008). There were no differences

in reducing repetition of self-harm at 12 months from trial entry (N=167; RR=0.99, 95% CI 0.36 to 2.69). There were no differences in terms of depression scores (measured by Hamilton Depression Rating Scale) at 3 months (SMD -0.05, 95% CI -0.42 to 0.33), 6 months (SMD 0.07, 95% CI -0.36 to 0.50) and 12 months (SMD -0.05, 95% CI -0.54 to 0.44). There were no differences in terms of Beck Hopelessness Scale at 3 months (SMD -0.1, 95% CI -0.49 to 0.3), at 6 months (SMD -0.12, 95% CI -0.67 to 0.42), and at 12 months (SMD -0.03, 95% CI -0.58 to 0.52). There were 3 cases of suicides in the placebo arm, and none in the treatment arm. However, these attempts occurred within the context of a depressive spectrum disorder. Several limitations should be noted: there were more people who had personality disorders ($p<0.05$) and multiple suicide attempts ($p<0.001$) in the lithium group and participants in the placebo group had higher baseline suicide ideation scores ($p<0.05$). Furthermore, the high proportion of participants lost to follow up (approximately 60%) might indicate the results were overestimated.

There was no statistical significant difference between omega-3 fatty acid supplement and placebo group during 12 weeks treatment when looking at repetition as an outcome (N=49; RR=1.23, 95% CI 0.51 to 2.97) (HALLAHAN2007).

There was limited evidence to show a small reduction in depression scores (N=49; SMD=-0.3, 95% CI -0.87 to 0.26). There was fewer participants in the treatment group reported suicidal ideation at 12 weeks after trial entry, compared with placebo (N=49; RR 0.47, 95% CI 0.24 to 0.9). There were slightly more participants (but not statistically significant) completing treatment (N=49; RR=1.17, 95% CI 0.88 to 1.54). A few limitations should be noted: at baseline, there were more married participants in the treatment group, and the depression scores in the treatment group were higher than the placebo group. These limitations might inflate the effects.

8.2.5 Clinical evidence summary

The evidence base for the pharmacological treatment for self-harm remains very limited since the publication of the previous NICE guideline *Self-Harm: Short Term Management* (NICE, 2004). With regards to the effects of antidepressants and antipsychotics on the reduction of self-harm behaviour, no new trials were identified. The clinical efficacy of these medications remains uncertain. The variations in the treatment lengths, follow up period, and participants' psychiatric diagnosis in these trials made it more difficult to warrant conclusions about the clinical effects of these medications.

There were two new trials looking at effects of lithium and omega-3 fatty acid supplement versus placebo. There was no evidence of reduction in repetitions in either trial. There might be a small improvement in a few symptom measures, however, these trials were too small to detect a statistical significant effect. There were baseline differences between groups in the two studies which might over estimate the clinical effects for some measures. Moreover, the population of these two studies had a high prevalence of psychiatric disorders (depressive disorder,

alcohol misuse and personality disorder), which might limit generalizability of the findings.

8.2.6 Health economic evidence

No evidence on the cost effectiveness of pharmacological interventions for the management of self-harm was identified by the systematic search of the economic literature. Details on the methods used for the systematic search of the economic literature are described in Section 3.6.1.

According to the guideline systematic review of clinical evidence, the clinical efficacy of pharmacological interventions for the treatment of self-harm is uncertain; therefore, no economic modelling was undertaken in this area.

8.3 SAFER PRESCRIBING

The issue of safer prescribing is not limited to treatment with psychotropic medications and is relevant to all prescribing to those with a known history of self-harm or who are at risk of self-harm. Prescribed medications may also be used to effect self-harm either as an end in itself, or as a consequence of use for other aims, for example the manipulation of, or neglect of insulin regimes to influence weight. The risks associated with the prescription of other potentially dangerous drugs such as warfarin should be assessed with reference to the health consequences of not prescribing and consideration of alternatives.

There have been wider public health measures to limit the volumes of potentially hazardous drugs in the population. Consideration of certain of these measures are beyond the remit of this guideline, but the recent limitation on prescription of co-proxamol has already been shown to result in fewer deaths from poisoning and suicides using coproxamol with no increase in those due to other analgesics (Hawton *et al.*, 2009).

Generally, prescription of potentially toxic psychotropic medications such as Lithium is undertaken in secondary care with close attention to the risks of overdose. The majority of antidepressants are prescribed in primary care. Commonly, the selective serotonin reuptake inhibitors (SSRIs) are regarded as being of low toxicity and knowledge of the variation within this group and differences between serotonin and noradrenaline reuptake inhibitors (SNRIs) and other antidepressants may not be widely appreciated.

8.3.1 Studies considered

A comprehensive search was conducted which resulted in 6183 references. Sifting was conducted by three members of the technical team based on the titles and abstracts of the references. Full texts of the papers of potential relevance were retrieved. Studies were excluded on the basis of the outcomes reported. Studies in which fatal toxicity index or case fatality index were reported were included. A total of 18 papers met these criteria, of which, the GDG decided to include only the most

recent papers. Due to the changes in regulatory policy and development of newer drugs over years, only papers published in the last 5 years were reviewed. AFSHARI2005, HAUKKA2009 and HAWTON2010 were included.

Toxicity is the primary outcome examined in the review. Toxicity can be measured by fatal toxicity index (FTI) or case fatality index (CFI). Fatal toxicity index is calculated by the number of deaths divided by the number of prescriptions of a particular drug. However, the interpretation of toxicity using FTI can be confounded by differential prescribing of drugs to particular groups of people (for example, people at highest risk of self-harm being preferentially prescribed particular medications). This is referred to as confounding by indication. Case fatality index is calculated by dividing the number of suicides divided by the number of fatal and non-fatal poisonings of a particular drug. CFI might be a more reliable indicator of toxicity because it partly accounts for this 'confounding by indication'.

8.3.2 Narrative review

AFSHARI2005

This study was conducted in Scotland, which aimed to look at relative toxicity of co-proxamol in overdose compared to co-codamol and co-dydramol. Prescription data, number of overdoses, and deaths relating to these popular paracetamol-opioid compound analgesics were collected. Co-proxamol was ten times more toxic compared with co-codamol or co-dydramol in terms of its fatal toxicity index, even after the differences in prescription data are accounted for.

HAUKKA2009

This study was conducted in Finland, which aimed to look at a national cohort of antidepressant users, and how it related to the risk of suicide from 1999-2003. Data included in the study were the participants' years of usage, and the number of suicides relating to that drug. Data were reported both by drug class and individual drugs. It was possible to calculate the fatal toxicity index for drug classes or individual drugs based on the data reported in the paper. This showed Tricyclic antidepressants (TCAs) were more toxic than SSRIs. When individual drugs were considered mirtazapine was most toxic, followed by venlafaxine, followed by moclobemide. It was unclear whether the data was accounted for confounding by indication. People at higher risk of self-harm might be prescribed a certain drug, which might not be accounted for in the calculation of fatal toxicity index.

HAWTON2010

This was an observational study of prescriptions and suicide by self-poisoning in the UK, which aimed to provide updated toxicity data of antidepressants to aid clinicians' decision making about prescriptions. Data included the death rate by suicide, prescriptions rate, and self poisoning rate for each individual antidepressant for people aged over 10 years from 2000-2006. Fatal toxicity index and case fatality index were then calculated. Data can be found in Appendix 16. The paper reported a very high correlation between the rankings of the results from fatal toxicity and case fatality index (which may be a more reliable indicator of potential toxicity because CFI accounted for confounding by indication). The findings showed that TCAs as a drug class was more toxic than SSRIs. Dosulepin and doxepin were the most toxic antidepressants in terms of its fatal toxicity and case fatality index. In addition, the paper reported venlafaxine was less toxic in overdose than other TCA drugs. It was, however, still more toxic than SSRIs. Although SSRIs generally had lower toxicity, not all drugs within the class were the same. There was a greater than three-fold variation in case fatality rates between individual SSRIs.

8.3.3 Clinical evidence summary

Three recent papers reviewed the toxicity of different drugs that were commonly used for self-poisoning (analgesics and antidepressants). These papers included different individual drugs in their comparison, hence it was not possible to synthesise the toxicity data across these studies. Nevertheless, a common finding could be concluded for antidepressants. Tricyclic antidepressants (TCAs) as a drug class were more toxic than selective serotonin reuptake inhibitors (SSRIs).

8.4 EVIDENCE TO RECOMMENDATION

There was insufficient evidence to determine whether the provision of pharmacological treatment would reduce the likelihood of repetition of self-harm. No new trials looking at antidepressants or antipsychotics had been identified. Hence, no recommendations could be drawn. It is suggested that healthcare professionals provide pharmacological interventions for any associated or underlying conditions as described in the relevant NICE guidelines. When prescribing drugs, toxicity of prescribed drugs in overdose should be taken into consideration. There was recent evidence suggesting TCAs as a drug class were more toxic than SSRIs. When clinicians are considering antidepressants, SSRIs might be preferred in those at risk of suicidal behaviour. In particular, the more toxic TCAs such as dosulepin should be avoided.

8.5 RECOMMENDATIONS

8.5.1.1 Do not offer drugs as a specific intervention to reduce self-harm.

Treating associated mental health conditions

8.5.1.2 Provide psychological, pharmacological, and psychosocial interventions for any associated conditions as described in the relevant NICE guidelines, for example:

- borderline personality disorder (NICE clinical guideline 78)
- depression (NICE clinical guideline 90)
- bipolar disorder (NICE clinical guideline 38)
- schizophrenia (NICE clinical guideline 82)
- alcohol misuse (NICE clinical guideline 115)
- drug misuse (psychosocial interventions or opioid detoxification) (NICE clinical guidelines 51 and 52).²⁶

8.5.1.3 When prescribing drugs for associated mental health conditions to people who self-harm, consider the toxicity of prescribed drugs in overdose. For example, when considering antidepressants, selective serotonin reuptake inhibitors (SSRIs) may be preferred because they are less toxic than other classes of antidepressants. In particular, do not use tricyclic antidepressants, such as dosulepin, because they are more toxic.

²⁶ This recommendation also appears in section 7.2 where the psychosocial data is presented.

9 CONSENT, CAPACITY, AND CONFIDENTIALITY

9.1 INTRODUCTION

The ongoing management of self-harm can be complex and the issues that arise when individuals refuse the treatment that healthcare professionals feel they need are especially difficult (David, 2010). Often healthcare professionals are unsure whether they should provide treatment to a person under these circumstances. Another important principle of care is confidentiality. There is a need to balance the protection of sensitive data with the appropriate sharing of information in order to ensure optimal care.

In this chapter we will focus on issues of consent and confidentiality. There are important overlaps between this chapter and Chapter 6 of the Self-harm Short Term Management Guideline (NCCMH, 2004). However, there have been significant legislative changes in the interim, particularly with respect to the introduction of the Mental Capacity Act 2005 (HMSO, 2005).

9.2 MENTAL CAPACITY

Mental capacity refers to the ability of an individual to make a decision (or take a particular course of action) at a time when it is needed (HMSO, 2007b). Capacity can change over time, for example if an individual's level of consciousness changes or they are under the influence of alcohol or drugs. It is also important to note that capacity may vary according to the decision that needs to be made. An individual may have capacity to make simple everyday decisions but may lack capacity to make more complex decisions about treatment. Assessment of capacity should therefore be made on a case by case basis.

9.2.1 Mental Capacity Act 2005

The Mental Capacity Act 2005 (HMSO, 2005) provides a legal basis to enable decisions to be made on behalf of those who lack the mental capacity to make decisions for themselves. The Act is based on principles previously established by individual legal cases (that is, 'common law'). All people aged 16 years and over are presumed to have capacity. Any decision made on behalf of someone who lacks capacity must be made in their best interests. The Act aims to balance an individual's right to make decisions for themselves with their right to be protected from harm. Text Box 2 summarises the five statutory principles of the Act (HMSO, 2007b).

Text Box 2: Five statutory principles from Mental Capacity Act Code of Practice

- A person must be assumed to have capacity unless it is established that he lacks capacity.
- A person is not to be treated as unable to make a decision unless all practicable steps to help him to do so have been taken without success.
- A person is not to be treated as unable to make a decision merely because he makes an unwise decision.
- An act done, or decision made, under this Act for or on behalf of a person who lacks capacity must be done, or made, in his best interests.
- Before the act is done, or the decision is made, regard must be had to whether the purpose for which it is needed can be as effectively achieved in a way that is less restrictive of the person's rights and freedom of action.

1 *Assessing capacity*

2 A person must receive sufficient information about the specific treatment that is
3 being offered and in a form that can be understood by him/her. Information must
4 be provided about the seriousness and the nature of problems that are associated
5 with the condition under question, and the consequences of not being treated.
6 Throughout assessment and treatment an attempt must be made to repeatedly
7 provide information when necessary and to obtain consent.

8
9 Any individual assessing capacity should do so as part of a two stage process, as
10 outlined in Text Box 3 (HMSO, 2007b).

11 12 **Text Box 3: two stages for assessing capacity from Mental Capacity Act Code of** 13 **Practice**

- Does the person have an impairment of the mind or brain, or is there some sort of disturbance affecting the way their mind or brain works? (It doesn't matter whether the impairment or disturbance is temporary or permanent.)
- If so, does that impairment or disturbance mean that the person is unable to make the decision in question at the time it needs to be made?

14
15 The Mental Capacity Act Code of Practice (HMSO, 2007b) also states that assessing a
16 person's ability to make an informed decision should take into account a number of
17 elements, as outlined in Text Box 4.

18 19 **Text Box 4: assessing ability to make informed decisions**

- Does the person have a general understanding of what decision they need to make and why they need to make it?
- Does the person have a general understanding of the likely

consequences of making, or not making, this decision?

- Is the person able to understand, retain, use and weigh up the information relevant to this decision?
- Can the person communicate their decision (by talking, using sign language or any other means)? Would the services of a professional (such as a speech and language therapist) be helpful?

1 *Who can make assessments of capacity?*

2 In practice, in most healthcare settings it will be the professional providing care for
3 the individual at the time the decision needs to be made who makes the assessment
4 of capacity. Multidisciplinary teams may be involved in the process but the final
5 decision must be made by the person proposing the treatment. There is no
6 prerequisite that the assessor must have mental health experience. More complex or
7 difficult decisions may require formal assessments of capacity by professionals (for
8 example psychiatrists, psychologists, social workers, occupational therapists).
9 Examples of complex decisions include: those with potentially serious consequences;
10 those where there is disagreement between family members and carers; those where
11 the person being assessed has expressed different views to different people or has
12 repeatedly made decisions that has put them at risk or caused harm (HMSO, 2007b).
13 Legal advice should be available to assessors through their NHS organisations.

14 **Factors that affect capacity**

15 Factors that can limit capacity include long-term mental illness or disability, or more
16 temporary factors such as impairment due to medication, drugs, alcohol, acute
17 illness, or emotional distress. In such circumstances, staff should decide whether the
18 treatment of a person should be withheld (if it is considered safe to do so) until the
19 person's full capacity returns.

20 **9.2.2 Advance decisions and statements**

21 Advance decisions indicate a person's treatment preferences in the event that they
22 lose the capacity to make decisions about their healthcare. They are an option
23 available in several countries. In England and Wales the Mental Capacity Act 2005
24 (HMSO, 2005) allows individuals aged 18 years and over who are capable of making
25 an informed choice to refuse specified medical treatment at a time in the future, even
26 if this might result in death. These refusals are referred to as 'advance decisions' in
27 the Mental Capacity Act and are legally binding (HMSO, 2007b). Although people
28 can make advance decisions to refuse treatment, there is no legal right to demand
29 specific treatment (either at the time or in the future). However, people can state
30 their preferences for treatment in the form of 'advance statements' which healthcare
31 professionals can take into account, but they do not carry the same imperative as
32 advance decisions.

34 Advance decisions should specify which treatment is to be refused and include as
35 much detail as possible regarding the circumstances under which the advance

decision will apply. They will only come into force once an individual has lost the capacity to make a particular treatment decision for themselves. Healthcare professionals need to be satisfied that an advance decision is valid and applicable and they should consult as widely as possible in order to establish this. Decisions may not be valid or applicable if the person concerned has done anything that clearly goes against their decision, has withdrawn their decision, has conferred the power to make a decision on an attorney, or would have changed their decision if they had known more about the current circumstances. The Mental Capacity Act Code of Practice (HMSO, 2007b) states that decisions to refuse life saving treatment must meet more stringent requirements (Text Box 5).

Text Box 5: advance decisions

If the advance decision refuses life-sustaining treatment, it must:

- be in writing (it can be written by someone else or recorded in healthcare notes)
- be signed and witnessed, and
- state clearly that the decision applies even if life is at risk

9.2.3 Young people

The Mental Capacity Act does not in general apply to children under 16, whose care and treatment will be determined by common law principles. Most provisions of the Mental Capacity Act apply to young people aged 16-17, with the exception of making advance treatment decisions (individuals need to be 18 years old and over to make advance decisions). If a young person aged 16-17 years has capacity and refuses treatment there may be difficulties if those with parental responsibility wish to consent on their behalf. The Family Division of the High Court can rule on such cases (HMSO, 2007b).

For those aged 16-17 who lack capacity, parents can consent on their behalf. However, it should be noted that healthcare professionals are able to provide treatment regardless of whether parental consent has been given as long as the principles of the Act are followed and the course of action is judged to be in the young person's best interests.

Healthcare professionals who have contact with young people should be aware of the Mental Health Act and Children Acts and how these relate to capacity and consent in young people.

9.2.4 Capacity and Advance Decisions in the context of self-harm

The ethical and practical issues raised by treatment refusals and advance decisions are complex, but are even more difficult in the context of suicidal behaviour. In clinical practice there is often sufficient doubt about an individual's capacity after self-harm to justify treatment. For example, if a person seems relatively calm in

making their decision to refuse treatment and expresses a wish to die by suicide, this could be rebutted by providing evidence that the person: does not understand the consequence of their decision; that their decision is influenced by another person; that their judgement is impaired by emotional distress, or that they are ambivalent about their decision. However, if the person in question is judged to be mentally capable of making a decision about whether or not to receive treatment, then this decision must be respected, even if it is at risk of causing permanent risk to that person's health or premature death.

With respect to advance decisions one of the most important questions is whether someone who has completed an advance decision refusing treatment should be allowed to die from the consequences of a suicidal act. The code of practice for the Mental Capacity Act states that health workers will be protected from liability for not providing treatment if they reasonably believe that a valid advance decision exists. However, it has also been argued that advance decisions to refuse treatment following episodes of suicidal behaviour raise a number of specific issues (Kapur, 2010b). It has been suggested that clinicians should proceed especially cautiously, in view of the acute distress, ambivalence, and changeability that often characterise suicidal thoughts and behaviour (Kapur, 2010b).

If an individual is detained under the Mental Health Act, physical healthcare can be administered as long as it is part of the treatment for the mental disorder and its consequences (HMSO, 2007b). If treating under the Mental Capacity Act staff must act in the person's best interest and within good medical practice. The use of minimal force or restraint should only be considered when immediately necessary and as a last resort.

9.3 PRINCIPLES INTO PRACTICE

Treatments for underlying psychological symptoms or psychiatric disorders will generally involve informed consent, or less commonly, administration under the Mental Health Act. General principles that healthcare professionals should take into account include:

- Offering comprehensive information about the intervention and any consequences if it is not carried out. In many cases, spending time with the individual, listening to their concerns, explaining the issues in a comprehensible fashion, and reducing the overall emotional tone of the situation, can lead to the individual making a decision to consent to treatment
- Not gaining consent through being coercive (e.g. threats to use the Mental Health Act if the person refuses)
- Involving family members and friends in decision-making, within the bounds of confidentiality. Healthcare professionals might also be advised to consult with colleagues (if appropriate) and come to a consensus as to the proper course of action. Making a decision in isolation should be avoided.

- Considering the content of any crisis card or advance decisions and statements
- Recording all actions and the reasons behind them.

9.4 CONFIDENTIALITY

Protecting the personal information of service users is a key principle in the provision of health services. Healthcare professionals have a legal and professional obligation to protect confidentiality, but there are circumstances in which personal information can be disclosed (General Medical Council, 2009) as outlined in Text Box 6.

Text Box 6: confidentiality

- If it is required by law (for example, by regulatory bodies, judges)
- If the patient consents implicitly for the sake of their own care (for example, disclosure to other members of the care team, or for local clinical audit) or if the patient consents specifically for other purposes (for example, disclosure, to employers, insurers, or benefit agencies)
- If it is justified in the public interest (for example to protect society or individuals from harm or to enable medical research or other uses of data that will benefit society over time)

For disclosures to be made in the public interest the risks posed by non-disclosure need to outweigh the risks posed by disclosure. One situation which may be particularly relevant to the management of self-harm is disclosure to protect the individual themselves. The General Medical Council guidance suggests that professionals should usually abide by a competent adult's refusal to consent to disclosure even if this decision leaves them (but no-one else) at risk of serious harm. Individuals should be encouraged to consent to disclosure under these circumstances, be warned of the possible consequences of non-disclosure, and given information about possible sources of help. However, disclosures without consent are permitted if non-disclosure exposes other people to a risk of death or serious harm (for example, in situations where a serious crime might be prevented or detected). Disclosures are also permitted in situations where individuals lack capacity, as long as this is in their best interests.

Sharing information with families is often a difficult issue, particularly so in the management of individuals who self-harm. It is important to establish with service users who they would like their information shared with and the circumstances under which this should occur. If a family member wishes to share their concerns about an individual, healthcare professionals should not refuse to discuss these on the basis of confidentiality. This information may be helpful in informing management. It should be made clear to the family members that the details of the conversation may be relayed to the individual themselves. However, before talking

to family members in this way, guidance suggests that professionals should consider whether the service users would regard such conversations as a breach of trust (GMC, 2009).

Confidentiality issues for children and young people

Issues of confidentiality are particularly challenging with young people who self-harm who have capacity yet refuse the involvement of their parents or carers in their treatment or refuse consent to disclose issues relating to their safety to their parents or carers. In these circumstances healthcare professionals need to weigh carefully the rights of the young person to confidentiality and the risk to the therapeutic relationship of a breach of confidentiality with providing the family and carers with sufficient information to enable them to appropriately protect and care for their young person. The younger the service user and the more risky or severe the self-harm the less justifiable a decision to maintain confidentiality may be considered to be. Healthcare professionals making these judgements are encouraged to discuss with a senior colleague and / or consult with the Named Doctor / Named Nurse for Safeguarding. If the healthcare professional decides on balance that a breach of confidentiality is warranted, involving the young person as much as possible in how and when this is done can mitigate some of the damage to the therapeutic relationship.

9.5 SAFE GUARDING

Although it is essential to work collaboratively with people who self-harm, it is also important to recognise that those dependent upon them may also need help, and sometimes protection, according to the Common Assessment Framework. The care co-ordinator or key worker may need to ensure that children's services are alerted to the need for assessment and possible help for the child. Similarly, when dependent or vulnerable adults are involved, the vulnerable adult may need to be assessed at home, the risks assessed and any necessary safeguarding procedures initiated.

Young people who self-harm may present safeguarding concerns either because of the nature of the social circumstances in which they live, for example, a young person caring for a parent with a chronic illness who self-harms daily by cutting to manage difficult emotions about their circumstances, or because of the frequent and potential lethality of their behaviour, for example, a young person who frequently ties ligatures around their neck and often stands on a local high bridge contemplating jumping off. Health professionals should consider both during initial assessment and treatment whether safeguarding concerns warrant involvement of other agencies. Often the Named Dr or Named Nurse for safeguarding as well as social services departments can provide advice. In circumstances where social circumstances are germane to the causation of the self-harm or where repeated self-harm is potentially lethal, multi-agency treatment plans may need to be developed. Such plans need to be based on a comprehensive assessment of the young person's health, educational and social needs. In endeavouring to serve the needs of young

people with complex needs, occasionally involvement of one agency may decrease the involvement of another or even in some circumstances precipitate their withdrawal. This is never helpful nor is it consistent with prioritising the needs of the young person. Health professionals may need to provide training to staff in other agencies to help them understand their role in supporting/helping a young person who self-harms as often self harm is medicalised solely as a mental health issue and wider contextual factors are either ignored or misunderstood.

Treatment is particularly challenging in the context where a young person is at high risk and where there is a need to balance their immediate safety with improving longer-term outcomes, which may require a degree of positive risk taking. In these situations, multi-agency involvement to agree the balance of risks and benefits of different treatment options may prove helpful in forming an intervention plan. These discussions must involve the young person and his or her family in decision making.

9.6 RECOMMENDATIONS

General principles of care

Consent and confidentiality

9.6.1.1 Health and social care professionals who work with people who self-harm should be trained to:

- understand and apply the principles of the Mental Capacity Act (2005) and Mental Health Act (1983; amended 1995 and 2007)
- assess mental capacity, and
- make decisions about when treatment and care can be given without consent.

1 **9.6.1.2** Be familiar with the principles of confidentiality with regard to information
2 about a person's treatment and care, and be aware of the circumstances in
3 which disclosure of confidential information may be appropriate and
4 necessary.

5 **9.6.1.3** Offer full information about the treatment options for self-harm, and make all
6 efforts necessary to ensure that the person is able, and has the opportunity,
7 to give meaningful and informed consent.

8 **9.6.1.4** Take into account that a person's capacity to make informed decisions may
9 change over time, and that sometimes this can happen rapidly in the context
10 of self-harm and suicidal behaviour.

11 **9.6.1.5** Understand when and how the Mental Health Act (1983; amended 1995 and
12 2007) can be used to treat the physical consequences of self-harm.

13 **9.6.1.6** Health and social care professionals who work with people who self-harm
14 should have easy access to legal advice about issues relating to capacity and
15 consent.

16 **9.6.1.7** Health and social care professionals who have contact with children and
17 young people who self-harm should be trained to:

- 18 • understand the different roles and uses of the Mental Capacity Act
19 (2005), the Mental Health Act (1983; amended 1995 and 2007) and the
20 Children Act (1989; amended 2004) in the context of children and
21 young people who self-harm
- 22 • understand how issues of capacity and consent apply to different age
23 groups
- 24 • assess mental capacity in children and young people of different ages.

25 They should also have access at all times to specialist advice about capacity
26 and consent.

27 **Safeguarding**

28 **9.6.1.8** CAMHS professionals who work with children and young people who self-
29 harm should consider whether the child's or young person's needs should
30 be assessed according to local safeguarding procedures²⁷.

31 **9.6.1.9** If children or young people who self-harm are referred to CAMHS under
32 local safeguarding procedures:

- 33 • use a multi-agency approach, including social care and education, to
34 ensure that different perspectives on the child's life are considered
- 35 • consider using the Common Assessment Framework²⁸; advice on this
36 can be sought from the local named lead for safeguarding children.

²⁷ www.safeguardingchildren.org.uk

²⁸ www.cwdcouncil.org.uk/caf

1 If serious concerns are identified, develop a child protection plan.
2

3 **9.6.1.10** When working with women who self-harm, consider the risk of domestic or
4 other violence or exploitation and consider local safeguarding procedures
5 for vulnerable adults; advice on this can be obtained from the local named
6 lead on safeguarding adults.

7

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- 41 **Appendices 1-17 are in separate files.**
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