

Gambling-related harms: identification, assessment and management

[G] Interventions for families and affected others

NICE guideline NG248

*Evidence review underpinning recommendations 1.7.1 and
1.7.2 and a recommendation for research in the NICE guideline
January 2025*

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Interventions for families and affected others

Review question

What is the effectiveness of interventions and approaches for reducing gambling-related harms for families, friends and others close to people who gamble?

Introduction

The families, friends and other people close to those who are experiencing gambling that harms (also known as 'affected others') can also be adversely affected or harmed by gambling. These harms can range from worry about the gambling-related harms and safety of their loved one, concerns about not knowing what to do or how to help, relationship difficulties and financial concerns. This in turn can lead to distress and an adverse impact on the affected other's mental health.

The aim of this review is to determine if there are any interventions or approaches which are effective at reducing these gambling-related harms for affected others.

Summary of the protocol

See Table 1 for a summary of the Population, Intervention, Comparison and Outcome (PICO) characteristics of this review.

Table 1: Summary of the protocol (PICO table)

Population	Families, friends and others (all ages) close to people (aged ≥ 18 years) who participate or have participated in harmful gambling.
Intervention	<ul style="list-style-type: none"> • Dedicated psychoeducation groups for affected others (for example, 5-Step Method) • Family and couples therapy (for example, Community Reinforcement and Family Therapy Approach [CRAFT]) • Financial management interventions for affected others • Individual psychotherapy and/or counselling • Interventions delivered in a child-accessible format (for example, play therapy) • Peer support and support groups for affected others (for example, Gam-Anon) • Residential respite care for affected others (support groups and so on)
Comparison	Interventions compared with each other or with: <ul style="list-style-type: none"> • Treatment as usual • No treatment (including wait-list controls) • Placebo or sham treatment (including attention control treatments)
Outcome	<p>Critical</p> <ul style="list-style-type: none"> • Personal, social and educational functioning (measured using validated scales such as the Work and Social Adjustment Scale or objective measures of school attendance). • Psychological wellbeing of affected others (measured using validated scales such as the Family Member Questionnaire from the 5-Step Method, Warwick-Edinburgh Well Being Scale and the CORE-10 score). • Quality of life of affected others (measured using validated scales such as EQ 5D and SF-12 and others specifically validated for use with children and young people). <p>Important</p>

- Measurement of symptoms of other conditions for affected others (for example, depression using validated tools such as the PHQ-9, or alcohol use using AUDIT).
- Relationship functioning (romantic, familial or platonic, measured using validated scales such as Marital Satisfaction Scale [MSS] and others specifically validated for use with children and young people)
- Satisfaction of affected others with the intervention (measured using validated satisfaction scales).

AUDIT: Alcohol use disorders identification test; CORE-10: Clinical outcomes in routine evaluation; EQ-5D: EuroQol health related quality of life (5 domains); PHQ-9: Patient health questionnaire-9; SF-12: 12-item short form survey

For further details see the review protocol in appendix A.

Methods and process

This evidence review was developed using the methods and process described in [Developing NICE guidelines: the manual](#). Methods specific to this review question are described in the review protocol in appendix A and the methods document (supplement 1: methods).

Declarations of interest were recorded according to [NICE's conflicts of interest policy](#).

Effectiveness evidence

Included studies

Five studies were included for this review, all of which were randomised controlled trials (RCTs) (Hodgins 2007, Magnusson 2019, Makarchuk 2002, Nayoski 2016, Rychtarik 2006). Three of the studies were conducted in Canada (Hodgins 2007, Makarchuk 2002, Nayoski 2016), 1 in Sweden (Magnusson 2019) and 1 in the US (Rychtarik 2006).

The included studies are summarised in Table 2.

Four studies based their interventions on the Community Reinforcement and Family Training (CRAFT) approach that was developed for families and friends of people with substance use disorders. One RCT compared an internet-delivered cognitive behavioural therapy (CBT) programme based on the CRAFT programme with a wait-list control (Magnusson 2019), 1 RCT compared a self-help manual based on the CRAFT approach plus standard care with standard care alone (Makarchuk 2002), and 1 RCT compared individual therapy sessions based on the CRAFT approach with a modified CRAFT self-help workbook (Nayoski 2016). The remaining study using a modified CRAFT approach was a three-arm RCT comparing standard care, a self-help workbook plus standard care, and a telephone calls plus a self-help workbook plus standard care (Hodgins 2007). One study compared individual counselling sessions on coping skills training with a wait-list control (Rychtarik 2006).

Data on the following outcomes were identified through analysis of the included effectiveness studies:

- Psychological wellbeing of affected others
- Quality of life of affected others
- Measurement of symptoms of other conditions for affected others
- Relationship functioning
- Satisfaction of affected others with the intervention.

See the literature search strategy in appendix B and study selection flow chart in appendix C.

Excluded studies

Studies not included in this review are listed, and reasons for their exclusion are provided in appendix J.

Summary of included studies

Summaries of the studies that were included in this review are presented in Table 2.

Table 2: Summary of included studies.

Study	Population	Intervention	Comparison	Outcomes
Hodgins 2007 RCT Canada Unclear funding source	<p>N=186 affected others of people experiencing harmful gambling</p> <ul style="list-style-type: none"> • n=61 self-help workbook plus standard care • n=65 telephone calls plus self-help workbook plus standard care • n=60 standard care <p>Age in years [Mean (SD)]: 45 (12.2)</p> <ul style="list-style-type: none"> • Age by treatment group, not reported. <p>Sex (n): M= 33, F=153</p> <ul style="list-style-type: none"> • Sex by treatment group, not reported. <p>Gambling symptom severity scale and score of people experiencing harmful gambling: Not reported, meeting DSM-IV criteria for pathological gambling (n): 179</p>	<p><u>Self-help workbook plus standard care</u></p> <p>A self-help manual informed by focus groups that had been conducted with affected others of people participating in harmful gambling, results from a previous RCT, and CRAFT framework. Participants also received the treatment resources as per standard care group.</p> <p><u>Telephone calls plus self-help workbook plus standard care</u></p> <p>Self-help manual as described above plus 2 x 30–40-minute phone call with clinical therapist at 2 weeks and 6 weeks for support and encouragement. Participants also received the treatment resources as per standard care group.</p>	<p><u>Standard care</u></p> <p>Treatment resource pack containing general information as well as treatment resources available in the local area.</p>	<ul style="list-style-type: none"> • Psychological wellbeing of affected others (at 3- and 6-months) • Relationship functioning (at 3- and 6-months)
Magnusson 2019 RCT Sweden Any	<p>N=100 affected others of people experiencing harmful gambling</p> <ul style="list-style-type: none"> • n=51 internet-delivered CBT programme • n=49 wait-list control 	<p><u>Internet-delivered CBT programme</u></p> <p>Developed from the CRAFT programme, supported by study counsellors using email and a weekly 15-minute</p>	<p><u>Wait-list control</u></p> <p>No further details reported.</p>	<ul style="list-style-type: none"> • Quality of life of affected others (at intervention completion [10 weeks]) • Measurement of symptoms of other conditions for affected others

Study	Population	Intervention	Comparison	Outcomes
industry funding	<p>Age in years [Mean (SD)]:</p> <ul style="list-style-type: none"> • Internet-delivered CBT programme: 48 (14) • Wait-list control: 43 (14) <p>Sex (n):</p> <ul style="list-style-type: none"> • Internet-delivered CBT programme: M=7, F=44 • Wait-list control: M=4, F=45 <p>Gambling symptom severity scale and score of people experiencing harmful gambling: Not reported</p>	telephone conversation.		<ul style="list-style-type: none"> ○ Depressive symptoms (at intervention completion [10 weeks]) ○ Anxiety (at intervention completion [10 weeks]) • Relationship functioning (at intervention completion [10 weeks])
<p>Makarchuk 2002</p> <p>RCT</p> <p>Canada</p> <p>Unclear funding source</p>	<p>N=31 affected others of people experiencing harmful gambling</p> <ul style="list-style-type: none"> • n=15 self-help manual plus standard care • n=16 standard care <p>Age in years [Mean (SD)]:</p> <ul style="list-style-type: none"> • Self-help manual plus standard care: 49.6 (12.4) • Standard care: 40.6 (12.9) <p>Sex (n):</p> <ul style="list-style-type: none"> • Self-help manual plus standard care: M=1, F=14 • Standard care: M=3, F=13 <p>Gambling symptom severity scale and score of people experiencing harmful gambling: Not reported, meeting DSM-IV criteria for pathological</p>	<p><u>Self-help manual plus standard care</u></p> <p>A self-help manual informed by focus groups that had been conducted with affected others of people participating in harmful gambling and CRAFT framework. Participants also received the treatment resources as per standard care group.</p>	<p><u>Standard care</u></p> <p>Treatment resource pack containing general information as well as treatment resources available in the local area.</p>	<ul style="list-style-type: none"> • Psychological wellbeing of affected others (at intervention completion) • Relationship functioning (at intervention completion) • Satisfaction of affected others with the intervention (at intervention completion)

Study	Population	Intervention	Comparison	Outcomes
	gambling (n): <ul style="list-style-type: none"> • Self-help manual plus standard care: 15 • Standard care: 15 			
Nayoski 2016 RCT Canada Unclear funding source	N=31 affected others of people experiencing harmful gambling <ul style="list-style-type: none"> • n=16 CRAFT individual sessions • n=15 CRAFT self-help workbook Age in years [Mean (SD)]: <ul style="list-style-type: none"> • CRAFT individual sessions: 47 (12.8) • CRAFT self-help workbook: 46 (12.9) Sex (n): <ul style="list-style-type: none"> • CRAFT individual sessions: M=2, F=14 • CRAFT self-help workbook: M=1, F=14 Gambling symptom severity scale and score of people experiencing harmful gambling [Mean (SD)]: DSM-IV-TR, <ul style="list-style-type: none"> • CRAFT individual sessions: 8.1 (1.2) • CRAFT self-help workbook: 8.0 (1.9) 	<u>CRAFT individual sessions</u> 8-12 x 1-hour individual sessions working through the exercises included in the CRAFT programme with a Master-level therapist.	<u>CRAFT self-help workbook</u> Received self-help workbook and told to work through the exercises each week. No further details reported.	<ul style="list-style-type: none"> • Psychological wellbeing of affected others (at 3- and 6-months) • Relationship functioning (at 3- and 6-months)
Rychtarik 2006 RCT US No industry funding	N=23 affected others of people experiencing harmful gambling <ul style="list-style-type: none"> • n=12 coping skills training • n=11 wait-list control 	<u>Coping skills training</u> 1 x individual session with trained Masters-level counsellors per week for 10 weeks. Content was based on stress and coping perspective	<u>Wait-list control</u> Scheduled to receive coping-skills training at the end of study period.	<ul style="list-style-type: none"> • Measurement of symptoms of other conditions for affected others (at intervention completion [10 weeks]) <ul style="list-style-type: none"> ○ Depressive symptoms ○ Anxiety

Study	Population	Intervention	Comparison	Outcomes
	<p>Age in years [Mean (SD)]: 43.17 (9.73)</p> <ul style="list-style-type: none"> • Age by treatment group, not reported. <p>Sex (n): M=4, F=19</p> <ul style="list-style-type: none"> • Sex by treatment group, not reported. <p>Gambling symptom severity scale and score of people experiencing harmful gambling [Mean (SD)]: SOGS, 11.39 (2.76)</p> <ul style="list-style-type: none"> • Gambling symptom severity by treatment group, not reported. 	and with the aim of improving the affected others' functioning.		

CBT: Cognitive behavioural therapy; CRAFT: Community Reinforcement and Family Training; DSM-IV-(TR): Diagnostic and Statistical Manual of Mental Disorders (4th Edition) (text revision); N/n: Number; RCT: Randomised controlled trial; SOGS: South Oaks Gambling Screen

See the full evidence tables in appendix D. No meta-analysis was conducted (and so there are no forest plots in appendix E).

Summary of the evidence

One study compared the effectiveness of 3 interventions to each other: a self-help workbook plus standard care, or a self-help workbook plus telephone calls plus standard care, or standard care alone (Hodgins 2007, unclear funding source). No significant difference was found at 3 or 6 months follow-up in psychological wellbeing of affected others or relationship functioning for any of the 3 comparisons. Evidence was judged to be very low to low quality for all measures.

One study compared the effectiveness of an internet-delivered CBT programme with a wait-list control on quality-of-life measures, depressive symptoms, anxiety and relationship functioning of affected others (Magnusson 2019, any industry funding). Depressive symptoms were significantly improved at 10 weeks (intervention completion). This evidence was judged to be low quality. All other measures did not show a significant difference and ranged from low to moderate quality evidence.

One study compared the effectiveness of standard care plus a self-help manual with standard care only (Makarchuk 2002, unclear funding source). No difference was found for psychological wellbeing of affected others or relationship functioning at intervention completion. However, participants in the self-help group were significantly more satisfied with their care than those in the standard care group. All evidence was judged to be of very low to low quality.

One study compared individual therapy sessions based on the CRAFT approach with the CRAFT self-help workbook (Nayoski 2016, unclear funding source). Psychological wellbeing of affected others and relationship functioning were measured at 3 and 6 months follow-up.

No significant difference was found between the groups, and evidence was judged to be of very low quality.

The final study compared coping skills training with a wait-list control (Rychtarik 2006, no industry funding). Participants in the coping skills training group showed significantly lower (better) measures of depressive symptoms and anxiety at 10 weeks (intervention completion). Evidence was judged to be of low quality.

No evidence was found for the outcome of personal, social, and educational functioning.

See appendix F for full GRADE tables.

Economic evidence

Included studies

A single economic search was undertaken for all topics included in the scope of this guideline but no economic studies were identified which were applicable to this review question. See the literature search strategy in appendix B and economic study selection flow chart in appendix G.

Excluded studies

No economic studies were reviewed at full text and excluded from this review.

Economic model

No economic modelling was undertaken for this review because the committee agreed that other topics were higher priorities for economic evaluation.

The committee's discussion and interpretation of the evidence

The outcomes that matter most

When choosing which outcomes to prioritise, the committee discussed the importance of ensuring that affected others remain at the centre of this systematic review. Although they are not the people directly experiencing gambling that harms, they will still experience harms related to it. Therefore, the committee wanted to identify outcomes that would have the greatest impact on the mental and physical well-being of affected others.

The committee discussed that an important issue is the ability of the affected other to maintain their own activities, routine and quality of life while their loved ones are experiencing gambling-related harms. In view of this, there is a need to capture potential long-term impacts of interventions on affected others (for example, poor work attendance leading to poor employment prospects, or poor school attendance limiting educational opportunities). The committee therefore selected personal, social and education functioning as a critical outcome. There may also be an impact on the mental health and quality of life of affected others, so the committee also chose psychological wellbeing and quality of life as critical outcomes.

Due to gambling-related harms, affected others can be at higher risk for developing co-morbidities such as depression, anxiety or substance use. While not the main aims of the interventions included in this review, the committee decided that any potential benefits on the symptoms of other conditions for affected others should not be overlooked, and so chose measurement of symptoms of other conditions as an important outcome. The difficulties of living with a person affected by gambling that harms can have an adverse impact on inter-personal relationships between affected others and people who experience gambling that

harms, and many of the interventions for affected others utilise a form of relationship therapy (for example, couples or family therapy), so the committee chose relationship functioning as an important outcome. Finally, satisfaction with an intervention is linked to both the uptake and engagement with the intervention and therefore was also considered an important outcome to consider when interpreting evidence.

The quality of the evidence

The quality of the evidence for quantitative outcomes was assessed using GRADE methodology and the overall confidence in the findings ranged from very low to moderate. Findings were downgraded in 2 areas. The main area evidence was downgraded was risk of bias, for example poor reporting of randomisation procedures or lack of blinding. Studies were also downgraded for imprecision when 95% confidence intervals crossed 1 or more decision-making thresholds.

There was no evidence identified for the following interventions for affected others: dedicated psychoeducation groups; financial management interventions; interventions delivered in a child accessible format; peer support and support groups; and residential respite care. No evidence was found for the outcome of personal, social, and educational functioning.

See appendix F for full GRADE tables with quality ratings of all outcomes.

Benefits and harms

Four studies were identified that assessed interventions for families, friends and others affected by gambling-related harms. They were adaptations of the CRAFT approach, which was originally designed to support affected others of people experiencing alcohol use disorder. Although the interventions differed, they were characterised by their structured approach, which the committee agreed would provide people delivering the intervention and those accessing the intervention with assurance about the quality and evidence base for the intervention. However, the committee were concerned that this approach is not validated for use with affected others of people experiencing gambling that harms. The materials used in each study were modified by individual researchers, using different methods to tailor the content to gambling-related harms experienced by affected others and to deliver the programme. The committee was concerned that not all modifications of the approach drew on the lived experiences of affected others to inform the content of the programme. Committee members also reported that structured family therapy is not an approach routinely used for affected others with gambling-related harms. Given this, and the fact that there was no consistent evidence demonstrating the effectiveness of these interventions, the committee decided not to make any recommendations for the CRAFT approach.

The 1 remaining study was not derived from the CRAFT programme. The committee discussed that coping skills training showed a benefit at reducing depression and anxiety symptoms at intervention completion. However, members were concerned that this intervention only included 1 aspect of treatment for affected others (which focussed on building coping skills), only assessed 1 outcome of interest, and did not measure long-term outcomes. When combined with the low participant numbers included in the study, the committee decided not to make any specific recommendations for coping skills training as described in this study, but based on their knowledge and experience they did make a recommendation that affected others could be taught similar techniques to manage their own distress and prioritise their needs.

In addition to the evidence in this review, the committee recognised that affected others experience high levels of stress and anxiety due to gambling-related harms. This has a huge impact on their physical health, emotional well-being, and quality of life. The committee discussed that it is important that this population do not get overlooked during the commissioning and provision of treatment for gambling-related harms. They therefore used

their knowledge and experience to highlight this fact and to emphasise that the recommendations in the guideline on topics such as case identification, assessment and initial support, information and support and improving access to treatment, stigma, and general principles of treatment apply to affected others as well as people experiencing gambling that harms. There was some evidence from evidence review K 'Improving gambling treatment services' that affected others appreciated the opportunity to receive help for themselves, and with the person experiencing gambling that harms. The committee therefore recommended that providers of gambling treatment and gambling support services offer help and advice to affected others, both individually or with the person experiencing gambling that harms if appropriate. This evidence also showed the importance of non-judgemental communication in conversations surrounding addiction, so the committee recommended that affected others should also be supported in learning communication techniques to help support this, as this would help them support recovery.

Finally, in view of the low number of studies, quality of evidence identified, and lack of evidence showing benefit, the committee agreed to make a recommendation for future research in this area. By doing so they intended to increase the amount of research available and identify interventions that can improve the wellbeing of affected others, enabling future guideline updates to make stronger recommendations in this area.

Cost effectiveness and resource use

No economic evidence was identified for this review question. The committee did not make recommendations on specific interventions and approaches for reducing gambling-related harms for families, friends and others close to people who experience gambling that harms due to lack of robust evidence. Instead, they made recommendations for provision of support and advice as well as techniques to help them engage in non-judgemental communication with the person experiencing gambling-related harms. These recommendations are expected to have moderate resource implications in terms of health professionals' time, which, nevertheless, are likely to be offset by improving the quality of life of families, friends and others close to people who experience gambling-related harms. This, in turn, is expected to improve family support, care and treatment outcomes for people experiencing gambling-related harms.

Other factors the committee took into account

The funding sources for the studies included in this evidence review were:

- Any industry funding: Magnusson 2019
- No-industry funding: Rychtarik 2006
- Unclear funding source: Hodgins 2007, Makarchuk 2002, Nayoski 2016

The committee discussed the funding for the included studies and agreed that it was not apparent that any of the sources of funding represented direct gambling industry funding, but that indirect funding may have influenced the studies, although it was not possible to confirm or quantify this. However, as the committee did not make any recommendations based on these studies they considered their funding source to be less relevant.

Recommendations supported by this evidence review

This evidence review supports recommendations 1.7.1 and 1.7.2 and a research recommendation on support and interventions for affected others. Other evidence supporting these recommendations can be found in the evidence review K 'Improving gambling treatment services'.

References – included studies

Effectiveness

Hodgins 2007

Hodgins, D.C., Toneatto, T., Makarchuk, K. et al. (2007) Minimal treatment approaches for concerned significant others of problem gamblers: A randomized controlled trial. *Journal of Gambling Studies* 23(2): 215-230

Magnusson 2019

Magnusson, K., Nilsson, A., Andersson, G. et al. (2019) Internet-delivered cognitive-behavioral therapy for significant others of treatment-refusing problem gamblers: A randomized wait-list controlled trial. *Journal of Consulting and Clinical Psychology* 87(9): 802-814

Makarchuk 2002

Makarchuk, K.; Hodgins, D.C.; Reden, N. (2002) Development of a brief intervention for concerned significant others of problem gamblers. *Addictive Disorders and their Treatment* 1(4): 126-134

Nayoski 2016

Nayoski, Nicole and Hodgins, David C (2016) The efficacy of individual Community Reinforcement and Family Training (CRAFT) for concerned significant others of problem gamblers. *Journal of Gambling Issues* 33: 189-212

Rychtarik 2006

Rychtarik, R.G. and McGillicuddy, N.B. (2006) Preliminary evaluation of a coping skills training program for those with a pathological-gambling partner. *Journal of Gambling Studies* 22(2): 165-178

Appendices

Appendix A Review protocols

Review protocol for review question: What is the effectiveness of interventions and approaches for reducing gambling-related harms for families, friends and others close to people who gamble?

Table 3: Review protocol

ID	Field	Content
0.	PROSPERO registration number	CRD42022333692
1.	Review title	Interventions for families and affected others
2.	Review question	What is the effectiveness of interventions and approaches for reducing gambling-related harms for families, friends and others close to people who gamble?
3.	Objective	To establish the effectiveness of interventions designed to reduce gambling-related harms experienced by families, friends and others close to people who participate in harmful gambling.
4.	Searches	<p>The following databases will be searched:</p> <ul style="list-style-type: none"> • Applied Social Science Index and Abstracts (ASSIA) • Cumulative Index to Nursing and Allied Health Literature (CINAHL) • Cochrane Central Register of Controlled Trials (CENTRAL) • Cochrane Database of Systematic Reviews (CDSR) • Embase • Emcare • Epistemonikos • Health Management Information Consortium (HMIC) • International Health Technology Assessment (IHTA) • Medline and Medline In-Process • PsycInfo • Social Care Online

ID	Field	Content
		<ul style="list-style-type: none"> • Social Policy and Practice • Social Sciences Citation Index <p>Searches will be restricted by:</p> <ul style="list-style-type: none"> • Date: 2000 onwards (see rationale under Section 10) • English language • Human studies <p>Other searches:</p> <ul style="list-style-type: none"> • Inclusion lists of systematic reviews • Kings Fund reports • Campbell Collaboration • Gov.uk • National Grey Literature Collection • Be Gamble Aware • GamCare • Gambling Research Exchange Ontario • Gambling Commission • Advisory Board for Safer Gambling • Gambling Watch UK • Australian Gambling Research Centre • Gambling Compliance • Gambling and Addictions Research Centre • Responsible Gambling Council • Victorian Responsible Gambling Foundation <p>With the agreement of the guideline committee the searches will be re-run 6 weeks before final submission of the review and further studies retrieved for inclusion.</p>

ID	Field	Content
		The full search strategies will be published in the final review.
5.	Condition or domain being studied	Interventions to reduce harms experienced by families, friends and others close to people who participate in harmful gambling.
6.	Population	<p>Inclusion: Families, friends and others (all ages) close to people (aged ≥ 18 years) who participate or have participated in harmful gambling.</p> <p>Exclusion: Families, friends and others close to people aged <18 years who participate in harmful gambling.</p>
7.	Intervention	<ul style="list-style-type: none"> • Dedicated psychoeducation groups for affected others (for example, 5-Step Method) • Family and couples therapy (for example, Community Reinforcement and Family Therapy Approach [CRAFT]) • Financial management interventions for affected others • Individual psychotherapy and/or counselling • Interventions delivered in a child-accessible format (for example, play therapy) • Peer support and support groups for affected others (for example, Gam-Anon) • Residential respite care for affected others (support groups etc)
8.	Comparator	<p>Interventions (listed in row 7) compared with each other or with:</p> <ul style="list-style-type: none"> • Treatment as usual • No treatment (including wait-list controls) • Placebo or sham treatment (including attention control treatments)
9.	Types of study to be included	<ul style="list-style-type: none"> • Systematic reviews of RCTs • Experimental studies using a randomly assigned control group design • Experimental studies using a non-randomly assigned control group design with match comparison or another method of controlling for confounding variables.
10.	Other exclusion criteria	<p>Inclusion:</p> <ul style="list-style-type: none"> • Full text papers <p>Exclusion:</p>

ID	Field	Content
		<ul style="list-style-type: none"> • Articles published before 2000 • Population-level gambling disorder interventions • Studies using qualitative methods only • Non-English language articles • Conference proceedings • Abstract only • Books and book chapters including doctoral theses.
11.	Context	Recommendations will apply in all settings where care and support is provided for family, friends and others close to people who participate in harmful gambling.
12.	Primary outcomes (critical outcomes)	<ul style="list-style-type: none"> • Personal, social and educational functioning (measured using validated scales such as the Work and Social Adjustment Scale or objective measures of school attendance). • Psychological wellbeing of affected others (measured using validated scales such as the Family Member Questionnaire from the 5-Step Method, Warwick-Edinburgh Well Being Scale and the CORE-10 score). • Quality of life of affected others (measured using validated scales such as EQ 5D and SF-12 and others specifically validated for use with children and young people).
13.	Secondary outcomes (important outcomes)	<ul style="list-style-type: none"> • Measurement of symptoms of other conditions for affected others (for example, depression using validated tools such as the PHQ-9, or alcohol use using AUDIT). • Relationship functioning (romantic, familial or platonic, measured using validated scales such as Marital Satisfaction Scale [MSS] and others specifically validated for use with children and young people) • Satisfaction of affected others with the intervention (measured using validated satisfaction scales).
14.	Data extraction (selection and coding)	<p>All references identified by the searches and from other sources will be uploaded into EPPI-Reviewer 5 and de-duplicated.</p> <p>Titles and abstracts of the retrieved citations will be screened to identify studies that potentially meet the inclusion criteria outlined in the review protocol.</p> <p>Dual or duplicate screening will be undertaken for 10% of items (90% agreement is required and disagreements will be resolved via discussion with the senior systematic reviewer).</p>

ID	Field	Content
		<p>Full versions of the selected studies will be obtained for assessment. Studies that fail to meet the inclusion criteria once the full version has been checked will be excluded at this stage. Each study excluded after checking the full version will be listed along with the reason for its exclusion.</p> <p>The included and excluded studies lists will be circulated to the Topic Group for their comments. Resolution of disputes will be by discussion between the senior reviewer, Topic Advisor and Chair.</p> <p>A standardised form will be used to extract data from included studies, providing study reference, research question, data collection and analysis methods used, participant characteristics, second-order themes, and relevant first-order themes (such as supporting quotes). One reviewer will extract relevant data into a standardised form. This will be quality assessed by the senior reviewer.</p>
15.	Risk of bias (quality) assessment	<p>Quality assessment of individual studies will be performed according to Developing NICE guidelines: the manual, using the following checklists:</p> <ul style="list-style-type: none"> • Cochrane RoB (2.0) for randomised controlled trials • Cochrane ROBINS-I for non-randomised controlled trials • ROBIS for systematic reviews <p>The quality assessment will be performed by one reviewer and this will be quality assessed by a senior reviewer.</p>
16.	Strategy for data synthesis	<p>Depending on the availability of the evidence, the findings will be summarised narratively or quantitatively. Where possible, meta-analyses will be conducted using Cochrane Review Manager software. A fixed effect meta-analysis will be conducted and data will be presented as risk ratios or odds ratios for dichotomous outcomes, and mean differences or standardised mean differences for continuous outcomes. Heterogeneity in the effect estimates of the individual studies will be assessed using the I² statistic. Alongside visual inspection of the point estimates and confidence intervals, I² values of greater than 50% and 80% will be considered as significant and very significant heterogeneity, respectively. Heterogeneity will be explored as appropriate using sensitivity analyses and pre-specified subgroup analyses. If heterogeneity cannot be explained through subgroup analysis then a random effects model will be used for meta-analysis, or the data will not be pooled.</p> <p>The confidence in the findings across all available evidence will be evaluated for each outcome using an adaptation of the 'Grading of Recommendations Assessment, Development and Evaluation (GRADE) toolbox'</p>

ID	Field	Content												
		<p>developed by the international GRADE working group: http://www.gradeworkinggroup.org.</p> <p>Importance and imprecision of findings will be assessed against minimally important differences (MIDs). The following MIDs will be used: 0.8 and 1.25 for all relative dichotomous outcomes, for continuous outcomes any published validated MIDs, if none are available then +/- 0.5x control group SD.</p>												
17.	Analysis of sub-groups	<p>Evidence will be stratified according to the funding source of included studies:</p> <ul style="list-style-type: none">• Any industry funding• No industry funding• Unclear funding source <p>Evidence will be sub-grouped by the following only in the event that there is significant heterogeneity in outcomes:</p> <ul style="list-style-type: none">• Sex of affected others or the person participating in harmful gambling.• Age of affected others or the person participating in harmful gambling.• Ethnicity of affected others or the person participating in harmful gambling.• Co-morbidities of the person participating in harmful gambling. <p>Where evidence is stratified or sub-grouped the committee will consider on a case by case basis if separate recommendations should be made for distinct groups. Separate recommendations may be made where there is evidence of a differential effect of interventions in distinct groups. If there is a lack of evidence in one group, the committee will consider, based on their experience, whether it is reasonable to extrapolate and assume the interventions will have similar effects in that group compared with others.</p>												
18.	Type and method of review	<table><tr><td><input checked="" type="checkbox"/></td><td>Intervention</td></tr><tr><td><input type="checkbox"/></td><td>Diagnostic</td></tr><tr><td><input type="checkbox"/></td><td>Prognostic</td></tr><tr><td><input type="checkbox"/></td><td>Qualitative</td></tr><tr><td><input type="checkbox"/></td><td>Epidemiologic</td></tr><tr><td><input type="checkbox"/></td><td>Service Delivery</td></tr></table>	<input checked="" type="checkbox"/>	Intervention	<input type="checkbox"/>	Diagnostic	<input type="checkbox"/>	Prognostic	<input type="checkbox"/>	Qualitative	<input type="checkbox"/>	Epidemiologic	<input type="checkbox"/>	Service Delivery
<input checked="" type="checkbox"/>	Intervention													
<input type="checkbox"/>	Diagnostic													
<input type="checkbox"/>	Prognostic													
<input type="checkbox"/>	Qualitative													
<input type="checkbox"/>	Epidemiologic													
<input type="checkbox"/>	Service Delivery													

ID	Field	Content																					
		<input type="checkbox"/> Other (please specify)																					
19.	Language	English																					
20.	Country	England																					
21.	Anticipated or actual start date	April 2022																					
22.	Anticipated completion date	February 2024																					
23.	Stage of review at time of this submission	<table border="1"> <thead> <tr> <th>Review stage</th><th>Started</th><th>Completed</th></tr> </thead> <tbody> <tr> <td>Preliminary searches</td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr> <tr> <td>Piloting of the study selection process</td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr> <tr> <td>Formal screening of search results against eligibility criteria</td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr> <tr> <td>Data extraction</td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr> <tr> <td>Risk of bias (quality) assessment</td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr> <tr> <td>Data analysis</td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr> </tbody> </table>	Review stage	Started	Completed	Preliminary searches	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Piloting of the study selection process	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Formal screening of search results against eligibility criteria	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Data extraction	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Risk of bias (quality) assessment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Data analysis	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Preliminary searches	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																					
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Data extraction	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																					
Risk of bias (quality) assessment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																					
Data analysis	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																					
24.	Named contact	<p>5a Named contact National Institute for Health and Care Excellence (NICE)</p> <p>5b Named contact e-mail Gambling@nice.org.uk</p> <p>5c Organisational affiliation of the review National Institute for Health and Care Excellence (NICE)</p>																					
25.	Review team members	NICE technical team																					
26.	Funding sources/sponsor	This systematic review is being completed by NICE, which receives funding from the Department of Health and Social Care.																					

ID	Field	Content
27.	Conflicts of interest	All guideline committee members and anyone who has direct input into NICE guidelines (including the evidence review team and expert witnesses) must declare any potential conflicts of interest in line with NICE's code of practice for declaring and dealing with conflicts of interest. Any relevant interests, or changes to interests, will also be declared publicly at the start of each guideline committee meeting. Before each meeting, any potential conflicts of interest will be considered by the guideline committee Chair and a senior member of the development team. Any decisions to exclude a person from all or part of a meeting will be documented. Any changes to a member's declaration of interests will be recorded in the minutes of the meeting. Declarations of interests will be published with the final guideline.
28.	Collaborators	Development of this systematic review will be overseen by an advisory committee who will use the review to inform the development of evidence-based recommendations in line with section 3 of Developing NICE guidelines: the manual . Members of the guideline committee are available on the NICE website: https://www.nice.org.uk/guidance/indevelopment/gid-ng10210 .
29.	Other registration details	N/A
30.	Reference/URL for published protocol	https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42022333692
31.	Dissemination plans	NICE may use a range of different methods to raise awareness of the guideline. These include standard approaches such as: <ul style="list-style-type: none"> • notifying registered stakeholders of publication • publicising the guideline through NICE's newsletter and alerts • issuing a press release or briefing as appropriate, posting news articles on the NICE website, using social media channels, and publicising the guideline within NICE.
32.	Keywords	Gambling; affected others; family; intervention
33.	Details of existing review of same topic by same authors	N/A
34.	Current review status	<input checked="" type="checkbox"/> Ongoing
		<input type="checkbox"/> Completed but not published
		<input type="checkbox"/> Completed and published
		<input type="checkbox"/> Completed, published and being updated
		<input type="checkbox"/> Discontinued

ID	Field	Content
35.	Additional information	N/A
36.	Details of final publication	www.nice.org.uk

AUDIT: Alcohol use disorders identification test; CORE-10: Clinical outcomes in routine evaluation; EQ-5D: EuroQol health related quality of life (5 domains); GRADE: Grading of Recommendations Assessment, Development and Evaluation; MID: minimally important difference; NHS: National health service; NICE: National Institute for Health and Care Excellence; PHQ-9: Patient health questionnaire-9; PROSPERO: International prospective register of systematic reviews; RCT: randomised controlled trial; RoB: risk of bias; ROBINS-I: risk of bias In non-randomized studies of interventions; ROBIS: risk of bias in systematic reviews; SD: standard deviation SF-12: 12-item short form survey

Appendix B Literature search strategies

Literature search strategies for review question: What is the effectiveness of interventions and approaches for reducing gambling-related harms for families, friends and others close to people who gamble?

Effectiveness searches

Database: Medline and Medline In-Process

Date of last search: 04/04/2023

#	Searches
1	GAMBLING/
2	gambl*.ti,ab.
3	betting.ti,ab.
4	(bet or bets).ti,ab.
5	wager*.ti,ab.
6	((gaming or gambling or slot or fruit or poker or lottery or lotteries) adj5 (machine? or terminal?)).ti,ab.
7	(pokies or pokey or puggy or fruities).ti,ab.
8	((dice or card? or roulette or blackjack or poker or baccarat or crap or craps or keno or casino? or bingo or bookmaker? or book maker or bookie? or lottery or lotteries or lotto or scratch card? or scratchcard? or raffle or raffles or sweepstak* or amusement arcade? or slot?) adj5 (money or monetization or monetisation or monetary or currency or currencies or cryptocurrency or cryptocurrencies or reward* or win or wins or winning* or loss or losses or lose)).ti,ab.
9	((game or games or gaming or gamer?) adj5 (money or monetization or monetisation or monetary)).ti,ab.
10	or/1-9
11	FAMILY/
12	NUCLEAR FAMILY/
13	SINGLE-PARENT FAMILY/
14	PARENTS/
15	MOTHERS/
16	FATHERS/
17	SINGLE PARENT/
18	SIBLINGS/
19	GRANDPARENTS/
20	CAREGIVERS/
21	FRIENDS/
22	SPOUSES/
23	(parent? or parental or mother? or father? or son? or daughter? or sibling? or brother? or sister? or grandparent? or grandfather? or grandmother? or family or families or relatives or cousin? or uncle? or aunt? or auntie? or caregiver? or carer? or friend? or spouse? or husband? or wife or wives or couple or couples or partner or partners or boyfriend? or girlfriend?).ti,ab.
24	((affected or significant) adj3 other?).ti,ab.
25	loved one*.ti,ab.
26	or/11-25
27	10 and 26
28	limit 27 to english language
29	limit 28 to yr="2000 -Current"
30	LETTER/
31	EDITORIAL/
32	NEWS/
33	exp HISTORICAL ARTICLE/
34	ANECDOTES AS TOPIC/
35	COMMENT/
36	CASE REPORT/
37	(letter or comment*).ti.
38	or/30-37
39	RANDOMIZED CONTROLLED TRIAL/ or random*.ti,ab.
40	38 not 39
41	ANIMALS/ not HUMANS/
42	exp ANIMALS, LABORATORY/
43	exp ANIMAL EXPERIMENTATION/
44	exp MODELS, ANIMAL/
45	exp RODENTIA/
46	(rat or rats or mouse or mice).ti.
47	or/40-46
48	29 not 47
49	META-ANALYSIS/

#	Searches
50	META-ANALYSIS AS TOPIC/
51	(meta analy* or metanaly* or metaanaly*).ti,ab.
52	((systematic* or evidence*) adj2 (review* or overview*)).ti,ab.
53	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
54	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
55	(search* adj4 literature).ab.
56	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
57	cochrane.jw.
58	or/49-57
59	randomized controlled trial.pt.
60	controlled clinical trial.pt.
61	pragmatic clinical trial.pt.
62	randomi#ed.ab.
63	placebo.ab.
64	randomly.ab.
65	CLINICAL TRIALS AS TOPIC/
66	trial.ti.
67	or/59-66
68	COMPARATIVE STUDIES/
69	FOLLOW-UP STUDIES/
70	TIME FACTORS/
71	chang\$.tw.
72	evaluat\$.tw.
73	reviewed.tw.
74	prospective\$.tw.
75	retrospective\$.tw.
76	baseline.tw.
77	cohort.tw.
78	case series.tw.
79	or/68-78
80	exp EPIDEMIOLOGIC STUDIES/ or exp CLINICAL TRIAL/ or COMPARATIVE STUDY/
81	(control and study).mp.
82	program.mp.
83	or/80-82
84	(ANIMALS/ not HUMANS/) or COMMENT/ or EDITORIAL/ or exp REVIEW/ or META ANALYSIS/ or CONSENSUS/ or exp GUIDELINE/
85	hi.fs. or case report.mp.
86	or/84-85
87	83 not 86
88	48 and 58
89	48 and 67
90	48 and 79
91	48 and 87
92	or/88-91

Database: Embase

Date of last search: 04/04/2023

#	Searches
1	GAMBLING/
2	PATHOLOGICAL GAMBLING/
3	gambli*.ti,ab.
4	betting.ti,ab.
5	(bet or bets).ti,ab.
6	wager*.ti,ab.
7	((gaming or gambling or slot or fruit or poker or lottery or lotteries) adj5 (machine? or terminal?)).ti,ab.
8	(pokies or pokey or puggy or fruities).ti,ab.
9	((dice or card? or roulette or blackjack or poker or baccarat or crap or craps or keno or casino? or bingo or bookmaker? or book maker or bookie? or lottery or lotteries or lotto or scratch card? or scratchcard? or raffle or raffles or sweepstak* or amusement arcade? or slot?) adj5 (money or monetization or monetisation or monetary or currency or currencies or cryptocurrency or cryptocurrencies or reward* or win or wins or winning* or loss or losses or lose)).ti,ab.
10	((game or games or gaming or gamer?) adj5 (money or monetization or monetisation or monetary)).ti,ab.
11	or/1-10
12	FAMILY/
13	NUCLEAR FAMILY/
14	SINGLE-PARENT FAMILY/
15	PARENT/
16	ADOPTIVE PARENT/
17	MOTHER/

#	Searches
18	FATHER/
19	SINGLE PARENT/
20	exp SIBLING/
21	exp GRANDPARENT/
22	CAREGIVER/
23	FRIEND/
24	exp SPOUSE/
25	exp RELATIVE/
26	(parent? or parental or mother? or father? or son? or daughter? or sibling? or brother? or sister? or grandparent? or grandfather? or grandmother? or family or families or relatives or cousin? or uncle? or aunt? or auntie? or caregiver? or carer? or friend? or spouse? or husband? or wife or wives or couple or couples or partner or partners or boyfriend? or girlfriend?).ti,ab.
27	((affected or significant) adj3 other?).ti,ab.
28	loved one*.ti,ab.
29	or/12-28
30	11 and 29
31	limit 30 to english language
32	limit 31 to yr="2000 -Current"
33	letter.pt. or LETTER/
34	note.pt.
35	editorial.pt.
36	CASE REPORT/ or CASE STUDY/
37	(letter or comment*).ti.
38	or/33-37
39	RANDOMIZED CONTROLLED TRIAL/ or random*.ti,ab.
40	38 not 39
41	ANIMAL/ not HUMAN/
42	NONHUMAN/
43	exp ANIMAL EXPERIMENT/
44	exp EXPERIMENTAL ANIMAL/
45	ANIMAL MODEL/
46	exp RODENT/
47	(rat or rats or mouse or mice).ti.
48	or/40-47
49	32 not 48
50	SYSTEMATIC REVIEW/
51	META-ANALYSIS/
52	(meta analy* or metanaly* or metaanaly*).ti,ab.
53	((systematic or evidence) adj2 (review* or overview*).ti,ab.
54	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
55	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
56	(search* adj4 literature).ab.
57	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
58	((pool* or combined) adj2 (data or trials or studies or results)).ab.
59	cochrane.jw.
60	or/50-59
61	random*.ti,ab.
62	factorial*.ti,ab.
63	(crossover* or cross over*).ti,ab.
64	((doubl* or singl*) adj blind*).ti,ab.
65	(assign* or allocat* or volunteer* or placebo*).ti,ab.
66	CROSSOVER PROCEDURE/
67	SINGLE BLIND PROCEDURE/
68	RANDOMIZED CONTROLLED TRIAL/
69	DOUBLE BLIND PROCEDURE/
70	or/61-69
71	CONTROLLED STUDY/
72	TREATMENT OUTCOME/
73	MAJOR CLINICAL STUDY/
74	CLINICAL TRIAL/
75	evaluat\$.tw.
76	reviewed.tw.
77	baseline.tw.
78	(compare\$ or compara\$).tw.
79	or/71-78
80	EPIDEMIOLOGY/ or CONTROLLED STUDY/ or exp CASE CONTROL STUDY/ or PROSPECTIVE STUDY/ or RETROSPECTIVE STUDY/ or COHORT ANALYSIS/ or FOLLOW UP/ or CROSS-SECTIONAL STUDY/ or exp CLINICAL TRIAL/ or COMPARATIVE STUDY/
81	(control and study).mp.
82	program.mp.

#	Searches
83	or/80-82
84	(ANIMAL/ not HUMAN/) or EDITORIAL/ or REVIEW/ or META-ANALYSIS/ or CONSENSUS/ or PRACTICE GUIDELINE/
85	hi.fs. or case report.mp.
86	or/84-85
87	83 not 86
88	49 and 60
89	49 and 70
90	49 and 79
91	49 and 87
92	or/88-91

Database: Emcare**Date of last search: 04/04/2023**

#	Searches
1	GAMBLING/
2	PATHOLOGICAL GAMBLING/
3	gamb*.ti,ab.
4	betting.ti,ab.
5	(bet or bets).ti,ab.
6	wager*.ti,ab.
7	((gaming or gambling or slot or fruit or poker or lottery or lotteries) adj5 (machine? or terminal?)).ti,ab.
8	(pokies or pokey or puggy or fruities).ti,ab.
9	((dice or card? or roulette or blackjack or poker or baccarat or crap or craps or keno or casino? or bingo or bookmaker? or book maker or bookie? or lottery or lotteries or lotto or scratch card? or scratchcard? or raffle or raffles or sweepstak* or amusement arcade? or slot?) adj5 (money or monetization or monetisation or monetary or currency or currencies or cryptocurrency or cryptocurrencies or reward* or win or wins or winning* or loss or losses or lose)).ti,ab.
10	((game or games or gaming or gamer?) adj5 (money or monetization or monetisation or monetary)).ti,ab.
11	or/1-10
12	FAMILY/
13	NUCLEAR FAMILY/
14	SINGLE-PARENT FAMILY/
15	PARENT/
16	ADOPTIVE PARENT/
17	MOTHER/
18	FATHER/
19	SINGLE PARENT/
20	exp SIBLING/
21	exp GRANDPARENT/
22	CAREGIVER/
23	FRIEND/
24	exp SPOUSE/
25	exp RELATIVE/
26	(parent? or parental or mother? or father? or son? or daughter? or sibling? or brother? or sister? or grandparent? or grandfather? or grandmother? or family or families or relatives or cousin? or uncle? or aunt? or auntie? or caregiver? or carer? or friend? or spouse? or husband? or wife or wives or couple or couples or partner or partners or boyfriend? or girlfriend?).ti,ab.
27	((affected or significant) adj3 other?).ti,ab.
28	loved one*.ti,ab.
29	or/12-28
30	11 and 29
31	limit 30 to english language
32	limit 31 to yr="2000 -Current"
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34	note.pt.
35	editorial.pt.
36	CASE REPORT/ or CASE STUDY/
37	(letter or comment*).ti.
38	or/33-37
39	RANDOMIZED CONTROLLED TRIAL/ or random*.ti,ab.
40	38 not 39
41	ANIMAL/ not HUMAN/
42	NONHUMAN/
43	exp ANIMAL EXPERIMENT/
44	exp EXPERIMENTAL ANIMAL/
45	ANIMAL MODEL/
46	exp RODENT/
47	(rat or rats or mouse or mice).ti.
48	or/40-47

#	Searches
49	32 not 48
50	SYSTEMATIC REVIEW/
51	META-ANALYSIS/
52	(meta analy* or metanaly* or metaanaly*).ti,ab.
53	((systematic or evidence) adj2 (review* or overview*)).ti,ab.
54	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
55	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
56	(search* adj4 literature).ab.
57	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
58	((pool* or combined) adj2 (data or trials or studies or results)).ab.
59	cochrane.jw.
60	or/50-59
61	random*.ti,ab.
62	factorial*.ti,ab.
63	(crossover* or cross over*).ti,ab.
64	((doubl* or singl*) adj blind*).ti,ab.
65	(assign* or allocat* or volunteer* or placebo*).ti,ab.
66	CROSSOVER PROCEDURE/
67	SINGLE BLIND PROCEDURE/
68	RANDOMIZED CONTROLLED TRIAL/
69	DOUBLE BLIND PROCEDURE/
70	or/61-69
71	CONTROLLED STUDY/
72	TREATMENT OUTCOME/
73	MAJOR CLINICAL STUDY/
74	CLINICAL TRIAL/
75	evaluat\$.tw.
76	reviewed.tw.
77	baseline.tw.
78	(compare\$ or compara\$).tw.
79	or/71-78
80	EPIDEMIOLOGY/ or CONTROLLED STUDY/ or exp CASE CONTROL STUDY/ or PROSPECTIVE STUDY/ or RETROSPECTIVE STUDY/ or COHORT ANALYSIS/ or FOLLOW UP/ or CROSS-SECTIONAL STUDY/ or exp CLINICAL TRIAL/ or COMPARATIVE STUDY/
81	(control and study).mp.
82	program.mp.
83	or/80-82
84	(ANIMAL/ not HUMAN/) or EDITORIAL/ or REVIEW/ or META-ANALYSIS/ or CONSENSUS/ or PRACTICE GUIDELINE/
85	[hi.fs. or case report.mp.]
86	or/84-85
87	83 not 86
88	49 and 60
89	49 and 70
90	49 and 79
91	49 and 87
92	or/88-91

Database: PsycInfo**Date of last search: 04/04/2023**

#	Searches
1	GAMBLING/
2	GAMBLING DISORDER/
3	gambl*.ti,ab.
4	betting.ti,ab.
5	(bet or bets).ti,ab.
6	wager*.ti,ab.
7	((gaming or gambling or slot or fruit or poker or lottery or lotteries) adj5 (machine? or terminal?)).ti,ab.
8	(pokies or pokey or puggy or fruities).ti,ab.
9	((dice or card? or roulette or blackjack or poker or baccarat or crap or craps or keno or casino? or bingo or bookmaker? or book maker or bookie? or lottery or lotteries or lotto or scratch card? or scratchcard? or raffle or raffles or sweepstak* or amusement arcade? or slot?) adj5 (money or monetization or monetisation or monetary or currency or currencies or cryptocurrency or cryptocurrencies or reward* or win or wins or winning* or loss or losses or lose)).ti,ab.
10	((game or games or gaming or gamer?) adj5 (money or monetization or monetisation or monetary)).ti,ab.
11	or/1-10
12	FAMILY/
13	BIOLOGICAL FAMILY/
14	STEPFAMILY/

#	Searches
15	NUCLEAR FAMILY/
16	EXTENDED FAMILY/
17	FAMILY MEMBERS/
18	PARENTS/
19	ADOPTIVE PARENTS/
20	FOSTER PARENTS/
21	STEPPARENTS/
22	exp SINGLE PARENTS/
23	exp MOTHERS/
24	exp FATHERS/
25	SIBLINGS/
26	BROTHERS/
27	SISTERS/
28	SONS/
29	DAUGHTERS/
30	GRANDPARENTS/
31	INLAWS/
32	COUSINS/
33	CAREGIVERS/
34	SIGNIFICANT OTHERS/
35	exp SPOUSES/
36	COUPLES/
37	(parent? or parental or mother? or father? or son? or daughter? or sibling? or brother? or sister? or grandparent? or grandfather? or grandmother? or family or families or relatives or cousin? or uncle? or aunt? or auntie? or caregiver? or carer? or friend? or spouse? or husband? or wife or wives or couple or couples or partner or partners or boyfriend? or girlfriend?).ti,ab.
38	((affected or significant) adj3 other?).ti,ab.
39	loved one*.ti,ab.
40	or/12-39
41	11 and 40
42	limit 41 to english language
43	limit 42 to yr="2000 -Current"
44	(meta analysis or "systematic review").md. or META ANALYSIS/ or "SYSTEMATIC REVIEW"/
45	(meta analy* or metanaly* or metaanaly*).ti,ab.
46	((systematic* or evidence*) adj2 (review* or overview*)).ti,ab.
47	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
48	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
49	(search* adj4 literature).ab.
50	cochrane.jw.
51	((pool* or combined) adj2 (data or trials or studies or results)).ab.
52	(medline or pubmed or cochrane or embase or psychlit or psyclit or cinahl or science citation index or bids or cancerlit).ab.
53	or/44-52
54	clinical trial.md. or Clinical trials/ or Randomized controlled trials/ or Randomized clinical trials/ or (assign* or allocat* or crossover* or cross over* or ((doubl* or singl*) adj blind*) or factorial* or placebo* or random* or volunteer* or trial?).ti,ab.
55	FOLLOWUP STUDIES/
56	followup study.md.
57	TREATMENT OUTCOMES/
58	treatment outcome.md.
59	CLINICAL TRIALS/
60	clinical trial.md.
61	chang\$.tw.
62	evaluat\$.tw.
63	reviewed.tw.
64	prospective\$.tw.
65	retrospective\$.tw.
66	baseline.tw.
67	cohort.tw.
68	case series.tw.
69	(compare\$ or compara\$.tw.
70	or/55-69
71	EPIDEMIOLOGY/ or PROSPECTIVE STUDIES/ or RETROSPECTIVE STUDIES/ or COHORT ANALYSIS/ or FOLLOWUP STUDIES/ or exp CLINICAL TRIALS/
72	epidemiolog*.ti,ab.
73	((case control* or prospective* or retrospective* or follow up or cross-sectional*) adj3 (study or studies)).ti,ab.
74	clinical trial?.ti,ab.
75	(cohort adj3 (study or studies or analys*)).ti,ab.
76	(control adj3 (group? or stud* or design*)).ti,ab.
77	controlled.ti,ab.
78	compar*.ti,ab.

#	Searches
79	versus.ti,ab.
80	vs.ti,ab.
81	or/71-80
82	43 and 53
83	43 and 54
84	43 and 70
85	43 and 81
86	or/82-85
87	limit 86 to ("0100 journal" or "0110 peer-reviewed journal")

Database: Health Management Information Consortium (HMIC)

Date of last search: 04/04/2023

#	Searches
1	GAMBLING/
2	GAMBLERS/
3	GAMBLING MACHINES/
4	AMUSEMENT ARCADES/
5	CASINOS/
6	BOOKMAKERS/
7	LOTTERIES/
8	NATIONAL LOTTERY/
9	gambl*.ti,ab.
10	betting.ti,ab.
11	(bet or bets).ti,ab.
12	wager*.ti,ab.
13	((gaming or gambling or slot or fruit or poker or lottery or lotteries) adj5 (machine? or terminal?)).ti,ab.
14	(pokies or pokey or puggy or fruities).ti,ab.
15	((dice or card? or roulette or blackjack or poker or baccarat or crap or craps or keno or casino? or bingo or bookmaker? or book maker or bookie? or lottery or lotteries or lotto or scratch card? or scratchcard? or raffle or raffles or sweepstak* or amusement arcade? or slot?) adj5 (money or monetization or monetisation or monetary or currency or currencies or cryptocurrency or cryptocurrencies or reward* or win or wins or winning* or loss or losses or lose)).ti,ab.
16	((game or games or gaming or gamer?) adj5 (money or monetization or monetisation or monetary)).ti,ab.
17	or/1-16
18	exp FAMILIES/
19	exp PARENTS/
20	exp SIBLINGS/
21	exp RELATIVES/
22	KINSHIP/
23	CARERS/
24	FRIENDS/
25	SIGNIFICANT OTHERS/
26	exp PARTNERS/
27	(parent? or parental or mother? or father? or son? or daughter? or sibling? or brother? or sister? or grandparent? or grandfather? or grandmother? or family or families or relatives or cousin? or uncle? or aunt? or auntie? or caregiver? or carer? or friend? or spouse? or husband? or wife or wives or couple or couples or partner or partners or boyfriend? or girlfriend?).ti,ab.
28	((affected or significant) adj3 other?).ti,ab.
29	loved one*.ti,ab.
30	or/18-29
31	17 and 30
32	limit 31 to yr="2000 -Current"
33	SYSTEMATIC REVIEWS/
34	META ANALYSIS/
35	(meta analy* or metanaly* or metaanaly*).ti,ab.
36	((systematic* or evidence*) adj2 (review* or overview)).ti,ab.
37	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
38	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
39	(search* adj4 literature).ab.
40	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
41	cochrane.jw.
42	or/33-41
43	RANDOMISED CONTROLLED TRIALS/
44	CLINICAL TRIALS/
45	(assign* or allocat* or crossover* or cross over* or ((doubl* or singl*) adj blind*) or factorial* or placebo* or random* or volunteer* or trial?).ti,ab.
46	or/43-45
47	FOLLOW UP STUDIES/
48	exp CLINICAL TRIALS/

#	Searches
49	((followup or follow up) adj3 (study or studies)).ti,ab.
50	treatment outcome.ti,ab.
51	clinical trial?.ti,ab.
52	chang\$.tw.
53	evaluat\$.tw.
54	reviewed.tw.
55	prospective\$.tw.
56	retrospective\$.tw.
57	baseline.tw.
58	cohort.tw.
59	case series.tw.
60	(compare\$ or compara\$).tw.
61	or/47-60
62	EPIDEMIOLOGY/ or CASE CONTROL STUDIES/ or PROSPECTIVE STUDIES/ or RETROSPECTIVE STUDIES/ or COHORT STUDIES/ or FOLLOW UP STUDIES/ or exp CLINICAL TRIALS/ or COMPARATIVE STUDIES/
63	epidemiolog*.ti,ab.
64	((case control* or prospective* or retrospective* or follow up or cross-sectional*) adj3 (study or studies)).ti,ab.
65	clinical trial?.ti,ab.
66	(cohort adj3 (study or studies or analys*)).ti,ab.
67	(control adj3 (group? or stud* or design*)).ti,ab.
68	controlled.ti,ab.
69	compar*.ti,ab.
70	versus.ti,ab.
71	vs.ti,ab.
72	or/62-71
73	32 and 42
74	32 and 46
75	32 and 61
76	32 and 72
77	or/73-76

Database: Social Policy and Practice

Date of last search: 04/04/2023

#	Searches
1	gambl*.ti,ab.
2	betting.ti,ab.
3	(bet or bets).ti,ab.
4	wager*.ti,ab.
5	((gaming or gambling or slot or fruit or poker or lottery or lotteries) adj5 (machine? or terminal?)).ti,ab.
6	(pokies or pokey or puggy or fruities).ti,ab.
7	((dice or card? or roulette or blackjack or poker or baccarat or crap or craps or keno or casino? or bingo or bookmaker? or book maker or bookie? or lottery or lotteries or lotto or scratch card? or scratchcard? or raffle or raffles or sweepstak* or amusement arcade? or slot?) adj5 (money or monetization or monetisation or monetary or currency or currencies or cryptocurrency or cryptocurrencies or reward* or win or wins or winning* or loss or losses or lose)).ti,ab.
8	((game or games or gaming or gamer?) adj5 (money or monetization or monetisation or monetary)).ti,ab.
9	or/1-8
10	(parent? or parental or mother? or father? or son? or daughter? or sibling? or brother? or sister? or grandparent? or grandfather? or grandmother? or family or families or relatives or cousin? or uncle? or aunt? or auntie? or caregiver? or carer? or friend? or spouse? or husband? or wife or wives or couple or couples or partner or partners or boyfriend? or girlfriend?).ti,ab.
11	((affected or significant) adj3 other?).ti,ab.
12	loved one*.ti,ab.
13	or/10-12
14	9 and 13
15	limit 14 to yr="2000 -Current"

Database: Cochrane Central Register of Controlled Trials (CENTRAL); and Cochrane Database of Systematic Reviews (CDSR)

Date of last search: 04/04/2023

#	Searches
#1	MeSH descriptor: [Gambling] this term only
#2	gambl*.ti,ab
#3	betting.ti,ab
#4	(bet or bets).ti,ab
#5	wager*.ti,ab
#6	((gaming or gambling or slot or fruit or poker or lottery or lotteries) near/5 (machine* or terminal*)):ti,ab

#	Searches
#7	(pokies or pokey or puggy or fruities):ti,ab
#8	((dice or card or cards or roulette or blackjack or poker or baccarat or crap or craps or keno or casino* or bingo or bookmaker* or "book maker" or bookie* or lottery or lotteries or lotto or "scratch card*" or scratchcard* or raffle or raffles or sweepstak* or "amusement arcade*" or slot or slots) near/5 (money or monetization or monetisation or monetary or currency or currencies or cryptocurrency or cryptocurrencies or reward* or win or wins or winning* or loss or losses or lose)):ti,ab
#9	((game or games or gaming or gamer*) near/5 (money or monetization or monetisation or monetary)):ti,ab
#10	#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9
#11	MeSH descriptor: [Family] this term only
#12	MeSH descriptor: [Nuclear Family] this term only
#13	MeSH descriptor: [Single-Parent Family] this term only
#14	MeSH descriptor: [Parents] this term only
#15	MeSH descriptor: [Mothers] this term only
#16	MeSH descriptor: [Fathers] this term only
#17	MeSH descriptor: [Single Parent] this term only
#18	MeSH descriptor: [Siblings] this term only
#19	MeSH descriptor: [Grandparents] this term only
#20	MeSH descriptor: [Caregivers] this term only
#21	MeSH descriptor: [Friends] this term only
#22	MeSH descriptor: [Spouses] this term only
#23	(parent or parents or parental or mother or mothers or father or fathers or son or sons or daughter* or sibling* or brother or brothers or sister or sisters or grandparent* or grandfather* or grandmother* or family or families or relatives or cousin* or uncle* or aunt or aunts or auntie* or caregiver* or carer or carers or friend or friends or spouse* or husband or husbands or wife or wives or couple or couples or partner or partners or boyfriend* or girlfriend*):ti,ab
#24	((affected or significant) near/3 other*):ti,ab
#25	"loved one*":ti,ab
#26	#11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or #24 or #25
#27	#10 and #26
#28	#10 and #26 with Cochrane Library publication date Between Jan 2000 and May 2022

Database: International Health Technology Assessment Database (INAHTA)

Date of last search: 04/04/2023

#	Searches
	All:(gamble or gambler or gamblers or gambling or gambled or betting or bet or bets or wager or wagers)
	AND Publication Year: 2000-2022

Database: Epistemonikos

Date of last search: 04/04/2023

#	Searches
	(title:((gambl* OR betting OR bet OR bets OR wager* OR "gaming machine*" OR "slot machine*" OR "fruit machine*" OR "poker machine*" OR "lottery machine*" OR "lotteries machine*" OR "gaming terminal*" OR "slot terminal*" OR "fruit terminal*" OR "poker terminal*" OR "lottery terminal*" OR "lotteries terminal*" OR pokies OR pokey OR puggy OR fruities) AND (parent or parents or parental or mother or mothers or father or fathers or son or sons or daughter* or sibling* or brother or brothers or sister or sisters or grandparent* or grandfather* or grandmother* or family or families or relatives or cousin* or uncle* or aunt or aunts or auntie* or caregiver* or carer or carers or friend or friends or spouse* or husband or husbands or wife or wives or couple or couples or partner or partners or boyfriend* or girlfriend* or "affected other*" or "significant other*" or "loved one*"interview*)) OR abstract:((gambl* OR betting OR bet OR bets OR wager* OR "gaming machine*" OR "slot machine*" OR "fruit machine*" OR "poker machine*" OR "lottery machine*" OR "lotteries machine*" OR "gaming terminal*" OR "slot terminal*" OR "fruit terminal*" OR "poker terminal*" OR "lottery terminal*" OR "lotteries terminal*" OR pokies OR pokey OR puggy OR fruities) AND (parent or parents or parental or mother or mothers or father or fathers or son or sons or daughter* or sibling* or brother or brothers or sister or sisters or grandparent* or grandfather* or grandmother* or family or families or relatives or cousin* or uncle* or aunt or aunts or auntie* or caregiver* or carer or carers or friend or friends or spouse* or husband or husbands or wife or wives or couple or couples or partner or partners or boyfriend* or girlfriend* or "affected other*" or "significant other*" or "loved one*")))) Publication year: 2000-2022

Database: Cumulative Index to Nursing and Allied Health Literature (CINAHL)

Date of last search: 04/04/2023

#	Searches
S1	TI (gambl* or betting or bet or bets or wager* or "gaming machine*" or "slot machine*" or "fruit machine*" or "poker machine*" or "lottery machine*" or "lotteries machine*" or "gaming terminal*" or "slot terminal*" or "fruit terminal*" or "poker terminal*" or "lottery terminal*" or "lotteries terminal*" or pokies or pokey or puggy or fruities) Limiters - Publication Year: 2000-
S2	TI (parent or parents or parental or mother or mothers or father or fathers or son or sons or daughter* or sibling* or brother or brothers or sister or sisters or grandparent* or grandfather* or grandmother* or family or families or relatives or cousin* or uncle* or aunt or aunts or auntie* or caregiver* or carer or carers or friend or friends or spouse* or

#	Searches
	husband or husbands or wife or wives or couple or couples or partner or partners or boyfriend* or girlfriend* or "affected other*" or "significant other*" or "loved one*") Limiters - Publication Year: 2000-
S3	S1 and S2

Database: Applied Social Science Index and Abstracts (ASSIA)

Date of last search: 04/04/2023

#	Searches
	AB, TI (gambl* or betting or bet or bets or wager* or "gaming machine*" or "slot machine*" or "fruit machine*" or "poker machine*" or "lottery machine*" or "lotteries machine*" or "gaming terminal*" or "slot terminal*" or "fruit terminal*" or "poker terminal*" or "lottery terminal*" or "lotteries terminal*" or pokies or pokey or puggy or fruities)
AND	AB, TI (parent or parents or parental or mother or mothers or father or fathers or son or sons or daughter* or sibling* or brother or brothers or sister or sisters or grandparent* or grandfather* or grandmother* or family or families or relatives or cousin* or uncle* or aunt or aunts or auntie* or caregiver* or carer or carers or friend or friends or spouse* or husband or husbands or wife or wives or couple or couples or partner or partners or boyfriend* or girlfriend* or "affected other*" or "significant other*" or "loved one*")
AND	Additional limits - Date: From January 2000

Database: Social Care Online

Date of last search: 04/04/2023

#	Searches
	AllFields:'gamble or gambler or gamblers or gambling or gambled or betting or bet or bets or wager or wagers or "gaming machine" or "slot machine" or "fruit machine" or "poker machine" or "lottery machine" or "lotteries machine" or "gaming terminal" or "slot terminal" or "fruit terminal" or "poker terminal" or "lottery terminal" or "lotteries terminal" or pokies or pokey or puggy or fruities'
	AND AllFields:'parent or parents or parental or mother or mothers or father or fathers or son or sons or daughter or daughters or sibling or siblings or brother or brothers or sister or sisters or grandparent or grandparents or grandfather or grandfathers or grandmother or grandmothers or family or families or relatives or cousin or cousins or uncle or uncles or aunt or aunts or auntie or aunties or caregiver or caregivers or carer or carers or friend or friends or spouse or spouses or husband or husbands or wife or wives or couple or couples or partner or partners or boyfriend or boyfriends or girlfriend or girlfriends or "affected other" or "affected others" or "significant other" or "significant others" or "loved one" or "loved ones"'
	AND PublicationYear:'2000 2022'

Database: Social Sciences Citation Index

Date of last search: 04/04/2023

#	Searches
	(gambl* or betting or bet or bets or wager* or "gaming machine*" or "slot machine*" or "fruit machine*" or "poker machine*" or "lottery machine*" or "lotteries machine*" or "gaming terminal*" or "slot terminal*" or "fruit terminal*" or "poker terminal*" or "lottery terminal*" or "lotteries terminal*" or pokies or pokey or puggy or fruities) and (parent or parents or parental or mother or mothers or father or fathers or son or sons or daughter* or sibling* or brother or brothers or sister or sisters or grandparent* or grandfather* or grandmother* or family or families or relatives or cousin* or uncle* or aunt or aunts or auntie* or caregiver* or carer or carers or friend or friends or spouse* or husband or husbands or wife or wives or couple or couples or partner or partners or boyfriend* or girlfriend* or "affected other*" or "significant other*" or "loved one*") (Title) Timespan: 2000-01-01 to 2022-05-03

Other sources

All websites listed in the protocol were searched and browsed.

Date of last search: 11/04/2023

Economic searches

Please note that a combined literature search was undertaken to cover the economics aspects of all the review questions in a single search.

Database: Medline and Medline In-Process

Date of last search: 04/04/2023

#	Searches
1	GAMBLING/
2	(gambl* not standard gamble).ti,ab.

#	Searches
3	betting.ti,ab.
4	(bet or bets).ti,ab.
5	wager*.ti,ab.
6	((gaming or gambling or slot or fruit or poker or lottery or lotteries) adj5 (machine? or terminal?)).ti,ab.
7	(pokies or pokey or puggy or fruities).ti,ab.
8	((dice or card? or roulette or blackjack or poker or baccarat or crap or craps or keno or casino? or bingo or bookmaker? or book maker or bookie? or lottery or lotteries or lotto or scratch card? or scratchcard? or raffle or raffles or sweepstak* or amusement arcade? or slot?) adj5 (money or monetization or monetisation or monetary or currency or currencies or cryptocurrency or cryptocurrencies or reward* or win or wins or winning* or loss or losses or lose)).ti,ab.
9	((game or games or gaming or gamer?) adj5 (money or monetization or monetisation or monetary)).ti,ab.
10	or/1-9
11	limit 10 to english language
12	limit 11 to yr="2000 -Current"
13	LETTER/
14	EDITORIAL/
15	NEWS/
16	exp HISTORICAL ARTICLE/
17	ANECDOTES AS TOPIC/
18	COMMENT/
19	CASE REPORT/
20	(letter or comment*).ti.
21	or/13-20
22	RANDOMIZED CONTROLLED TRIAL/ or random*.ti,ab.
23	21 not 22
24	ANIMALS/ not HUMANS/
25	exp ANIMALS, LABORATORY/
26	exp ANIMAL EXPERIMENTATION/
27	exp MODELS, ANIMAL/
28	exp RODENTIA/
29	(rat or rats or mouse or mice).ti.
30	or/23-29
31	12 not 30
32	ECONOMICS/
33	VALUE OF LIFE/
34	exp "COSTS AND COST ANALYSIS"/
35	exp ECONOMICS, HOSPITAL/
36	exp ECONOMICS, MEDICAL/
37	exp RESOURCE ALLOCATION/
38	ECONOMICS, NURSING/
39	ECONOMICS, PHARMACEUTICAL/
40	exp "FEES AND CHARGES"/
41	exp BUDGETS/
42	budget*.ti,ab.
43	cost*.ti,ab.
44	(economic* or pharmaco?economic*).ti,ab.
45	(price* or pricing*).ti,ab.
46	(financ* or fee or fees or expenditure* or saving*).ti,ab.
47	(value adj2 (money or monetary)).ti,ab.
48	resourc* allocat*.ti,ab.
49	(fund or funds or funding* or funded).ti,ab.
50	(ration or rations or rationing* or rationed).ti,ab.
51	ec.fs.
52	or/32-51
53	"VALUE OF LIFE"/
54	QUALITY OF LIFE/
55	quality of life.ti,kf.
56	((instrument or instruments) adj3 quality of life).ab.
57	QUALITY-ADJUSTED LIFE YEARS/
58	quality adjusted life.ti,ab,kf.
59	(qaly* or qald* or qale* or qtime* or life year or life years).ti,ab,kf.
60	disability adjusted life.ti,ab,kf.
61	daly*.ti,ab,kf.
62	(sf36 or sf 36 or short form 36 or shortform 36 or short form36 or shortform36 or sf thirtysix or sftirtysix or sfthirty six or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).ti,ab,kf.
63	(sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six or shortform6 or short form6).ti,ab,kf.
64	(sf8 or sf 8 or sf eight or sfeight or shortform 8 or shortform 8 or shortform8 or short form8 or shortform eight or short form eight).ti,ab,kf.
65	(sf12 or sf 12 or short form 12 or shortform 12 or short form12 or shortform12 or sf twelve or sftwelve or shortform twelve or short form twelve).ti,ab,kf.
66	(sf16 or sf 16 or short form 16 or shortform 16 or short form16 or shortform16 or sf sixteen or sfsixteen or shortform

#	Searches
	sixteen or short form sixteen).ti,ab,kf.
67	(sf20 or sf 20 or short form 20 or shortform 20 or short form20 or shortform20 or sf twenty or sftwenty or shortform twenty or short form twenty).ti,ab,kf.
68	(hql or hqol or h qol or hrqol or hr qol).ti,ab,kf.
69	(hye or hyes).ti,ab,kf.
70	(health* adj2 year* adj2 equivalent*).ti,ab,kf.
71	(pqol or qls).ti,ab,kf.
72	(quality of wellbeing or quality of well being or index of wellbeing or index of well being or qwb).ti,ab,kf.
73	nottingham health profile*.ti,ab,kf.
74	sickness impact profile.ti,ab,kf.
75	exp HEALTH STATUS INDICATORS/
76	(health adj3 (utilit* or status)).ti,ab,kf.
77	(utilit* adj3 (valu* or measur* or health or life or estimat* or elicit* or disease or score* or weight)).ti,ab,kf.
78	(preference* adj3 (valu* or measur* or health or life or estimat* or elicit* or disease or score* or instrument or instruments)).ti,ab,kf.
79	disutilit*.ti,ab,kf.
80	rosser.ti,ab,kf.
81	willingness to pay.ti,ab,kf.
82	standard gamble*.ti,ab,kf.
83	(time trade off or time tradeoff).ti,ab,kf.
84	tto.ti,ab,kf.
85	(hui or hui1 or hui2 or hui3).ti,ab,kf.
86	(eq or euroqol or euro qol or eq5d or eq 5d or euroqual or euro qual).ti,ab,kf.
87	duke health profile.ti,ab,kf.
88	functional status questionnaire.ti,ab,kf.
89	dartmouth coop functional health assessment*.ti,ab,kf.
90	or/53-89
91	31 and 52
92	31 and 90
93	91 or 92

Database: Embase

Date of last search: 04/04/2023

#	Searches
1	GAMBLING/
2	PATHOLOGICAL GAMBLING/
3	(gamb* not standard gamble).ti,ab.
4	betting.ti,ab.
5	(bet or bets).ti,ab.
6	wager*.ti,ab.
7	((gaming or gambling or slot or fruit or poker or lottery or lotteries) adj5 (machine? or terminal?)).ti,ab.
8	(pokies or pokey or puggy or fruities).ti,ab.
9	((dice or card? or roulette or blackjack or poker or baccarat or crap or craps or keno or casino? or bingo or bookmaker? or book maker or bookie? or lottery or lotteries or lotto or scratch card? or scratchcard? or raffle or raffles or sweepstak* or amusement arcade? or slot?) adj5 (money or monetization or monetisation or monetary or currency or currencies or cryptocurrencies or cryptocurrencies or reward* or win or wins or winning* or loss or losses or lose)).ti,ab.
10	((game or games or gaming or gamer?) adj5 (money or monetization or monetisation or monetary)).ti,ab.
11	or/1-10
12	limit 11 to english language
13	limit 12 to yr="2000 -Current"
14	letter.pt. or LETTER/
15	note.pt.
16	editorial.pt.
17	CASE REPORT/ or CASE STUDY/
18	(letter or comment*).ti.
19	or/14-18
20	RANDOMIZED CONTROLLED TRIAL/ or random*.ti,ab.
21	19 not 20
22	ANIMAL/ not HUMAN/
23	NONHUMAN/
24	exp ANIMAL EXPERIMENT/
25	exp EXPERIMENTAL ANIMAL/
26	ANIMAL MODEL/
27	exp RODENT/
28	(rat or rats or mouse or mice).ti.
29	or/21-28
30	13 not 29
31	HEALTH ECONOMICS/
32	exp ECONOMIC EVALUATION/

#	Searches
33	exp HEALTH CARE COST/
34	exp FEE/
35	BUDGET/
36	FUNDING/
37	RESOURCE ALLOCATION/
38	budget*.ti,ab.
39	cost*.ti,ab.
40	(economic* or pharmaco?economic*).ti,ab.
41	(price* or pricing*).ti,ab.
42	(financ* or fee or fees or expenditure* or saving*).ti,ab.
43	(value adj2 (money or monetary)).ti,ab.
44	resourc* allocat*.ti,ab.
45	(fund or funds or funding* or funded).ti,ab.
46	(ration or rations or rationing* or rationed).ti,ab.
47	or/31-46
48	SOCIOECONOMICS/
49	exp QUALITY OF LIFE/
50	quality of life.ti,kw.
51	((instrument or instruments) adj3 quality of life).ab.
52	QUALITY-ADJUSTED LIFE YEAR/
53	quality adjusted life.ti,ab,kw.
54	(qaly* or qald* or qale* or qtime* or life year or life years).ti,ab,kw.
55	disability adjusted life.ti,ab,kw.
56	daly*.ti,ab,kw.
57	(sf36 or sf 36 or short form 36 or shortform 36 or short form36 or shortform36 or sf thirtysix or sfthirtysix or sfthirty six or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).ti,ab,kw.
58	(sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six or shortform6 or short form6).ti,ab,kw.
59	(sf8 or sf 8 or sf eight or sfeight or shortform 8 or shortform 8 or shortform8 or short form8 or shortform eight or short form eight).ti,ab,kw.
60	(sf12 or sf 12 or short form 12 or shortform 12 or short form12 or shortform12 or sf twelve or sftwelve or shortform twelve or short form twelve).ti,ab,kw.
61	(sf16 or sf 16 or short form 16 or shortform 16 or short form16 or shortform16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).ti,ab,kw.
62	(sf20 or sf 20 or short form 20 or shortform 20 or short form20 or shortform20 or sf twenty or sftwenty or shortform twenty or short form twenty).ti,ab,kw.
63	(hql or hqol or h qol or hrqol or hr qol).ti,ab,kw.
64	(hye or hyes).ti,ab,kw.
65	(health* adj2 year* adj2 equivalent*).ti,ab,kw.
66	(pqol or qls).ti,ab,kw.
67	(quality of wellbeing or quality of well being or index of wellbeing or index of well being or qwb).ti,ab,kw.
68	NOTTINGHAM HEALTH PROFILE/
69	nottingham health profile*.ti,ab,kw.
70	SICKNESS IMPACT PROFILE/
71	sickness impact profile.ti,ab,kw.
72	HEALTH STATUS INDICATOR/
73	(health adj3 (utilit* or status)).ti,ab,kw.
74	(utilit* adj3 (valu* or measur* or health or life or estimat* or elic* or disease or score* or weight)).ti,ab,kw.
75	(preference* adj3 (valu* or measur* or health or life or estimat* or elic* or disease or score* or instrument or instruments)).ti,ab,kw.
76	disutilit*.ti,ab,kw.
77	rosser.ti,ab,kw.
78	willingness to pay.ti,ab,kw.
79	standard gamble*.ti,ab,kw.
80	(time trade off or time tradeoff).ti,ab,kw.
81	tto.ti,ab,kw.
82	(hui or hui1 or hui2 or hui3).ti,ab,kw.
83	(eq or euroqol or euro qol or eq5d or eq 5d or euroqual or euro qual).ti,ab,kw.
84	duke health profile.ti,ab,kw.
85	functional status questionnaire.ti,ab,kw.
86	dartmouth coop functional health assessment*.ti,ab,kw.
87	or/48-86
88	30 and 47
89	30 and 87
90	88 or 89

Database: Emcare

Date of last search: 04/04/2023

#	Searches
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#	Searches
1	GAMBLING/
2	PATHOLOGICAL GAMBLING/
3	(gambl* not standard gamble).ti,ab.
4	betting.ti,ab.
5	(bet or bets).ti,ab.
6	wager*.ti,ab.
7	((gaming or gambling or slot or fruit or poker or lottery or lotteries) adj5 (machine? or terminal?)).ti,ab.
8	((pokies or pokey or puggy or fruities).ti,ab.
9	((dice or card? or roulette or blackjack or poker or baccarat or crap or craps or keno or casino? or bingo or bookmaker? or book maker or bookie? or lottery or lotteries or lotto or scratch card? or scratchcard? or raffle or raffles or sweepstak* or amusement arcade? or slot?) adj5 (money or monetization or monetisation or monetary or currency or currencies or cryptocurrency or cryptocurrencies or reward* or win or wins or winning* or loss or losses or lose)).ti,ab.
10	((game or games or gaming or gamer?) adj5 (money or monetization or monetisation or monetary)).ti,ab.
11	or/1-10
12	limit 11 to english language
13	limit 12 to yr="2000 -Current"
14	letter.pt. or LETTER/
15	note.pt.
16	editorial.pt.
17	CASE REPORT/ or CASE STUDY/
18	(letter or comment*).ti.
19	or/14-18
20	RANDOMIZED CONTROLLED TRIAL/ or random*.ti,ab.
21	19 not 20
22	ANIMAL/ not HUMAN/
23	NONHUMAN/
24	exp ANIMAL EXPERIMENT/
25	exp EXPERIMENTAL ANIMAL/
26	ANIMAL MODEL/
27	exp RODENT/
28	(rat or rats or mouse or mice).ti.
29	or/21-28
30	13 not 29
31	HEALTH ECONOMICS/
32	exp ECONOMIC EVALUATION/
33	exp HEALTH CARE COST/
34	exp FEE/
35	BUDGET/
36	FUNDING/
37	RESOURCE ALLOCATION/
38	budget*.ti,ab.
39	cost*.ti,ab.
40	(economic* or pharmaco?economic*).ti,ab.
41	(price* or pricing*).ti,ab.
42	(financ* or fee or fees or expenditure* or saving*).ti,ab.
43	(value adj2 (money or monetary)).ti,ab.
44	resourc* allocat*.ti,ab.
45	(fund or funds or funding* or funded).ti,ab.
46	(ration or rations or rationing* or rationed).ti,ab.
47	or/31-46
48	SOCIOECONOMICS/
49	exp QUALITY OF LIFE/
50	quality of life.ti,kw.
51	((instrument or instruments) adj3 quality of life).ab.
52	QUALITY-ADJUSTED LIFE YEAR/
53	quality adjusted life.ti,ab,kw.
54	(qaly* or qald* or qale* or qtime* or life year or life years).ti,ab,kw.
55	disability adjusted life.ti,ab,kw.
56	daly*.ti,ab,kw.
57	(sf36 or sf 36 or short form 36 or shortform 36 or short form36 or shortform36 or sf thirtysix or sftthirtysix or sftthirty six or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).ti,ab,kw.
58	(sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six or shortform6 or short form6).ti,ab,kw.
59	(sf8 or sf 8 or sf eight or sfeight or shortform 8 or shortform 8 or shortform8 or short form8 or shortform eight or short form eight).ti,ab,kw.
60	(sf12 or sf 12 or short form 12 or shortform 12 or short form12 or shortform12 or sf twelve or sftwelve or shortform twelve or short form twelve).ti,ab,kw.
61	(sf16 or sf 16 or short form 16 or shortform 16 or short form16 or shortform16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).ti,ab,kw.
62	(sf20 or sf 20 or short form 20 or shortform 20 or short form20 or shortform20 or sf twenty or sftwenty or shortform twenty or short form twenty).ti,ab,kw.

#	Searches
63	(hql or hqol or h qol or hrqol or hr qol).ti,ab,kw.
64	(hye or hyes).ti,ab,kw.
65	(health* adj2 year* adj2 equivalent*).ti,ab,kw.
66	(pqol or qls).ti,ab,kw.
67	(quality of wellbeing or quality of well being or index of wellbeing or index of well being or qwb).ti,ab,kw.
68	NOTTINGHAM HEALTH PROFILE/
69	nottingham health profile*.ti,ab,kw.
70	SICKNESS IMPACT PROFILE/
71	sickness impact profile.ti,ab,kw.
72	HEALTH STATUS INDICATOR/
73	(health adj3 (utilit* or status)).ti,ab,kw.
74	(utilit* adj3 (valu* or measur* or health or life or estimat* or elicit* or disease or score* or weight)).ti,ab,kw.
75	(preference* adj3 (valu* or measur* or health or life or estimat* or elicit* or disease or score* or instrument or instruments)).ti,ab,kw.
76	disutilit*.ti,ab,kw.
77	rosser.ti,ab,kw.
78	willingness to pay.ti,ab,kw.
79	standard gamble*.ti,ab,kw.
80	(time trade off or time tradeoff).ti,ab,kw.
81	tto.ti,ab,kw.
82	(hui or hui1 or hui2 or hui3).ti,ab,kw.
83	(eq or euroqol or euro qol or eq5d or eq 5d or euroqual or euro qual).ti,ab,kw.
84	duke health profile.ti,ab,kw.
85	functional status questionnaire.ti,ab,kw.
86	dartmouth coop functional health assessment*.ti,ab,kw.
87	or/48-86
88	30 and 47
89	30 and 87
90	88 or 89

Database: PsycInfo

Date of last search: 04/04/2023

#	Searches
1	GAMBLING/
2	GAMBLING DISORDER/
3	(gambl* not standard gamble).ti,ab.
4	betting.ti,ab.
5	(bet or bets).ti,ab.
6	wager*.ti,ab.
7	((gaming or gambling or slot or fruit or poker or lottery or lotteries) adj5 (machine? or terminal?)).ti,ab.
8	(pokies or pokey or puggy or fruities).ti,ab.
9	((dice or card? or roulette or blackjack or poker or baccarat or crap or craps or keno or casino? or bingo or bookmaker? or book maker or bookie? or lottery or lotteries or lotto or scratch card? or scratchcard? or raffle or raffles or sweepstak* or amusement arcade? or slot?) adj5 (money or monetization or monetisation or monetary or currency or currencies or cryptocurrency or cryptocurrencies or reward* or win or wins or winning* or loss or losses or lose)).ti,ab.
10	((game or games or gaming or gamer?) adj5 (money or monetization or monetisation or monetary)).ti,ab.
11	or/1-10
12	limit 11 to english language
13	limit 12 to yr="2000 -Current"
14	(letter or editorial or comment reply).dt. or case report/
15	(letter or comment*).ti.
16	or/14-15
17	exp randomized controlled trial/
18	random*.ti,ab.
19	or/17-18
20	16 not 19
21	animal.po.
22	(rat or rats or mouse or mice).ti.
23	or/20-22
24	13 not 23
25	ECONOMICS/
26	HEALTH CARE ECONOMICS/
27	exp "COSTS AND COST ANALYSIS"/
28	RESOURCE ALLOCATION/
29	budget*.ti,ab.
30	cost*.ti,ab.
31	(economic* or pharmaco?economic*).ti,ab.
32	(price* or pricing*).ti,ab.

#	Searches
33	(financ* or fee or fees or expenditure* or saving*).ti,ab.
34	(value adj2 (money or monetary)).ti,ab.
35	resourc* allocat*.ti,ab.
36	(fund or funds or funding* or funded).ti,ab.
37	(ration or rations or rationing* or rationed).ti,ab.
38	or/25-37
39	"QUALITY OF LIFE"/
40	"HEALTH RELATED QUALITY OF LIFE"/
41	quality of life.ti.
42	((instrument or instruments) adj3 quality of life).ab.
43	quality adjusted life.ti,ab.
44	(qaly* or qald* or qale* or qtime* or life year or life years).ti,ab.
45	disability adjusted life.ti,ab.
46	daly*.ti,ab.
47	(sf36 or sf 36 or short form 36 or shortform 36 or short form36 or shortform36 or sf thirtysix or sfthirtysix or sfthirty six or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).ti,ab.
48	(sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six or shortform6 or short form6).ti,ab.
49	(sf8 or sf 8 or sf eight or sflight or shortform 8 or shortform 8 or shortform8 or short form8 or shortform eight or short form eight).ti,ab.
50	(sf12 or sf 12 or short form 12 or shortform 12 or short form12 or shortform12 or sf twelve or sftwelve or shortform twelve or short form twelve).ti,ab.
51	(sf16 or sf 16 or short form 16 or shortform 16 or short form16 or shortform16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).ti,ab.
52	(sf20 or sf 20 or short form 20 or shortform 20 or short form20 or shortform20 or sf twenty or sftwenty or shortform twenty or short form twenty).ti,ab.
53	(hql or hqol or h qol or hrqol or hr qol).ti,ab.
54	(hye or hyes).ti,ab.
55	(health* adj2 year* adj2 equivalent*).ti,ab.
56	(pqol or qls).ti,ab.
57	(quality of wellbeing or quality of well being or index of wellbeing or index of well being or qwb).ti,ab.
58	nottingham health profile*.ti,ab.
59	sickness impact profile.ti,ab.
60	(health adj3 (utilit* or status)).ti,ab.
61	(utilit* adj3 (valu* or measur* or health or life or estimat* or elicit* or disease or score* or weight)).ti,ab.
62	(preference* adj3 (valu* or measur* or health or life or estimat* or elicit* or disease or score* or instrument or instruments)).ti,ab.
63	disutilit*.ti,ab.
64	rosser.ti,ab.
65	willingness to pay.ti,ab.
66	standard gamble*.ti,ab.
67	(time trade off or time tradeoff).ti,ab.
68	tto.ti,ab.
69	(hui or hui1 or hui2 or hui3).ti,ab.
70	(eq or euroqol or euro qol or eq5d or eq 5d or euroqual or euro qual).ti,ab.
71	duke health profile.ti,ab.
72	functional status questionnaire.ti,ab.
73	dartmouth coop functional health assessment*.ti,ab.
74	or/39-73
75	24 and 38
76	24 and 74
77	75 or 76
78	limit 77 to ("0100 journal" or "0110 peer-reviewed journal")

Database: Health Management Information Consortium (HMIC)

Date of last search: 04/04/2023

#	Searches
1	GAMBLING/
2	GAMBLERS/
3	GAMBLING MACHINES/
4	AMUSEMENT ARCADES/
5	CASINOS/
6	BOOKMAKERS/
7	LOTTERIES/
8	NATIONAL LOTTERY/
9	(gamb* not standard gamble).ti,ab.
10	betting.ti,ab.
11	(bet or bets).ti,ab.
12	wager*.ti,ab.

#	Searches
13	((gaming or gambling or slot or fruit or poker or lottery or lotteries) adj5 (machine? or terminal?)).ti,ab.
14	(pokies or pokey or puggy or fruities).ti,ab.
15	((dice or card? or roulette or blackjack or poker or baccarat or crap or craps or keno or casino? or bingo or bookmaker? or book maker or bookie? or lottery or lotteries or lotto or scratch card? or scratchcard? or raffle or raffles or sweepstak* or amusement arcade? or slot?) adj5 (money or monetization or monetisation or monetary or currency or currencies or cryptocurrency or cryptocurrencies or reward* or win or wins or winning* or loss or losses or lose)).ti,ab.
16	((game or games or gaming or gamer?) adj5 (money or monetization or monetisation or monetary)).ti,ab.
17	or/1-16
18	limit 17 to yr="2000 -Current"
19	exp ECONOMICS/
20	exp COSTS/
21	exp FEES/
22	exp BUDGETS/
23	RESOURCE ALLOCATION/
24	budget*.ti,ab.
25	cost*.ti,ab.
26	(economic* or pharmaco?economic*).ti,ab.
27	(price* or pricing*).ti,ab.
28	(financ* or fee or fees or expenditure* or saving*).ti,ab.
29	(value adj2 (money or monetary)).ti,ab.
30	resourc* allocat*.ti,ab.
31	(fund or funds or funding* or funded).ti,ab.
32	(ration or rations or rationing* or rationed).ti,ab.
33	or/19-32
34	"QUALITY OF LIFE"/
35	QUALITY-ADJUSTED LIFE YEARS/
36	HEALTH STATUS MEASURES/
37	HEALTH SERVICE INDICATORS/
38	quality of life.ti.
39	((instrument or instruments) adj3 quality of life).ab.
40	quality adjusted life.ti,ab.
41	(qaly* or qald* or qale* or qtime* or life year or life years).ti,ab.
42	disability adjusted life.ti,ab.
43	daly*.ti,ab.
44	(sf36 or sf 36 or short form 36 or shortform 36 or short form36 or shortform36 or sf thirtysix or sftthirtysix or sftthirty six or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).ti,ab.
45	(sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six or shortform6 or short form6).ti,ab.
46	(sf8 or sf 8 or sf eight or sfeight or shortform 8 or shortform 8 or shortform8 or short form8 or shortform eight or short form eight).ti,ab.
47	(sf12 or sf 12 or short form 12 or shortform 12 or short form12 or shortform12 or sf twelve or sftwelve or shortform twelve or short form twelve).ti,ab.
48	(sf16 or sf 16 or short form 16 or shortform 16 or short form16 or shortform16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).ti,ab.
49	(sf20 or sf 20 or short form 20 or shortform 20 or short form20 or shortform20 or sf twenty or sftwenty or shortform twenty or short form twenty).ti,ab.
50	(hql or hqol or h qol or hrqol or hr qol).ti,ab.
51	(hye or hyes).ti,ab.
52	(health* adj2 year* adj2 equivalent*).ti,ab.
53	(pqol or qls).ti,ab.
54	(quality of wellbeing or quality of well being or index of wellbeing or index of well being or qwb).ti,ab.
55	nottingham health profile*.ti,ab.
56	sickness impact profile.ti,ab.
57	(health adj3 (utilit* or status)).ti,ab.
58	(utilit* adj3 (valu* or measur* or health or life or estimat* or elic* or disease or score* or weight)).ti,ab.
59	(preference* adj3 (valu* or measur* or health or life or estimat* or elic* or disease or score* or instrument or instruments)).ti,ab.
60	disutilit*.ti,ab.
61	rosser.ti,ab.
62	willingness to pay.ti,ab.
63	standard gamble*.ti,ab.
64	(time trade off or time tradeoff).ti,ab.
65	tto.ti,ab.
66	(hui or hui1 or hui2 or hui3).ti,ab.
67	(eq or euroqol or euro qol or eq5d or eq 5d or euroqual or euro qual).ti,ab.
68	duke health profile.ti,ab.
69	functional status questionnaire.ti,ab.
70	dartmouth coop functional health assessment*.ti,ab.
71	or/34-70
72	18 and 33
73	18 and 71

#	Searches
74	72 or 73

Database: Social Policy and Practice

Date of last search: 04/04/2023

#	Searches
1	(gambl* not standard gamble).ti,ab.
2	betting.ti,ab.
3	(bet or bets).ti,ab.
4	wager*.ti,ab.
5	((gaming or gambling or slot or fruit or poker or lottery or lotteries) adj5 (machine? or terminal?)).ti,ab.
6	(pokies or pokey or puggy or fruities).ti,ab.
7	((dice or card? or roulette or blackjack or poker or baccarat or crap or craps or keno or casino? or bingo or bookmaker? or book maker or bookie? or lottery or lotteries or lotto or scratch card? or scratchcard? or raffle or raffles or sweepstak* or amusement arcade? or slot?) adj5 (money or monetization or monetisation or monetary or currency or currencies or cryptocurrency or cryptocurrencies or reward* or win or wins or winning* or loss or losses or lose)).ti,ab.
8	((game or games or gaming or gamer?) adj5 (money or monetization or monetisation or monetary)).ti,ab.
9	or/1-8
10	limit 9 to yr="2000 -Current"
11	budget*.ti,ab.
12	cost*.ti,ab.
13	(economic* or pharmaco?economic*).ti,ab.
14	(price* or pricing*).ti,ab.
15	(financ* or fee or fees or expenditure* or saving*).ti,ab.
16	(value adj2 (money or monetary)).ti,ab.
17	resourc* allocat*.ti,ab.
18	(fund or funds or funding* or funded).ti,ab.
19	(ration or rations or rationing* or rationed).ti,ab.
20	or/11-19
21	quality of life.ti.
22	((instrument or instruments) adj3 quality of life).ab.
23	quality adjusted life.ti,ab.
24	(qaly* or qald* or qale* or qtime* or life year or life years).ti,ab.
25	disability adjusted life.ti,ab.
26	daly*.ti,ab.
27	(sf36 or sf 36 or short form 36 or shortform 36 or short form36 or shortform36 or sf thirtysix or sftirtysix or sftirty six or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).ti,ab.
28	(sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six or shortform6 or short form6).ti,ab.
29	(sf8 or sf 8 or sf eight or sflight or shortform 8 or shortform 8 or shortform8 or short form8 or shortform eight or short form eight).ti,ab.
30	(sf12 or sf 12 or short form 12 or shortform 12 or short form12 or shortform12 or sf twelve or sftwelve or shortform twelve or short form twelve).ti,ab.
31	(sf16 or sf 16 or short form 16 or shortform 16 or short form16 or shortform16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).ti,ab.
32	(sf20 or sf 20 or short form 20 or shortform 20 or short form20 or shortform20 or sf twenty or sftwenty or shortform twenty or short form twenty).ti,ab.
33	(hql or hqol or h qol or hrqol or hr qol).ti,ab.
34	(hye or hyes).ti,ab.
35	(health* adj2 year* adj2 equivalent*).ti,ab.
36	(pqol or qls).ti,ab.
37	(quality of wellbeing or quality of well being or index of wellbeing or index of well being or qwb).ti,ab.
38	nottingham health profile*.ti,ab.
39	sickness impact profile.ti,ab.
40	(health adj3 (utilit* or status)).ti,ab.
41	(utilit* adj3 (valu* or measur* or health or life or estimat* or elic* or disease or score* or weight)).ti,ab.
42	(preference* adj3 (valu* or measur* or health or life or estimat* or elic* or disease or score* or instrument or instruments)).ti,ab.
43	disutilit*.ti,ab.
44	rosser.ti,ab.
45	willingness to pay.ti,ab.
46	standard gamble*.ti,ab.
47	(time trade off or time tradeoff).ti,ab.
48	tto.ti,ab.
49	(hui or hui1 or hui2 or hui3).ti,ab.
50	(eq or euroqol or euro qol or eq5d or eq 5d or euroqual or euro qual).ti,ab.
51	duke health profile.ti,ab.
52	functional status questionnaire.ti,ab.
53	dartmouth coop functional health assessment*.ti,ab.
54	or/21-53

#	Searches
55	10 and 20
56	10 and 54
57	55 or 56

Database: Cochrane Central Register of Controlled Trials (CENTRAL)

Date of last search: 04/04/2023

#	Searches
#1	MeSH descriptor: [Gambling] this term only
#2	gambl*:ti,ab
#3	betting:ti,ab
#4	(bet or bets):ti,ab
#5	wager*:ti,ab
#6	((gaming or gambling or slot or fruit or poker or lottery or lotteries) near/5 (machine* or terminal*)):ti,ab
#7	(pokies or pokey or puggy or fruities):ti,ab
#8	((dice or card or cards or roulette or blackjack or poker or baccarat or crap or craps or keno or casino* or bingo or bookmaker* or "book maker" or bookie* or lottery or lotteries or lotto or "scratch card*" or scratchcard* or raffle or raffles or sweepstak* or "amusement arcade*" or slot or slots) near/5 (money or monetization or monetisation or monetary or currency or currencies or cryptocurrency or cryptocurrencies or reward* or win or wins or winning* or loss or losses or lose)):ti,ab
#9	((game or games or gaming or gamer*) near/5 (money or monetization or monetisation or monetary)):ti,ab
#10	#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9
#11	#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 with Cochrane Library publication date Between Jan 2000 and Mar 2022
#12	MeSH descriptor: [Economics] this term only
#13	MeSH descriptor: [Value of Life] this term only
#14	MeSH descriptor: [Costs and Cost Analysis] explode all trees
#15	MeSH descriptor: [Economics, Hospital] explode all trees
#16	MeSH descriptor: [Economics, Medical] explode all trees
#17	MeSH descriptor: [Resource Allocation] explode all trees
#18	MeSH descriptor: [Economics, Nursing] this term only
#19	MeSH descriptor: [Economics, Pharmaceutical] this term only
#20	MeSH descriptor: [Fees and Charges] explode all trees
#21	MeSH descriptor: [Budgets] explode all trees
#22	budget*:ti,ab
#23	cost*:ti,ab
#24	(economic* or pharmaco?economic*):ti,ab
#25	(price* or pricing*):ti,ab
#26	(financ* or fee or fees or expenditure* or saving*):ti,ab
#27	(value near/2 (money or monetary)):ti,ab
#28	resourc* allocat*:ti,ab
#29	(fund or funds or funding* or funded):ti,ab
#30	(ration or rations or rationing* or rationed):ti,ab
#31	#12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or #24 or #25 or #26 or #27 or #28 or #29 or #30
#32	MeSH descriptor: [Value of Life] this term only
#33	MeSH descriptor: [Quality of Life] this term only
#34	"quality of life":ti
#35	((instrument or instruments) near/3 "quality of life"):ab
#36	MeSH descriptor: [Quality-Adjusted Life Years] this term only
#37	"quality adjusted life":ti,ab
#38	(qaly* or qald* or qale* or qtime* or "life year" or "life years"):ti,ab
#39	"disability adjusted life":ti,ab
#40	daly*:ti,ab
#41	(sf36 or "sf 36" or "short form 36" or "shortform 36" or "short form36" or shortform36 or "sf thirtysix" or sftthirtysix or "sftthirty six" or "sf thirty six" or "shortform thirtysix" or "shortform thirty six" or "short form thirtysix" or "short form thirty six"):ti,ab
#42	(sf6 or "sf 6" or "short form 6" or "shortform 6" or "sf six" or sfsix or "shortform six" or "short form six" or shortform6 or "short form6"):ti,ab
#43	(sf8 or "sf 8" or "sf eight" or sfeight or "shortform 8" or "shortform 8" or shortform8 or "short form8" or "shortform eight" or "short form eight"):ti,ab
#44	(sf12 or "sf 12" or "short form 12" or "shortform 12" or "short form12" or shortform12 or "sf twelve" or sftwelve or "shortform twelve" or "short form twelve"):ti,ab
#45	(sf16 or "sf 16" or "short form 16" or "shortform 16" or "short form16" or shortform16 or "sf sixteen" or sfsixteen or "shortform sixteen" or "short form sixteen"):ti,ab
#46	(sf20 or "sf 20" or "short form 20" or "shortform 20" or "short form20" or shortform20 or "sf twenty" or sftwenty or "shortform twenty" or "short form twenty"):ti,ab
#47	(hql or hqol or "h qol" or hrqol or "hr qol"):ti,ab
#48	(hye or hyes):ti,ab
#49	(health* near/2 year* near/2 equivalent*):ti,ab

#	Searches
#50	(pqol or qls):ti,ab
#51	(quality of wellbeing or "quality of well being" or "index of wellbeing" or "index of well being" or qwb):ti,ab
#52	"nottingham health profile":ti,ab
#53	"sickness impact profile":ti,ab
#54	MeSH descriptor: [Health Status Indicators] explode all trees
#55	(health near/3 (utilit* or status)):ti,ab
#56	(utilit* near/3 (valu* or measur* or health or life or estimat* or elicit* or disease or score* or weight)):ti,ab
#57	(preference* near/3 (valu* or measur* or health or life or estimat* or elicit* or disease or score* or instrument or instruments)):ti,ab
#58	disutilit*:ti,ab
#59	rosser:ti,ab
#60	"willingness to pay":ti,ab
#61	"standard gamble":ti,ab
#62	("time trade off" or "time tradeoff"):ti,ab
#63	tto:ti,ab
#64	(hui or hui1 or hui2 or hui3):ti,ab
#65	(eq or euroqol or "euro qol" or eq5d or "eq 5d" or euroqual or "euro qual"):ti,ab
#66	"duke health profile":ti,ab
#67	"functional status questionnaire":ti,ab
#68	"dartmouth coop functional health assessment":ti,ab
#69	#32 or #33 or #34 or #35 or #36 or #37 or #38 or #39 or #40 or #41 or #42 or #43 or #44 or #45 or #46 or #47 or #48 or #49 or #50 or #51 or #52 or #53 or #54 or #55 or #56 or #57 or #58 or #59 or #60 or #61 or #62 or #63 or #64 or #65 or #66 or #67 or #68
#70	#11 and #31
#71	#11 and #69
#72	#70 or #71

Database: International Health Technology Assessment Database (INAHTA)

Date of last search: 04/04/2023

#	Searches
	All:(gamble or gambler or gamblers or gambling or gambled or betting or bet or bets or wager or wagers)
	AND Publication Year: 2000-2022

Database: NHS Economic Evaluation Database (NHS EED)

Date of last search: 04/04/2023

#	Searches
1	MeSH DESCRIPTOR GAMBLING IN NHSEED
2	(gambl*) TI IN NHSEED
3	(betting) IN NHSEED
4	(bet or bets) IN NHSEED
5	(wager*) IN NHSEED
6	((gaming or gambling or slot or fruit or poker or lottery or lotteries) near5 (machine* or terminal*)) IN NHSEED
7	(pokies or pokey or puggy or fruities) IN NHSEED
8	((dice or card or cards or roulette or blackjack or poker or baccarat or crap or craps or keno or casino* or bingo or bookmaker* or book maker or bookie* or lottery or lotteries or lotto or scratch card* or scratchcard* or raffle or raffles or sweepstak* or amusement arcade* or slot*) near5 (money or monetization or monetisation or monetary or currency or currencies or cryptocurrency or cryptocurrencies or reward* or win or wins or winning* or loss or losses or lose)) IN NHSEED
9	((game or games or gaming or gamer*) near5 (money or monetization or monetisation or monetary)) IN NHSEED
10	#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9

Database: Cumulative Index to Nursing and Allied Health Literature (CINAHL)

Date of last search: 04/04/2023

#	Searches
S1	TI (gambl* or betting or bet or bets or wager* or "gaming machine*" or "slot machine*" or "fruit machine*" or "poker machine*" or "lottery machine*" or "lotteries machine*" or "gaming terminal*" or "slot terminal*" or "fruit terminal*" or "poker terminal*" or "lottery terminal*" or "lotteries terminal*" or pokies or pokey or puggy or fruities) Limiters - Publication Year: 2000-
S2	TI (budget* OR cost* OR economic* OR pharmaco-economic* OR price* OR pricing* OR financ* OR fee OR fees OR expenditure* OR saving* OR "value for money" OR "monetary value" OR "resourc* allocat*" OR "allocat* resourc*" OR fund OR funds OR funding* OR funded OR ration OR rations OR rationing* OR rationed or "quality of life" or "quality adjusted life" or "disability adjusted life" or "short form or shortform" or "health year equivalent*" or "nottingham health profile*" or "sickness impact profile*" or "health status indicator*" or "health utilit*" or "utilit* valu*" or "utilit* measur*" or "willingness to pay" or "standard gamble*" or "time trade off" or "time tradeoff" or "duke health profile" or "functional status questionnaire" or "dartmouth coop functional health assessment") Limiters - Publication Year: 2000-

#	Searches
S3	S1 and S2

Database: Applied Social Science Index and Abstracts (ASSIA)

Date of last search: 04/04/2023

#	Searches
	AB,TI (gambl* or betting or bet or bets or wager* or "gaming machine*" or "slot machine*" or "fruit machine*" or "poker machine*" or "lottery machine*" or "lotteries machine*" or "gaming terminal*" or "slot terminal*" or "fruit terminal*" or "poker terminal*" or "lottery terminal*" or "lotteries terminal*" or pokies or pokey or puggy or fruities)
AND	AB,TI(budget* OR cost* OR economic* OR pharmaco-economic* OR price* OR pricing* OR financ* OR fee OR fees OR expenditure* OR saving* OR "value for money" OR "monetary value" OR "resourc* allocat*" OR "allocat* resourc*" OR fund OR funds OR funding* OR funded OR ration OR rations OR rationing* OR rationed or "quality of life" or "quality adjusted life" or "disability adjusted life" or "short form or shortform" or "health year equivalent*" or "nottingham health profile*" or "sickness impact profile*" or "health status indicator*" or "health utilit*" or "utilit* valu*" or "utilit* measur*" or "willingness to pay" or "standard gamble*" or "time trade off" or "time tradeoff" or "duke health profile" or "functional status questionnaire" or "dartmouth coop functional health assessment*")
AND	Additional limits - Date: From January 2000

Database: Social Care Online

Date of last search: 04/04/2023

#	Searches
	AllFields: 'gamble or gambler or gamblers or gambling or gambled or betting or bet or bets or wager or wagers or "gaming machine" or "slot machine" or "fruit machine" or "poker machine" or "lottery machine" or "lotteries machine" or "gaming terminal" or "slot terminal" or "fruit terminal" or "poker terminal" or "lottery terminal" or "lotteries terminal" or pokies or pokey or puggy or fruities'
	AND AllFields: 'budget or cost or economic or pharmaco-economic or price or pricing or finance or fee or fees or expenditure or saving or "value for money" or "monetary value" or "allocate resource" or "resource allocation" or fund or funds or funding or funded or ration or rations or rationing or rationed' or "quality of life" or "quality adjusted life" or "disability adjusted life" or "short form or shortform" or "health year equivalent" or "sickness impact profile" or "health status indicator" or "health utility" or "utility value" or "utility measure" or "standard gamble" or "time trade off" or "time tradeoff"
	AND PublicationYear:'2000 2020'

Database: Social Sciences Citation Index

Date of last search: 04/04/2023

#	Searches
	(gambl* or betting or bet or bets or wager* or "gaming machine*" or "slot machine*" or "fruit machine*" or "poker machine*" or "lottery machine*" or "lotteries machine*" or "gaming terminal*" or "slot terminal*" or "fruit terminal*" or "poker terminal*" or "lottery terminal*" or "lotteries terminal*" or pokies or pokey or puggy or fruities) and (budget* OR cost* OR economic* OR pharmaco-economic* OR price* OR pricing* OR financ* OR fee OR fees OR expenditure* OR saving* OR "value for money" OR "monetary value" OR "resourc* allocat*" OR "allocat* resourc*" OR fund OR funds OR funding* OR funded OR ration OR rations OR rationing* OR rationed or "quality of life" or "quality adjusted life" or "disability adjusted life" or "short form or shortform" or "health year equivalent*" or "nottingham health profile*" or "sickness impact profile*" or "health status indicator*" or "health utilit*" or "utilit* valu*" or "utilit* measur*" or "willingness to pay" or "standard gamble*" or "time trade off" or "time tradeoff" or "duke health profile" or "functional status questionnaire" or "dartmouth coop functional health assessment*") (Title) Timespan: 2000-01-01 to 2022-03-24

Other sources

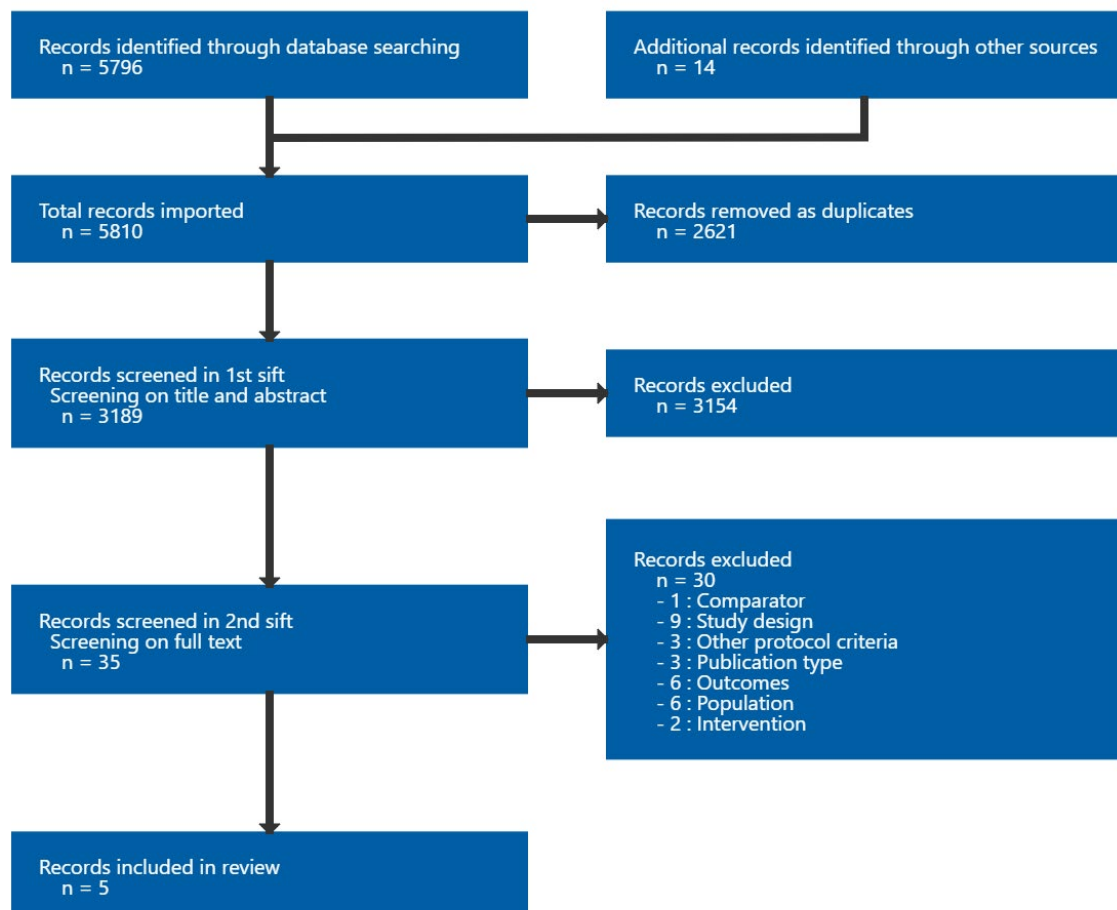
All websites listed in the protocol were searched and browsed.

Date of last search: 11/04/2023

Appendix C Effectiveness evidence study selection

Study selection for: What is the effectiveness of interventions and approaches for reducing gambling-related harms for families, friends and others close to people who gamble?

Figure 1: Study selection flow chart



Appendix D Evidence tables

Evidence tables for review question: What is the effectiveness of interventions and approaches for reducing gambling-related harms for families, friends and others close to people who gamble?

Table 4: Evidence tables

Hodgins, 2007

Bibliographic Reference Hodgins, D.C.; Toneatto, T.; Makarchuk, K.; Skinner, W.; Vincent, S.; Minimal treatment approaches for concerned significant others of problem gamblers: A randomized controlled trial; Journal of Gambling Studies; 2007; vol. 23 (no. 2); 215-230

Study details

Country/ies where study was carried out	Canada
Study type	Randomised controlled trial (RCT)
Study dates	Not reported.
Inclusion criteria	<p>For affected other:</p> <ul style="list-style-type: none"> • Had at least 3 days contact per week with a family member or friend who had a perceived gambling problem and was resistant to entering treatment • English literate • Agreed to maintain contact via telephone for the 6-month follow-up period, and for telephone calls to be recorded • Provided contact details for a person who could be called if participant could not be reached for follow-up interviews <p>For affected other and person participating in harmful gambling:</p> <ul style="list-style-type: none"> • Aged ≥18 years old • Had any gambling-related treatment in previous 3 months
Exclusion criteria	Not reported.
Patient characteristics	<p>Age in years [Mean (SD)]: 45 (12.2)</p> <ul style="list-style-type: none"> • Age by treatment group, not reported. <p>Sex (n): M= 33, F=153</p>

	<ul style="list-style-type: none"> • Sex by treatment group, not reported. <p>Gambling symptom severity scale and score of people experiencing harmful gambling: Not reported, meeting DSM-IV criteria for pathological gambling (n): 179</p> <ul style="list-style-type: none"> • Gambling symptom severity by treatment group, not reported. <p>Ethnicity: Not reported, cultural group (n):</p> <ul style="list-style-type: none"> • Canadian: 125 • Other: 50 • Native/Metis: 11 <ul style="list-style-type: none"> ◦ Cultural group by treatment group, not reported.
Intervention(s)/control	<p>Intervention: Self-help workbook plus standard care. Participants received the 'Helping the Problem Gambler. Helping Yourself. A Self-help Approach for Family Members', a self-help manual informed by focus groups that had been conducted with families and friends (affected others) of people participating in harmful gambling, results from a previous RCT, and CRAFT framework. Areas covered were: Becoming and staying motivated to help; helping yourself (finances, minimizing distress, other areas); increasing awareness and understanding of harmful gambling; and helping the gambler. Exercises are also included to encourage affected others to develop new methods of coping with and helping people participating in harmful gambling. Participants also received the treatment resources as per the control group. Receipt of materials was confirmed 2 weeks after posting but no further contact with researchers throughout the study period was made.</p> <p>Intervention: Telephone calls plus self-help workbook plus standard care. Participants received a self-help manual as described above and the treatment resources as per the control group. Receipt of materials was confirmed 2 weeks after posting. A clinical therapist also telephoned participants at 2 weeks to support and encourage use of the workbook and completion of the exercises. A follow-up call was conducted 4 weeks later (6 weeks from baseline) to offer additional encouragement and support. Calls lasted approximately 30-40 min and were audiotaped for quality and consistency.</p> <p>Control: Standard care. Participants received treatment resource pack containing general information as well as treatment resources available in the local area. Receipt of materials was confirmed 2 weeks after posting but no further contact with researchers throughout the study period was made.</p>
Duration of follow-up	6 months
Sources of funding	Unclear funding source (Ontario Problem Gambling Research Centre)
Sample size	<p>N=186 randomised</p> <ul style="list-style-type: none"> • n=61 self-help workbook plus standard care • n=65 telephone calls plus self-help workbook plus standard care • n=60 standard care

N=125 analysed

- n=42 self-help workbook plus standard care
- n=41 telephone calls plus self-help workbook plus standard care
- n=42 standard care

Outcomes

Self-help workbook v. self-help workbook plus telephone calls v. standard care: Psychological wellbeing of affected others

Brief Symptom Inventory (BSI) - Polarity - Higher values are better

Outcome	Self-help workbook, Baseline, n = 61	Self-help workbook, 3-month, n = 42	Self-help workbook, 6-month, n = 42	Self-help workbook plus telephone calls, Baseline, n = 65	Self-help workbook plus telephone calls, 3-month, n = 41	Self-help workbook plus telephone calls, 6-month, n = 41	Standard care, Baseline, n = 60	Standard care, 3-month, n = 42	Standard care, 6-month, n = 42
Brief Symptom Inventory (BSI) 53 items, scale not reported Mean (SD)	54.8 (43.8)	39.8 (34)	41 (37)	54.8 (41.4)	30.9 (32.2)	42.7 (36.3)	46.1 (38.9)	33.5 (26.9)	30.9 (30.8)

Self-help workbook v. self-help workbook plus telephone calls v. standard care: Relationship functioning

Relationship Happiness Scale - Polarity - Higher values are better

Outcome	Self-help workbook, Baseline, n = 61	Self-help workbook, 3-months, n = 39	Self-help workbook, 6-months, n = 39	Self-help workbook plus telephone calls, Baseline, n = 65	Self-help workbook plus telephone calls, 3-months, n = 37	Self-help workbook plus telephone calls, 6-months, n = 37	Standard care, Baseline, n = 60	Standard care, 3-months, n = 42	Standard care, 6-months, n = 42
Relationship Happiness Scale (RHS) 9 items, scale not reported Mean (SD)	38.1 (15.5)	49 (23.3)	51.6 (24.4)	39.9 (15.9)	54.8 (19.6)	51.6 (25.5)	43.9 (15.9)	51.4 (19.9)	52.2 (23.8)

Relationship assessment scale (RAS) - Polarity - Higher values are better

Outcome	Self-help workbook, Baseline, n = 61	Self-help workbook, 3 months, n = 42	Self-help workbook, 6 months, n = 42	Self-help workbook plus telephone calls, Baseline, n = 65	Self-help workbook plus telephone calls, 3 months, n = 39	Self-help workbook plus telephone calls, 6 months, n = 39	Standard care, Baseline, n = 60	Standard care, 3 months, n = 40	Standard care, 6 months, n = 40
Relationship Assessment Scale (RAS) 4 items (out of 7), scale 4-20 Mean (SD)	8.6 (3.5)	9.8 (4.2)	10.4 (4.7)	9.3 (4.1)	10.9 (3.5)	10.3 (4.5)	10.8 (3.4)	10.7 (4.1)	11.6 (4.1)

Critical appraisal – Cochrane RoB 2

Section	Question	Answer
Domain 1: Bias arising from the randomisation process	Risk of bias judgement for the randomisation process	Some concerns (Block randomised using random number generator; allocation sequence concealed using sealed, opaque, sequentially numbered envelopes; significant differences found in total days gambled (between control group and telephone call group but not workbook group) and RAS but all others non-significant.)
Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)	Risk of bias for deviations from the intended interventions (effect of assignment to intervention)	High (Participants aware of assigned treatment group; counsellors probably aware of assigned treatment group due to nature of intervention and control groups; only 55% of telephone call group received both calls, 22% only received 1 call and 22% did not receive either calls. Intent to treat analysis performed.)
Domain 3. Bias due to missing outcome data	Risk-of-bias judgement for missing outcome data	Low (Outcome data only available for 67% (125/186, for BSI outcome), 63% (118/186, for RHS outcome), and 65% (121/186, for RAS outcome) participants; sensitivity analysis performed to compare with and without non-completers. Results were similar so only results with completers presented. However, should be noted that results of that analysis are not presented, just the conclusion.)
Domain 4. Bias in measurement of the outcome	Risk-of-bias judgement for measurement of the outcome	Some concerns (Measurements taken at same time points using same procedures; no information on whether assessors were aware of intervention group, but assessments conducted using

		standardised, validated measurements which reduces risk of bias.)
Domain 5. Bias in selection of the reported result	Risk-of-bias judgement for selection of the reported result	Some concerns (No information provided on analysis plan.)
Overall bias and Directness	Risk of bias judgement	High
Overall bias and Directness	Overall Directness	Directly applicable
Overall bias and Directness	Risk of bias variation across outcomes	None

Magnusson, 2019

Bibliographic Reference Magnusson, K.; Nilsson, A.; Andersson, G.; Hellner, C.; Carlbring, P.; Internet-delivered cognitive-behavioral therapy for significant others of treatment-refusing problem gamblers: A randomized wait-list controlled trial; Journal of Consulting and Clinical Psychology; 2019; vol. 87 (no. 9); 802-814

Study details

Country/ies where study was carried out	Sweden
Study type	Randomised controlled trial (RCT)
Study dates	March 2015-February 2017
Inclusion criteria	<p>Affected others had to:</p> <ul style="list-style-type: none"> • Be parent/child/sibling/friend/partner of person participating in harmful gambling • Have ≥3 months relationship with person participating in harmful gambling • Literate in Swedish and agree to a weekly phone contact with study researchers (for 10 weeks) • [If applicable] Be on a stable dose of psychotropic medication for ≥3 months <p>Affected others and person participating in harmful gambling had to:</p> <ul style="list-style-type: none"> • Be ≥18 years old • Have not undergone any treatment related to gambling within last 3 months <p>Person participating in harmful gambling:</p> <ul style="list-style-type: none"> • Unwilling to enter treatment for harmful gambling

	<ul style="list-style-type: none"> Rated by affected other as participating in problem gambling as defined by Problem Gambling Severity Index (score of ≥ 8)
Exclusion criteria	<ul style="list-style-type: none"> Either affected other or person participating in harmful gambling has a current psychotic or bipolar disorder Affected other also meets Problem Gambling Severity Index criteria for problem gambling (score of ≥ 8)
Patient characteristics	<p>Age in years [Mean (SD)]:</p> <ul style="list-style-type: none"> Internet-delivered CBT programme: 48 (14) Wait-list control: 43 (14) <p>Sex (n):</p> <ul style="list-style-type: none"> Internet-delivered CBT programme: M=7, F=44 Wait-list control: M=4, F=45 <p>Gambling symptom severity scale and score of people experiencing harmful gambling: Not reported.</p> <p>Ethnicity: Not reported.</p>
Intervention(s)/control	<p>Intervention: Internet-delivered CBT programme. Developed from the CRAFT approach and consisting of 9 modules (psychoeducation about gambling problems; functional analysis and gambling free activities; rewards and behavioural activation for both the CSO and problem gambler; psychoeducation and motivation and protecting affected others' economy; common behaviour that inadvertently enable gambling; communication training and principles from motivational interviewing; problem-solving; inviting the gambler into treatment; repetition and evaluation). Supported by study counsellors using email and a weekly 15-min telephone conversation.</p> <p>Control: Wait-list control. No further details reported.</p>
Duration of follow-up	<p>10 weeks (at intervention completion)</p> <p>Note: Follow-up measurements also performed at 3-months, 6-months and 12-months. However, this was only done in the treatment group and therefore no comparative analysis could be performed.</p>
Sources of funding	<p>Any industry funding (Funding for study not reported. 2 researchers received individual funding from received funding from independent research councils [Forskningsraadet on Halsa and Svenska Spels])</p>
Sample size	<p>N=100 randomised</p> <ul style="list-style-type: none"> n=51 treatment n=49 wait-list control <p>N=100 analysed</p> <ul style="list-style-type: none"> n=51 treatment

- n=49 wait-list control

Outcomes

Internet-delivered CBT v. waitlist control: Quality of life of affected others

World Health Organization's Quality of Life assessment (WHOQOL-BREF) – Polarity – Higher values are better

Outcome	Internet-delivered CBT, Baseline, n = 51	Internet-delivered CBT, 10-week, n = 51	Wait-list control, Baseline, n = 49	Wait-list control, 10-week, n = 49
Physical health Scale not reported Mean (SD)	13.82 (2.97)	14.54 (2.7)	14.9 (2.71)	14.43 (2.91)
Psychological Scale not reported Mean (SD)	12.31 (3)	13.03 (2.09)	12.86 (3.32)	12.26 (3.59)
Social relationships Scale not reported Mean (SD)	13.1 (3.61)	13.63 (2.66)	13.74 (3.2)	12.85 (2.94)
Environment Scale not reported Mean (SD)	14.33 (2.83)	14.45 (2.65)	14.62 (2.73)	13.79 (3.09)

Internet-delivered CBT v. waitlist control: Measurement of symptoms of other conditions for affected others

Patient Health Questionnaire (PHQ-9) – measurement of depressive symptoms – Polarity – Lower values are better

Generalized Anxiety Disorder Scale (GAD-7) – measurement of anxiety – Polarity – Lower values are better

Outcome	Internet-delivered CBT, Baseline, n = 51	Internet-delivered CBT, 10-week, n = 51	Wait-list control, Baseline, n = 49	Wait-list control, 10-week, n = 49
Patient Health Questionnaire (PHQ-9) – measurement of depressive symptoms 9 items, scale 0-27 Mean (SD)	13.31 (7.6)	7.23 (4.73)	11.12 (6.8)	9.06 (7.49)
Generalized Anxiety Disorder Scale (GAD-7) – measurement of anxiety 7 items, scale 0-21 Mean (SD)	11.25 (6.07)	8.39 (4.9)	9.84 (5.29)	9.36 (6.31)

Internet-delivered CBT v. waitlist control: Relationship functioning

Relationship assessment scale (RAS) – Polarity – Higher values are better

Outcome	Internet-delivered CBT, Baseline, n = 51	Internet-delivered CBT, 10 weeks, n = 51	Wait-list control, Baseline, n = 49	Wait-list control, 10 weeks, n = 49
Relationship assessment scale (RAS) 7 items, scale 7-35 Mean (SD)	21.29 (4.88)	22.9 (4.78)	23.06 (6)	22.61 (5.66)

Critical appraisal – Cochrane RoB2

Section	Question	Answer
Domain 1: Bias arising from the	Risk of bias judgement for the	Low

Section	Question	Answer
randomisation process	randomisation process	(Block randomised using random number generator; allocation sequence concealed using sealed, opaque, sequentially numbered enveloped; no concerns regarding baseline differences between groups.)
Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)	Risk of bias for deviations from the intended interventions (effect of assignment to intervention)	Some concerns (Participants aware of assigned treatment group; counsellors probably aware of assigned treatment group due to nature of intervention and control groups; no information given about deviations from intended intervention as a result of trial context. Intent to treat analysis performed.)
Domain 3. Bias due to missing outcome data	Risk-of-bias judgement for missing outcome data	Low (Outcome data only available for 68% (68/100) participants; sensitivity analysis performed and presented.)
Domain 4. Bias in measurement of the outcome	Risk-of-bias judgement for measurement of the outcome	Some concerns (Measurements taken at same time points using same procedures; assessment was self-reported which may have been influenced by knowledge of treatment group, but conducted using standardised, validated measurements which reduces risk of bias.)
Domain 5. Bias in selection of the reported result	Risk-of-bias judgement for selection of the reported result	Low (Data analysis methods, outcomes and time points correspond with published protocol.)
Overall bias and Directness	Risk of bias judgement	Some concerns
Overall bias and Directness	Overall Directness	Directly applicable
Overall bias and Directness	Risk of bias variation across outcomes	None

Makarchuk, 2002

Bibliographic Reference Makarchuk, K.; Hodgins, D.C.; Reden, N.; Development of a brief intervention for concerned significant others of problem gamblers; Addictive Disorders and their Treatment; 2002; vol. 1 (no. 4); 126-134

Study details

Country/ies where study was carried out	Canada
--	--------

Study type	Randomised controlled trial (RCT)
Study dates	Not reported.
Inclusion criteria	<p>Affected others had to:</p> <ul style="list-style-type: none"> • Be living with a family member or significant other who was reported (by affected other) to be participating in harmful gambling <ul style="list-style-type: none"> ◦ This was later extended to affected others who had ≥ 3 days contact per week with person participating in harmful gambling • Agree to provide follow-up data • Person participating in harmful gambling: • Resistant to undertaking treatment for harmful gambling <p>Affected other and person participating in harmful gambling had to:</p> <ul style="list-style-type: none"> • Be aged ≥ 18 years
Exclusion criteria	<ul style="list-style-type: none"> • Affected other and person participating in harmful gambling undertaking treatment within last 3 months
Patient characteristics	<p>Age in years [Mean (SD)]:</p> <ul style="list-style-type: none"> • Self-help manual plus standard care: 49.6 (12.4) • Standard care: 40.6 (12.9) <p>Sex (n):</p> <ul style="list-style-type: none"> • Self-help manual plus standard care: M=1, F=14 • Standard care: M=3, F=13 <p>Gambling symptom severity scale and score of people experiencing harmful gambling: Not reported, meeting DSM-IV criteria for pathological gambling (n):</p> <ul style="list-style-type: none"> • Self-help manual plus standard care: 15 • Standard care: 15 <p>Ethnicity: Not reported.</p>
Intervention(s)/control	<p>Intervention: Standard care plus self-help manual. A self-help manual was compiled by researchers, informed by focus groups that had been conducted with affected others of people participating in harmful gambling and CRAFT framework. Areas covered were: Becoming and staying motivated to help; helping yourself (finances, minimizing distress, other areas); increasing awareness and understanding of harmful gambling; and helping the gambler. Participants also received the treatment resources as per the control group.</p> <p>Control: Standard care. Participants received treatment resource pack containing general information as well as treatment resources</p>

	available in the area. No further details reported.
Duration of follow-up	3 months.
Sources of funding	Unclear funding source (Not reported)
Sample size	<p>N=31 randomised</p> <ul style="list-style-type: none"> • n=15 self-help manual plus standard care • n=16 standard care <p>N=28 analysed</p> <ul style="list-style-type: none"> • n=13 self-help manual plus standard care • n=15 standard care

Outcomes

Self-help manual plus standard care v. standard care: Psychological wellbeing of affected others

Brief Symptom Inventory (BSI) - Polarity - Lower values are better

Outcome	Self-help manual plus standard care, 3 months vs Baseline, n = 13	Standard care, 3 months vs Baseline, n = 15
Brief Symptom Inventory (BSI) 53 items, scale not reported Mean (SD)	10.6 (20.7)	13.9 (21.1)

Self-help manual plus standard care v. standard care: Relationship functioning

Relationship Happiness Scale - Polarity - Higher values are better

Outcome	Self-help manual plus standard care, 3-month vs Baseline, n = 13	Standard care, 3-month vs Baseline, n = 15
Relationship Happiness Scale (RHS)	18 (22.7)	7.7 (13.7)

Outcome	Self-help manual plus standard care, 3-month vs Baseline, n = 13	Standard care, 3-month vs Baseline, n = 15
Mean (SD)		

Self-help manual plus standard care v. standard care: Satisfaction of affected others with the intervention

Outcome	Standard care plus self-help manual, Baseline, n = 15	Standard care plus self-help manual, 3 months, n = 13	Standard care, Baseline, n = 16	Standard care, 3 months, n = 15
Needs met (almost all or most)	0	n = 9 ; % = 69	0	n = 2 ; % = 13
No of events				
Satisfied (mostly or very)	0	n = 13 ; % = 100	0	n = 4 ; % = 27
No of events				

Critical appraisal – RoB2

Section	Question	Answer
Domain 1: Bias arising from the randomisation process	Risk of bias judgement for the randomisation process	Some concerns (No information on randomisation process; no information on allocation concealment; no concerns regarding baseline differences between groups.)
Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)	Risk of bias for deviations from the intended interventions (effect of assignment to intervention)	<i>Some concerns</i> (Participants probably aware of assigned treatment group; counsellors probably aware of assigned treatment group due to nature of intervention and control groups; no information given about deviations from intended intervention as a result of trial context. Intention to treat analysis performed.)
Domain 3. Bias due to missing outcome data	Risk-of-bias judgement for missing outcome data	High (Outcome data only available for 90% (28/31) participants; no evidence that correction for bias or sensitivity analysis was performed; missing data could depend on true value; no information given as to reasons for drop-out.)

Section	Question	Answer
Domain 4. Bias in measurement of the outcome	Risk-of-bias judgement for measurement of the outcome	Low (Measurements taken at same time points using same procedures; assessment carried out by researcher blinded to treatment group.)
Domain 5. Bias in selection of the reported result	Risk-of-bias judgement for selection of the reported result	High (No information provided on analysis plan; results only presented after statistical analysis performed or as change scores. No raw data provided.)
Overall bias and Directness	Risk of bias judgement	High
Overall bias and Directness	Overall Directness	Directly applicable
Overall bias and Directness	Risk of bias variation across outcomes	None

Nayoski, 2016

Bibliographic Reference

Nayoski, Nicole; Hodgins, David C; The efficacy of individual Community Reinforcement and Family Training (CRAFT) for concerned significant others of problem gamblers.; Journal of Gambling Issues; 2016; vol. 33; 189-212

Study details

Country/ies where study was carried out	Canada
Study type	Randomised controlled trial (RCT)
Study dates	Not reported.
Inclusion criteria	<p>Affected others had to:</p> <ul style="list-style-type: none"> • Be in contact with person participating in harmful gambling ≥ 3 days per week • Be a close relative or partner of person participating in harmful gambling (not further defined and no examples given) • Literate to Canadian 6th grade level • Agree to complete initial face-to-face interview and follow-up telephone interview • Provide contact details for someone who could be contacted if study researchers lost contact with participant <p>Affected others and person participating in harmful gambling had to:</p> <ul style="list-style-type: none"> • Be aged ≥ 18 years

	<p>Person participating in harmful gambling had to:</p> <ul style="list-style-type: none"> • Resistant to entering treatment for their gambling behaviour • Meet the DSM-IV criteria for pathological gambling (score ≥ 5)
Exclusion criteria	<ul style="list-style-type: none"> • Affected others and people participating in harmful gambling who had received treatment for harmful gambling within last 2 months.
Patient characteristics	<p>Age in years [Mean (SD)]:</p> <ul style="list-style-type: none"> • CRAFT individual sessions: 47 (12.8) • CRAFT self-help workbook: 46 (12.9) <p>Sex (n):</p> <ul style="list-style-type: none"> • CRAFT individual sessions: M=2, F=14 • CRAFT self-help workbook: M=1, F=14 <p>Gambling symptom severity scale and score of people experiencing harmful gambling [Mean (SD)]: DSM-IV-TR,</p> <ul style="list-style-type: none"> • CRAFT individual sessions: 8.1 (1.2) • CRAFT self-help workbook: 8.0 (1.9) <p>Ethnicity: Not reported, cultural group (n):</p> <ul style="list-style-type: none"> • CRAFT individual sessions <ul style="list-style-type: none"> ◦ Canadian: 14 ◦ Italian: 0 ◦ German: 1 ◦ Hungarian: 1 ◦ Chinese: 0 • CRAFT self-help workbook <ul style="list-style-type: none"> ◦ Canadian: 12 ◦ Italian: 2 ◦ German: 0 ◦ Hungarian: 0 ◦ Chinese: 1
Intervention(s)/control	<p>Intervention: CRAFT individual sessions. 8-12 x 1 hour individual sessions working through the exercises included in the CRAFT programme with a Master-level therapist. Therapists had received a 6-hour training session on CRAFT for affected others of harmful</p>

	gambling, and weekly supervision by a cognitive-behavioural clinical psychologist throughout the intervention. Therapists also met every 2 weeks to discuss participant progress and issues. Control: CRAFT self-help workbook. Participants received CRAFT self-help workbook after their initial interview, and were informed of it's success in affected others of harmful gambling. They were instructed to read through and complete the exercises every week.
Duration of follow-up	6 months.
Sources of funding	Unclear funding source (Alberta Gaming Research Institute)
Sample size	N=31 randomised <ul style="list-style-type: none"> • n=16 CRAFT individual sessions • n=15 CRAFT self-help workbook N=21 analysed <ul style="list-style-type: none"> • n=11 CRAFT individual sessions • n=10 CRAFT self-help workbook

Outcomes

CRAFT individual sessions v. CRAFT self-help workbook: Psychological wellbeing of affected others

Brief Symptom Inventory - Polarity - Lower values are better

Outcome	CRAFT individual sessions, Baseline, n = 16	CRAFT individual sessions, 3 months, n = 10	CRAFT individual sessions, 6 months, n = 10	CRAFT self-help workbook, Baseline, n = 15	CRAFT self-help workbook, 3 months, v = 11	CRAFT self-help workbook, 6 months, n = 11
Brief Symptom Inventory (BSI) 53 items, scale not reported Mean (SD)	54.78 (32.4)	45.63 (27.71)	28.69 (33.21)	44.64 (23.04)	41.16 (26.44)	35.73 (31.6)

CRAFT individual sessions v. CRAFT self-help workbook: Relationship functioning

Relationship Happiness Scale (RHS) - Polarity - Higher values are better

Relationship assessment scale (RAS) - Polarity - Higher values are better

Outcome	CRAFT individual sessions, Baseline, n = 16	CRAFT individual sessions, 3 months, n = 10	CRAFT individual sessions, 6 months, n = 10	CRAFT self-help workbook, Baseline, n = 15	CRAFT self-help workbook, 3 months, n = 11	CRAFT self-help workbook, 6 months, n = 11
Relationship Happiness Scale (RHS) 10 items, scale not reported Mean (SD)	4.2 (2.66)	5.58 (1.9)	7 (2.5)	4.09 (1.58)	5.11 (1.89)	5.91 (2.49)
Relationship assessment scale (RAS) 4 items (out of 7), scale 4-20 Mean (SD)	10.3 (3.53)	9.95 (2.88)	11.48 (4.27)	8.09 (2.59)	10.41 (2.86)	10.38 (4.25)

Critical appraisal – RoB2

Section	Question	Answer
Domain 1: Bias arising from the randomisation process	Risk of bias judgement for the randomisation process	Low (Randomised using computer generation; no information on allocation concealment; no concerns regarding baseline differences between groups.)
Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)	Risk of bias for deviations from the intended interventions (effect of assignment to intervention)	Some concerns (Participants aware of assigned treatment group; counsellors probably aware of assigned treatment group due to nature of intervention and control groups; no information given about deviations from intended intervention as a result of trial context. Intention to treat analysis performed.)
Domain 3. Bias due to missing outcome data	Risk-of-bias judgement for missing outcome data	Low (Outcome data only available for 68% (21/31) participants; sensitivity analysis performed and presented.)
Domain 4. Bias in measurement of the	Risk-of-bias judgement for	Low

Section	Question	Answer
outcome	measurement of the outcome	(Measurements taken at same time points using same procedures; assessment carried out by researcher blinded to intervention group.)
Domain 5. Bias in selection of the reported result	Risk-of-bias judgement for selection of the reported result	Some concerns (No information provided on analysis plan.)
Overall bias and Directness	Risk of bias judgement	Some concerns
Overall bias and Directness	Overall Directness	Directly applicable
Overall bias and Directness	Risk of bias variation across outcomes	None

Rychtarik, 2006

Bibliographic Reference

Rychtarik, R.G.; McGillicuddy, N.B.; Preliminary evaluation of a coping skills training program for those with a pathological-gambling partner; Journal of Gambling Studies; 2006; vol. 22 (no. 2); 165-178

Study details

Country/ies where study was carried out	United States
Study type	Randomised controlled trial (RCT)
Study dates	Not reported.
Inclusion criteria	<p>Affected others had to:</p> <ul style="list-style-type: none"> • Be married or cohabiting with partner for ≥ 1 year • Score < 5 on South Oaks Gambling Screen (corresponds to either no problems or some problems with gambling) • Person participating in harmful gambling had to: • Have actively gambled within last 3 months • Meet the criteria for 'probable pathological gambling' on South Oaks Gambling Screen (score ≥ 5, as reported by affected other)
Exclusion criteria	<ul style="list-style-type: none"> • Affected others and person participating in harmful gambling undertaking gambling-related treatment (self-help or professional) within last 3 months. • Affected others showing evidence of alcohol or other substance use disorders.
Patient	Age in years [Mean (SD)]: 43.17 (9.73)

characteristics	<ul style="list-style-type: none"> • Age by treatment group, not reported. <p>Sex (n): M=4, F=19</p> <ul style="list-style-type: none"> • Sex by treatment group, not reported. <p>Gambling symptom severity scale and score of people experiencing harmful gambling [Mean (SD)]: SOGS, 11.39 (2.76)</p> <ul style="list-style-type: none"> • Gambling symptom severity by treatment group, not reported. <p>Ethnicity (n):</p> <ul style="list-style-type: none"> • White: 16 • Black: 6 • Hispanic: 1 ◦ Ethnicity by treatment group, not reported.
Intervention(s)/control	<p>Intervention: Coping skills training. 1 x individual session per week for 10 weeks (total 10 sessions), based on stress and coping perspective and with the aim of improving the affected others' functioning. At the beginning of the intervention, sessions focused on: education on harmful gambling; stress and coping model; relationships between thoughts, feelings, and behaviour; problem solving; and effective communication. Remaining sessions focused on: review of previous sessions; problems encountered and recorded by participants in the previous week; practice simulations and role-play; and techniques for an effective response. Sessions utilised problem-situation vignettes and scoring of Form Q of the Gambler Situation Inventory as content, as well as posters and videos of effective response role-plays.</p> <p>Sessions were conducted by trained Master-level counsellors (no further details reported), and taped to ensure compliance with the programme.</p> <p>Control: Wait-list control. Participants scheduled to receive intervention as described above at the end of the 10 week study period.</p>
Duration of follow-up	10 weeks
Sources of funding	No industry funding (National Institute of Mental Health)
Sample size	<p>N=23 randomised</p> <ul style="list-style-type: none"> • n=12 coping skills training • n=11 wait-list control <p>N=23 analysed</p> <ul style="list-style-type: none"> • n=12 coping skills training • n=11 wait-list control

Outcomes

Coping skills training v. wait-list control: Measurement of symptoms of other conditions for affected others

Beck Depression Inventory (BDI) - Polarity - Lower values are better

Beck Anxiety Inventory (BAI) – measures anxiety - Polarity - Lower values are better

Outcome	Coping skills training, Baseline, n = 12	Coping skills training, 10 weeks, n = 12	Wait-list control, Baseline, n = 11	Wait-list control, 10 weeks, n = 11
Beck Depression Inventory (BDI) – measures depressive symptoms 21 items, scale 1-63 Mean (SD)	15.42 (13.05)	6.5 (7.4)	13.4 (12.74)	17.2 (14.59)
Beck Anxiety Inventory (BAI) – measures anxiety 21 items, scale 1-63 Mean (SD)	10.25 (9.72)	7.75 (8.15)	18.4 (13.22)	18.8 (10.29)

Critical appraisal – RoB2

Section	Question	Answer
Domain 1: Bias arising from the randomisation process	Risk of bias judgement for the randomisation process	Some concerns (No information on randomisation process; no information on allocation concealment; no concerns regarding baseline differences between groups.)
Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)	Risk of bias for deviations from the intended interventions (effect of assignment to intervention)	Some concerns (Participants aware of assigned treatment group; counsellors probably aware of assigned treatment group due to nature of intervention and control groups; no information given about deviations from intended intervention as a result of trial context. Intention to treat analysis performed.)
Domain 3. Bias due to missing outcome data	Risk-of-bias judgement for missing outcome data	Low (No loss to follow-up reported.)
Domain 4. Bias in measurement of the	Risk-of-bias judgement for	Low

Section	Question	Answer
outcome	measurement of the outcome	(Measurements taken at same time points using same procedures; assessment carried out by researcher blinded to intervention group.)
Domain 5. Bias in selection of the reported result	Risk-of-bias judgement for selection of the reported result	Some concerns (No information provided on analysis plan.)
Overall bias and Directness	Risk of bias judgement	Some concerns
Overall bias and Directness	Overall Directness	Directly applicable
Overall bias and Directness	Risk of bias variation across outcomes	None

Appendix E Forest plots

Forest plots for review question: What is the effectiveness of interventions and approaches for reducing gambling-related harms for families, friends and others close to people who gamble?

No meta-analysis was conducted for this review question and so there are no forest plots.

Appendix F GRADE tables

GRADE tables for review question: What is the effectiveness of interventions and approaches for reducing gambling-related harms for families, friends and others close to people who gamble?

Table 5: Comparison 1: Evidence profile for comparison between a self-help workbook plus standard care and standard care only from studies receiving funding from an unclear funding source

Quality assessment							No of patients		Effect		Qualit y	Importance
No of studie s	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Self-help workbook	Standar d care only	Relati ve (95% CI)	Absolute		
Psychological wellbeing of affected others - Brief Symptom Inventory (BSI) at 3 months from baseline (Better indicated by higher values)												
1 (Hodgi ns 2007)	randomise d trials	very seriou s ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	42	42	Not estima ble	MD 6.3 higher (6.81 lower to 19.41 higher)	LOW	CRITICAL
Psychological wellbeing of affected others - Brief Symptom Inventory (BSI) at 6 months from baseline (Better indicated by higher values)												
1 (Hodgi ns 2007)	randomise d trials	very seriou s ¹	no serious inconsistency	no serious indirectness	serious ²	none	42	42	Not estima ble	MD 10.1 higher (4.46 lower to 24.66 higher)	VERY LOW	CRITICAL
Relationship functioning - Relationship Happiness Scale (RHS) at 3 months from baseline (Better indicated by higher values)												
1 (Hodgi ns 2007)	randomise d trials	very seriou s ¹	no serious inconsistency	no serious indirectness	serious ²	none	39	42	Not estima ble	MD 2.4 lower (11.87 lower to 7.07 higher)	VERY LOW	IMPORTAN T
Relationship functioning - Relationship Assessment Scale (RAS) at 3 months from baseline (Better indicated by higher values)												
1 (Hodgi ns 2007)	randomise d trials	very seriou s ¹	no serious inconsistency	no serious indirectness	serious ²	none	42	40	Not estima ble	MD 0.6 lower (2.4 lower to 1.2 higher)	VERY LOW	IMPORTAN T

Relationship functioning - Relationship Happiness Scale (RHS) at 6 months from baseline (Better indicated by higher values)												
1 (Hodgins 2007)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	very serious ³	none	39	42	Not estimable	MD 0.6 lower (11.11 lower to 9.91 higher)	VERY LOW	IMPORTANT
Relationship functioning - Relationship Assessment Scale (RAS) at 6 months from baseline (Better indicated by higher values)												
1 (Hodgins 2007)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	42	40	Not estimable	MD 1.2 lower (3.11 lower to 0.71 higher)	LOW	IMPORTANT

CI: confidence interval; MD: mean difference

1 Very serious risk of bias in the evidence contributing to the outcomes as per RoB2

2 95% CI crosses 1 MID (for BSI +/- 19.45; for RHS +/- 7.95; for RAS +/- 1.7)

3 95% CI crosses 2 MIDs (for RHS +/- 7.95)

Table 6: Comparison 2: Evidence profile for comparison between telephone calls plus self-help workbook plus standard care and standard care only from studies receiving funding from an unclear funding source

Quality assessment							No of patients		Effect		Qualit y	Importance
No of studie s	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Telephon e calls plus self- help workboo k plus standard care	Standar d care only	Relativ e (95% CI)	Absolut e		
Psychological wellbeing of affected others - Brief Symptom Inventory (BSI) at 3 months from baseline (Better indicated by higher values)												
1 (Hodgi ns 2007)	randomis ed trials	very serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	41	42	Not estimab le	MD 2.6 lower (15.4 lower to 10.2 higher)	LOW	CRITICAL
Psychological wellbeing of affected others - Brief Symptom Inventory (BSI) at 6 months from baseline (Better indicated by higher values)												
1 (Hodgi ns)	randomis ed trials	very serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	41	42	Not estimab le	MD 11.8 higher (2.7)	VERY LOW	CRITICAL

2007)										lower to 26.3 higher)		
Relationship functioning - Relationship Happiness Scale (RHS) at 3 months from baseline (Better indicated by higher values)												
1 (Hodgins 2007)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	37	42	Not estimable	MD 3.4 higher (5.32 lower to 12.12 higher)	VERY LOW	IMPORTANT
Relationship functioning - Relationship Assessment Scale (RAS) at 3 months from baseline (Better indicated by higher values)												
1 (Hodgins 2007)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	39	40	Not estimable	MD 0.2 higher (1.48 lower to 1.88 higher)	VERY LOW	IMPORTANT
Relationship functioning - Relationship Happiness Scale (RHS) at 6 months from baseline (Better indicated by higher values)												
1 (Hodgins 2007)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	very serious ³	none	37	42	Not estimable	MD 0.6 lower (11.52 lower to 10.32 higher)	VERY LOW	IMPORTANT
Relationship functioning - Relationship Assessment Scale (RAS) at 6 months from baseline (Better indicated by higher values)												
1 (Hodgins 2007)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	39	40	Not estimable	MD 1.3 lower (3.2 lower to 0.6 higher)	VERY LOW	IMPORTANT

CI: confidence interval; MD: mean difference

1 Very serious risk of bias in the evidence contributing to the outcomes as per RoB2

2 95% CI crossed 1 MID (for BSI +/- 19.45; for RHS +/- 7.95; for RAS +/- 1.7)

3 95% CI crosses 2 MIDs (for RHS +/- 7.95)

Table 7: Comparison 3: Evidence profile for comparison between a self-help workbook plus standard care and telephone calls plus self-help workbook plus standard care from studies receiving funding from an unclear funding source

Quality assessment	No of patients	Effect	Quality	Importance
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No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Self-help workbook plus standard care	Telephone calls plus self-help workbook plus standard care	Relative (95% CI)	Absolute		
Psychological wellbeing of affected others - Brief Symptom Inventory (BSI) at 3 months from baseline (Better indicated by higher values)												
1 (Hodgins 2007)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	42	41	Not estimable	MD 8.9 higher (5.34 lower to 23.14 higher)	LOW	CRITICAL
Psychological wellbeing of affected others - Brief Symptom Inventory (BSI) at 6 months from baseline (Better indicated by higher values)												
1 (Hodgins 2007)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	42	41	Not estimable	MD 1.7 lower (17.47 lower to 14.07 higher)	LOW	CRITICAL
Relationship functioning - Relationship Happiness Scale (RHS) at 3 months from baseline (Better indicated by higher values)												
1 (Hodgins 2007)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	39	37	Not estimable	MD 5.8 lower (15.46 lower to 3.86 higher)	VERY LOW	IMPORTANT
Relationship functioning - Relationship Assessment Scale (RAS) at 3 months from baseline (Better indicated by higher values)												
1 (Hodgins 2007)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	42	39	Not estimable	MD 1.1 lower (2.78 lower to 0.58 higher)	VERY LOW	IMPORTANT
Relationship functioning - Relationship Happiness Scale (RHS) at 6 months from baseline (Better indicated by higher values)												
1 (Hodgins 2007)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	very serious ³	none	39	37	Not estimable	MD 0 higher (11.23 lower to 11.23 higher)	VERY LOW	IMPORTANT
Relationship functioning - Relationship Assessment Scale (RAS) at 6 months from baseline (Better indicated by higher values)												
1 (Hodgins 2007)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	very serious ³	none	42	39	Not estimable	MD 0.1 higher (1.9 lower to 2.1 higher)	VERY LOW	IMPORTANT

CI: confidence interval; MD: mean difference

1 Very serious risk of bias in the evidence contributing to the outcomes as per RoB2

2 95% CI crosses 1 MID (for BSI +/- 21.9; for RHS +/- 7.75; for RAS +/-1.75)

3 95% CI crosses 2 MIDs (for RHS +/- 7.75; for RAS +/- 1.75)

Table 8: Comparison 4: Evidence profile for comparison between an internet-delivered CBT programme and wait-list from studies receiving any industry funding

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Internet-delivered CBT programme	Wait-list control	Relative (95% CI)	Absolute		
Quality of life of affected others - WHOQOL-BREF Physical health at intervention completion (10 weeks from baseline) (Better indicated by higher values)												
1 (Magnusson 2019)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	51	49	Not estimable	MD 0.11 higher (0.99 lower to 1.21 higher)	MODERATE	CRITICAL
Quality of life of affected others - WHOQOL-BREF Psychological at intervention completion (10 weeks from baseline) (Better indicated by higher values)												
1 (Magnusson 2019)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	51	49	Not estimable	MD 0.77 higher (0.39 lower to 1.93 higher)	LOW	CRITICAL
Quality of life of affected others - WHOQOL-BREF Social relationships at intervention completion (10 weeks from baseline) (Better indicated by higher values)												
1 (Magnusson 2019)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	51	49	Not estimable	MD 0.78 higher (0.32 lower to 1.88 higher)	LOW NO EV. OF IMP. DIFF.	CRITICAL
Quality of life of affected others - WHOQOL-BREF Environment at intervention completion (10 weeks from baseline) (Better indicated by higher values)												
1 (Magnusson 2019)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	51	49	Not estimable	MD 0.66 higher (0.47 lower to 1.79 higher)	LOW	CRITICAL
Measurement of symptoms of other conditions for affected others - Patient Health Questionnaire (PHQ-9) [measurement of depressive symptoms] at intervention completion (10 weeks from baseline) (Better indicated by lower values)												
1 (Magnusson 2019)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	51	49	Not estimable	MD 10.7 lower (20.28 to 1.12 lower)	LOW	IMPORTANT
Measurement of symptoms of other conditions for affected others - Generalized Anxiety Disorder Scale (GAD-7) at intervention completion (10 weeks from baseline) (Better indicated by lower values)												
1 (Magnusson 2019)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	51	49	Not estimable	MD 0.97 lower (3.19)	LOW	IMPORTANT

2019)										lower to 1.25 higher)		
Relationship functioning - Relationship assessment scale (RAS) at intervention completion (10 weeks from baseline) (Better indicated by higher values)												
1 (Magnusson 2019)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	51	49	Not estimable	MD 0.29 higher (1.77 lower to 2.35 higher)	MODERATE	IMPORTANT

CI: confidence interval; MD: mean difference

1 Serious risk of bias in the evidence contributing to the outcomes as per RoB2

2 95% CI crosses 1 MID (for WHOQOL-BREF psychological domain +/- 1.66; for WHOQOL-BREF social relationships domain +/- 1.66; for WHOQOL-BREF environment domain +/- 1.365; for PHQ-9 +/- 3.4; for GAD-7 +/- 2.645)

Table 9: Comparison 5: Evidence profile for comparison between self-help manual plus standard care and standard care from studies receiving funding from an unclear funding source

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Self-help manual plus standard care	Standard care	Relative (95% CI)	Absolute		
Psychological wellbeing of affected others - Change in Brief Symptom Inventory (BSI) scores at intervention completion (3 months from baseline) (Better indicated by lower values)												
1 (Makarchuk 2002)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	very serious ²	none	13	15	Not estimable	MD 3.3 lower (18.81 lower to 12.21 higher)	VERY LOW	CRITICAL
Relationship functioning - Change in Relationship Happiness Scale (RHS) scores at intervention completion (3 months from baseline) (Better indicated by higher values)												
1 (Makarchuk 2002)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	13	15	Not estimable	MD 10.3 higher (3.85 lower to 24.45 higher)	VERY LOW	IMPORTANT
Satisfaction of affected others with the intervention at intervention completion (3 months from baseline) - Needs met (almost all or most)												
1 (Makarchuk 2002)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	9/13 (69.2%)	2/15 (13.3%)	RR 5.19 (1.36 to 19.83)	559 more per 1000 (from 48 more to 1000 more)	LOW	IMPORTANT

										557 more per 1000 (from 48 more to 1000 more)		
Satisfaction of affected others with the intervention at intervention completion (3 months from baseline) - Satisfied (mostly and/or very)												
1 (Makarchuk 2002)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	13/13 (100%)	4/15 (26.7%)	RR 3.43 (1.56 to 7.55)	648 more per 1000 (from 149 more to 1000 more)	LOW	IMPORTANT
										649 more per 1000 (from 150 more to 1000 more)		

CI: confidence interval; MD: mean difference; RR: risk ratio

1 Very serious risk of bias in the evidence contributing to the outcomes as per RoB2

2 95% CI crosses 2 MIDs (for BSI +/- 10.55; for RHS +/- 6.85)

Table 10: Comparison 6: Evidence profile for comparison between CRAFT individual sessions and a CRAFT self-help workbook from studies receiving funding from an unclear funding source

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	CRAFT individual sessions	CRAFT self-help workbook	Relative (95% CI)	Absolute		
Psychological wellbeing of affected others - Brief Symptom Inventory (BSI) at 3 months from baseline (Better indicated by lower values)												
1 (Nayoski 2016)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	very serious ²	none	10	11	Not estimable	MD 4.47 higher (18.75 lower to 27.69 higher)	VERY LOW	CRITICAL
Psychological wellbeing of affected others - Brief Symptom Inventory (BSI) at 6 months from baseline (Better indicated by lower values)												
1 (Nayoski 2016)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	very serious ²	none	10	11	Not estimable	MD 7.04 lower (34.83 lower to 20.75 higher)	VERY LOW	CRITICAL
Relationship functioning - Relationship Happiness Scale (RHS) at 3 months from baseline (Better indicated by higher values)												
1 (Nayoski 2016)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	very serious ²	none	10	11	Not estimable	MD 0.47 higher (1.15 lower to 2.09 higher)	VERY LOW	IMPORTANT

Relationship functioning - Relationship Assessment scale (RAS) at 3 months from baseline (Better indicated by higher values)												
1 (Nayoski 2016)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	very serious ²	none	10	11	Not estimable	MD 0.46 lower (2.92 lower to 2 higher)	VERY LOW	IMPORTANT
Relationship functioning - Relationship Happiness Scale (RHS) at 6 months from baseline (Better indicated by higher values)												
1 (Nayoski 2016)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	very serious ²	none	10	11	Not estimable	MD 1.09 higher (1.05 lower to 3.23 higher)	VERY LOW	IMPORTANT
Relationship functioning - Relationship Assessment Scale (RAS) at 6 months from baseline (Better indicated by higher values)												
1 (Nayoski 2016)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	very serious ²	none	10	11	Not estimable	MD 1.1 higher (2.55 lower to 4.75 higher)	VERY LOW	IMPORTANT

CI: confidence interval; MD: mean difference

1 Serious risk of bias in the evidence contributing to the outcomes as per RoB2

2 95% CI crosses 2 MIDs (for BSI +/- 11.52; for RHS +/- 0.79; for RAS +/-1.295)

Table 11: Comparison 7: Evidence profile for comparison between coping skills training and wait-list control from studies receiving no industry funding

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Coping skills training	Wait-list control	Relative (95% CI)	Absolute		
Measurement of symptoms of other conditions for affected others - Beck Depression Inventory (BDI) at intervention completion (10 weeks from baseline) (Better indicated by lower values)												
1 (Rychtarik 2006)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	12	11	Not estimable	MD 10.7 lower (20.28 to 1.12 lower)	LOW	IMPORTANT
Measurement of symptoms of other conditions for affected others - Beck Anxiety Inventory (BAI) at intervention completion (10 weeks from baseline) (Better indicated by lower values)												
1 (Rychtarik 2006)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	12	11	Not estimable	MD 11.05 lower (18.68 to 3.42 lower)	LOW	IMPORTANT

CI: confidence interval; MD: mean difference

1 Serious risk of bias in the evidence contributing to the outcomes as per RoB2

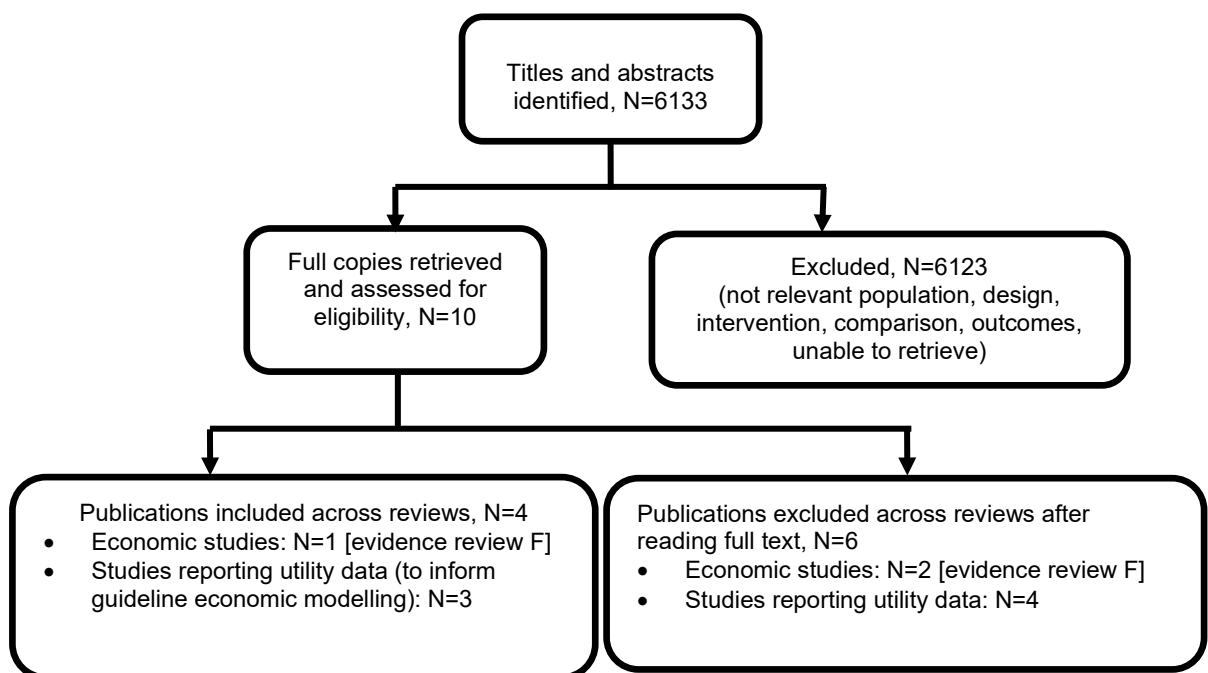
2 95% CI crosses 1 MID (for BDI +/- 6.37; for BAI +/- 6.61)

Appendix G Economic evidence study selection

Study selection for: What is the effectiveness of interventions and approaches for reducing gambling-related harms for families, friends and others close to people who gamble?

A global health economics search was undertaken for all areas covered in the guideline. Figure 2 shows the flow diagram of the selection process for economic evaluations of interventions and strategies associated with the care of people experiencing harmful gambling, their families, friends and others close to them, and studies reporting gambling-related health state utility data.

Figure 2: Study selection flow chart



Appendix H Economic evidence tables

Economic evidence tables for review question: What is the effectiveness of interventions and approaches for reducing gambling-related harms for families, friends and others close to people who gamble?

No evidence was identified which was applicable to this review question.

Appendix I Economic model

Economic model for review question: What is the effectiveness of interventions and approaches for reducing gambling-related harms for families, friends and others close to people who gamble?

No economic analysis was conducted for this review question.

Appendix J Excluded studies

Excluded studies for review question: What is the effectiveness of interventions and approaches for reducing gambling-related harms for families, friends and others close to people who gamble?

Excluded effectiveness studies

Table 12: Excluded studies and reasons for their exclusion

Study	Reason for exclusion
Allen, Kate, Melendez-Torres, G J, Ford, Tamsin et al. (2022) Family focused interventions that address parental domestic violence and abuse, mental ill-health, and substance misuse in combination: A systematic review. PloS one 17(7): e0270894	- Population Parents experiencing domestic violence and abuse, mental ill-health, and substance misuse. Harmful gambling not included
Archer, M., Harwood, H., Stevelink, S. et al. (2020) Community reinforcement and family training and rates of treatment entry: a systematic review. Addiction (Abingdon, England) 115(6): 1024-1037	- Population Mixed population included in systematic review. Affected others of people with a range of addictions. Only 3/14 studies included affected others of people with harmful gambling, with results not presented separately. Included studies checked for possible inclusions.
Bertrand, Karine, Dufour, Magali, Wright, John et al. (2008) Adapted Couple Therapy (ACT) for pathological gamblers: a promising avenue. Journal of gambling studies 24(3): 393-409	- Study design Literature review (non-systematic) and description of couple therapy interventions. No presentation of original data.
Buchner, U. G., Arnold, M., Koytek, A. et al. (2012) It's not Only the Gamblers who Need Help - A Pilot Study on a Family Training Programme. Psychotherapie Psychosomatik Medizinische Psychologie 62(910): 383-389	- Other protocol criteria German language article
Buchner, U. G., Koytek, A., Arnold, M. et al. (2013) Are alleviation and stress-reduction stabilised for relatives of pathological gamblers who have participated in the psycho-educational training program ETAPPE? Results of a follow-up three months after the pilot study. Zeitschrift Fur Gesundheitspsychologie 21(4): 167-176	- Other protocol criteria German language article
Buchner, U. G., Koytek, A., Wodarz, N. et al. (2019) Is an e-mental health programme a viable way to reach affected others of disordered gamblers? A feasibility study focusing on access and retention. International Gambling Studies 19(1): 85-105	- Outcomes Outcomes not in PICO: Promotion and retention of affected others to internet-based programme
Castren, S., Edgren, R., Raisamo, S. et al. (2022) Treatment for the concerned significant others of problem gamblers: A systematic review. Journal of Behavioral Addictions 11(supplement1): 246	- Publication type Conference abstract
Cunha, D. and Relvas, A.P. (2014) Pathological Gambling and Couple: Towards an Integrative Systemic Model. Journal of Gambling Studies	- Study design Critical literature review (non-systematic)

Study	Reason for exclusion
30(2): 213-228 Dowling, Nicki A, Rodda, Simone N, Lubman, Dan I et al. (2014) The impacts of problem gambling on concerned significant others accessing web-based counselling. Addictive behaviors 39(8): 1253-7	- Study design Cross-sectional study
Edgren, R., Portfors, P., Raisamo, S. et al. (2022) Treatment for the concerned significant others of gamblers: A systematic review. Journal of Behavioral Addictions 11(1): 1-25	- Study design Mixed study designs included in systematic review (quantitative, qualitative and case studies). Results not presented separately. Included studies checked for possible inclusions.
Garrido-Fernandez, Miguel, Jaen-Rincon, Pedro, Garcia-Martinez, Jesus et al. (2011) Evaluating a reflecting-team couples approach to problem gambling. Journal of Constructivist Psychology 24(1): 1-29	- Outcomes Outcomes for people participating in harmful gambling and significant others presented together
George, S. and Kallivayalil, R. A. (2021) Family therapy interventions in India for persons with gambling disorder. Asia-Pacific Psychiatry 13(1)	- Study design Narrative review with no presentation of original data
Hong, J. and Yang, S. (2013) Effects of a family education program for families of pathological gamblers. Journal of Korean Academy of Nursing 43(4): 497-506	- Other protocol criteria Korean language article
Ingle, P.J., Marotta, J., McMillan, G. et al. (2008) Significant others and gambling treatment outcomes. Journal of Gambling Studies 24(3): 381-392	- Study design Cross-sectional study
Kourgiantakis, T.; Saint-Jacques, M.-C.; Tremblay, J. (2013) Problem Gambling and Families: A Systematic Review. Journal of Social Work Practice in the Addictions 13(4): 353-372	- Study design Mixed study designs included in systematic review (qualitative, quantitative and mixed-methods). Only 50% studies quantitative, with results not presented separately. Included studies checked for possible inclusions.
Lee, B.K. and Awosoga, O. (2015) Congruence Couple Therapy for Pathological Gambling: A Pilot Randomized Controlled Trial. Journal of gambling studies / co-sponsored by the National Council on Problem Gambling and Institute for the Study of Gambling and Commercial Gaming 31(3): 1047-1068	- Outcomes Outcomes only presented after statistical analysis by study authors. No raw data.
Lee, Bonnie K and Ofori Dei, Samuel M (2022) Changes in Work Status, Couple Adjustment, and Recovery Capital: Secondary Analysis of Data From a Congruence Couple Therapy Randomized Controlled Trial. Substance abuse : research and treatment 16: 11782218221088875	- Outcomes Outcomes for people participating in harmful gambling and affected others presented together
Lee, Bonnie K, Ofori Dei, Samuel M, Brown, Matthew M R et al. (2023) Congruence couple therapy for alcohol use and gambling disorders with comorbidities (part I): Outcomes from a randomized controlled trial. Family process 62(1): 124-159	- Outcomes Outcomes for people participating in harmful gambling and affected others presented together
Lee, Bonnie K; Ofori Dei, Samuel M; Isik, Erkan (2022) Congruence couple therapy for alcohol use and gambling disorders with comorbidities	- Outcomes Outcomes for people participating in harmful gambling and affected others presented together

Study	Reason for exclusion
(part II): Targeted areas and mechanisms of change. Family process: e12816	
Lee, Bonnie K and Rovers, Martin (2008) 'Bringing torn lives together again': Effects of the first Congruence Couple Therapy training application to clients in pathological gambling. International Gambling Studies 8(1): 113-129	- Study design No comparison group
Merkouris, S.S., Rodda, S.N., Aarsman, S.R. et al. (2023) Effective behaviour change techniques for family and close friends: A systematic review and meta-analysis across the addictions. Clinical Psychology Review 100: 102251	- Population Mixed population included in systematic review. Affected others of people with a range of addictions. Only 5/32 studies included affected others of people with harmful gambling, with results not presented separately. Included studies checked for possible inclusions.
Merkouris, S.S.; Rodda, S.N.; Dowling, N.A. (2022) Affected other interventions: A systematic review and meta-analysis across addictions. Addiction (Abingdon, England)	- Population Mixed population included in systematic review. Affected others of people with a range of addictions. Only 4/20 studies included affected others of people with harmful gambling, with results not presented separately. Included studies checked for possible inclusions.
Nilsson, A., Magnusson, K., Carlbring, P. et al. (2018) The Development of an Internet-Based Treatment for Problem Gamblers and Concerned Significant Others: A Pilot Randomized Controlled Trial. Journal of gambling studies 34(2): 539-559	- Intervention Intervention (treatment with concerned significant others) and comparator (treatment without concerned significant others) is aimed at person experiencing harmful gambling.
Peden Nicole Elizabeth Peden Nicole Elizabeth: UCalgary, Canada (2012) The efficacy of individual Community Reinforcement and Family Training (CRAFT) with concerned significant others of problem gamblers. Dissertation abstracts international: section b: the sciences and engineering. 73(4b): 2514	- Publication type Dissertation abstract
Petra, M.M. (2020) Coping With a Loved One's Substance Use Disorder or Gambling Disorder: What Strategies Really Help?. Journal of Loss and Trauma 25(1): 86-98	- Population Mixed population. Affected others of people with a range of addictions. Only 29% of participants were affected others of people with harmful gambling.
Telner, J. (2003) Counselling Problem Gamblers: A Self-Regulation Manual for Individual and Family Therapy. Canadian Journal of Psychiatry-Revue Canadienne De Psychiatrie 48(10): 714-714	- Publication type Book review
Tremblay, Joel, Dufour, Magali, Bertrand, Karine et al. (2017) The Experience of Couples in the Process of Treatment of Pathological Gambling: Couple vs. Individual Therapy. Frontiers in psychology 8: 2344	- Comparator Intervention (treatment with concerned significant others) and comparator (treatment without concerned significant others) is aimed at person experiencing harmful gambling.
Tremblay, Joel, Dufour, Magali, Bertrand, Karine et al. (2022) Efficacy of a randomized controlled trial of integrative couple treatment for pathological gambling (ICT-PG): 10-month follow-up. Journal of consulting and clinical psychology	- Intervention Intervention (integrative couple treatment) is primarily aimed at person experiencing harmful gambling
van Beek, M Velleman, R de Bruijn, T Velleman,	- Population

Study	Reason for exclusion
G Goudriaan, AE Helping family members affected by a relative's substance use or gambling: an evaluation study of the 5-Step Method delivered in the Netherlands. DRUGS-EDUCATION PREVENTION AND POLICY	Mixed population. Affected others of people with a range of addictions. Only 9.3% of participants were affected others of people with harmful gambling with results not presented separately for target population
von Doussa, Henry, Sundbery, Jacqui, Cuff, Rose et al. (2017) 'Let's talk about children': Investigating the use of a family-focused intervention in the gambling support services sector. Australian and New Zealand Journal of Family Therapy 38(3): 482-495	- Study design Qualitative study

Excluded economic studies

No economic evidence was reviewed at full text and excluded from this review.

Appendix K Research recommendations – full details

Research recommendations for review question: What is the effectiveness of interventions and approaches for reducing gambling-related harms for families, friends and others close to people who gamble?

K.1.1 Research recommendation

What is the effectiveness and cost-effectiveness of interventions and approaches (including structured approaches validated for gambling and psychoeducation) for reducing gambling-related harms for affected others?

K.1.2 Why this is important

Affected others of people gambling that harms can also be harmed by gambling. Increased levels of worry and concern over how to help, relationship difficulties and financial concerns can all adversely impact on the affected other's health and quality of life. As very little evidence was identified in this systematic review, it is important that research is carried out to identify the effectiveness of interventions for affected others.

K.1.3 Rationale for research recommendation

Table 13: Research recommendation rationale

Importance to 'patients' or the population	Gambling that harms does not just impact the person gambling, but also their significant others, families, and friends. These affected others may also need treatment options to cope with the impact gambling may be having on their well-being. There is a lack of clinical effectiveness evidence on interventions targeted at affected. Many of the interventions currently available have been modified from therapies originally designed for affected others of other addictions. This facet of management underpins recovery and minimises long-term harms.
Relevance to NICE guidance	Interventions for affected others have been considered in this guideline as both an intervention solely for affected others and as part of a treatment programme for people experiencing gambling that harms.
Relevance to the NHS	The outcome would affect what therapies and services could be provided for affected others by the NHS. This could reduce the long-term harms physical- and mental-health harms experienced by this population.
National priorities	Medium
Current evidence base	Minimal long-term data on variety of interventions; most identified studies used a modified CRAFT approach.
Equality considerations	None known

K.1.4 Modified PICO table

Table 14: Research recommendation modified PICO table

Population	Families, friends and affected others (all ages) close to people (aged ≥ 18 years) who experience or have
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	experienced in gambling that harms.
Intervention	<ul style="list-style-type: none"> • Dedicated psychoeducation groups for affected others • Family and couples therapy • Financial management interventions for affected others • Individual psychotherapy and/or counselling (for example, CBT) • Interventions delivered in a child-accessible format (for example, play therapy) • Peer support and support groups for affected others (for example, Gam-Anon) • Residential respite care for affected others
Comparator	<ul style="list-style-type: none"> • Interventions compared with each other or with • Treatment as usual • No treatment • Placebo or sham treatment
Outcomes	<ul style="list-style-type: none"> • Personal, social and educational functioning Psychological wellbeing of affected others (measured using validated scales such as the Work and Social Adjustment Scale or objective measures of school attendance) • Quality of life of affected others (measured using validated scales such as EQ 5D and SF-12 and others specifically validated for use with children and young people). • Measurement of symptoms of other conditions for affected others (for example, depression using validated tools such as the PHQ-9, or alcohol use using AUDIT). • Relationship functioning (romantic, familial or platonic, measured using validated scales such as Marital Satisfaction Scale [MSS] and others specifically validated for use with children and young people) • Satisfaction of affected others with the intervention Ability of affected others to support person experiencing gambling that harms (measured using validated satisfaction scales). • Cost-effectiveness (including resource use measurements and QALY estimations using a validated preference-based measure such as the EQ-5D or SF-6D)
Study design	RCT or prospective non-randomised controlled trial
Timeframe	Long term (≥18 months)
Additional information	None

CBT: cognitive behavioural therapy; RCT: randomised controlled trial