Affected other treatments: Systematic review and meta-analysis across addictions

Prepared for:
The NSW Responsible Gambling Fund

Prepared by:
Merkouris, S.S, Dowling, N.A., & Rodda, S.N.

Name of institution:
Deakin University

Month, Year
June, 2020

Acknowledgements

We would like to acknowledge the work of Hannah Portogallo, Stephanie Dias, Chloe Hawker and Stephanie Aarsman for their research support.

Funding

This project was funded by the NSW Government's Responsible Gambling Fund, with support from the NSW Office of Responsible Gambling. The report has undergone independent peer review, which was overseen by the Office.

Suggested citation

Merkouris, S S, Dowling, N A, Rodda, S N. Affected other treatments: Systematic review and meta-analysis across addictions. NSW Office of Responsible Gambling, Australia.

Executive summary

Introduction

Despite making up a considerable proportion of the population and experiencing a range of harms, there are limited treatment options for family members and friends affected by someone else's problematic alcohol, illicit drug, gambling or internet gaming use (i.e., affected others). Available treatments for affected others typically include the addicted person (e.g., couples and family therapies and treatments directed to the addicted person that involve the affected other). Recently, however, there has been a rise in psychosocial treatments that are directed towards helping the affected other in their own right. To date, no systematic review or meta-analysis in the addiction field has focused on treatments directed towards affected others, with all available systematic reviews exploring a combination of affected other treatments, and treatments that are directed towards, or rely on the presence of, the addicted person (e.g., couples and family therapies).

This review will therefore be the first to focus solely on treatments that are directed towards the affected other, which can include affected other-focused treatments (i.e., help the affected other manage the impacts of addiction), as well as addicted person-focused treatments (i.e., equip the affected other to support the addicted person). By exploring affected other treatments across numerous addictions (alcohol use, substance use, gambling and internet gaming), this review will identify gaps in knowledge and provide the formative work necessary for the development of evidence-based treatments for individuals affected by gambling harm.

Aims

The aims of this systematic review and meta-analysis are to:

(1) identify the content and characteristics of the available psychosocial treatments for individuals affected by someone else's addiction (alcohol, illicit drugs, gambling and/or internet gaming);

(2) narratively synthesise the effectiveness of psychosocial treatments for affected others across addictions; and

(3) determine the effectiveness of psychosocial treatments for affected others across addictions and the durability of treatment effects, relative to passive control groups, using meta-analyses.

Methodology

A systematic search, comprising an electronic and grey literature search, was conducted to identify relevant articles from the past 30 years (January 1989 to October 2019). The reference lists of included studies were also manually searched. Studies were included in the systematic review if they: (1) evaluated the effectiveness of a psychosocial treatment directed towards individuals affected by someone else's alcohol use, substance use, gambling or internet gaming; (2) used a pre-post, randomised controlled trial (RCT) or controlled trial study design; and (3) the affected other and the addicted person were 18 years of age or older.

A series of meta-analyses exploring the effectiveness of psychosocial treatments for affected others across addictions, compared to passive control groups, at post-treatment (0-3 months), short-term follow-up (4-11 months), medium term follow-up

(12-23 months) and long-term follow-up (24+ months) were planned. Only RCTs or controlled trials, with a passive control group (e.g., no treatment, waitlist control), that assessed at least one affected other (i.e., depressive symptomatology, harms experienced due to the addicted person's addictive behaviour, psychological distress/ general mental health, coping styles, anxiety symptomatology), addicted person (i.e., frequency of addictive behaviour and treatment entry) or relationship/ family functioning (i.e., marital/relationship discord outcome) outcome were eligible for inclusion in the meta-analysis.

Key findings

Forty-six articles based on 40 studies were included in this review. Half of these studies (50.0%; k=20) evaluated treatments for individuals affected by alcohol only, followed by a combination of alcohol and/or illicit drugs (17.5%; k=7), gambling (17.5%; k=7) and illicit drug use only (15.0%; k=6). While it was intended that internet gaming would also form part of this review, no internet gaming articles were identified for inclusion. A range of outcomes (35 in total) were included in the studies. Most studies evaluated affected other outcomes (97.5%; k=39; e.g., depressive symptomatology), followed by addicted person outcomes (62.5%; k=25; e.g., treatment engagement) and relationship/family functioning outcomes (45.0%; k=18; e.g., marital/relationship discord and satisfaction).

Content and characteristics of treatments for affected others

A range of individually delivered face-to-face treatments (52.5%; k=21), group-delivered face-to-face treatments (37.5%; k=15), self-directed treatments (22.5%; k=9), and a combination of individually-delivered, group-delivered and/or self-directed modalities (17.5%; k=7) were evaluated within the included studies.

One-third (32.5%; k=13) of the included studies evaluated treatments based on Community Reinforcement Approach and Family Training (CRAFT), a treatment that aimed to improve affected other and addiction person outcomes. Several studies (12.5%; k=5) evaluated affected other-focused treatments referred to as coping skills training (CST) and the 5-step approach (12.5%; k=5). Three studies (7.5%) evaluated an addiction person-focused program called 'Pressures to Change', with the remaining studies (40.0%; k=16) evaluating a range of other addicted person- and affected other-focused treatments (e.g., cognitive-behavioural therapy, motivational interviewing, group counselling and stress management).

Effectiveness of treatments for affected others

- Across affected other outcomes (e.g., depressive symptomatology, coping styles, harms), CRAFT displayed the most consistent beneficial effects of treatment, followed by CST and 5-step treatment approaches. In contrast, Pressures to Change consistently showed no beneficial effect of treatment and the remaining 'other' psychosocial treatments assessed disparate outcomes that could not be synthesised meaningfully.
- Across addicted person outcomes (e.g., treatment entry and frequency of use), Pressures to Change produced the most consistent beneficial effects of treatment, followed by CRAFT. In contrast, CST consistently showed no beneficial effect of treatment, and studies evaluating 'other' psychosocial treatments assessed disparate addicted person outcomes that could not be

compared. No studies evaluating the 5-step approach explored addicted person outcomes.

- Across relationship functioning outcomes, CRAFT treatments displayed some beneficial effects of treatment, whereas Pressures to Change displayed no beneficial effect on treatment. Limited studies evaluated the effectiveness of other psychosocial treatments on relationship functioning outcomes, but these studies consistently found a beneficial effect of treatment. Finally, no studies evaluating CST or 5-step approaches evaluated relationship functioning outcomes.

Results from the 16 RCTs included in the meta-analysis identified:

- beneficial effects of face-to-face delivered treatment compared to control groups on post-treatment affected other depressive symptomatology (SMD= -0.46), affected other coping (SMD= -1.48), addicted person treatment entry (RR= 0.70) and marital/relationship discord (SMD= -0.51). No significant findings were identified for affected others harms and addicted person frequency of use, and there were too few studies to conduct meta-analyses for affected other psychological distress/general mental health or affected other anxiety symptomatology.
- no significant differences between self-directed treatments and control groups on any outcomes for which there were sufficient studies available: affected other outcomes (depressive symptomatology, harms, psychological distress/general mental health, anxiety symptomatology); addicted person outcomes (frequency of use, treatment entry); or relationship functioning outcomes (marital/relationship discord). These results, however, should be interpreted with caution as the vast majority of these meta-analyses only included two studies. There were also too few studies to a conduct meta-analysis for affected other coping.

No meta-analyses were conducted for short-term, medium-term or long-term follow-up assessments, as there were an insufficient number of studies that evaluated outcomes at longer-term follow-ups.

Implications and recommendations

The findings of the current review provide important insights into the effectiveness of psychosocial treatments for affected others across addictions. Overall, there were a limited number of studies evaluating affected other treatments for gambling-related harm (k=7), which differed in the type of treatment, mode of delivery and types of outcomes evaluated. As such, the findings from the broader addictive behaviour literature can be used to inform the development of evidence-based treatments for gambling. Specifically, the findings of this review suggest the need for:

(1) further research evaluating the effectiveness of the available treatments (i.e., CRAFT, CST, 5-step approaches and Pressures to Change) in samples of individuals affected by gambling-related harm; the face-to-face delivery of these treatments may improve outcomes for affected others and problem gamblers;

(2) training and ongoing professional development of gambling clinicians in the delivery of affected other treatments to enhance access to evidence-based practice for affected others who seek formal support;

(3) further formative research to gain a better understanding of what affected others want from their treatment, including the development and implementation of a tool that can be used in gambling services to identify individual treatment needs so that treatment can be tailored to these needs;

(4) research investigating the active components of affected other treatments across each type of outcome, to inform the development of gambling-specific treatments that can be tailored to individual affected other needs;

(5) research into the effectiveness of self-directed treatments that can be implemented into gambling treatment services, to expand the suite of low-intensity options for affected others;

(6) treatments that are designed specifically to address key issues that are faced by individuals affected by someone else's gambling harm, and not just adapted from alcohol and illicit drug treatments that may not always be applicable or address all relevant concerns;

(7) research employing RCT methodology to utilise a passive control condition to first establish the superiority of a particular treatment over a control group before considering the comparative superiority of treatments.

Conclusion

This systematic review and meta-analysis is the first to explore the content, characteristics and effectiveness of treatments directed towards individuals who have been affected by someone else's problematic alcohol, illicit drug and gambling.

A range of affected other-focused treatments (e.g., CST and 5-step approaches), addicted-person focused treatments (e.g., Pressures to Change) and a combination of both (e.g., CRAFT) were identified in this review. While further research is required to evaluate the effectiveness of these available treatments, the current review demonstrated positive (but mixed) findings, for numerous psychosocial treatments across the range of affected other (e.g., depressive symptomatology, coping skills), addicted person (e.g., treatment entry, addictive behaviour change) and relationship functioning (e.g., marital discord) outcomes. Specifically, CRAFT, CST and the 5-step approach may be effective in improving affected others outcomes; CRAFT and Pressures to Change may be effective in improving addicted person outcomes; and CRAFT may be effective in improving relationship functioning outcomes.

Moreover, the findings from the meta-analyses provide support for the use of face-to-face therapist-delivered psychosocial treatments, with less support for the effectiveness of self-directed treatments, across all outcome types. These findings, however, need to be interpreted with caution as there were limited studies that explored the effectiveness of self-directed treatments, thus highlighting the need for further research into this mode of treatment delivery.

The majority of studies in this review evaluated treatments for individuals affected by problematic alcohol and/or illicit substance use, which limited the ability to breakdown the results by addictive behaviour type. The findings of this review from the broader addiction literature, however, can be used to inform evidence-based treatment development for gambling, which can then be used to expand the suite of

low-intensity options for affected others in gambling treatment services. Further research, however, is still required to ensure that a range of different treatment approaches are available for individuals affected by someone else's gambling harm, such as intensive face-to-face treatments, brief treatments, online and mobile-delivered self-directed treatments and blended approaches. Given the range of affected other treatment needs, the development and evaluation of treatment approaches that are tailored to meet these needs is particularly important.

Table of Contents

List of Tables

List of Figures

Introduction

In the most recent edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), substance-based and behavioural addictions, including alcohol use, illicit drug use and gambling disorders, have been classified together within the Substance-Related and Addictive Disorders category (American Psychiatric Association, 2013). In addition, internet gaming disorder has been classified as a condition for further research (American Psychiatric Association, 2013). This change was largely due to the growing body of evidence demonstrating the similarities between substance use disorders and gambling disorder, including symptoms and patterns of behaviour and presentation, biological dysfunction and genetic liability, treatment approaches and high rates of comorbidity (Grant & Chamberlain, 2016; Petry, 2010; Rash, Weinstock, & Van Patten, 2016; Wareham & Potenza, 2010).

These addictive behaviours are of major public health concern as they are associated with negative consequences for the individuals, their family and friends and the community as a whole (Room, Babor, & Rehm, 2005; Shaffer & Korn, 2002; Volkow, Poznyak, Saxena, Gerra, & Network, 2017). In fact, international estimates indicate that anywhere between 13% and 78% of individuals have experienced at least one harm due to someone else's drinking (Laslett et al., 2019), 13% to 28% of the population have experienced at least one harm due to someone else's illicit drug use (Melberg et al., 2011), and between 2% and 20% of individuals may be affected by another person's gambling problem (Abbott, Bellringer, Garrett, & Mundy-McPherson, 2014; Goodwin, Browne, Rockloff, & Rose, 2017; Salonen, Castrén, Alho, & Lahti, 2014; Svensson, Romild, & Shepherdson, 2013; Wenzel, Øren, & Bakken, 2008). The harms experienced by family members and friends across these addictive disorders are quite extensive, and can include emotional or psychological distress, relationship disruption, conflict or breakdown, physical harm and decrements to health, financial harm, criminal activity and reduced performance at work or study (e.g., Dowling, Rodda, Lubman, & Jackson, 2014; Langham et al., 2016; Laslett et al., 2011; Stanesby et al., 2018; Wenzel et al., 2008). The burden of harm of these addictive behaviours are comparable, with recent studies indicating that the harms experienced by problem gamblers are similar to those of severe alcohol use disorder and some substance use disorders (e.g., amphetamine dependence; Browne et al., 2017).

Despite such far-reaching and severe harms, there are limited treatment options for family members and friends affected by someone else's addictive behaviour (herein referred to as affected others). There is evidence in the broader health field, however, to suggest that offering psychosocial treatment to affected others can be helpful (Martire, Lustig, Schulz, Miller, & Helgeson, 2004). In the addictions field, there is increasing evidence to show that there are various ways in which affected others can be supported. These treatments are mostly psychosocial in nature but can vary substantially in their aims. These treatments tend to fall into four categories: (1) treatments that aim to improve the relationship between the affected other and the person with the addictive behaviour problem (herein referred to as the addicted person) by working conjointly with the addicted person and the affected other (e.g., couples therapy, family therapy); (2) treatments that are directed towards the

addicted person but include the involvement and support of the affected other in the treatment of the addicted person; (3) treatments that are directed towards the affected other but aim to equip them to support the addicted person into treatment or to reduce their addictive behaviour (i.e., addicted person-focused treatments); and (4) treatments that are directed towards the affected other and aim to help the affected other manage the impacts of the addicted person's behaviour (i.e., affected other-focused treatment; Copello, Velleman, & Templeton, 2005; Rodda, Dowling, Thomas, Bagot, & Lubman, 2019; Templeton, Velleman, & Russell, 2010).

Several systematic reviews exploring the effectiveness of psychosocial treatments involving affected others impacted by alcohol use, illicit drug use and/or gambling-related problems are available (Edwards & Steinglass, 1995; Kourgiantakis, Saint-Jacques, & Tremblay, 2013; O'Farrell & Fals-Stewart, 2003; O'Farrell & Clements, 2012; Templeton et al., 2010; Thomas & Corcoran, 2001). To date, however, no review has focused solely on the effectiveness of psychosocial treatments directed towards helping the affected other in their own right (i.e., addicted person-focused or affected other-focused treatments). All available systematic reviews have evaluated the effectiveness of a combination of the different treatment types, including those that are directed toward the affected other (i.e., addicted person-focused and/or affected other-focused), as well as those that are directed towards, or rely on the presence of, the addicted person (i.e., couples and family therapy and treatments directed towards the addicted person that included the involvement and support of the affected other in the treatment of the addicted person).

Of the available systematic reviews, the majority are narrative in nature (Kourgiantakis et al., 2013; O'Farrell & Fals-Stewart, 2003; O'Farrell & Clements, 2012; Templeton et al., 2010; Thomas & Corcoran, 2001). These narrative systematic reviews have shown how over time affected other treatments have moved away from focusing solely on addicted person-focused treatments, towards a more holistic approach which takes into consideration the needs of affected others in their own right (Templeton et al., 2010). These reviews have generally shown promising findings for the effectiveness of all types of psychosocial treatments involving affected others across numerous addicted person (e.g., treatment engagement), affected other (e.g., distress, coping skills) and relationship/family functioning outcomes (Kourgiantakis et al., 2013; Templeton et al., 2010). Moreover, some of these reviews have found that specific treatments might be more effective than others, depending on the stage of change of the addicted person (O'Farrell & Fals-Stewart, 2003; O'Farrell & Clements, 2012; Thomas & Corcoran, 2001). Specifically, treatments directed towards the affected other, whether they be addicted person-focused or affected other-focused, are more likely to be effective in helping affected others cope and in helping the addicted person enter into treatment, when the addicted person is in the pre-contemplation stage of change (i.e., unwilling to seek help). In contrast, couples and family therapies have been found to be more effective at improving relationship functioning and behaviour change of the addicted person when the addicted person is in the contemplation or action stage of change (i.e., already seeking help). These systematic reviews, however, were only narrative in nature, which can limit the trustworthiness of their conclusions due to the potential

for author subjectivity in interpretation of findings (Campbell, Katikireddi, Sowden, McKenzie, & Thomson, 2018). Moreover, only one of these narrative systematic reviews conducted a risk of bias assessment (Templeton et al., 2010), which is a fundamental component of all systematic reviews, which helps provide an indication of the trustworthiness of the evidence base (Higgins, 2008).

Only one of the available systematic reviews conducted a meta-analysis (Edwards & Steinglass, 1995). In a meta-analysis of 21 randomised controlled trials (RCTs), experimental and quasi-experimental studies of family-involved treatments for alcohol use Edwards and Steinglass (1995) found that family-involved treatments produced better addicted-person outcomes than treatments that did not involve affected others. This meta-analysis, however, was limited by a clear definition of the type of affected other treatments that were included, thus making it difficult to ascertain which type of affected other treatment was evaluated. Secondly, despite the wide range of affected other treatments and the various aims they attempt to address (i.e., addicted person outcomes, affected other outcomes and relationship/family functioning outcomes), this meta-analysis focussed solely on addicted person outcomes (e.g., treatment entry, alcohol or substance use frequency and severity), hence conclusions relating to the effectiveness of these treatments across the many relevant outcomes cannot be drawn. Lastly, this meta-analysis included studies with active control or treatment conditions, which can reduce the statistical power to identify treatment effects.

Study aims

Although the available systematic reviews and meta-analysis suggest promising findings, the methodological shortcomings preclude definitive statements regarding the effectiveness of psychosocial treatments directed towards affected others, across addictive behaviours. To address these limitations, the current systematic review and meta-analysis will be the first to focus solely on affected other treatments that are directed towards the affected other, whether that be affected other-focused or addicted person-focused, and evaluate the effectiveness of such treatments across the range of relevant outcomes (i.e., addicted person, affected other and relationship/family functioning outcomes). By exploring affected other treatments across numerous addictive behaviours (alcohol use, substance use, gambling, and internet gaming), this systematic review and meta-analysis will identify gaps in knowledge and provide the formative work necessary for the development of evidence-based affected other treatments across these addictive behaviours, particularly newer behavioural addictions, such as gambling and internet gaming. The aims of this systematic review and meta-analysis are therefore to:

1. identify the content and characteristics of the available psychosocial treatments for affected others across addictions;
2. narratively synthesise the effectiveness of psychosocial treatments for affected others across addictions; and
3. determine the effectiveness of psychosocial treatments for affected others across addictions and the durability of treatment effects, relative to passive control groups, using meta-analyses.

Methodology

This systematic review adhered to the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA; Moher, Liberati, Tetzlaff, & Altman, 2009) and was registered with PROSPERO (*CRD42020151875)*. Differences between the PROSPERO protocol and the published review include: (1) for consistency across the review, the inclusion criteria for aim 1 were edited to match the inclusion criteria for aims 2 and 3, whereby for a study to be included in the review it had to evaluate the effectiveness of a treatment for affected others, and not just describe a treatment; and (2) the relationship functioning outcome was included in this review, as it was commonly explored across the included studies.

Search strategy

A systematic search, comprising an electronic and grey literature search, was conducted. Medline, PsycInfo and CINAHL electronic databases were searched for peer-reviewed literature. The search terms consisted of a combination of keywords and wildcards relating to addiction (e.g., gambl*, “substance use”), affected others (e.g., “significant other”, famil*), treatment terms (e.g., treat*, therap*) and study design (e.g., random*, effective*), limited to title and abstract. This search was restricted to articles published in the last 30 years (from January 1989 to October 2019), as well as English language, adults and human. A Google search of the first 10 pages (100 citations) was conducted to identify relevant grey literature. This search included the terms ("treat*" OR help OR support OR "therap*") AND (alcohol OR drug OR "gambl*" OR gaming) AND (family OR friend OR “affected other” OR “significant other”). Finally, a manual search of the reference lists of all included articles were conducted. See Appendix A for a detailed description of the search strategy.

Eligibility criteria

Studies were eligible for inclusion in this systematic review if they met the following criteria: (1) evaluated the effectiveness of a treatment directed towards individuals affected by someone else’s alcohol use, substance use, gambling or internet gaming (i.e., addicted person-focused and/or affected other-focused); (2) used a pre-post, randomised controlled trial (RCT) or controlled trial study design; (3) the affected other and the addicted person were 18 years of age or older; (4) the treatment was psychosocial in nature; and (5) the article was reported in a complete manuscript outlining original work published from 1989 to present. Studies were excluded if: (1) the target of the treatment was the individual experiencing issues with alcohol, substances, gambling or internet gaming and only included the involvement of the affected other for the purpose of helping that addicted person; (2) the treatment was couples therapy or family therapy; (3) the treatment was pharmacological, neurobiological, involved only a confrontative intervention (i.e., an ‘intervention’ where affected others confront the individual in the hope of engaging him/her into treatment) or involved only a non-therapeutic group (e.g., 12-step programs); (4) the

treatment was delivered to affected others but related to prevention of use rather than treatment (e.g., parents of college students trying to prevent the uptake/use of drinking behaviour); and (5) the article was a qualitative report, a review, a case study, a conference proceeding, an abstract, an editorial, a dissertation, a book or book chapter. Four reviewers were independently involved in the identification of included studies, with double screening conducted for one-third of the studies identified by the search. Discrepancies were resolved through group discussion and where needed a third reviewer acted as arbiter.

Data extraction

A standardised, pilot-tested extraction sheet was employed to extract and collate the data from the included articles. Data extracted included basic descriptive study information (e.g., country, year of publication, addiction type, type of affected other), treatment-related information (e.g., type of treatment content, mode of delivery), and where applicable, the outcomes employed and the main effectiveness findings (e.g., constructs assessed, measures employed, means and standard deviations). Three reviewers were independently involved in this data extraction process, with double data extraction conducted for one-third of the included studies. Discrepancies were resolved through group discussion and where needed a third reviewer acted as arbiter.

Risk of bias assessment

Risk of bias was assessed using the revised Cochrane Risk of Bias tool for randomised trials for all of the included articles, regardless of study design (v2.0; Sterne et al., 2019). While other risk of bias tools can be employed to assess non-RCT study designs, it was determined that all study designs would be assessed against gold standard research methods (Budworth, Prestwich, Lawton, Kotzé, & Kellar, 2019). This tool evaluates bias that may arise across five domains, including the randomisation process, deviations from intended treatments, missing outcome data, measurement of the outcome and selection of the reported result. Based on responses to signalling questions, each article is classified as having either a low risk of bias, some concerns or high risk of bias on each of the five domains. These domain-level judgements are then used to determine the overall risk of bias for an article. Specifically, an article is classified as having: (1) a low risk of bias if all five domains are classified as low risk; (2) some concerns if at least one domain has been classified as having some concerns and no domains are classified high risk; or (3) a high risk of bias if a minimum of one domain is classified as high risk or if multiple domains are classified as having some concerns. Two reviewers independently assessed the risk of bias of the included articles, with one-third of the articles double data extracted. Discrepancies were resolved through group discussion and where needed a third reviewer acted as arbiter. Where available, original articles and published protocols where used for the risk of bias assessment.

Data analysis

Narrative synthesis

A narrative synthesis of the content and characteristics of the psychosocial treatments within the included studies was presented to address aim 1. Similarly, a

narrative synthesis of the effectiveness of these treatments was presented to address aims 2. Given the various study designs included in this review, the narrative synthesis on the effectiveness of included studies was broken down by treatment type and study design type for ease of interpretation (i.e., within-group change for single arm trials, between-group differences for RCTs and controlled trials with passive control groups, and between-group differences for RCTs and controlled trials with active comparison groups were presented separately for each treatment type).

Meta-analysis

To address aim 3, a series of meta-analyses exploring the effectiveness of psychosocial treatments for affected others across addictive behaviours, compared to passive control groups, were conducted. Studies were included in the meta-analysis if they: (1) were RCTs or controlled trials; (2) included a passive control group, such as, no treatment, waitlist control, assessment only, referral to another treatment, or non-specific treatment component controls (i.e., a therapy that provides general characteristics that are common to all psychological therapies, including therapist attention (Cowlishaw et al., 2012; Mohr et al., 2009); (3) included at least one outcome measure related to the affected other, addicted person or relationship functioning; and (4) provided sufficient data to be included in the meta-analysis (e.g., means, standard deviation).

A primary outcome was not selected for this systematic review due to the numerous and varying aims of the available treatments for affected others (i.e., affected other-focused and/or addicted person-focused). Moreover, given that 35 different outcomes were evaluated across the included studies, final outcomes for this meta-analysis were selected post-hoc, whereby outcomes reported in a minimum of 25% of included RCTs were selected for inclusion in the meta-analysis. These outcomes included: (1) affected other outcomes (depressive symptomatology, harms experienced due to the addicted person's addictive behaviour, psychological distress/ general mental health, coping styles, anxiety symptomatology); (2) addicted person outcomes (frequency of alcohol/ substance/ gambling/ internet gaming use and treatment entry); and (3) relationship outcomes (marital/relationship discord). Moreover, due to the various modes of psychosocial treatment delivery, two sets of meta-analyses were conducted. The first evaluated the effectiveness of face-to-face therapist-delivered psychosocial treatments compared to passive control groups, and the second evaluated the effectiveness of self-directed psychosocial treatments compared to passive control groups.

The meta-analyses were conducted in Review Manager (Review Manager, 2014) and involved random-effects models, which provide a weighted estimate of the effectiveness of the treatment relative to the control (i.e., standardised mean difference [SMD]), at each time-point (i.e., post-treatment [0-3 months], short-term follow-up [4-11 months], medium term follow-up [12-23 months] and long-term follow-up [24+ months]) (Cowlishaw et al., 2012; Walker et al., 2006). The SMDs were interpreted using conventional thresholds, whereby 0.2 is considered small, 0.5

is considered medium and 0.8 is considered large (Cohen, 1988). Statistical heterogeneity was assessed using the chi-square and associated p-value, as well as the I^2 statistic, whereby 0-40% is considered minor, 30-60% is considered moderate, 50-90% is considered substantial and 75-100% is considered considerable (Deeks, Higgins, Altman, & Cochrane Statistical Methods Group, 2019). A minimum of two estimates were required in order to conduct a meta-analysis. The decision rules relating to the meta-analysis have been included in Appendix B.

Findings

Search results

Once duplicates were removed, a total of 4,277 articles were identified for title and abstract screening. After title and abstract screening, in which most articles were excluded as they did not relate to affected other treatments, 244 articles remained. The full-text versions of these articles were assessed for eligibility. Of these, 46 articles based on 40 studies were identified as meeting eligibility criteria and were included in this systematic review. See *Figure* 1 for a PRISMA flow diagram of these search results, as well as detailed reasons for excluding articles at the full-text stage.

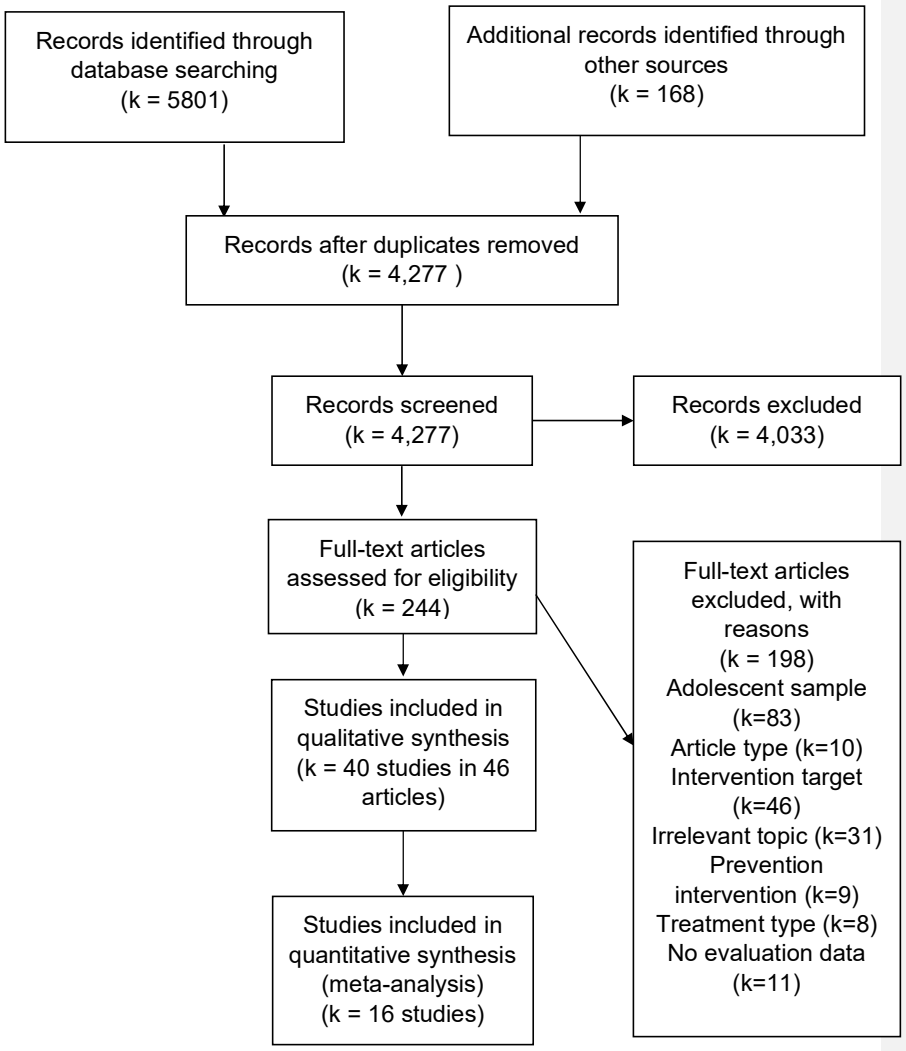

Figure 1. PRISMA Flow Diagram

Characteristics of included studies

The characteristics of included studies are presented in Table 1. Of the 40 included studies, half (50.0%; k=20) included treatments for individuals affected by alcohol only, followed by a combination of alcohol and/or drugs (17.5%; k=7), gambling (17.5%; k=7) and substance use only (15.0%; k=6). None of the included studies evaluated a treatment for individuals affected by someone else's internet gaming use. The majority of studies were conducted in the USA (42.5%; k=17), UK (12.5%; k=5), Sweden (10.0%; k=4) and Australia (10.0%; k=4). The sample sizes ranged from 12 to 312 participants, with an average of 76.4 participants (SD=63.6, Median = 51.0). The target of the treatments varied with the majority of studies (55.0%; k=22) evaluating treatments that broadly targeted any family member, friend or caregiver affected by someone else's addiction. The remaining studies evaluated treatments that specifically targeted female spouses or partners (32.5%; k=13) studies, adult children (7.5%; k=3) and parents (2.5%; k=1). Whereas, one study (2.5%; k=1) did not specify the target of the treatments (Clark & Hanna, 1989).

Numerous outcomes were evaluated across the included studies (n=35). Most studies evaluated outcomes relating to affected other mood and functioning (97.5%; k=39; e.g., depressive symptomatology, psychological distress, anxiety symptomatology, anger, coping styles), followed by addicted person outcomes (62.5%; k=25; e.g., treatment engagement, frequency of addictive behaviour use) and relationship or family functioning outcomes (45.0%; k=18; e.g., marital/relationship discord and satisfaction, family functioning and physical aggression/abuse). In terms of study design, the majority of included studies (72.5%; k=29) consisted of RCTs, controlled trials (i.e., included a comparison or control group but were not randomly allocated to the treatment) and crossover experimental dyad designs. The remaining studies consisted of single-arm study designs, with no comparison group (32.5%; k=13). Note that these do not sum to 100% because some studies reported on multiple study designs in a single paper (e.g., de los Angeles Cruz-Almanza, Gaona-Márquez, & Sánchez-Sosa, 2006).

Table 1. Characteristics of included studies

Study ID	Addiction type	Country	Study design	Sample size	Affected other(s) recruited
(Barber & Crisp, 1995)	Alcohol	Australia	Controlled trial	23	Partners[a] (100%)
(Barber & Gilbertson, 1996)	Alcohol	Australia	Controlled trial	48	Female partners (83.3%), male partners (6.3%), mothers (6.3%), and daughters (4.1%).
(Barber & Gilbertson, 1998)	Alcohol	Australia	Controlled trial	38	Female partners (100%)
(Bischof et al., 2016)	Alcohol	Germany	RCT	78	Spouses (62.8%), co-habitating with CSO (16.7%), adult children (10.3%), parents (6.4%), siblings (2.5%), third-degree relative (1.3%)
(Buchner et al., 2019)	Gambling	Germany and Austria	Uncontrolled feasibility study (single arm, pre-post design)	126	Partners (73.0%); Parents (13.5%) Other (children, siblings, grandparent, grandchildren, friends or other relatives (13.5%).
(Clark & Hanna, 1989)	Alcohol	USA	Uncontrolled study (single arm, pre-post design)	134	Not specified
(Copello et al., 2009)/ (Velleman et al., 2011)	Alcohol and/or drugs	England	Cluster RCT	143	Male partner (42.0%), Child (35.7%), Female partner (10.5%), Parent (5.6%). Other (6.3%).
(Copello, Templeton, Krishnan,	Alcohol and/or drugs	England	Uncontrolled study (single	38	Female partners (50.0%), Mothers (18.4%), Male partners (15.8%), Fathers (5.3%), Sisters (5.3%), Daughters (5.3%).

Orford, & Velleman, 2000)			arm, pre-post design)		
(de los Angeles Cruz-Almanza et al., 2006)	Alcohol	Mexico	Uncontrolled study (single arm, pre-post design) and an accidental no treatment control group	18	Female partners (100%)
(Dutcher et al., 2009)	Alcohol and/or drugs	USA	Uncontrolled study (single arm, pre-post design)	99	Mother (25.3%), female partners (24.2%), significant other (16.2%), other (12.1%), male partners (7.1%), other relative (6.1%), son (4.0%), father (3.0%), daughter (2.0%)
(Gustafson et al., 2012)	Alcohol	USA	RCT	23	Adult children of alcoholics (100%)
(Halford et al., 2001)	Alcohol	Australia	RCT	61	Female partners (100%)
(Hansson et al., 2006) / (Hansson, Rundberg, Zetterlind, Johnsson, & Berglund, 2007)	Alcohol	Sweden	RCT	82	Adult children (100%)
(Hodgins et al., 2007)	Gambling	Canada	RCT	186	Spouse or common-law (56%), child (18%), sibling (7%), boy/girlfriend (6%), parent (6%), friend (5%), extended family (3%).
(Hojjat et al., 2017)	Drugs	Iran	Controlled trial	48	Female partners (100%)

(Howells & Orford, 2006)	Alcohol	England	Uncontrolled study (single arm, pre-post design) and a controlled trial	50 for main study 20 for controlled trial	Partners (100%)
(Kirby et al., 1999)	Drugs	USA	RCT	32	Spouse/partner (56.3%), parent (37.5%), sibling (6.3%)
(Kirby et al., 2017)	Alcohol and/or drugs	USA	RCT	135	Spouse/partner (52.2%), parent (26.1%), other (21.7%).
(Liepman et al., 1989)	Alcohol	USA	Non-randomised controlled study	24	Spouses (62.5%), children (8.3%), siblings (4.2%), relatives (16.7%), and employers (8.3%).
(Magnusson et al., 2019) / (Magnusson, Nilsson, Gumpert, Andersson, & Carlbring, 2015)	Gambling	Sweden	RCT	100	Partner (43.0%), parent (43.0%), other (14.0%)
(Makarchuk et al., 2002)	Gambling	Canada	RCT	31	Spouse or common law (58.0%), Boy/girlfriend (13.0%), Parent (13.0%), Child (13.0%), Sibling (3%)
(Manuel et al., 2012)	Alcohol and/or drugs	USA	Pilot RCT	40	Parent (62.5%), spouse (12.5%), sibling (7.5%), girlfriend/boyfriend, (7.5%), child (2.5%), friend (2.5%), or other (5%).

(Masaeli et al., 2018)	Drugs	Iran	Uncontrolled study (single arm, pre-post design)	27	Caregivers (100%) – specific relationship not specified
(Meyers, Miller, Smith, & Tonigan, 2002)	Drugs	USA	RCT	90	Parents (53%), Spouses or unmarried romantic partners (30%), close friends or family members other than parent or spouse (e.g., siblings, children) of the addicted person (17%).
(Meyers, Miller, Hill, & Tonigan, 1998)	Drugs	USA	Uncontrolled study (single arm, pre-post design)	62	Parents (56.0%), spouses (34.0%), siblings (6.0%) and children (4%).
(Miller et al., 1999)	Alcohol	USA	RCT	130	Spouse (59%), parent (30%), boyfriend or girlfriend (8%), child (1.5%), and grandparent (1.5%).
(Nayoski & Hodgins, 2016)	Gambling	Canada	RCT	31	Married (45.2%), common law partner (16.1%), child (16.1%), parent (12.9%), boy/girlfriend (6.5%), separated spouse (3.2%)
(Orford et al., 2017)	Gambling	England	Uncontrolled study (single arm, pre-post design)	215	Wives (29.8%), female partners (16.7%), mothers (26.0%), fathers (11.2%), sisters (6.0%), husbands or male partners (3.7%), brothers/sons/extended family/friends and others (6.5%).
(Osilla et al., 2016) / (Osilla, Pedersen, Gore, Trail, & Howard, 2014)	Alcohol	USA	Uncontrolled feasibility study (single arm, pre-post design)	12	Female partners (100%)

(Osilla et al., 2018) / (Osilla et al., 2014) / (Rodriguez, Osilla, Trail, Gore, & Pedersen, 2018)	Alcohol	USA	Pilot RCT	312	Partners (100%)
(Passa & Giovazolias, 2015)	Drugs	Greece	Uncontrolled study (single arm, pre-post design)	92	Parents (100%)
(Roush & DeBlassie, 1989)	Alcohol	USA	RCT	24	Children (100%)
(Rychtarik & McGillicuddy, 2005)	Alcohol	USA	RCT	171	Female partners (100%)
(Rychtarik & McGillicuddy, 2006)	Gambling	USA	Pilot RCT	23	Partners (married or cohabiting with partner for at least 1 year) (100%)
(Rychtarik et al., 2015)	Alcohol	USA	RCT	89	Female partners married or living with addicted person (100%)
(Templeton, Zohhadi, & Velleman, 2007)	Alcohol and/or drugs	England	Uncontrolled feasibility study (single arm, pre-post design)	20	Parents (70%), Partners (N=25%), Nephew (5%).
(Velleman, Arcidiacono, Procentese, Copello, &	Alcohol and/or drugs	Italy	Uncontrolled feasibility study (single arm,	52	Mothers (40.4%), female partners (38.5%), fathers (7.7%), sisters (5.8%), daughters (5.8%), brother (1.9%).

Sarnacchiaro, 2008)			pre-post design)		
(Yoshioka et al., 1992)	Alcohol	USA	Crossover experimental dyad design	68	Female partners (100%)
(Zetterlind et al., 1996)	Alcohol	Sweden	Controlled trial	41	Female partners (36.6%), male partners (21.9%), parents (17.1%), adult children (17.1%), sister (4.9%), friend (2.4%)
(Zetterlind, Hansson, Åberg-Örbeck, & Berglund, 2001) / (Hansson, Zetterlind, Åberg-Örbeck, & Berglund, 2004)	Alcohol	Sweden	RCT	39	Spouses (100%)

[a] Partner is inclusive of spouses, as well as registered or de-facto arrangements
RCT = Randomised controlled trial

Risk of bias

Of the 40 included studies, the majority of the studies were classified as having a high risk of bias (57.5%; k=23), followed by some concerns (30.0%; k=12) and low risk of bias (12.5%; k=5). When broken down to RCTs only, an equal amount of studies (41.4%; k=12) studies were classified as having a high risk of bias and some concerns, with only 17.2% (k=5) classified as having a low risk of bias.

Content and characteristics of treatments for affected others

Studies evaluated a range of therapist delivered face-to-face treatments (individually delivered: 52.5%, k=21; group-delivered: 37.5%, k=15), and self-directed treatments (22.5%; k=9). In addition, 17.5% (k=7) of studies evaluated single treatment arms that used a combination of individually-delivered, group-delivered and/or self-directed modalities. Where self-directed treatments were evaluated, seven studies evaluated a self-directed workbook, and six studies evaluated an online self-directed program. Note that the percentages do not sum to 100% as some studies included multiple treatments with different modes of delivery.

Of the treatments delivered face-to-face, treatment length ranged from 1 to 36 sessions (M=9.4, SD=7.0, *Mdn* = 10), with sessions ranging from 10 to 150 minutes in duration (M=77.6, SD=32.0, *Mdn* = 82.5). Of the self-directed treatments, the number of modules/sections ranged from 1 to 24 (M=7.0, SD=6.7, *Mdn* = 5.0).

Multiple types of treatments were evaluated across the included studies. As displayed in Appendix C, around one-third (32.5%; k=13) of the included studies evaluated treatments based on Community Reinforcement Approach and Family Training (CRAFT). CRAFT is a cognitive behavioural program and its aim is twofold: (1) to help affected others engage treatment-refusing addicted individuals into treatment (i.e., addicted person-focused); and (2) improve the affected other's own quality of life (i.e., affected other-focused; Meyers & Wolfe, 1998). Common activities/strategies that CRAFT-based treatments employ include: (1) awareness training, which aims to increase the addicted person's motivation to change by identifying negative consequences associated with the addicted behaviour and potential benefits of treatment; (2) contingency management training, which aims to reinforce non-addictive behaviours; (3) communication skills training, which aims to increase positive communication between the affected other and addicted person; (4) increasing affected others social support via outside activities procedures (i.e., reinforcing activities outside of the relationship); and (5) teaching affected others how and when to discuss treatment entry to the addicted person (Bischof, Iwen, Freyer-Adam, & Rumpf, 2016; Kirby, Marlowe, Festinger, Garvey, & LaMonaca, 1999; Miller, Meyers, & Tonigan, 1999). Some CRAFT treatments also refer to utilising a functional analysis procedure to assist with the identification of triggers for the addictive behaviour use, as well as potential reinforcers for non-addictive behaviours (Bischof et al., 2016; Miller et al., 1999).

In addition, several studies (12.5%; k=5) evaluated treatments referred to as coping skills training (CST). CST helps affected others conceptualise their own distress from

a family stress and coping model (Hobfoll & Spielberger, 1992; Moos, Finney, & Cronkite, 1990; Rychtarik & McGillicuddy, 1997). This model posits that the problems caused by the addicted person's behaviour, as well as the affected others inability to cope with this behaviour in a way he/she normally would result in the distress experienced by the affected others (Rychtarik & McGillicuddy, 2005, 2006). CST, therefore, aims to help affected others cope with the distress resulting from the addicted person's addiction (i.e., affected other-focused; Rychtarik & McGillicuddy, 2005). Typically, CST treatments involve: (1) a description of the family stress and coping model; (2) an explanation of how thoughts, feeling and behaviours interact, and in particular how the behaviours of the addicted person can impact on the thoughts, feelings and behaviours of the affected other, as well as the thoughts and feelings of the addicted persons; and (3) an introduction and application of a problem-solving approach to relevant problematic addiction-related situations (including drinking, illicit drug use and gambling situations) experienced by affected others (Rychtarik & McGillicuddy, 2005, 2006; Rychtarik, McGillicuddy, & Barrick, 2015).

A further 12.5% (k=5) of studies evaluated treatments based on the 5-step approach. The 5-step approach is based on the stress-strain-coping-support model (Orford, Templeton, Velleman, & Copello, 2005; Velleman & Templeton, 2003) and acknowledges that affected others need assistance in their own right (i.e., affected other-focused approach; Copello, Templeton, Orford, & Velleman, 2010; Orford, Cousins, Smith, & Bowden-Jones, 2017). The five steps are: (1) listen non-judgementally; (2) provide relevant information (e.g. about drugs or dependence); (3) counsel about ways of coping; (4) discuss increasing social support; and (5) consider further options for help and support (Copello, Orford, Velleman, Templeton, & Krishnan, 2000).

Additionally, some studies (7.5%; k=3) evaluated a program called 'Pressures to Change'. Pressures to Change uses learning theory principles to provide partners with appropriate coping responses that empower the partner and increasingly incentivise the addicted person to change either via seeking help or reducing consumption (i.e., addicted-person focused approach; Barber & Crisp, 1995). The stages of change model (Prochaska & DiClemente, 1984) is also an important aspect to this treatment, as ultimately its aim is to help affected others move the addicted person from the pre-contemplation stage of change through to the action stage of change. This treatment typically consists of five 'levels of pressure', including: (1) provision of information about the addictive behaviour and stages of change model; (2) strategies for arranging activities that are not compatible with the addictive behaviour; (3) behavioural strategies that can be used across a range of occasions (e.g., when the addicted person is sober or intoxicated or when a crisis occurs); (4) strategies for negotiating addictive behaviour contracts; (5) instructions on how to involve other people in the program (Barber & Crisp, 1995; Barber & Gilbertson, 1996, 1998).

The remaining studies (40.0%; k=16) evaluated a range of other addicted person and/or affected other-focused treatments, such as cognitive-behavioural therapy, motivational interviewing, group counselling, stress management and supportive

counselling. See Appendix C for a more detailed description of the content within these treatments.

Narrative review of effectiveness of treatments for affected others

This narrative review was presented based on the type of treatment and broken down further by study design. Within group differences from single-arm trials were first discussed, followed by between group differences from RCTs and controlled trials with passive control groups, and then between group differences from RCTs and controlled trials with active control/comparison groups. An overview of the effectiveness of individual studies can be found in Tables 2-5.

CRAFT

As displayed in Table 2, 13 (32.5%) of the included studies evaluated a CRAFT treatment. Of these, nine (69.2%) delivered a face-to-face version and six (46.2%) delivered a self-directed version, with some studies administering multiple versions of CRAFT.

Three (18.9%) of the CRAFT-based studies employed a single-arm study design. For study-specific results, see Table 2. Taken together, these studies indicate that CRAFT may be helpful in improving affected other mood and functioning over time (e.g., depression, anxiety, anger). The findings for relationship functioning, however, were mixed, with one study demonstrating improved relationship happiness over time, and one other study showing no significant improvement on relationship happiness or family cohesion and conflict. There is also limited evidence to support CRAFT's effectiveness in improving addicted person outcomes over time, with only one study assessing such outcomes (e.g., abstinence). Treatment engagement rates, however, seem relatively high, with half to three-quarters of addicted person's seeking treatment.

Four (30.8%) of the CRAFT studies used a RCT or controlled trial study design, with a passive control group. For study-specific results, see Table 2. The findings from these studies were quite mixed. Half of these studies demonstrated that CRAFT was superior to control groups in improving some affected other mental health variables (e.g., depression, anxiety but not anger). In contrast, these studies showed that CRAFT generally was not superior to control groups in improving addicted person outcomes, but did show within-group change. Specifically, half to two-thirds of these studies displayed no significant differences on treatment entry or improving addictive behaviour, and one-quarter of studies even found that the control group was superior to CRAFT in improving addictive behaviour. Similarly, CRAFT generally did not outperform control groups on relationship functioning outcomes (e.g., relationship happiness, relationship quality or family conflict), with only one-quarter of studies displaying significant differences in relationship happiness (Bischof et al., 2016). Despite relatively few between group differences, these studies were relatively consistent in demonstrating within-group change across the different types of outcomes.

Seven (53.8%) of the CRAFT-based studies evaluated CRAFT using a RCT or controlled study design, with an active comparison group (i.e., 12-step treatments, treatment entry training, different CRAFT modalities). For study-specific results, see

Table 2. Taken together, the mode of CRAFT delivery made no difference to treatment effectiveness, with studies consistently demonstrating no between-group differences on face-to-face delivered CRAFT compared to self-directed delivered CRAFT, and self-directed delivered CRAFT compared to guided self-directed CRAFT. Moreover, these studies showed mixed within-group findings, with approximately one-third of studies finding within-group change over time on affected other functioning, and two-thirds of studies finding within-group change over time for relationship functioning. When compared to a different type of treatment, however, CRAFT produced better addicted person results, with all studies showing that CRAFT produced higher treatment entry rates than the 12-step facilitation treatments. In contrast, there were no differences between CRAFT and 12-step facilitation treatments on affected other outcomes and relationship functioning outcomes, with both groups showing improvement over time.

Table 2. Results of studies involving a CRAFT treatment

Study ID	Treatment arms	Modality of delivery	Number of sessions /modules	Timing of outcome assessments	Outcomes	Summary of findings	Risk of bias
Single-arm study designs							
(Dutcher et al., 2009)	CRAFT	Individually delivered in a community outpatient setting	Up to 12 sessions	Baseline, 3-months, 6-months and 12-months follow-up (results not include in paper).	**Affected other outcomes:** (1) Depression via BDI; (2) Anger (state and trait) via the STAXI ; (3) Anxiety (state and trait) via the STAI **Addicted person outcomes:** (4) Treatment Engagement **Relationship functioning outcomes:** (5) Relationship happiness via the RHS	**Affected other outcomes:** Depression, state anger, state anxiety and trait anxiety improved significantly over time. Trait anger did not change over time. **Addicted person outcomes:** Treatment engagement = 55% **Relationship functioning outcomes:** Relationship happiness improved significantly over time.	High
(Meyers et al., 1998)	CRAFT	Face-to-face individual	Maximum of 6 months or 12 sessions plus two discretionary emergency sessions, whichever came first.	Baseline, 3-months and 6-months follow-up	**Affected other outcomes:** (1) Depression via BDI; (2) Anger (behaviour, state and trait) via the STAXI; (3) Medical symptoms; (4) Physical symptoms; (5) Anxiety (state and trait) via the STAI **Addicted person outcomes:** (6) Percent days abstinence; (7)	**Affected other outcomes:** There was significant improvement over time on all affected other outcomes. **Addicted person outcomes:** Significant improvements in percent of days abstinent from alcohol and illicit drugs but not for frequency of negative consequences or percentage of days paid for work. Treatment engagement = 74% **Relationship functioning outcomes:**	High

					Frequency of negative consequences surrounding illicit drug use; (8) Percentage of days paid for work during an assessment interval; (9) Treatment engagement. Note that these were reported by the family member. **Relationship functioning outcomes:** (10) Relationship functioning via singe item from the RHS; (11) Cohesion and Conflict scales from the FES	No significant change over time for affected other reported happiness, cohesion or conflict. Addicted persons reported significant improvement over time for happiness and conflict but not cohesion.	
(Osilla et al., 2016) / (Osilla et al., 2014)	Partners Connect, a WBI adapted from CRAFT	Online	4 sessions, 30-45 minutes long	Baseline and a follow-up survey after each session (4 sessions)	**Affected other outcomes:** (1) Relationship satisfaction via single item; (2) Help-seeking behaviour via single item; (3) Alcohol use via AUDIT-C. **Addicted person outcomes:** (4) Drinking behaviour via the DNRF.	**Affected other outcomes:** Only baseline data provided indicating that affected others were neutral/ satisfied with their relationship, 25% reported receiving mental health counselling in the past year for their own well-being and 50% met criteria for at-risk or heavy drinking.	High
RCTs with passive control/comparison groups							
(Bischof et al., 2016)	(1) CRAFT (2) WLC	(1) Individual face-to-face (2) NA	(1) 12 weekly sessions, 60 minutes long (2) 12 weeks	Baseline and 3-month, 6-month, and 12-month follow-ups	**Affected other outcomes:** (1) Depression via BDI; (2) Mental health via MHI-5; (3)	**Affected other outcomes:** Significant differences between CRAFT and WLC were only identified for mental health at 3-	Some concerns

					psychological symptoms via SCL-90; (4) Satisfaction with life via the SWLS; (5) Coherence via SOC; (6) Degree of suffering from alcohol consumption of addicted person via PSRISM **Addicted person outcomes:** (7) Treatment entry via CSO reports (8) Alcohol consumption via the AUDIT (results not reported); (9) Adverse consequences from drinking via scale derived from Health and Daily Living Form **Relationship functioning outcomes:** (10) relationship happiness via RHS	months and degree of suffering at 6-months. Both groups showed significant improvements from baseline on all affected other outcomes. **Addicted person outcomes:** CRAFT resulted in significantly higher treatment engagement rates compared to WLC at the 3-month follow-up but not 6 or 12-month follow-up. No difference between CRAFT and WLC on adverse drinking consequences. **Relationship functioning outcomes:** Significant differences between CRAFT and WLC were only identified for relationship happiness at 3-months but not 6 or 12-months.	
(Hodgins et al., 2007)	(1) Self-help workbook. (2) Self-help workbook + telephone support. (3) Control group (resource information package)	(1) Self-help workbook (2) Self-help workbook and telephone Contact (3) Pamphlet	(1) 42-pages (2) 42-page workbook and 2 phone calls (3) Single pamphlet	Baseline, 3-months and 6-months	**Affected other outcomes:** (1) Negative consequences via the ICSG; (2) Psychological distress via the GSI of the BSI. **Addicted person outcomes:** (3) Number of days gambled; (4) Dollars spent gambling; (5)	**Affected other outcomes:** No significant differences between the three groups on ICSG or GSI. All groups improved from baseline to 3- and 6-months with no change from 3- to 6 months on GSI and ICSG. **Addicted person outcomes:** The control group gambled less frequently than the workbook group	Some concerns

					Overall description of level of gambling; (6) Negative consequences via the ICSG; (7) Treatment entry **Relationship functioning outcomes:** (8) Relationship satisfaction via the RHS and the RAS.	but not the telephone support group. No differences between groups for dollars spent gambling, ICSG or treatment entry. All groups improved from baseline to 3- and 6-months with no change from 3- to 6 months on dollars spent. **Relationship functioning outcomes:** No differences between groups for RHS or RAS. All groups improved from baseline to 3- and 6-months with no change from 3- to 6 months on RHS but not RAS.	
(Makarchuk et al., 2002)	(1) Treatment group (CRAFT self-help materials + standard practice) (2) Control group (standard practice)	(1) Self-help workbook + paper-based resource package (2) Paper-based resource package	(1) CRAFT consisted of 5 core topics. Standard practice consisted of 1 resource package. (2) NA	Baseline and 3-months follow-up	**Affected other outcomes:** (1) Personal functioning via the BSI; (2) Number of negative consequences via modified Drinker Inventory of Consequences. **Addicted person outcomes:** (3) Number of days gambled via TLFB; (4) Treatment engagement; (5) Negative consequences via modified DrInC . **Relationship functioning outcomes:**	**Affected other outcomes:** No significant differences between the treatments at follow-up on BSI or negative consequences, but both groups improved over time. **Addicted person outcomes:** The treatment group displayed greater reduction in gambling days compared to the control group. No differences between groups on treatment engagement or negative consequences, but both groups reported fewer consequences over time. **Relationship functioning outcomes:** No significant differences between the treatments at follow-up on the RHS, but both groups improved over time.	Low

					(6) Relationship satisfaction via the RHS.		
(Osilla et al., 2018) / (Osilla et al., 2014) / (Rodriguez et al., 2018)	(1) Partners Connect WBI adapated from CRAFT (2) WLC	(1) Online (2) NA	(1) 4 sessions, 30-45 minutes long (2) 5 months	Baseline and 5-months follow-up	**Affected other outcomes:** (1) Depression via PHQ-8; (2) Anxiety via GAD-7; (3) Anger via STAXI-2; (4) Social support via MOS Social Support Survey **Addicted person outcomes:** (5) Alcohol consumption via DNRF and single items assessing days of more than 5 drinks consumed and quantity of drinks. **Relationship functioning outcomes:** (6) Relationship quality via QMI; (7) Family conflict via FES	**Affected other outcomes:** WBI participants reported significantly lower levels of anxiety and higher levels of emotional/informational and tangible social support and more frequent emotionally supportive interactions compared to participants in the control group. There were no between group differences on anger expression or positive social interaction support. **Addicted person outcomes:** There were no between group differences on perceived alcohol consumption, with both groups showing significant decrease over time. **Relationship functioning outcomes:** There were no between group differences relationship quality or family conflict.	Low
RCTs with active control/comparison groups							
(Hodgins et al., 2007)	(1) Self-help workbook. (2) Self-help workbook + telephone support. (3) Control group (resource information package)	(1) Self-help workbook (2) Self-help workbook and telephone Contact (3) Pamphlet	(1) 42-pages (2) 42-page workbook and 2 phone calls (3) Single pamphlet	Baseline, 3-months and 6-months	**Affected other outcomes:** (1) Negative consequences via the ICSG; (2) Psychological distress via the GSI of the BSI. **Addicted person outcomes:** (3) Number of days gambled; (4) Dollars	**Affected other outcomes:** No significant differences between the three groups on ICSG or GSI. All groups improved from baseline to 3- and 6-months with no change from 3- to 6 months on GSI and ICSG. **Addicted person outcomes:** The control group gambled less frequently than the workbook group	Some concerns

					spent gambling; (5) Overall description of level of gambling; (6) Negative consequences via the ICSG; (7) Treatment entry **Relationship functioning outcomes:** (8) Relationship satisfaction via the RHS and the RAS.	but not the telephone support group. No differences between groups for dollars spent gambling, ICSG or treatment entry. All groups improved from baseline to 3- and 6-months with no change from 3- to 6 months on dollars spent. **Relationship functioning outcomes:** No differences between groups for RHS or RAS. All groups improved from baseline to 3- and 6-months with no change from 3- to 6 months on RHS but not RAS.	
(Kirby et al., 1999)	1. CRAFT 2. 12-step treatment	(1) Individual face-to-face (2) Face-to-face group sessions	(1) 1-hour sessions, twice weekly for the first 4 weeks, and then once a week for the next 6 weeks, for a total of 14 hours. (2) Once weekly for about 1.5 hours over a 10-week period. Total of 15 hours.	Baseline and 10 weeks after baseline	**Affected other outcomes:** (1) Treatment attendance and completion; (2) Problems experienced due to drug use via FIS; (3) Mood states via the POMS; (4) Social Functioning via the SAS-SR; (5) Self-esteem via the SES **Addicted person outcomes:** (6) Treatment entry via modified TSR. (7) Substance use **Relationship functioning outcomes:** (8) Family functioning via the FES.	**Affected other outcomes:** Greater treatment attendance and completion by CRAFT. No differences between groups on problems experienced, mood states, social functioning or self-esteem. Both groups showed improvements over time, on problems experienced, mood states and social functioning but not self-esteem. **Addicted person outcomes:** Greater treatment entry for CRAFT participants but no difference in drug use. **Relationship functioning outcomes:** No differences between groups on family functioning, with both groups showing improvement over time.	Some concerns

(Kirby et al., 2017)	(1) CRAFT (2) TEnT (3) Al-Anon / Nar-Anon Facilitation	(1) Individual face-to-face (2) Individual face-to-face (3) Individual face-to-face	(1) 12-14 sessions (2) 4-6 sessions (3) 12-14 sessions	Baseline, 4-month, 6-month, and 9-month follow-up.	**Affected other outcomes:** (1) Depression via BDI-II; (2) Anxiety via STAI-S-Form Y; (3) Anger via STAXI-2; (4) CSO problems (emotional, relationship, family, financial, physical violence, legal, health) via the SOS-SR; (5) Coping styles via the SSS of the Spouse Sobriety Influence Inventory and the EBS of the Behaviour Enabling Scale. **Addicted person outcomes:** (6) Initial treatment entry via modified TSR-6; (7) Time to treatment entry via modified TSR-6; (8) Treatment referral and community treatment entry via a modified TSR-6. (9) Days alcohol and drug use via the Form-90-Collateral.	**Affected other outcomes:** No differences between the 3 groups on all affected other outcomes, except sobriety support (ANF less likely to engage in sobriety support after treatment). All 3 groups showed decreases over time in depression, anxiety, anger expression, emotional problems, relationship problems, family problems and enabling behaviours. **Addicted person outcomes:** CRAFT and TEnT had significantly higher rates of treatment entry than ANF. Relative to ANF, both CRAFT and TEnT had less time to treatment entry. No differences between CRAFT and TEnT on received brief treatment and referral. No difference between the 3 groups on days of treatment attendance or substance use. There were significant improvements from baseline to follow-up on substance use.	Low
(Manuel et al., 2012)	(1) Group delivered CRAFT (2) Self-directed CRAFT	(1) Group face-to-face (2) Self-directed workbook	(1) Up to 12 1-hour sessions .	Baseline, 3-month and 6-month follow-up	**Affected other outcomes:** (1) Depression via the BDI-II; (2) Physical symptoms via the Health and Daily Living Form; (3) State anxiety	**Affected other outcomes:** No difference between groups on any outcomes except confidence in substance abuse treatment. No significant improvement on any outcome from baseline to follow-up. **Addicted person outcomes:**	Some concerns

			(2) Not reported		via the STAI; (4) Anger expression via the STAXI-2; (5) Confidence in substance abuse treatment via the CASAA Drug Efficacy Scale. **Addicted person outcomes:** (6) Treatment engagement. **Relationship functioning outcomes:** (7) Family cohesion and conflict via the FES.	No difference between treatments on treatment engagement rates. **Relationship functioning outcomes:** No difference between groups on any outcomes. Significant improvements on both outcomes from baseline to 3- and 6-months follow-up.	
(Meyers et al., 2002)	(1) CRAFT (2) CRAFT + after care group (3) Al-Anon and Nar-Anon facilitation therapy	(1) Individual face-to-face (2) Individual face-to-face + group (3) Face-to-face delivery	(1) 12 individual sessions and 2 optional emergency sessions. (2) 12 individual sessions and 2 optional	Baseline and 3, 6, 9, 12, and 18 months after baseline	**Affected other outcomes:** (1) Depression via BDI; (2) Anxiety via STAI; (3) Anger via STAXI; (4) Self-esteem via State SES; (5) Substance use via Form-90-Drug Intake; (6) Consequences via Inventory of Drug Use Consequences (7) Social functioning via Social Functioning and Resources Scale; (8) Life purposes via Purpose in Life Scale; (9) Physical Symptoms; (10) Readiness to change via the Stages of Change Readiness	**Affected other outcomes:** No differences between groups on any of these outcomes. No within group change on any outcomes. **Addicted person outcomes:** Both CRAFT conditions engaged significantly more addicted persons into treatment than the control group, with no difference between the two CRAFT groups. **Relationship functioning outcomes:** No differences between groups on any of these outcomes. No within group change on any outcomes.	Some concerns

			emergency sessions + up to 6 months aftercare (3) Not reported		and Treatment Eagerness Scale. **Addicted person outcomes:** (11) Engagement of user into treatment **Relationship functioning outcomes:** (12) Relationship happiness via RHS; (13) Social and environmental family characteristics via FES; (14) Relationship adjustment via DAS; (15) Conflict and violence via CTS.		
(Miller et al., 1999)	(1) Al-Anon facilitation (2) Johnson Institute Intervention (3) CRAFT	(1) Group face-to-face (2) Individual face-to-face (3) Individual face-to-face	(1) Up to 12 sessions of 60 minutes each (2) Six 2-hour sessions (3) Sessions not specified; 12-hours in total	Baseline and 3-month, 6-month, 9-month, and 12-month follow-ups	**Affected other outcomes:** (1) Depression via BDI; (2) Anger via STAXI **Addicted person outcomes:** (3) Treatment entry **Relationship functioning outcomes:** (4) Relationship happiness via RHS; (5) Social and environmental family characteristics via FES	**Affected other outcomes:** No differences between groups on all outcomes. All groups significantly improved over time on all outcomes. **Addicted person outcomes:** CRAFT had significantly higher treatment engagement than the other 2 groups. **Relationship functioning outcomes:** No differences between groups on all outcomes. All groups significantly improved over time on all outcomes.	High

(Nayoski & Hodgins, 2016)	(1) CRAFT therapy (2) CRAFT workbook	(1) Individual face-to-face (2) Self-help workbook	(1) Eight to twelve 1-hour sessions (2) 5 core topics	Baseline, 3-month and 6-month follow-up	**Affected other outcomes:** (1) Psychological functioning via BSI. **Addicted person outcomes:** (2) Gambling behaviours (days gambled and dollar amount spent) via TLFB; (3) Treatment entry **Relationship functioning outcomes:** (4) Relationship happiness via the RHS and RAS.	**Affected other outcomes:** No significant differences between groups on BSI. No significant change over time in either group. **Addicted person outcomes:** No difference between groups on treatment entry, days gambled or dollars spent gambling. No change over time for days gambled but both groups reduced dollars spent gambling over time. **Relationship functioning outcomes:** No significant differences between groups on BSI. No significant change over time in either group.	Some concerns

ANF = Al-Anon / Nar-Anon Facilitation; AUDIT-C = Alcohol Use Disorders Identification Test – Consumption Scale; BDI = Beck Depression Inventory; BSI = Brief Symptom Inventory; CASAA = Center on Alcoholism, Substance Abuse and Addictions; CRAFT = Community Reinforcement Approach and Family Training; CSO = Concerned Significant Other; CTS = Conflict Tactics Scale; DNRF = Drinking Norms Rating Form; DrInC = Drinker Inventory of Consequences; EBS = Enabling Behaviours Subscale; FES = Family Environment Scale; FIS = Family Impact Scale; GAD-7 = Generalised Anxiety Disorder 7-item scale; GSI = Global Severity Index; ICSG = Inventory of Consequences Scale for the Gambler and the CSO; MHI = Mental Health Inventory; NA = Not applicable; PHQ-9 = Patient Health Questionnaire – 9-item version; POMS = Profile of Mood States; PRISM = Pictorial Representation of Illness and Self Measure; QMI = Quality of Marriage Index; RAS = Relationship Assessment Scale; RHS = Relationship Happiness Scale; SAS-SR = Social Adjustment Scale—Self-Report; SCL-90 = Symptom Checklist; SES= Self-Esteem Scale; SOC = Sense of coherence scale; SOS-SR = Significant Other Survey – Self-Report; STAI = State/trait anxiety inventory; SSS = Sobriety Support Subscale; STAXI = State-Trait Anger Expression Inventory; SWLS = Satisfaction with life scale; TEnT = Treatment Entry Training; TLFB = Timeline Follow Back; TSR = Treatment Services Review-6; WBI = Web-based intervention; WLC = Waitlist control.

CST

As displayed in Table 3, five of the included studies (12.5%) evaluated a CST treatment. Of these, four (80.0%) delivered a face-to-face version and one (20%) delivered a self-directed version. None of these studies employed a single-arm study design.

Three (60%) of these studies employed a RCT or controlled trial study design, with a passive control group. For study-specific results, see Table 3. Together, these studies found that CST performed better than control groups on some affected other outcomes (i.e., depression and coping skills), with mixed findings for other affected other outcomes (i.e., violence, anxiety and anger). Moreover, these studies found that CST consistently did not produce better outcomes than control groups on addicted person's addictive behaviour use (e.g., drinking days), with both CST and control groups showing improvement over time. These studies did not assess any relationship functioning outcomes.

Three (60%) studies also employed a RCT or controlled trial study design to compare a CST treatment with an active comparison group (i.e., group support, psychoeducation, 12-step treatment and a treatment program that focused specifically on changing addictive [drinking] behaviour). These studies mostly explored affected other outcomes, with only one study assessing addicted person outcomes and no studies assessing relationship functioning outcomes (Rychtarik & McGillicuddy, 2005). Together, these studies found that treatments that focused solely on developing coping skills were largely comparable to other treatments in improving affected other outcomes, including coping styles and mental health. While these CST treatments showed within-group change over time, these changes were not larger than other active treatments. See Table 3 for study specific results.

Table 3. Results of studies involving a CST treatment

Study ID	Treatment arms	Modality of delivery	Number of sessions /modules	Timing of outcome assessments	Outcomes	Summary of findings	Risk of bias
Single-arm study designs							
None							
RCTs with passive control/comparison groups							
(Rychtarik & McGillicuddy, 2005)	(1) CST (2) TSF (3) DTC	(1) Face-to-face group (2) Face-to-face group (3) NA	(1) 8 weekly sessions (2) 8 weekly sessions (3) 8-weeks	Baseline, post-treatment, and 3-month, 6-month, 9-month, and 12-month follow-ups	**Affected other outcomes:** (1) Depression via BDI; (2) Physical violence via CTS; (3) Coping skill acquisition via SSI **Addicted person outcomes:** (4) Percentage drinking days and standard drinks per drinking day via TLFB; (5) Help seeking; (6) Al-Anon attendance	**Affected other outcomes:** CST and TSF resulted in lower depression at post-treatment than DTC but did not differ from one another. At 12-month follow-up there were no between group differences, with both groups showing significant improvement over time. Physical violence reduced significantly for CST but not TSF participants. CST participants had significantly greater coping skill acquisition at post-treatment compared to TSF and DTC. **Addicted person outcomes:** No between group differences on drinking at post-treatment or follow-up, or help-seeking rates at 6- and 12-month follow-up. Both groups showed significant change over time on drinking days. TSF attended more Al-Anon sessions than CST or DTC.	Some concerns
(Rychtarik & McGillicuddy, 2006)	(1) CST (2) DTC	(1) Individual face-to-face (2) NA	(1) 10 weekly sessions (2) 10 weeks	Baseline and post-treatment	**Affected other outcome:** (1) Coping Skill acquisition via	**Affected other outcome:** Larger improvements were identified for the CST treatment compared to DTC on coping skill	Some concerns

					Gambler Situation Inventory; (2) Coping styles via short form of the CQ, adapted for gambling; (3) Depression via BDI-II; (4) Anxiety via BAI; (5) Anger via STAXI-2. **Addicted person outcome:** (6) Percentage of non-gambling days and average monetary loss per gambling day via TLFB	acquisition (behavioural and cognitive) coping styles (tolerance but not engagement and withdrawal), depression and anxiety, but not anger. **Addicted person outcome:** No significant differences between treatments on percentage of non-gambling days and loss per gambling day, with both groups showing improvement over time.	
(Rychtarik et al., 2015)	(1) Internet-based CST (2) DTC	(1) Online plus access to counsellor via telephone or online (2) NA	(1) 8-week access to 24 sessions, self-paced (Sessions averaged 17 min, range: 4 to 32 min). (2) 8-weeks	Baseline and post-test	**Affected other outcomes:** (1) Depression via BDI-II; (2) Anger via State Anger subscale, and Anger Expression Index on the STAXI; (3) Anxiety via DASS; (4) Stress via DASS; (5) Coping skill acquisition via SSI; (6) Help-seeking; (7) Intimate partner violence via interview **Addicted person outcomes:** (8) Alcohol and Drug Use via interview; (9) Intimate partner violence via interview; (10) Help-seeking	**Affected other outcomes:** Relative to no treatment, iCST increased coping skills, decreased depressive symptoms and state anger. Anger-expression, anxiety, stress help-seeking and affected other initiated violence did not differ between groups. **Addicted person outcomes:** No differences between groups on alcohol use, addicted person initiated violence or help-seeking.	Some concerns
RCTs with active control/comparison groups							

(Hansson et al., 2006) / (Hansson et al., 2007) (coping intervention program)	(1) Alcohol intervention program (2) Coping intervention program (3) Combination program	(1) Individual face-to-face (2) Individual face-to-face (3) Individual face-to-face	(1) Two 2-hour sessions (2) Two 2-hour sessions (3) Two 2-hour sessions	Baseline, 12-month and 24-month follow-ups	**Affected other outcomes:** (1) Alcohol use via AUDIT and EBAC; (2) Consequences of alcohol use via the SIP; (3) Coping with parents' abuse questionnaire. (4) Psychological functioning via SCL-90; (5) Social support via Interview Schedule for Social Interaction; (6) Overall alcohol score (mean of the standardised difference of AUDIT, EBAC and SIP).	**Affected other outcomes:** At 12-months, the groups receiving alcohol treatments improved their overall alcohol score significantly more than the group receiving coping treatment only. No other significant differences between groups. From baseline to 12-months, the alcohol only group improved on AUDIT, EBAC, SIP and coping with parental abuse, the coping only group on coping with parental abuse and the combination group on EBAC, SIP and coping with parental abuse. From 12 to 24 months, the combination group improved greater than the coping group on AUDIT, EBAC and SIP, and greater than the alcohol group on AUDIT and SIP. There was only significant within group change from 12 to 24 months follow-up for the combination group only on AUDIT and SIP. All other outcomes remained stable over time.	Low
(Rychtarik & McGillicuddy, 2005)	(1) CST (2) TSF (3) DTC	(1) Face-to-face group (2) Face-to-face group (3) NA	(1) 8 weekly sessions (2) 8 weekly sessions (3) 8 weeks	Baseline, post-treatment, and 3-month, 6-month, 9-month, and 12-month follow-ups	**Affected other outcomes:** (1) Depression via BDI; (2) Physical violence via CTS; (3) Coping skill acquisition via SSI **Addicted person outcomes:**	**Affected other outcomes:** CST and TSF resulted in lower depression at post-treatment than DTC but did not differ from one another. At 12-month follow-up there were no between group differences, with both groups showing significant improvement over time. Physical violence	Some concerns

					(4) Percentage drinking days and standard drinks per drinking day via TLFB; (5) Help seeking; (6) Al-Anon attendance	reduced significantly for CST but not TSF participants. CST participants had significantly greater coping skill acquisition at post-treatment compared to TSF and DTC. **Addicted person outcomes:** No between group differences on drinking at post-treatment or follow-up, or help-seeking rates at 6- and 12-month follow-up. Both groups showed significant change over time on drinking days. TSF attended more Al-Anon sessions than CST or DTC.	
(Zetterlind et al., 2001) / (Hansson et al., 2004)	(1) Standard information session (psychoeducation and personalised feedback) (2) Coping Skills Training (3) Group support	(1) Individual face-to-face (2) Individual face-to-face (3) Group face-to-face	(1) One 1-hour session (2) One 60-minute session, plus four 90-minute sessions (3) One 60-minute session, plus 12 90-minute sessions on fortnightly	Baseline, and 12-month and 24-month follow-ups	**Affected other outcomes:** (1) Coping behaviour via the Coping Behaviour Scale; (2) Hardship via the Hardship Scale; (3) Mental health symptoms via the SCL-90. (4) Alcohol consumption via the AUDIT	**Affected other outcomes:** At 12-month follow-up, the groups differed on mental health symptoms, with the information group showing the least improvement, and hardship scores with group support showing the largest improvement. There were significant improvements from pre-treatment to 12-month follow-up an all outcomes and groups except for, mental health and hardship for the information group, avoidant coping and AUDIT for the coping skills group and AUDIT for the group support. At 24 months, there were no between group differences on any outcomes but the Information group reported less reduction from baseline to 24-	Some concerns

			basis for 6 months			months on mental health, compared to the other 2 groups. There were significant improvements from pre-treatment to 24-month follow-up only on mental health, hardship and total coping for group support and CST and hardship and total coping for information only group.	

AUDIT = Alcohol Use Disorders Identification Test; BAI = Beck Anxiety Inventory; BDI = Beck Depression Inventory; CST = Coping Skills Training; CQ = Coping Questionnaire; CTS = Conflict Tactics Scale; DASS = Depression Anxiety Stress Scale; DTC = Delayed Treatment Control; EBAC = Estimated Blood Alcohol Concentration; NA = Not applicable; SCL-90 = Symptom Checklist; SIP = Short Index of Problems; SSI = Spouse Situation Inventory; STAXI = State-Trait Anger Expression Inventory; TLFB = Timeline Follow Back; TSF = 12-step facilitation.

5-Step approach

As displayed in Table 4, five of the included studies (12.5%) evaluated a 5-step treatment approach. Of these, three (60.0%) delivered a face-to-face version, one (20.0%) delivered a self-directed version, and one study (20.0%) delivered a combined face-to-face and self-directed treatment.

Of these, four studies (80%) employed single-arm study designs. For study-specific results, see Table 4. These studies were from the same research team and only explored affected other outcomes, predominantly coping styles, physical and psychological health and harms experienced by the affected other due to the addicted person's behaviour. The findings from these studies were relatively consistent in displaying significant improvements on tolerant and engaged coping styles and physical and psychological health, but not withdrawn coping styles, over time. In contrast, there were mixed findings on harms experienced by affected others, with only half of the studies identifying significant improvements over time.

No studies explored a 5-Step treatment approach using a RCT or controlled trial study design, with a passive control group, and only one study (20%) employed a RCT or controlled trial study design, with an active comparison group (Copello et al., 2009). In this study, an intensive version of the 5-step approach was compared to a brief version of the approach. This study found no differences between the two versions of the 5-step approach on affected other coping skills or physical and psychological health, with both groups showing significant improvement over time on all of these outcomes. For study-specific results, see Table 4.

Table 4. Results of studies involving a 5-Step approach treatment

Study ID	Treatment arms	Modality of delivery	Number of sessions /modules	Timing of outcome assessments	Outcomes	Summary of findings	Risk of bias
Single-arm study design							
(Copello, Templeton, et al., 2000)	Structured treatment package (referred to as '5-step family intervention')	Individual face-to-face	Maximum of 5 sessions although emphasis was placed on the effectiveness of a single session.	Baseline and post-treatment	**Affected other outcomes:** (1) Coping (tolerant, engaged and withdrawal) via the CQ; (2) Physical health via the SRT; (3) Psychological health via the SRT	**Affected other outcomes:** Significant reductions from pre- to post-treatment on tolerant and engaged coping (but not withdrawal) and both physical and psychological scales scores on the SRT.	High
(Orford et al., 2017)	5-step intervention	Self-help handbook	5-Step workbook	Baseline and 3-6 months follow-up	**Affected other outcomes:** (1) Stress, Strain, Coping, and Social Support via the SQFM-AA; (2) Harmful impact of the relative's addiction via the FMI Scale; (3) Total physical and psychological symptoms via the SRT; (4) Coping via the CQ; (5) Social support via the SS questionnaire; (6) Total family burden via worrying behaviour and active disturbance impact scales from FMI, Engagement-Emotional coping and Tolerant-Inactive coping from the CQ and symptoms.	**Affected other outcomes:** Significant differences from baseline to follow-up were found on: (1) Impact (Worrying behaviour, Active Disturbance and Total); (2) Engaged-Emotional, Tolerant-Inactive but not Engaged-Assertive and Withdrawal-Independent Coping; (3) Total symptoms; (4) Helpful formal support but not Helpful Informal and Unhelpful Informal Support; and (5) Total family burden	High

(Templeton et al., 2007)	Brief 5-step intervention adapted for specialist setting	Individual face-to-face	Not reported	Baseline and 12 week follow-up	**Affected other outcomes:** (1) Impact of the relative's substance use via the Impact Questionnaire; (2) Coping mechanisms via the CQ; (3) Physical and psychological symptoms via the SRT.	**Affected other outcomes:** Only coping style significantly improved over time.	High
(Velleman et al., 2008)	5-step intervention (Italian version)	Individual face-to-face	Up to 5 sessions, approximately 50 minutes long.	Baseline, post-treatment, and 3-month follow-up	**Affected other outcomes :** (1) Physical and psychological health via the SRT; (2) Coping via the CQ.	**Affected other outcomes :** Significant improvements were identified from pre- to post-treatment on the physical and psychological SRT subscales, and tolerant coping but not withdrawal or engaged coping.	High
RCTs with passive control/comparison groups							
None							
RCTs with active control/comparison groups							
(Copello et al., 2009) / (Velleman et al., 2011)	(1) Intensive intervention ('5-step' self-help manual + psychosocial intervention) (2) Brief intervention ('5-step' self-help manual)	(1) Individual face-to-face + self-help (2) Individual face-to-face +self-help	(1) 5 sessions (2) 1 session	Baseline, 3-months and 12-months post-randomisation	**Affected other outcomes:** (1) Physical health via SRT; (2) Psychological health via SRT; (3) Coping via the CQ.	**Affected other outcomes:** There were no significant differences between the two treatments at either the 3- or 12-month follow-up on the SRT or CQ. There were significant improvements overall from pre-treatment to the 3-month follow-up, and from the 3- to 12-month follow-up on the SRT and CQ.	High

CQ = Coping Questionnaire; FMI = Family Member Impact Scale; SRT = Symptom Rating Test; SQFM-AA = Short Questionnaire for Family Members Affected by Addiction; SRT = Symptom Rating Test; SS = Social Support.

Other affected other treatments

As displayed in Table 5, 19 of the included studies (47.5%) evaluated other psychosocial treatments for affected others. Of these, 17 (89.5%) delivered a face-to-face treatment, three (15.8%) delivered a self-directed treatment, and one (5.3%) delivered a combined face-to-face and self-directed treatment. Note that several studies administered multiple treatment arms, hence the percentages do not sum to 100%.

Six (31.6%) of these studies explored other affected other treatments using single-arm study designs. Of note, two of these studies that did not explore within-group change, but rather presented between-group differences based on adherence and length of time in treatment (Buchner, Koytek, Wodarz, & Wolstein, 2019; Passa & Giovazolias, 2015), have not been included in this narrative synthesis for ease of interpretation. The remaining studies consisted of two treatments that were both affected other- and addicted person-focused; one which aimed to improve affected other coping strategies which would in turn reduce the affected other's distress and assist with the addicted person's drinking problem (Howells & Orford, 2006), and another which aimed to improve the quality of life, anxiety, and depression of both the affected other and addicted person (Masaeli, Zarkob, Kheirabadi, Soleimani, & Amini, 2018). One study evaluated a Rational-Emotive Behavioural Therapy (REBT) affected other-focused treatment that aimed to promote self-esteem, coping strategies and assertiveness (de los Angeles Cruz-Almanza et al., 2006), and the remaining study did not provide sufficient information to classify the treatment as affected other- or addicted person-focused (Clark & Hanna, 1989). See Appendix C for detailed descriptions of these treatments and Table 5 for study-specific results. Taken together, the results of these studies demonstrated fairly consistent findings in improvement in affected other mood-based outcomes, such as distress, depression and anxiety. In contrast, there were mixed findings for self-esteem and coping styles, with studies identifying significant within group improvements from pre-treatment to short-term follow-ups (i.e., 3-6 months), but not from pre-treatment to post-treatment. Of the single studies that explored addicted person (Howells & Orford, 2006) and relationship functioning outcomes (Clark & Hanna, 1989), improvements were identified for addictive behaviour problems and overall outcomes (drinking), and family situation, but not addictive behaviour consumption and patterns of consumption (drinking).

Nine of the 19 studies (47.4%) employed a RCT or controlled trial study design, with a passive control group, to evaluate other affected other treatments. Three of these studies explored 'Pressures to Change', and found that that Pressures to Change performed better than control groups in decreasing the addicted person's drinking behaviour and engaging them into treatment. These studies, however, were also fairly consistent in showing that Pressures to Change did not perform better than control groups on affected other outcomes, including wellbeing, depression and self-esteem, or relationship functioning outcomes, such as, marital discord. These studies also showed no within-group change on these measures. One study found that Pressures to Change performed better than a control group in reducing

problems caused by the addicted person's behaviour (drinking; Barber & Gilbertson, 1996).

The remaining 6 studies explored various types of treatment, such as cognitive-behavioural therapy and group-based treatments. One of these studies did not explore between-group differences but did find that there was no significant improvement from baseline to 24-months follow-up on distress, likelihood of engaging in specific behaviours, self-esteem and coping, after exposure to an affected other-focused REBT treatment (de los Angeles Cruz-Almanza et al., 2006). Another study only presented two case studies from a larger crossover experimental dyad study, and found that both cases reduced scores on the Spouse Sobriety Influence Inventory, after exposure to an addicted person-focused treatment (the Drinking Control modification program which aimed modify the behaviour of the affected other to help the addicted person reducing their drinking and/or enter treatment; Yoshioka, Thomas, & Ager, 1992). The remaining four studies varied greatly in the treatment types and consequently the outcomes assessed. Two of these four studies evaluated a therapeutic treatment (Howells & Orford, 2006) and CBT treatment (Magnusson, Nilsson, Andersson, Hellner, & Carlbring, 2019) that aimed to address affected other- and addicted person-focused outcomes (Howells & Orford, 2006; Magnusson et al., 2019). Whereas the remaining two studies evaluated an addicted person-focused treatment, described as a harm reduction approach assisting with reducing relapse rates (Hojjat, Rezaei, Hatami, Kohestani, & Norozi Khalili, 2017) and an affected other-focused treatment, described as a group counselling treatment that will impact on the knowledge, attitudes, and behaviours of affected others (Roush & DeBlassie, 1989). Across these studies, marital satisfaction was the only outcome measured in more than one study; in the two studies that assessed this outcome results indicated that the affected other treatment performed better than the control group in improving marital satisfaction (Hojjat et al., 2017; Magnusson et al., 2019). The affected other treatment was also superior to the control groups on several other variables, including anxiety, depression, stress, coping style and self-esteem, but these were only assessed in a single study. Addicted person outcomes, such as relapse, treatment engagement and gambling behaviour; and affected other outcomes, such as quality of life, harms experienced, and knowledge, attitude, and behaviour related to parental addiction (alcoholism), were also assessed in a single study, however, no significant differences between the affected other treatment and control group was identified for these outcomes.

Nine of the 19 studies (47.4%) employed a RCT or controlled trial study design, with an active comparison group, to evaluate other affected other treatments. Three of these studies explored the effectiveness of different forms of the Pressures to Change treatments. These studies found that individual and group-delivered Pressures to Change treatments were relatively comparable on affected other, addicted person and relationship functioning outcomes, with the exception of affected other problems caused by the addicted person's addictive behaviour, where one study found that individually delivered Pressures to Change produced better results than the group delivered Pressures to Change. The remaining study compared individually delivered face-to-face Pressures to Change with self-directed

Pressures to Change and found that these two modes of delivery performed equally well, across all affected other, addicted person and relationship functioning outcomes.

The remaining six studies explored various types of treatment, including affected other-focused treatments (Gustafson, McTavish, Schubert, & Johnson, 2012; Hansson, Rundberg, Zetterlind, Johnsson, & Berglund, 2006), addicted person-focused treatments (Kirby et al., 2017; Liepman, Nirenberg, & Begin, 1989), a combination of an affected other- and addicted person-focused treatment (i.e., stress management; Halford, Price, Kelly, Bouma, & Young, 2001) and one treatment that was not sufficiently described (Zetterlind, Berglund, & Åberg-Örbeck, 1996). These studies explored mostly disparate treatment outcomes. Where there was overlap in outcomes measured, the study findings were mixed, with only one study demonstrating between-group differences on affected other mental health (e.g., depression, anxiety, distress; Gustafson et al., 2012) and half to two-thirds of the studies finding significant between group differences on affected other treatment engagement, addicted person treatment engagement and addicted person drinking behaviour. Of note, these studies compared quite intensive treatments; as such, it is not surprising that few between-group differences were found. When assessed though, most studies found significant change over time across these outcomes.

Table 5. Results of studies involving other psychosocial treatments

Study ID	Treatment arms	Modality of delivery	Number of sessions /modules	Timing of outcome assessments	Outcomes	Summary of findings	Risk of bias
Single-arm study designs							
(Buchner et al., 2019)	Self-help program	Online self-help program	6 modules	Baseline and during program	**Affected other outcomes:** (1) Amount of quarrels with IP; (2) Trust in relationship with IP; (3) The strain the gambling has put on them; and (4) Stress via the PSQ	**Affected other outcomes:** No difference in trust, quarrelling or PSQ between adherers, non-adherers and non-starters. Non-adherers reported greater strain.	High
(Clark & Hanna, 1989)	Counselling	Group and individually delivered face-to-face	Minimum of 1 individual counselling session.	Baseline and post-treatment	**Affected other outcomes:** (1) Sobriety; (2) Emotional status; (3) Employment status **Relationship functioning outcomes:** (4) Family situation	**Affected other outcomes:** Substantial improvements in emotional status from pre- to post-treatment. **Relationship functioning outcomes:** Substantial improvements in family situation from pre- to post-treatment.	High
(de los Angeles Cruz-Almanza et al., 2006)	Group treatment – targeted cognitive biases, emotional regulation strategies and assertive interpersonal skills	Face-to-face group	18, 150-minute weekly sessions	Pre-test, post-test, and a 3-month, 6-month, and 18-month follow-up	**Affected other outcomes:** (1) Distress via Degree of Discomfort Scale of AI; (2) Likelihood of engaging in specific behaviours via Response Probability Scale of AI; (3) Self-	**Affected other outcomes:** No within group differences for either scale on the AI, except for pre-test to 6-month follow-up for likelihood of engaging in specific behaviours. No change from pre- to post-test on self-esteem and coping but there was significant improvement from pre-test to 3- and 6-month	High

					esteem via Self-esteem Inventory; (4) Coping via Birmingham Coping Inventory.	follow-up on both of these outcomes.	
(Howells & Orford, 2006)	Guidelines for therapeutic approach	Individual face-to-face	Up to 12 1-hour sessions	Baseline, 3-months and 6-months follow-up, and partial follow-up at 12-months.	**Affected other outcomes:** (1) Stress via the SRT; (2) Coping style with Short CQ; (3) Self-esteem, empowerment, locus of control and independence via the Self-esteem and Independence Questionnaire; **Addicted person outcomes:** (4) Drinking-related behaviour via the DRB; (5) Number of drinks consumed each week; (6) Pattern of drinking behaviour; (7) Problem drinker outcomes via the OPD (overall judgement of outcome, fall in DRB score and change in drinks consumed)	**Affected other outcomes:** There were significant improvements from pre-treatment to 3-months follow-up on SRT, Short CQ sacrificing coping, self-esteem and independence but not Short CQ engaged coping. There were also significant improvements from 3-months to 6-months follow-up on SRT, Short CQ engaged coping, Short CQ sacrificing coping but not self-esteem or independence. **Addicted person outcomes:** There were significant improvements from pre-treatment to 3-months follow-up on OPD life affected but not DRB. There were also significant improvements from 3-months to 6-months follow-up on OPD life affected and DRB.	High
(Masaeli et al., 2018)	Matrix Method intervention	Group face-to-face	Thirty six 1.5-hour group sessions for 2 months (3d/wk)	Baseline, post-treatment, and 2 and 6 months post-treatment	**Affected other outcomes:** (1) Quality of life via WHOQOL-BREF; (2) Anxiety via The Zung Self-Rating Anxiety	**Affected other outcomes:** Improvements from baseline to follow-up were identified for depression, anxiety and quality of life.	High

					Scale; (3) Depression via BDI		
(Passa & Giovazolias, 2015)	Self-help group	Group	Not reported.	Not reported	**Affected other outcomes:** (1) Anxiety via STAI; (2) Psychological wellbeing via PWB; (3) Coping via WAYS **Relationship functioning outcomes:** (4) Family cohesion and adaptability-flexibility via FACES III.	**Affected other outcomes:** Participants in the self-help group for medium (12-22 months months) and long (23+ months) periods have greater reductions in anxiety, and are more likely to use coping skills that are action focused as opposed to emotion-focused, compared to those who participated for shorter periods (0-11 months). **Relationship functioning outcomes:** Medium and longer-term participants also had greater family cohesion and adaptability than short-term participants.	High
RCTs with passive control/comparison groups							
(Barber & Crisp, 1995)	(1) Individual counselling in Pressures to Change (2) Group instruction in Pressures to Change (3) Waitlist control group	(1) Individual face-to-face (2) Group face-to-face (3) NA	(1) 4-6 week protocol (2) 5 week protocol (3) Within 12 weeks	Baseline and post-test	**Affected other outcomes:** (1) Wellbeing via LSS; (2) Self-esteem via LSS; (3) Depression via DPDS. **Addicted person outcomes:** (4) Behaviour change (treatment seeking, ceasing drinking or reducing drinking to level acceptable by partner) via drink diary by participant.	**Affected other outcomes:** There were no between or within group differences on wellbeing, self-esteem or depression. **Addicted person outcomes:** Both treatment groups showed higher rates of treatment engagement and behaviour modification than the waitlist control group. **Relationship functioning outcomes:** There were no between or within group differences on marital discord.	Some concerns

					Relationship functioning outcomes: (5) Marital discord via DPDS.		
(Barber & Gilbertson, 1996)	(1) Individual counselling in Pressures to Change (2) Group instruction in Pressures to Change (3) Waitlist control group (4) Referral to Al-Anon	(1) Individual face-to-face (2) Group face-to-face (3) NA (4) NA	(1) 4-6 week protocol (2) 5 week protocol (3) Not reported (4) NA	Baseline and post-treatment	**Affected other outcomes:** (1) Wellbeing via LSS; (2) Personal problems via a problem checklist **Addicted person outcomes:** (3) Behaviour change (treatment seeking and drinking cessation or reduction in drinking) via drink diary by participant. **Relationship functioning outcomes:** (4) Marital satisfaction via MCS	**v outcomes:** Both Al-Anon referral and individual counselling produced significant reductions in the number of personal problems reported by clients in response to their partner's drinking, when compared to group counselling, and compared to the waitlist control (Al-Anon only). There were no main or interaction effects on client-wellbeing scores. **Addicted person outcomes:** The treatment groups demonstrated significantly higher rates of treatment seeking and behaviour change (i.e., drinking) compared to the control groups. **Relationship functioning outcomes:** Individual counselling also produced significantly greater improvements in marital consensus compared to Al-Anon and the waitlist control group.	Low
(Barber & Gilbertson, 1998)	(1) Individual counselling in Pressures to Change (2) Self-help version of	(1) Individual face-to-face (2) Individual face-to-face single session,	(1) 4-6 week protocol (2) Single session, plus self-help manual for 4-5 weeks	Baseline and post-treatment	**Affected other outcomes:** (1) Wellbeing via LSS; (2) Depression via DPDS **Addicted person outcomes:**	**Affected other outcomes:** There were no differences between groups on wellbeing, depression or marital discord, however, there were significant improvements from baseline to	High

	Pressures to Change (3) Waitlist control	plus self-help manual (3) NA	(3) Not reported		(3) Behaviour change (treatment seeking and drinking cessation or reduction) via drink diary by participant **Relationship functioning outcomes:** (4) Marital discord via DPDS	post-treatment on wellbeing for the treatment groups only. **Addicted person outcomes:** Participants in the treatment conditions showed significantly greater reductions in partner drinking than the control group. **Relationship functioning outcomes:** There were no differences between or within groups on marital discord.	
(de los Angeles Cruz-Almanza et al., 2006)	(1) Group treatment – targeted cognitive biases, emotional regulation strategies and assertive interpersonal skills (2) Accidental no treatment control group	(1) Face-to-face group (2) NA	(1) 18, 150-minute weekly sessions (2) NA	Pre-test, post-test, a 3-month, 6-month, and 18-month follow-up for treatment group and pre-test and 24-month follow-up for control group.	**Affected other outcomes:** (1) Distress via Degree of Discomfort Scale of AI; (2) Likelihood of engaging in specific behaviours via Response Probability Scale of AI; (2) Self-esteem via Self-esteem Inventory; (3) Coping via Birmingham Coping Inventory.	**Affected other outcomes:** No between group differences were explored. Results from the accidental control group, however, suggest that practically no improvement can be ascribed to the passage of time, given there was no significant improvement over time on any outcome for this group.	High
(Hojjat et al., 2017)	(1) Training sessions (2) WLC	(1) Face-to-face group (2) NA	(1) Twice a week for 1.5 hours for 8 weeks (2) 8 weeks	Baseline; 2 month follow-up (marital satisfaction only); 6-month follow up (relapse rate of patients only)	**Addicted person outcomes:** (1) Relapse via the Relapse Checklist in Methadone Maintenance Treatment **Relationship functioning outcomes:** (2) Marital satisfaction via the Enrich Marital	**Addicted person outcomes:** No difference in relapse were identified **Relationship functioning outcomes** Participants in the training sessions scored significantly higher in martial satisfaction at follow-up, compared to the WLC group.	Some concerns

					Inventory Questionnaire (Short Form).		
(Howells & Orford, 2006)	(1) Guidelines for therapeutic approach (2) WLC	(1) Individual face-to-face (2) NA	(1) Up to 12 1-hour sessions (2) 6 weeks	Baseline, 6-weeks and 3-months (for treatment group only)	**Affected other outcomes:** (1) Stress via the SRT; (2) Coping style with Short CQ; (3) Self-esteem, empowerment, locus of control and independence via the Self-esteem and Independence Questionnaire; **Addicted person outcomes:** (4) Drinking-related behaviour via the DRB; (5) Number of drinks consumed each week; (6) Pattern of drinking behaviour; (7) Problem drinker outcomes via the OPD (overall judgement of outcome, fall in DRB score and change in drinks consumed)	**Affected other outcomes:** There were significant differences between the 2 groups on independence at 6-weeks post-treatment and 3-months but only at 6-weeks post-treatment for SRT, SCQ sacrificing and self-esteem. There were no between group differences on SCQ engaged. **Addicted person outcomes:** No analyses carried out for these outcomes, as sample size too small.	High
(Magnusson et al., 2019) / (Magnusson et al., 2015)	(1) CBT (2) WLC	(1) Internet-delivered plus email or telephone support from the study counsellors (2) NA	(1) 9 modules and 15 minutes per week of support (2) Not reported	Baseline, post-treatment, 6-month and 12-month follow-up	**Affected other outcomes:** (1) Gambling-related harm via the ICS; (2) Depression via PHQ-9; (3) Anxiety via GAD-7; (4) Quality of life via the	**Affected other outcomes:** Compared to the control group, the CBT group showed greater improvements/ reductions in the GAD-7 and PHQ-9 at post-test. No significant differences between groups were identified for the ICS total and WHOQOL-	High

					WHOQOL-BREF **Addicted person outcomes:** (5) Treatment engagement; (6) Gambling behaviour (days gambled and money spent) via the TLFB **Relationship functioning outcomes:** (7) Relationship satisfaction via the RAS	BREF at post-test. From post-test to 12-months, only PHQ-9 showed significant within group change. **Addicted person outcomes:** No significant differences between groups were identified for gambling behaviour or treatment engagement at post-test. **Relationship functioning outcomes:** Compared to the control group, the CBT group showed greater improvements/ reductions in the RAS at post-test.	
(Roush & DeBlassie, 1989)	(1) Structured group counselling (2) WLC	(1) Group face-to-face (2) NA	(1) 8 x 1.5 hour weekly sessions (2) 8 weeks	Baseline, post-treatment and 1-month follow-up	**Affected other outcomes:** (1) Knowledge, attitude, and behaviour related to parental alcoholism via the PAIS	**Affected other outcomes:** No significant differences were identified between the two treatments at post-treatment or 1-month follow-up. Both groups had significant improvements from pre- to post-treatment and follow-up on knowledge. Only the treatment group had significant improvements from improvements from pre- to post-treatment and follow-up on attitudes. No within group differences were identified for behaviour.	High
(Yoshioka et al., 1992)	(1) DC modification program (2) DTC	(1) Individual face-to-face (2) NA	(1) 6 months (2) 6 months	Baseline and follow-up at three successive 6-month intervals	**Affected other outcomes:** (1) Changes in DC behaviours measured by the SSII	**Affected other outcomes:** Results for the entire pilot sample were not presented, instead two case studies were presented. For both cases, DC targeted behaviour scores of the SSII fell during and in the	High

						interval immediately after treatment.	
RCTs with active control/comparison groups							
(Barber & Crisp, 1995)	(1) Individual counselling in Pressures to Change (2) Group instruction in Pressures to Change (3) WLC	(1) Individual face-to-face (2) Group face-to-face (3) NA	(1) 4-6 week protocol (2) 5 week protocol (3) Within 12 weeks	Baseline and post-test	**Affected other outcomes:** (1) Wellbeing via LSS; (2) Self-esteem via LSS; (3) Depression via DPDS. **Addicted person outcomes:** (4) Behaviour change (treatment seeking, ceasing drinking or reducing drinking to level acceptable by partner) via drink diary by participant. **Relationship functioning outcomes:** (5) Marital discord via DPDS.	**Affected other outcomes:** There were no between or within group differences on wellbeing, self-esteem or depression. **Addicted person outcomes:** Both treatment groups showed higher rates of treatment engagement and behaviour modification than the waitlist control group. **Relationship functioning outcomes:** There were no between or within group differences on marital discord.	Some concerns
(Barber & Gilbertson, 1996)	(1) Individual counselling in Pressures to Change (2) Group instruction in Pressures to Change (3) WLC (4) Referral to Al-Anon	(1) Individual face-to-face (2) Group face-to-face (3) NA (4) NA	(1) 4-6 week protocol (2) 5 week protocol (3) Not reported (4) NA	Baseline and post-treatment	**Affected other outcomes:** (1) Wellbeing via LSS; (2) Personal problems via a problem checklist **Addicted person outcomes:** (3) Behaviour change (treatment seeking and drinking cessation or reduction in drinking)	**Affected other outcomes:** Both Al-Anon referral and individual counselling produced significant reductions in the number of personal problems reported by clients in response to their partner's drinking, when compared to group counselling, and compared to the waitlist control (Al-Anon only). There were no main or interaction effects on client-wellbeing scores.	Low

					via drink diary by participant. **Relationship functioning outcomes:** (4) Marital satisfaction via MCS	**Addicted person outcomes:** The treatment groups demonstrated significantly higher rates of treatment seeking and behaviour change (i.e., drinking) compared to the control groups. **Relationship functioning outcomes:** Individual counselling also produced significantly greater improvements in marital consensus compared to Al-Anon and the waitlist control group.	
(Barber & Gilbertson, 1998)	(1) Individual counselling in Pressures to Change (2) Self-help version of Pressures to Change (3) WLC	(1) Individual face-to-face (2) Individual face-to-face single session, plus self-help manual (3) NA	(1) 4-6 week protocol (2) Single session, plus self-help manual for 4-5 weeks (3) Not report	Baseline and post-treatment	**Affected other outcomes:** (1) Wellbeing via LSS; (2) Depression via DPDS **Addicted person outcomes:** (3) Behaviour change (treatment seeking and drinking cessation or reduction) via drink diary by participant **Relationship functioning outcomes:** (4) Marital discord via DPDS	**Affected other outcomes:** There were no differences between groups on wellbeing, depression or marital discord, however, there were significant improvements from baseline to post-treatment on wellbeing for the treatment groups only. **Addicted person outcomes:** Participants in the treatment conditions showed significantly greater reductions in partner drinking than the control group. **Relationship functioning outcomes:** There were no differences between or within groups on marital discord.	High
(Gustafson et al., 2012)	(1) Therapy only (2) CHESS only (3) Therapy + CHESS	(1) Group face-to-face (2) Online support and limited access to an	(1) 8 weekly sessions, approximately 90 minutes long (2) Not specified	Baseline and post-treatment	**Affected other outcomes:** (1) Blame via Responsibility/Blame Subscale; (2) Depression via Center of	**Affected other outcomes:** At post-treatment, the CHESS-only group reported less blame, depression and anxiety, and more personal growth, positive relations with others and self-acceptance than the other 2	High

		online support group (3) Group face-to-face, plus online support and limited access to an online support group	(3) Therapy - 8 weekly therapy sessions, 90 minutes long CHESS – not specified		Epidemiologic Studies Depression Scale; (3) Anxiety via Jackson Personality Inventory; (4) Loneliness via UCLA Loneliness Scale; (5) Personal growth via Personal Growth Scale; (6) Positive relations with others via Positive Relations with Other scale; (7) Self-acceptance via Self-acceptance Scale.	groups. CHESS-only produced the largest effect sizes on blame, anxiety, loneliness, personal growth, positive relations with others compared to the therapy-only and CHESS-plus-therapy treatments. CHESS-plus-therapy had larger effect sizes on depression and self-acceptance but also demonstrated deterioration on blame and anxiety. Therapy only was better than CHESS only on depression. Scores for therapy only deteriorated on 3 loneliness, positive relations, and self-acceptance.	
(Halford et al., 2001) (stress management arm)	(1) Supportive counselling (2) Stress management (3) Alcohol focused couple therapy (AFCT)	(1) Individual face-to-face (2) Individual face-to-face (3) Individual face-to-face	(1) 12 x 1-hour therapy sessions (2) 12 x 1-hour therapy sessions (3) 12 x 1-hour therapy sessions (though session numbers varied slightly between participants)	Baseline, post-treatment, and 6-month follow-up	**Affected other outcomes:** (1) Burden via RSS; (2) Distress via and GHQ. **Addicted person outcomes:** (3) Alcohol consumption via KAT and daily monitoring by the wives. **Relationship functioning outcomes:** (4) Relationship satisfaction via DAS; (5) Physical aggression via CTS – Form N.	**Affected other outcomes:** There was no significant differences between groups on burden or distress, with all groups showing reduction over time. **Addicted person outcomes:** There was no significant differences between groups on days intoxicated, mean daily drinking levels or KAT, but there was significant change over time for all groups on days intoxicated and mean daily drinking levels, but not KAT. **Relationship functioning outcomes:** For relationship satisfaction, supportive counselling decreased over time while the other two groups did not.	High

						There were no between or within group differences on IP's physical aggression, whereas the affected other's physical aggression showed a reduction over time for all three groups.	
(Hansson et al., 2006) / (Hansson et al., 2007) (alcohol intervention program)	(1) Alcohol intervention program (2) Coping intervention program (3) Combination program	(1) Individual face-to-face (2) Individual face-to-face (3) Individual face-to-face	(1) Two 2-hour sessions (2) Two 2-hour sessions (3) Two 2-hour sessions	Baseline, 12-month and 24-month follow-ups	**Affected other outcomes:** (1) Alcohol use via AUDIT and EBAC; (2) Consequences of alcohol use via the SIP; (3) Coping with parents' abuse questionnaire. (4) Psychological functioning via SCL-90; (5) Social support via Interview Schedule for Social Interaction; (6) Overall alcohol score (mean of the standardised difference of AUDIT, EBAC and SIP).	**Affected other outcomes:** At 12-months, the groups receiving alcohol treatments improved their overall alcohol score significantly more than the group receiving coping treatment only. No other significant differences between groups. From baseline to 12-months, the alcohol only group improved on AUDIT, EBAC, SIP and coping with parental abuse, the coping only group on coping with parental abuse and the combination group on EBAC, SIP and coping with parental abuse. From 12 to 24 months, the combination group improved greater than the coping group on AUDIT, EBAC and SIP, and greater than the alcohol group on AUDIT and SIP. There was only significant within group change from 12 to 24 months follow-up for the combination group only on AUDIT and SIP. All other outcomes remained stable over time.	Low

(Kirby et al., 2017) (TEnT arm)	(1) CRAFT (2) TEnT (3) Al-Anon / Nar-Anon Facilitation	(1) Individual face-to-face (2) Individual face-to-face (3) Individual face-to-face	(1) 12-14 sessions (2) 4-6 sessions (3) 12-14 sessions	Baseline, 4-month, 6-month, and 9-month follow-up.	**Affected other outcomes:** (1) Depression via BDI-II; (2) Anxiety via STAI-S-Form Y; (3) Anger via STAXI-2; (4) Problems (emotional, relationship, family, financial, physical violence, legal, health) via the SOS-SR; (5) Coping styles via the SSS of the Spouse Sobriety Influence Inventory and the EBS of the Behaviour Enabling Scale. **Addicted person outcomes:** (6) Initial treatment entry via modified TSR-6; (7) Time to treatment entry via modified TSR-6; (8) Treatment referral and community treatment entry via a modified TSR-6. (9) Days alcohol and drug use via the Form-90-Collateral.	**Affected other outcomes:** No differences between the 3 groups on all affected other outcomes, except sobriety support (ANF less likely to engage in sobriety support after treatment). All 3 groups showed decreases over time in depression, anxiety, anger expression, emotional problems, relationship problems, family problems and enabling behaviours. **Addicted person outcomes:** CRAFT and TEnT had significantly higher rates of treatment entry than ANF. Relative to ANF, both CRAFT and TEnT had less time to treatment entry. No differences between CRAFT and TEnT on received brief treatment and referral. No difference between the 3 groups on days of treatment attendance or substance use. There were significant improvements from baseline to follow-up on substance use.	Low
(Liepman et al., 1989)	(1) Motivational counselling intervention without confrontation	(1) Group face-to-face (2) Group face-to-face	(1) 2-hour meetings (number of meetings not specified but	Baseline and 2-year follow-up.	**Affected other outcomes:** (1) Attendance at Al-anon meetings by any family member or significant other;	**Affected other outcomes:** There were no significant differences between on Al-anon attendance or entry into other treatment. **Addicted person outcomes:**	High

	(2) Motivational counselling intervention with confrontation		ranged from 4-30 contact hours per case) (2) 2-hour meetings (number of meetings not specified but ranged from 4-30 contact hours per case).		(2) Entry into any additional family-oriented treatment. **Addicted person outcomes:** (3) Entry into an alcohol detoxification and/or rehabilitation program; (4) Attendance at AA meetings; (5) Longest reported episode of continuous abstinence in the 2 years following the treatment	IPs who were confronted by an affected other were significantly more likely to enter a detox or rehab program, and remain continuously abstinent for longer but were not more likely to attend AA meetings.	
(Zetterlind et al., 1996)	(1) Standardised information (2) Individualised information	(1) Individual face to face, treatment itself is a videotape (2) Individual face to face, treatment itself is a videotape	(1) One 10-minute 'session' (treatment itself is a 10-minute videotape) (2) One 45-minute 'session' (treatment itself is a 10-minute videotape as above)	Baseline and 12-month follow-up	**Affected other outcomes:** (1) Type of support received; (2) Changes in family and social situation; (3) Drinking pattern; (4) Drug use; (5) Role behaviour; (6) Living condition; (7) Physical health; (8) Mental health. All assessed by questionnaire developed by researchers. **Addicted person outcomes:** (9) Drinking pattern via questionnaire developed by researchers	**Affected other outcomes:** Significantly more participants in the individualised information group received support than those in the standardised information group. There were no significant differences between the groups mental and physical health. **Addicted person outcomes:** Results not reported.	High

AA = Alcoholics Anonymous; AFCT = Alcohol focused couple therapy; AI = Assertion Inventory; AUDIT = Alcohol Use Disorders Identification Test; BDI = Beck Depression Inventory; CBT = Cognitive-behavioural therapy; CHESS = Comprehensive Health Enhancement Support System; CRAFT = Community Reinforcement Approach and Family Training; CQ = Coping Questionnaire; CTS = Conflict Tactics Scale; DAS = Dyadic Adjustment Scale; DC = Drinking Control; DPDS = Drinker's Partner Distress Scale; DRB = Drinking Related Behaviour scale; DTC = Delayed Treatment Control; EBAC = Estimated Blood Alcohol Concentration; EBS = Enabling Behaviours Subscale; FACES = Family Adaptability and Cohesion Evaluation Scale; GAD-7 = Generalised Anxiety Disorder 7-item scale; GHQ = General health questionnaire; ICS = Inventory of Consequences Scale for the Gambler and the CSO; KAT = Khavari Alcohol Test; LSS = Life Satisfaction Scale; LSS = Life Satisfaction Scale; MCS = Marital consensus scale; NA = Not Applicable; OPD = Outcome for the Problem Drinker; PAIS = Parental Alcoholism Information Survey; PHQ-9 = Patient Health Questionnaire – 9-item version; PSQ = Perceived Stress Questionnaire; PWB = Psychological Well-being scale; RAS = Relationship Assessment Scale; RSS = Relative stress scale; SCL-90 = Symptom Checklist; SIP = Short Index of Problems; SOS-SR = Significant Other Survey – Self-Report; SRT = Symptom Rating Test; STAI = State/trait anxiety inventory; SSII = Spouse Sobriety Influence Inventory; SSS = Sobriety Support Subscale; TEnT = Treatment Entry Training; TLFB = Timeline Follow Back; TSR = Treatment Services Review-6; UCLA = University of California Los Angeles; WAYS = Ways of coping questionnaire; WHOQOL-BREF = World Health Organisation Quality of Life – Brief Scale; WLC = Waitlist control.

Meta-analysis

Of the included studies, 16 (40.0%) were eligible for inclusion in the meta-analysis as they compared a psychosocial treatment for affected others with a passive control group.

Face-to-face delivered treatment versus passive control

Affected other depressive symptomatology

Five studies, with 249 participants, explored post-treatment affected other depressive symptomatology (k=4 alcohol; k=1 gambling). There was a significant difference between the groups (SMD= -0.46; 95% CI -0.72, -0.19, $p < 0.001$), with the treatment groups showing lower post-treatment depressive symptomatology compared to the control group. There was no evidence of heterogeneity ($Chi^2 = 4.14$, $p = 0.39$, $I^2 = 4\%$).

Two studies evaluated depressive symptomatology at a short-term follow-up (6-months; Bischof et al., 2016; Rychtarik & McGillicuddy, 2005). A meta-analysis could not be conducted due to the use of waitlist control groups, in which participants in the control group had received treatment at this short-term follow-up. As such, there was no appropriate control group for a short-term follow-up comparison. In addition, only one study evaluated depressive symptomatology at a medium-term (12-months) follow-up (Bischof et al., 2016) and as such no meta-analysis could be conducted.

Harms experienced by affected other due to addicted person's addictive behaviour

Two studies, with 102 participants, evaluated harms experienced by an affected other due to the addicted person's addictive behaviour at post-treatment (k=2 alcohol). There was no significant difference between the groups (SMD -0.20; 95% CI -0.59, 0.19, p=0.32). There was no evidence of heterogeneity across the studies ($Chi^2 = 0.50$ $p = 0.48$, $I^2 = 0\%$).

One study (Bischof et al., 2016) evaluated harms experienced by affected other due to addicted person's addictive behaviour at a short-term (6-months) and a medium-term (12-months) follow-up, therefore a meta-analysis was not conducted.

Affected other psychological distress/ general mental health

Two studies evaluated affected other psychological distress/ general mental health at a post-treatment and a short-term follow-up (6-months). One of these studies, however, did not provide sufficient data to be included in these meta-analyses (Howells & Orford, 2006), therefore a meta-analysis was not conducted.

Two studies assessed affected other psychological distress/ general mental health at a medium-term follow-up (12-months and 18-months), and one study at a long-term follow-up. One of these studies, however, did not provide sufficient data to be included in this meta-analysis (Howells & Orford, 2006) and the other study could not be included as the follow-up assessments for the treatment group and control group differed (18-months vs 24-months, respectively; de los Angeles Cruz-Almanza et al., 2006). As such, no meta-analyses were conducted for this outcome.

Affected other coping
While three studies assessed post-treatment affected other coping, one of these studies could not be included in the meta-analysis due to insufficient data (Howells & Orford, 2006). The remaining two studies, with 133 participants, measured coping skill acquisition during treatment (k=1 alcohol; k=1 gambling). There was a significant difference between the groups (SMD= -1.48; 95% CI -2.71, -0.25, p = 0.02), with the treatment groups showing greater post-treatment coping skill acquisition compared to the control group. There was evidence of substantial to considerable heterogeneity across these studies (Chi^2 = 4.71, p = 0.03, I^2 = 79%).

Two studies evaluated affected other coping at a longer term follow-up but a meta-analysis could not be conducted. One of these studies evaluated affected other coping at a short-term (6-months) and a medium-term (12-months) follow-up but provided insufficient data for inclusion in the meta-analyses (Howells & Orford, 2006) and one study could not be included in the meta-analyses for medium- or long-term follow-up as the follow-up assessments for the treatment group and control group differed (18-month vs 24-month, respectively; de los Angeles Cruz-Almanza et al., 2006).

Affected other anxiety symptomatology
Only one study (Rychtarik & McGillicuddy, 2006) explored affected other anxiety symptomatology at post-treatment (k=1 gambling), therefore a meta-analysis was not conducted.

Frequency of use by addicted person
Seven studies explored frequency of addictive behaviour use by the addictive person at post-treatment. Of these, two studies did not report any results for this outcome (Bischof et al., 2016; Howells & Orford, 2006). Of the remaining five studies, three explored drinking behaviour outcomes in relation to cutting down or quitting drinking (Barber & Crisp, 1995; Barber & Gilbertson, 1996, 1998). The two remaining studies explored percentage of days abstinent (Rychtarik & McGillicuddy, 2005, 2006) and drinks per drinking day (Rychtarik & McGillicuddy, 2005). Given these disparate ways of assessing frequency of addictive behaviour use, two sets of analyses were conducted.

The first meta-analysis used a dichotomous frequency of use variable, in which participants were categorised as having cut-down or abstained from the addictive behaviour. Three studies, consisting of 62 participants, compared a face-to-face affected other treatment with a control group on a dichotomous frequency measure (k=3 alcohol). Across these studies, 65.7% of addicted person's in the treatment group did not report a reduction in frequency or abstinence, compared to 93.3% of addicted person's in the treatment group. This difference was not significant (risk ratio (RR) 0.74; 95% CI 0.54 to 1.02, p=0.07). There was evidence of minor heterogeneity (Chi^2 = 2.69, p = 0.26, I^2 = 26%). No studies explored this outcome at a longer-term follow-up.

The second meta-analysis employed a continuous measure of frequency of use. In this instance, this measure explored the number of days the addicted person abstained. Two studies, consisting of 128 participants, compared an affected other treatment with a control group on a continuous measure of frequency of use (k=1

alcohol, k=2 gambling). There was no significant difference between the groups (SMD -0.12; 95% CI -0.73, 0.49, p=0.70). There was evidence of moderate heterogeneity across the studies ($Chi^2 = 1.98$, p = 0.16, $I^2 = 49\%$).

Only one study explored frequency of use at a medium-term follow-up (12-months; Rychtarik & McGillicuddy, 2005), therefore no meta-analysis was conducted.

Treatment entry by addicted person

Despite five studies assessing post-treatment treatment entry, one study did not provide sufficient data or inclusion in the meta-analysis (Rychtarik & McGillicuddy, 2005). Therefore, four studies, with 140 participants, explored post-treatment treatment entry by the addicted person as an outcome (k=4 alcohol). Across these studies, 63.5% of participants in the treatment group did not enter any type of treatment, compared to 92.4% of participants in control groups. This difference was significant, with the treatment group displaying higher rates of treatment entry (RR= 0.70; 95% CI 0.59, 0.84, p <0.001). There was no evidence of heterogeneity ($Chi^2 = 0.33$, p = 0.96, $I^2 = 0\%$).

Only one study explored treatment entry by the addicted person at a short-term (6-month) and medium-term follow-up (12-months; Bischof et al., 2016), therefore no meta-analysis was conducted.

Marital/relationship discord

Five studies, with 190 participants, explored marital/relationship discord (k=4 alcohol, k=1 illicit substances). There was a significant difference between the groups (SMD= -0.51; 95% CI -0.80, -0.22, p < 0.001), with the treatment group showing lower post-treatment marital/relationship discord compared to the control group. There was no evidence of heterogeneity across these studies ($Chi^2 = 1.31$, p = 0.86, $I^2 = 0\%$).

Only one study (Bischof et al., 2016) assessed marital/relationship discord at a short-term (6-month) and medium-term follow-up (12-months; Bischof et al., 2016), therefore no meta-analyses were conducted.

Self-directed treatment versus passive control

Affected other depressive symptomatology

Four studies explored affected depressive symptomatology at post-treatment. One of these studies, however, did not provide sufficient data for inclusion in this meta-analysis (Magnusson et al., 2019). Three studies, with 346 participants, were therefore included in a meta-analysis to explore post-treatment affected other depressive symptomatology (k=3 alcohol). There was no significant difference between the groups (SMD= -0.41; 95% CI -0.85, 0.03, p = 0.07). There was evidence of substantial heterogeneity ($Chi^2 = 5.58$, p = 0.06, $I^2 = 64\%$).

Only one study evaluated depressive symptomatology at a short-term (6-months) and medium-term (12-months) follow-up (Magnusson et al., 2019), therefore meta-analyses were not conducted.

Harms experienced by affected other due to addicted persons' addictive behaviour

While three studies assessed harms experienced by the affected other due to the addicted person's addictive behaviour at post-treatment, one study could not be

included in the meta-analysis because it merged harms experienced by the affected other and gambler into a single outcome, as well as lack of sufficient data for inclusion (Makarchuk, Hodgins, & Peden, 2002). Two studies (k=2 gambling), with 152 participants, found no differences between the two groups (SMD -0.27; 95% CI -1.03, 0.49, p=0.49). There was evidence of substantial to considerable heterogeneity (Chi^2 = 5.46 p = 0.02, I^2 = 82%).

Only one study assessed harms experienced by the affected other due to the addicted person's addictive behaviour at a short-term follow-up (6-months; Hodgins, Toneatto, Makarchuk, Skinner, & Vincent, 2007) and a medium term follow-up (12-months; Magnusson et al., 2019), therefore meta-analyses were not conducted.

Affected other psychological distress/ general mental health

Three studies assessed affected other psychological distress/ general mental health at post-treatment, however, one of these studies did not provide sufficient data to be included in this meta-analysis (Makarchuk et al., 2002). Two studies (k=1 alcohol, k=1 gambling), with 170 participants, found no difference between groups on post-treatment affected other's psychological distress/ general mental health (SMD= -0.03; 95% CI -0.31, 0.37, p = 0.86). There was evidence of minor heterogeneity across these studies (Chi^2 = 1.25, p = 0.26, I^2 = 20%).

Only one study assessed affected other psychological distress/ general mental health at a short-term follow-up (6-months; Hodgins et al., 2007), therefore a meta-analysis was not conducted.

Affected other coping

Only one study (Rychtarik et al., 2015) assessed affected other coping at post-treatment (k=1 alcohol), therefore a meta-analysis was not conducted.

Affected other anxiety symptomatology

Three studies assessed affected other anxiety symptomatology at post-treatment but one study did not report sufficient data for inclusion (Magnusson et al., 2019). Two studies (k=2 alcohol), with 320 participants, found no significant difference between groups (SMD= -0.16; 95% CI -0.38, 0.06, p = 0.16). There was no evidence of heterogeneity (Chi^2 = 0.64, p = 0.42, I^2 = 0%).

One study evaluated affected other anxiety symptomatology at a medium-term follow-up (12-months; Magnusson et al., 2019), therefore a meta-analysis was not conducted.

Frequency of use by addicted person

Four studies assessed frequency of the addicted person's addictive behaviour use at post-treatment. Two of these studies explored addictive behaviours in relation to reduction in frequency of use (Barber & Gilbertson, 1998; Makarchuk et al., 2002) and two studies explored number or percentage of days abstinent (Hodgins et al., 2007; Rychtarik et al., 2015). Given these disparate ways of assessing frequency of addictive behaviour use, two sets of analyses were conducted.

The first meta-analysis used a dichotomous frequency of use variable, in which participants were categorised as having cut-down or abstained from the addictive behaviour. Two studies, consisting of 57 participants, compared a self-directed

affected other treatment with a control group on a dichotomous frequency measure (k=1 alcohol; k=1 gambling). Across these studies, 46.7% of addictive persons in the treatment group did not report a reduction in frequency or abstinence, compared to 70.4% of addictive persons in the treatment group. This difference was not significant (risk ratio (RR) 0.58; 95% CI 0.17 to 1.96, p=0.38). There was evidence of substantial to considerable heterogeneity ($Chi^2 = 4.53$, p = 0.03, $I^2 = 78\%$).

The second employed a continuous measure of frequency of use. In this instance, this measure explored the number of days the addictive person abstained. Two studies, consisting of 131 participants, compared an affected other treatment with a control group on a continuous measure of frequency of use (k=1 alcohol; k=1 gambling). There was no significant difference between the groups (SMD -0.22; 95% CI -0.85, 0.41, p=0.49). There was evidence of moderate to substantial heterogeneity across the studies ($Chi^2 = 3.06$, p = 0.08, $I^2 = 67\%$).

Two studies evaluated frequency of addictive behaviour use at a short-term follow-up (6-months; Hodgins et al., 2007; Osilla et al., 2018) but one of these studies did not report sufficient data for inclusion in any meta-analysis. As such, no meta-analysis was conducted.

Treatment entry by addicted person

Five studies explored treatment entry by the addicted person at post-treatment. One of these studies did not provide sufficient data for inclusion in the meta-analysis (Hodgins et al., 2007). As such, four studies, with 211 participants, were included in the meta-analysis (k=2 alcohol; k=2 gambling). Across these studies, 82.9% of participants in the treatment group did not enter any type of treatment, compared to 84.9% of participants in control groups. This difference was not significant (RR= 0.98; 95% CI 0.88, 1.10, p=0.74). There was no evidence of heterogeneity ($Chi^2 = 2.64$, p = 0.45, $I^2 = 0\%$).

Only one study assessed treatment entry at a short-term follow-up (6-months; Hodgins et al., 2007), therefore a meta-analysis was not conducted.

Marital/relationship discord

Five studies assessed marital/relationship discord at post-treatment, but three studies were excluded from the meta-analysis as they failed to report sufficient data for inclusion (Magnusson et al., 2019; Makarchuk et al., 2002; Osilla et al., 2018).Therefore, two studies, with 107 participants, were included in the meta-analysis (k=1 alcohol, k=1 gambling). There was no significant difference between the groups (SMD= -0.10; 95% CI -0.68, 0.47, p = 0.72). There was evidence of moderate heterogeneity across these studies ($Chi^2 = 1.77$, p = 0.18, $I^2 = 43\%$).

One study evaluated marital/relationship discord at a short-term follow-up (6-months; Hodgins et al., 2007) and at a medium-term follow-up (12-months; Magnusson et al., 2019), therefore a meta-analysis was not conducted.

Discussion

Summary of main findings

This report presents the first systematic review and meta-analysis evaluating the effectiveness of psychosocial treatments directed towards affected others impacted by problem alcohol use, illicit drug use and gambling. While it was intended that internet gaming would also form part of this review, no internet gaming articles were identified for inclusion. The current review generally provides support for the use of psychosocial treatments for affected others, across these addictive behaviours. Given the inconsistency in findings across the various study designs and outcomes, however, there was no one treatment type that stood out as being most effective in the treatment of affected others. Given the number of outcomes assessed, the main findings of this review have been summarised by outcome type below.

Narrative review

Across affected other outcomes (e.g., depressive symptomatology, coping styles, harms experienced), CRAFT displayed some of the most consistent findings with numerous studies displaying within group change over time. When compared to a control group, however, CRAFT treatments displayed mixed findings, with some studies displaying a beneficial effect of CRAFT and others displaying no significant differences. When compared to active treatments though, CRAFT was found to be equally beneficial. CST treatments also displayed mixed findings, with only some RCTs illustrating a beneficial effect of CST when compared to a control group. Like CRAFT, CST displayed comparable results to other active treatments with respect to affected other outcomes. The 5-step approach was evaluated mostly using single-arm study designs, and also displayed mixed findings. The Pressures to Change treatment consistently showed no difference between the treatment and the control group on affected other outcomes. Lastly, while other psychosocial treatments showed consistent reductions over time in some affected other outcomes, there were too few studies with disparate affected other outcomes employing RCT study designs to draw any meaningful conclusions. Taken together, these findings are consistent with the aims of the treatments, whereby CRAFT, CST and the 5-step approach, which aim to improve affected other outcomes, have shown promising, yet mixed findings, across these affected other outcomes. In contrast, the Pressures to Change treatment, which only aims to improve addicted person outcomes, has consistently showed no effect on affected other outcomes.

The findings of this review generally indicate that fewer improvements were found across addicted person outcomes (e.g., treatment entry and frequency of alcohol/illicit substance/gambling use). Pressures to Change produced the most consistent results, performing better than control groups on addicted person outcomes across all studies. This was followed by CRAFT treatments, which demonstrated no beneficial effect of treatment when compared to control groups, but when compared to other active treatments, produced better addicted person outcomes (e.g., treatment entry). In contrast, CST consistently failed to produce better addicted person outcomes than control groups. No studies evaluating the 5-step approach explored addicted person outcomes and studies evaluating other

psychosocial treatments assessed disparate addicted person outcomes that could not be compared. Overall, these findings are consistent with the aims of the treatments, whereby Pressures to Change and CRAFT, which directly aim to improve addicted person outcomes, have shown beneficial effects across these outcomes. Conversely, CST which only aims to improve affected other outcomes, has consistently showed no effect on addicted person outcomes.

Lastly, relationship functioning outcomes were the least explored outcomes across the included studies. CRAFT treatments displayed some promising findings for this type of outcome. Specifically, while CRAFT generally did not outperform control groups on relationship functioning outcomes, mixed findings were identified for studies exploring within-group change over time and RCTs that compared CRAFT to an active condition showed that the majority of studies showed a beneficial effect of CRAFT. In contrast, Pressures to Change displayed no difference on relationship outcomes when compared to control groups and other active treatments. While limited studies evaluated the effectiveness of other psychosocial affected other treatments on relationship functioning outcomes, these studies consistently found a beneficial effect of treatment on relationship functioning outcomes. Finally, no studies that evaluated CST or 5-step treatments assessed relationship functioning outcomes. Taken together, these findings are reflective of the aims of these treatments, which do not aim to directly improve relationship functioning, hence the limited number of studies exploring these types of outcomes. Notwithstanding, CRAFT treatments typically include communication skill training, which aim to improve positive communication between the affected other and addicted person, which may impact on relationship functioning. Whereas, Pressures to Change focuses solely on changing the behaviour of the addictive person, thus limited change in relationship functioning.

Meta-analysis

The findings from the meta-analysis also provide some support that psychosocial treatments for affected others can be effective in improving various affected other, addicted person and relationship functioning outcomes. Specifically, the results indicate the beneficial effect of face-to-face delivered treatment compared to control groups on post-treatment affected other depressive symptomatology, affected other coping, treatment entry by the addicted person and marital/relationship discord, with effect sizes for these outcomes ranging from medium to large. No significant findings, however, were identified for harms experienced by the affected other due to the addicted person's addictive behaviour and frequency of use by the addicted person, and there were too few studies to conduct meta-analyses for affected other psychological distress/ general mental health and affected other anxiety symptomatology.

In contrast, the findings from the meta-analysis provide little support for the effectiveness of self-directed affected other treatments in improving various affected other, addicted person and relationship functioning outcomes. There were no significant differences between the treatment and control groups on any outcome measure for which there were sufficient studies available: affected other depressive symptomatology, harms experienced by the affected other due to the addicted

person's addictive behaviour, affected other psychological distress/ general mental health, affected other anxiety symptomatology, frequency of use by the addicted person, treatment entry by the addicted person and marital/relationship discord. In addition, there were too few studies to a conduct meta-analysis for affected other coping. These results, however, should be interpreted with caution as the vast majority of these meta-analyses only included two studies.

Comparison to wider literature

The findings from this review are comparable to other systematic reviews, which have concluded that while there are mixed findings across the available literature, generally treatments for affected others have resulted in positive outcomes (Kourgiantakis et al., 2013; Templeton et al., 2010). Other systematic reviews, which explored the types of outcomes in more depth, found that CST is more effective for addressing affected other outcomes (e.g., increasing coping skills), whereas CRAFT is more effective at addressing addicted person outcomes (e.g., treatment entry) for individuals affected by problematic alcohol use (O'Farrell & Fals-Stewart, 2003; O'Farrell & Clements, 2012). These findings are not entirely consistent with the findings of the current review, whereby both CRAFT and CST seemed to produce positive, yet mixed, results on affected other outcomes, and while CST was not effective in producing positive results for addicted person outcomes, the findings for CRAFT were mixed. These differences may be due to methodological differences across the reviews, in which these previous reviews (O'Farrell & Fals-Stewart, 2003; O'Farrell & Clements, 2012) only included RCTs with passive and active control/comparison groups, and only evaluated treatments for individuals affected by alcohol use. The latter, however, raises the question about the effectiveness of treatment types on the different addictive behaviours. While the majority of the studies included in the current systematic review were based on alcohol, some studies were based on illicit drug use and gambling, which may have impacted on the results. These findings indicate that affected other treatments that are better established in the alcohol field (e.g., CRAFT) may not be as effective in supporting individuals affected by other addictive behaviours, such as gambling, and different treatments specific to the addictive behaviour may be needed.

The findings from the current meta-analysis are also somewhat consistent with a previous meta-analysis, whereby affected other treatments were found to be more effective than control groups in engaging the addicted person into treatment (Edwards & Steinglass, 1995). Our findings, however, were inconsistent with that same review, with no beneficial effect of treatment found for reducing the frequency of use of the addictive behaviour (Edwards & Steinglass, 1995). The differences in findings may be attributed to the inclusion of all addictive behaviours in the current meta-analysis, compared to alcohol only in the previous meta-analysis. Moreover, while this meta-analysis focused on family-directed treatments only, Edwards and Steinglass (1995) also included couples therapy and family therapy studies, in the same meta-analysis.

Lastly, a recent meta-analysis focusing on the effectiveness of CRAFT treatments on addicted person treatment entry across the addictions (Archer, Harwood, Stevelink, Rafferty, & Greenberg, 2020) found that when compared to any control or treatment

group (e.g., 12-step facilitation), face-to-face delivered CRAFT resulted in greater treatment entry rates. When delivered via self-directed handbooks, however, treatment entry rates did not differ between CRAFT and control or other treatments. While these results are difficult to compare directly to the current review and meta-analysis due to the inclusion of passive controls and active comparison conditions in the same meta-analysis, they are generally supported by the narrative review findings that CRAFT produced greater treatment entry rates when compared to active comparison treatments (e.g., 12-step facilitation). They are also generally supported by the current meta-analysis findings that self-directed treatments do not differ to control groups on addicted person treatment entry rates, in which some studies were based on CRAFT. While there were insufficient studies to break down the meta-analyses by addictive behaviour type in the current review, Archer et al. (2020) found that CRAFT was more effective than control conditions in supporting affected others of substance use addictions, whereas CRAFT was no more effective than controls in helping affected others of gambling addiction. These findings further highlight that different treatments may be needed across the different addictive behaviours. Of note, however, all CRAFT based gambling studies in the Archer et al. (2020) review were self-directed treatments, compared to the substance addiction treatments which were mostly face-to-face. As such it is difficult to ascertain whether the effectiveness is attributed to the addiction type (i.e., substance-based addiction vs behavioural addiction) or modality (i.e., face-to-face vs self-directed). Overall, further research investigating the effectiveness of face-to-face delivered CRAFT across the behavioural addictions (e.g., gambling and internet gaming), and self-directed CRAFT in substance use addictions, is needed.

Limitations of evidence base

The risk of bias assessment indicates that the majority of studies included in this review were classified as having a high-risk of bias. These high rates, however, are largely attributed to the fact that all study designs were evaluated using the Cochrane Risk of Bias tool for RCTs, as RCTs are considered to be the gold standard in treatment evaluation. As such, studies that used a single arm pre-post study design were classified as having a high risk of bias, as they did not employ a randomisation procedure. When broken down to RCTs only, an equal amount of studies were classified as having a high risk of bias or some concerns, with few studies (17.2%; k=5) classified as having a low risk of bias. These findings indicate that even when focusing on gold-standard RCT study designs, several methodological limitations across the majority of studies were still identified.

While this review was able to provide valuable insights into the effectiveness of affected other treatments on post-treatment outcomes, no conclusions relating to the durability of treatment effects could be drawn because few studies conducted short-term, medium-term or longer-term follow-ups. In addition, the majority of included studies explored face-to-face delivered treatments, with fewer studies exploring the effectiveness of a self-directed treatment. Due to these low numbers, the results from these meta-analyses need to be interpreted with caution.

The number of different treatments identified in this review highlights the emergence of affected other treatments in the addiction field. These treatments, however, differ

substantially on the aims of the treatment, with varying affected other-focused and/or addicted person-focused treatments evaluated. While a broad range of treatment options for affected others are needed, this variability in treatment aims has led to even greater variability in the outcomes assessed and the measurement tools used in these studies. This variability in affected other, addicted person and relationship functioning outcomes made it difficult to compare the results from the included studies, in which only general conclusions can be drawn (i.e., available treatments can be effective in improving some, but not all, of these outcomes). This was further complicated by studies that measured outcomes that were not directly addressed by the treatment that was being delivered.

A final limitation of the current evidence base was the number of studies that employed an active comparison group, which involves identifying superior affected other treatments. Given this field is still in its infancy, in particular for newer addictions (i.e., gambling and internet gaming disorder), it is important to first establish the superiority of a particular treatment over a control group before considering the comparative superiority of treatments. This is particularly the case for treatments like CRAFT, whereby the majority of RCTs employed active treatment comparison groups (e.g., Al-Anon Facilitation or other modes of delivery).

Conclusion

This systematic review and meta-analysis is the first to explore the content, characteristics and effectiveness of treatments directed towards individuals who have been affected by someone else's problematic alcohol, illicit drug and gambling. While it was intended that internet gaming would also form part of this review, no internet gaming articles were identified for inclusion.

This systematic review identified various types of treatments directed towards affected others, which included a range of affected other-focused treatments (e.g., CST and 5-step approaches), addicted-person focused treatments (e.g., Pressures to Change) and a combination of both (e.g., CRAFT). While further research is required to evaluate the effectiveness of the available treatments, the current review demonstrated positive (but mixed) findings, for numerous psychosocial treatments across the range of affected other (e.g., depressive symptomatology, coping skills), addicted person (e.g., treatment entry, addictive behaviour change) and relationship functioning (e.g., marital discord) outcomes. Specifically, CRAFT, CST and the 5-step approach may be effective in improving affected others outcomes; CRAFT and Pressures to Change may be effective in improving addicted person outcomes; and CRAFT may be effective in improving relationship functioning outcomes.

Moreover, the findings from the meta-analysis provided support for the use of face-to-face therapist-delivered psychosocial treatments, with less support for the effectiveness of self-directed treatments, across all outcome types. These findings, however, need to be interpreted with caution as there were limited studies that explored the effectiveness of self-directed treatments, thus highlighting the need for further research into this mode of treatment delivery.

The majority of studies in this review evaluated treatments for individuals affected by problematic alcohol and/or illicit substance use, which limited the ability to breakdown the results by addictive behaviour type. The findings of this review from the broader addiction literature, however, can be used to inform evidence-based treatment development for gambling, which can then be used to expand the suite of low-intensity options for affected others in gambling treatment services. Further research, however, is still required to ensure that a range of different treatment approaches are available for individuals affected by someone else's gambling harm, such as intensive face-to-face treatments, brief treatments, online and mobile-delivered self-directed treatments and blended approaches. Given the range of affected other treatment needs, the development and evaluation of treatment approaches that are tailored to meet these needs is particularly important.

Implications and recommendations

The findings of the current review provide important insights into the effectiveness of psychosocial treatments for affected others across the addictions. Given the limited number of studies evaluating affected other treatments for gambling-related harm (k=7), which differed in the type of treatment, mode of delivery and types of outcomes evaluated, the findings from this broader addictive behaviour literature can be used to inform the development of evidence-based treatments for gambling.

Treatment type

The findings from the current review suggest that people affected by someone else's gambling might benefit from a range of psychosocial treatments: (1) CRAFT, CST and 5-step approaches may be helpful in improving affected other outcomes; (2) CRAFT and Pressures to Change may be helpful in improving addicted person outcomes; and (3) CRAFT may be helpful in improving relationship functioning outcomes. Further evaluation of these available affected other treatments (i.e., CRAFT, CST, 5-Step approach, Pressures to Change), however, is still needed to gain a greater understanding of their effectiveness in specifically supporting individuals affected by gambling harm and across different modes of delivery (i.e., therapist delivered face-to-face, self-directed). These findings also have clinical implications, with training and ongoing professional development of gambling clinicians needed in order to enhance access to evidence-based practice for affected others. Provision of appropriate resources to assist with these activities, would also be required.

The majority of studies included in this systematic review evaluated treatments that were originally designed for individuals affected by problematic alcohol use and/or illicit drug use. Given this, the available treatments for affected others may be limited in addressing gambling-specific treatment needs (e.g., financial harms), as these are less relevant to affected others of alcohol and illicit drug use. Conversely, current affected other treatments for alcohol and illicit drug use may address issues that are less applicable or relevant to gambling (e.g., CRAFT requires that the affected other can determine when the addicted person is intoxicated, which is not always possible with behavioural addictions which can be easily hidden). Given this, future research

should focus on the development of new treatments, designed specifically to address the needs of individuals affected by someone else's gambling.

Treatment targets and individual needs

The current review highlighted the substantial variability in the aims of the available treatments, which targeted a variety of affected other, addicted person and relationship functioning outcomes. This highlights the need for further formative research, such as that conducted by Rodda et al. (2019), to gain a better understanding of what individuals affected by someone else's gambling harm want from their treatment. Moreover, given the varying treatment needs of affected others, it is important that appropriate tools are developed and implemented in gambling treatment services that can identify these individual treatment needs. This will enable the delivery of treatment that is tailored to the individual affected other's needs and will ensure that time and resources spent helping affected others are targeted in an efficient and effective manner. Relatedly, gambling treatment services, as well as future research studies, should ensure that the treatment outcomes assessed to evaluate the effectiveness of affected other treatments directly relate to the aims of the treatment being delivered, as this will provide a clear and accurate picture on the effectiveness of the treatment.

Further research investigating the active components of affected other treatments that can effectively address each type of outcome is also required to inform the development of treatments that can be tailored to individual affected other needs (Templeton et al., 2010). While these approaches are emerging in treatment development for gamblers experiencing harm (Rodda et al., 2018), this is a particularly important area of research for affected other treatment development that has not yet been explored. Given the treatment needs of affected others vary so widely, effective treatments that address these varying needs are essential.

Mode of treatment delivery

Due to the limited number of studies available, caution should be taken in interpreting the study findings on self-directed treatments. Notwithstanding, the review findings suggest that face-to-face therapist delivered treatments were effective in improving affected other, addicted person and relationship functioning outcomes, whereas self-directed treatments showed no beneficial effects over the control groups. Moreover, the current review identified that available self-directed treatments typically evaluated the same treatment types as those that were delivered face-to-face (e.g., CRAFT and Pressures to Change). As such, the review findings suggest that treatment types that are delivered via a therapist in a face-to-face format may not be as effective when delivered in a self-directed format. Taken together, future research on self-directed treatments should focus on developing treatments that are specifically designed to be delivered in a self-directed format, as well as investigating how current self-directed treatments approaches might be adapted for more effective self-directed delivery. Given the rise in online and mobile-based treatments in the gambling field (e.g., Dowling et al., 2018; Merkouris, Hawker, Rodda, Youssef, & Dowling, 2020; Rodda et al., 2018), which are preferred as they are easily accessible, anonymous and private (Rodda, Lubman, Dowling, &

McCann, 2013), future research should also focus on the development of internet- and mobile-delivered self-directed treatments for affected others. These can include stand-alone treatment options or blended approaches in which self-directed and face-to-face approaches can be implemented together (Wentzel, van der Vaart, Bohlmeijer, & van Gemert-Pijnen, 2016). Together, this research will expand the suite of low-intensity options (e.g., self-directed, online or telephone support) for affected others that can be implemented into gambling treatment services. This program of research is particularly important given individuals affected by someone else's gambling typically seek lower intensity treatments prior to accessing professional help (Dowling et al., 2014; Hing, Tiyce, Holdsworth, & Nuske, 2013; Rodda & Lubman, 2013; Rodda et al., 2013). Relatedly, the available treatments were quite long with treatment length ranging from one to 36 sessions. The development and evaluation of brief treatments (e.g., maximum of four sessions) can also add to the suite of low-intensity treatments for affected others.

Future research – study designs

Lastly, given the methodological limitations of the evidence base from the broader addiction field, research evaluating treatment approaches for individuals affected by someone else's gambling harm should employ RCT methodologies that conform to the Cochrane Risk of Bias tool to ensure greater quality of studies in the gambling field. Moreover these RCTs should initially utilise a passive control condition, such as, assessment only, referral to other treatment, or non-specific treatment component control groups, to first establish the superiority of a particular treatment over a control group before considering the comparative superiority of treatments. By utilising such passive control conditions, future research will also be able to explore the durability of treatment effects across the short-term, medium-term or longer-term.

Appendices

Appendix A – Search strategy

Search syntax for PsycInfo, Medline and CINAHL (Limiters are English Language and Human and adults)

(TI CSO OR AB CSO) OR (TI AO OR AB AO) OR (TI "significant other*" OR AB "significant other*") OR (TI "concerned other*" OR AB "concerned other*") OR (TI "affected other*" OR AB "affected other*) OR (TI "affected by" OR AB "affected by") OR (TI famil* OR AB famil*) OR (TI relatives OR AB relatives) OR (TI friend OR AB friend) OR (TI partner OR AB partner) OR (TI couple OR AB couple) OR (TI "child* of" OR AB "child* of") OR (TI parent OR AB parent) OR (TI carer OR AB carer) OR (TI spous* OR AB spous*) OR (TI wife OR AB wife) OR (TI wives OR AB wives) OR (TI husband OR AB husband) OR (TI colleague OR AB colleague) OR (TI caregiver OR AB caregiver) OR (TI co-worker OR AB co-worker) OR (TI sibling OR AB sibling) OR (TI coworker OR AB coworker) OR (TI grandparent OR AB grandparent) OR (TI grandchild* OR AB grandchild*)

AND

(TI treat* OR AB treat*) OR (TI therap* OR AB therap*) OR (TI interven* OR AB interven*) OR (TI program* OR AB program*) OR (TI counsel* OR AB counsel*) OR (TI training OR AB training) OR (TI "self-help" OR AB "self-help") OR (TI "self help" OR AB "self help") OR (TI group OR AB group) OR (TI "self-direct*" OR AB "self-direct*") OR (TI "self-manag*" OR AB "self-manag*") OR (TI "self-administ*" OR AB "self-administ*") OR (TI "self-care" OR AB "self-care") OR (TI "self-monitor*" OR AB "self-monitor*") OR (TI psychotherapy* OR AB psychotherapy*) OR (TI psychoeducation* OR AB psychoeducation*) OR (TI support OR AB support)

AND

(TI RCT OR AB RCT) OR (TI random* OR AB random*) OR (TI allocat* OR AB allocat*) OR (TI assign* OR AB assign*) OR (TI "clinical trial" OR AB "clinical trial") OR (TI "control* trial" OR AB "control* trial") OR (TI "control* stud*" OR AB "control* stud*") OR (TI pilot OR AB pilot) OR (TI "treatment outcome" OR AB "treatment outcome") OR (TI evaluat* OR AB evaluat*) OR (TI feasibility OR AB feasibility) OR (TI acceptability OR AB acceptability) OR (TI usability OR AB usability) OR (TI "pretest/posttest" OR AB "pretest/posttest") OR (TI "pretest-posttest" OR AB "pretest-posttest") OR (TI "pre-post" OR AB "pre-post") OR (TI naturalistic OR AB naturalistic) OR (TI "pragmatic trial" OR AB "pragmatic trial") OR (TI "pragmatic study" OR AB "pragmatic study") OR (TI "follow-up" OR AB "follow-up") OR (TI effective* OR AB effective*) OR (TI efficac* OR AB efficac*) OR (TI development OR AB development) OR (TI "user testing" OR AB "user testing") OR (TI description OR AB description) OR (TI describe OR AB describe) OR (TI protocol OR AB protocol)

AND

(TI addict* OR AB addict*) OR (TI "substance use" OR AB "substance use") OR (TI "substance abuse" OR AB "substance abuse") OR (TI "substance misuse" OR AB "substance misuse") OR (TI "addict* behav*" OR AB "addict* behav*") OR (TI "drug

Commented [A1]: Is this necessary given the search strategy has been described in the body of the report?

Commented [A2R1]: While the search strategy described in the report provides an overview of the search that we conducted, for replicability purposes, we would prefer that the entire search strategy is included as an appendix. This is considered best practice when reporting systematic reviews and meta-analyses, according to PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-analyses).

abuse” OR AB “drug abuse”) OR (TI “drug dependen*” OR AB “drug dependen*”) OR (TI “drug addict*” OR AB “drug addict*”) OR (TI alcohol* OR AB alcohol*) OR (TI drink* OR AB drink*) OR (TI cocaine OR AB cocaine) OR (TI cannabis OR AB cannabis) OR (TI marijuana OR AB marijuana) OR (TI heroin OR AB heroin) OR (TI opioid OR AB opioid) OR (TI opiate OR AB opiate) OR (TI methamphetamine OR AB methamphetamine) OR (TI amphetamine OR AB amphetamine) OR (TI stimulant OR AB stimulant) OR (TI gambl* OR AB gambl*) OR (TI “video gam*” OR AB “video gam*”) OR (TI “computer gam*” OR AB “computer gam*”) OR (TI “internet gam*” OR AB “internet gam*”) OR (TI “internet addict*” OR AB “internet addict*”)

Search syntax for EMBASE (limiters based on Human, English language, Adult and Published Article)

“CSO”:ti OR “CSO”:ab OR “significant other*”:ti OR “significant other*”:ab OR “concerned other”:ti OR “concerned other”:ab OR “affected other*”:ti OR “affected other*”:ab OR famil*:ti OR famil*:ab OR relative:ti OR relative:ab OR friend:ti OR friend:ab OR partner:ti OR partner:ab OR couple:ti OR couple:ab OR “child* of”:ti OR “child* of”:ab OR parent:ti OR parent:ab OR carer*:ti OR carer*:ab OR spouse:ti OR spouse:ab

AND

treat*:ti OR treat*:ab OR therap*:ti OR therap*:ab OR interven*:ti OR interven*:ab OR program*:ti OR program*:ab OR counsel*:ti OR counsel*:ab OR training:ti OR training:ab OR “self-help”:ti OR “self-help”:ab OR “self help”:ti OR “self help”:ab OR group:ti OR group:ab OR “self-direct*”:ti OR “self-direct*”:ab OR “self-manag*”:ti OR “self-manag*”:ab OR “self-administ*”:ti OR “self-administ*”:ab OR “self-care”:ti OR “self-care”:ab OR “self-monitor*”:ti OR “self-monitor*”:ab

AND

RCT:ti OR RCT:ab OR random*:ti OR random*:ab OR allocat*:ti OR allocat*:ab OR assign*:ti OR assign*:ab OR “clinical trial”:ti OR “clinical trial”:ab OR “control* trial”:ti OR “control* trial”:ab OR “control* stud*”:ti OR “control* stud*”:ab OR pilot:ti OR pilot:ab OR “treatment outcome”:ti OR “treatment outcome”:ab OR evaluat*:ti OR evaluat*:ab OR feasibility:ti OR feasibility:ab OR acceptability:ti OR acceptability:ab OR usability:ti OR usability:ab OR “pretest/posttest”:ti OR “pretest/posttest”:ab OR “pretest-posttest”:ti OR “pretest-posttest”:ab OR “pre-post”:ti OR “pre-post”:ab OR naturalistic:ti OR naturalistic:ab OR “pragmatic trial”:ti OR “pragmatic trial”:ab OR “pragmatic study”:ti OR “pragmatic study”:ab OR “follow-up”:ti OR “follow-up”:ab OR effective*:ti OR effective*:ab OR efficac*:ti OR efficac*:ab OR development:ti OR development:ab OR “user testing”:ti OR “user testing”:ab OR description:ti OR description:ab OR describe:ti OR describe:ab OR protocol:ti OR protocol:ab

AND

addict*:ti OR addict*:ab OR “substance use”:ti OR “substance use”:ab OR “substance abuse”:ti OR “substance abuse”:ab OR “substance misuse”:ti OR “substance misuse”:ab OR “addict* behav*”:ti OR “addict* behav*”:ab OR “drug

abuse”:ti OR “drug abuse”:ab OR “drug dependen*”:ti OR “drug dependen*”:ab OR “drug addict*”:ti OR “drug addict*”:ab OR alcohol*:ti OR alcohol*:ab OR drink*:ti OR drink*:ab OR cocaine:ti OR cocaine:ab OR cannabis:ti OR cannabis:ab OR marijuana:ti OR marijuana:ab OR heroin:ti OR heroin:ab OR opioid:ti OR opioid:ab OR opiate:ti OR opiate:ab OR methamphetamine:ti OR methamphetamine:ab OR amphetamine:ti OR amphetamine:ab OR stimulant:ti OR stimulant:ab OR gambl*:ti OR gambl*:ab OR “video gam*”:ti OR “video gam*”:ab OR “computer gam*”:ti OR “computer gam*”:ab OR “internet gam*”:ti OR “internet gam*”:ab OR “internet add*”:ti OR “internet add*”:ab

Appendix B – Decision Rules for meta-analysis

1. When a single study included multiple face-to-face treatment arms:
    a. An individually delivered face-to-face treatment was preferred over a group delivered face-to-face treatment
    b. Psychosocial treatments (e.g., CRAFT, CST) were preferred over 12-step facilitated treatments which also included some psychosocial components.
2. When a single study had multiple control groups:
    a. Preference was given to a no treatment or waitlist control group over a control group that included referrals to other treatments.
3. When a single study included multiple self-directed treatments:
    a. Pure self-directed treatments were preferred over combined (e.g., self-directed and individual counselling) or guided self-directed (e.g., self-directed + telephone support) treatments

Appendix C - Overview of treatment content

Study ID	Overview of treatment type[a]
CRAFT treatments	
(Bischof et al., 2016)	*Face-to-face delivered CRAFT* The treatment delivered is consistent with that described in the results section of the systematic review. But this study referred to the utilisation of functional analyses to obtain more specific information and to generate options for intervening with the addicted person.
(Dutcher et al., 2009)	*Face-to-face delivered CRAFT* The treatment delivered is consistent with that described in the results section of the systematic review.
(Hodgins et al., 2007)	*CRAFT self-help workbook* The workbook called 'Helping the Problem Gambler. Helping Yourself' has ten sections: introduction, understanding problem gambling, becoming and staying motivated to help, increasing your awareness of the gambling problem, understanding and changing the role you play, communication training, minimizing your distress, engaging the gambler into treatment, getting control of finances, and dealing with other issues.
(Kirby et al., 1999)	*Face-to-face delivered CRAFT* The treatment delivered is consistent with that described in the results section of the systematic review. But this study included additional conjoint counselling sessions that included other affected others or the addicted person, as needed.
(Kirby et al., 2017)	*Face-to-face delivered CRAFT* The treatment delivered is consistent with that described in the results section of the systematic review.
(Makarchuk et al., 2002)	*Self-directed CRAFT workbook plus standard practice.* The CRAFT workbook included modules on: (1) Introduction; (2) Becoming and Staying Motivated to Help; (3) Helping Yourself; (4) Increasing Your Awareness and Understanding of the Gambling Problem; (5) Problem gambling defined; and (6) Helping the Gambler. The Standard Practice included a treatment resource package that contained treatment resources and general information, which is sent to all interested individuals calling the Alberta gambling help line.

(Manuel et al., 2012)	*Self-directed CRAFT workbook* Affected others were briefly informed about the efficacy of the CRAFT approach and were instructed to read the CRAFT workbook The CRAFT workbook is called “Get your loved one sober: Alternatives to nagging, pleading, and threatening” and includes similar activities as outlined in the results section of the systematic review.
	Group delivered CRAFT The CRAFT self-help book was used as a guide for the therapy sessions. This self-help book includes the same activities as those described above.
(Meyers et al., 1998)	Face-to-face delivered *CRAFT* This study referred to the delivery of a Motivational Enhancement Therapy session with the affected other, aimed at strengthening the addicted person’s motivation and commitment to change. In this session, personal assessment results were given as motivational feedback. In addition to the core set of activities, consistent across CRAFT treatments this study referred to a menu of optional treatment modules to match the clients’ needs. A standard set of core procedures and a menu of optional treatment modules matched to clients' needs were then delivered. The optional treatment modules were not described in this study.
(Meyers et al., 2002)	*Face-to-face delivered CRAFT* The treatment delivered is consistent with that described in the results section of the systematic review.
	Face-to-face delivered CRAFT The treatment delivered is consistent with that described in the results section of the systematic review, but included aftercare, which involved open-ended groups that used the same CRAFT principles and were conducted by the same therapists.
(Miller et al., 1999)	*Face-to-face delivered CRAFT* The treatment delivered is consistent with that described in the results section of the systematic review. This study also referred to the utilisation of a functional analysis procedure as a way of identify triggers for drinking and potential reinforcers for alternative nondrinking behaviours.
(Nayoski & Hodgins, 2016)	*Face-to-face delivered CRAFT* This study employed the same CRAFT treatment as that described by Makarchuk et al., 2002.
	Self-directed CRAFT workbook

	This study employed the same CRAFT treatment as that described by Makarchuk et al., 2002.
(Osilla et al., 2016) / (Osilla et al., 2014)	*Partners Connect* This study used an online self-directed treatment adapted from CRAFT for a military population. Partners Connect has the same aims as CRAFT: (1) to help affected other increase their own well-being; (2) to teach affected others how to manage their own behaviour toward their service member partner; and (3) to identify ways affected others can help the service member/veteran reduce their drinking. It also utilised specific CRAFT techniques including functional analysis, communication skills training, positive reinforcement when not drinking, negative consequences and withdrawing rewards when drinking, and allowing for natural/negative consequences when drinking.
(Osilla et al., 2018) / (Osilla et al., 2014) / (Rodriguez et al., 2018)	*Online self-directed Partners Connect* This study used a similar online self-directed treatment as that described above but with revisions made to the treatment based on the findings from Osilla et al. 2016. Session 1 addressed affected others mental health issues. Affected others received personalized feedback about their drinking and mental health issues, were encouraged to engage in pleasant activities for self-care, and to identify a support person to talk with about their concerns. Affected others were encouraged to practice skills with their social support person in between sessions. Session 2 focused on improving their relationship through positive communication exercises. Session 3 focused on functional analysis of their partner's drinking, and how to positively reinforce their partner's sobriety and negatively reinforce their drinking. Session 4 focused on continuing self-care and talking with their partner about their concerns while interacting with them in healthy ways.
CST treatments	
(Hansson et al., 2006) / (Hansson et al., 2007)	*Face-to-face delivered coping intervention program* This treatment aims to help the individual to confront and cope with reality more effectively. This included: (i) receiving feedback from the coping assessments. This feedback, the affected other's own experiences of living together with an alcoholic, his/her relations with non-alcoholic family members, and his/her social network, were discussed; (ii) Information about common coping patterns in families of alcoholics and coping strategies in abuse situations was provided. The focus was on relationship coping, emotion coping, and problem coping. Central coping strategies, such as the student's ability to express emotions, handle

	discord, or not use avoidance were discussed. (iii) Discussion about how inappropriate coping strategies can be changed and how better working strategies can be implemented, maintained, or strengthened.
	Face-to-face delivered coping intervention and alcohol intervention program The participants in this program were first exposed to the alcohol program (outlined below) and then to the coping program (outlined above).
(Rychtarik & McGillicuddy, 2005)	*Face-to-face delivered CST treatment* The treatment delivered is consistent with that described in the results section of the systematic review. This treatment also included sessions that focused on applying this approach to certain types of problematic drinking-related situations experienced by women with partners with alcoholism (e.g., partner physical violence, effects of drinking on the family; relationship and sexual functioning problems). The situations and empirically derived scoring criteria of the Spouse Situation Inventory (SSI; Rychtarik & McGillicuddy, 1997) served as program content. For each SSI situation, the therapist led the group in problem solving and provided situation-specific skill hints. Skill hints were compiled from the components of responses judged as highly effective during SSI scale development. The therapist then modelled the recommended response, group members role-played the situation, and the therapist and group provided feedback. Participants kept a diary of personal problematic situations encountered for subsequent discussion in the group. Al-Anon attendance was not discouraged but was viewed as a problem-solving option.
(Rychtarik & McGillicuddy, 2006)	*Face-to-face delivered CST* The treatment delivered is consistent with that described in the results section of the systematic review. This treatment also included sessions that followed a general pattern consisting of (a) review, as necessary, of material covered in the previous sessions and review of home- work, (b) a review of problems encountered by the client over the past week as recorded in a diary, (c) discussion of new topical material and practice situations related to the topic, (d) coaching in skill hints for an effective response, (e) modeling of an effective response, (f) role-play of effective responses, (g) feedback on the practiced response and rehearsal, and (h) review and assignment of homework.
(Rychtarik et al., 2015)	*Online self-directed CST*

	This treatment called StopSpinningMyWheels.org. was adapted from the face-to-face CST reported in Rychtarik and McGillicuddy (2005). Participants initially were introduced, via videos, to five different women (portrayed by actresses) who described their history and struggles living with a partner with an AUD. These women were then followed in remaining sessions as they struggled and coped with problem situations related to their partner's drinking. Problem situations were from Form A of the SSI. The treatment, then trained affected others to (a) focus on their own needs, (b) manage negative thinking, (c) problem solve situations, (d) use functional analysis of self and partner behaviour, and (e) communicate with greater consistency and clarity.
(Zetterlind et al., 2001) / (Hansson et al., 2004)	*Face-to-face delivered CST*. These sessions involved themes surrounding: (1) Family adjustments, family roles, relationships, and sexuality; (2) Isolation and social network; (3) Family dynamics, family communications and dependence: independence in the relationship.
5-step treatment approaches	
(Copello, Templeton, et al., 2000)	*Face-to-face delivered 5-step approach*. The treatment delivered is consistent with that described in the results section of the systematic review.
(Copello et al., 2009) / (Velleman et al., 2011)	*Self-directed 5-step approach* The treatment delivered is consistent with that described in the results section of the systematic review. This intensive treatment received the self-help manual, a single session of training and 5 sessions of a psychosocial treatment.
	Self-directed 5-step approach The treatment delivered is consistent with that described in the results section of the systematic review. The brief treatment received the self-help manual and a single session of training support.
(Orford et al., 2017)	*Self-directed 5-step approach* The treatment delivered is consistent with that described in the results section of the systematic review. Participants in this study were offered monthly educational support groups, and, where appropriate, were offered further treatments such as advice on financial management, couples counselling and family therapy.

(Templeton et al., 2007)	*Face-to-face delivered brief 5-step intervention*. This treatment was adapted for specialist settings from a manual used in primary care treatments and a self-help manual for affected others. The resulting manual had four main sections: (1) an introduction; (2) overview to the treatment; (3) the five steps (i.e., giving the family member the opportunity to talk about the problem, providing relevant information, exploring how the family member copes with/responds to their relative's substance misuse, exploring and enhancing social support; and exploring the need for and the possibilities of onward referral for further help and support; and (4) supplementary information, containing case studies, further information on stresses and strains for family members, further information on alcohol and drugs, further reading, and contact details for other services nationally and locally.
(Velleman et al., 2008)	*Face-to-face delivered 5-step approach* The treatment delivered is consistent with that described in the results section of the systematic review.
Pressures to Change treatments	
(Barber & Crisp, 1995); (Barber & Gilbertson, 1996); (Barber & Gilbertson, 1998)	*Face-to-face delivered Pressures to Change* The treatment delivered is consistent with that described in the results section of the systematic review.
(Barber & Crisp, 1995); (Barber & Gilbertson, 1996)	*Group delivered face-to-face Pressures to Change* The treatment delivered is consistent with that described in the results section of the systematic review.
(Barber & Gilbertson, 1998)	*A self-help version of the Pressure to Change*. The treatment delivered is consistent with that described in the results section of the systematic review. In the self-help condition, clients were taken through the self-help manual and provided with brief descriptions of each of the levels of pressure. Following this single session, the manual was given to clients to take with

	them, along with instructions to work through each level, one-by-one, and to persist with each of the levels for at least 1 week before moving on to the next.
Other psychosocial treatments	
(Buchner et al., 2019)	*Self-help program - EfA is an acronym for the German programme title and roughly translates to 'Don't gamble away my life – Support for Affected Others'* The modules address basic knowledge about gambling disorders, prevalence and co-morbid disorders, stress and coping, responsibility and accountability, communication, social support and review and future planning.
(Clark & Hanna, 1989)	*Group and individual counselling* The program is designed to treat clients who are alcohol users and those persons who live with an alcohol user. At least one session of post-intake individual counselling is arranged. Clients may also participate in one of the program's open-ended groups and are encouraged to participate in on-site meetings of Alcoholics Anonymous or Al-Anon. Client education regarding alcohol use takes place in both individual and group counselling.
(de los Angeles Cruz-Almanza et al., 2006)	*Group intervention* The treatment was similar to REBT which assumes that individuals face experiences which generate thoughts, some of which are irrational and lead to negative emotions with their concomitant maladaptive behaviours. The treatment goals included three main target components: a) identifying and correcting cognitive biases and defective information, b) establishing emotional regulation strategies, and c) acquiring assertive interpersonal skills
(Gustafson et al., 2012)	*Therapy only.* Group therapy was provided by a psychotherapist trained to work with ACOA clients. Therapy was conducted in 2 groups, one group for participants in the therapy-only treatment and one for participants in the CHESS-plus-therapy treatment. Topics covered in the group therapy sessions related to co-dependency, including concepts such as rescuing, detachment, and boundaries.
	CHESS only. CHESS is a non-commercial, home-based computer program created by clinical, communication, and decision scientists at the University of Wisconsin. CHESS aims to decrease the burden caused by chronic or terminal illness by providing information, communication, and coaching and training services that tailor information and advice to the user's specific situation. CHESS services included

	information (questions and answers, getting help/support, instant library, referral directory, dictionary, personal stories), communication (limited access to an online support group, ask an expert), and coaching and training (health status, decision aids, and action plan). Participants were provided a computer in their home if needed.
	Received both of the above treatments (therapy and CHESS).
(Halford et al., 2001)	*Supportive counselling.* The supportive counselling condition was intended as a plausible contact control. Supportive counselling began with education about the effects of alcohol. The major component of this treatment condition consisted of Rogerian style non-directive counselling in which participants had the opportunity to discuss their difficulties in a supportive, non-judgemental setting. No specific advice, cognitive restructuring or skills training was provided in this condition.
	Stress management. This condition had a number of components relating to influencing the man's drinking, including: (a) assessment of the antecedents and consequences of alcohol consumption in the problem drinker; (b) review of the impact of the drinking upon the spouse and other family members; (c) providing positive consequences for not drinking; (d) scheduling competing activities, which were unlikely to be associated with heavy drinking; (e) promoting behaviour that might reduce drinking; and (f) allowing negative consequences of intoxication, to occur (e.g. the client would not ring up and make excuses to his employer or relatives for missed commitments). Specific homework assignments were provided. Stress management also included specific components to reduce the negative impact of the male's drinking on the woman using cognitive restructuring and enhancing pleasant activities.
	AFCT. This condition included the components that formed stress management, and the woman was taught to prompt the man to present for therapy. If the drinker agreed, at presentation the man's alcohol consumption and the couple's relationship were assessed. The treatment programme focused initially on alcohol education, motivational interviewing and goal-setting targeted at reducing drinking. Once the man was engaged in therapy: (1) the woman was helped to encourage and reinforce positively the man's efforts to control drinking; (2) the problem drinker received training in identification of high-risk settings for drinking,

	coping with urges to drink, drink refusal skills and relapse prevention; and (3) couples received training in communication and problem solving, behaviour exchange and the enhancement of enjoyable couple activities. If the man refused to participate in therapy, the woman received the stress management treatment.
(Hansson et al., 2006) / (Hansson et al., 2007)	*Alcohol intervention program.* The alcohol treatment programme was based on the BASICS manual. The following parts were used in our programme: (i) identify high-risk drinking situations, (ii) provide accurate information about alcohol, (iii) identify personal risk factors, (iv) challenge myths and positive expectations, (v) establish appropriate and safer drinking goals, (vi) managing high-risk drinking situations, and (vii) learn from mistakes. Initially, the student got feedback on her/his AUDIT scores assessed at baseline. After that, the session focused on the student's own expectations of alcohol use. Feedback of alcohol expectancy self-ratings was systematically offered. During the session, the student and therapist also conversed about facts, myths, and drinking patterns in Sweden. The participant learned how to calculate their blood alcohol level, based on memories from a party they considered joyful and pleasant, and without negative consequences. In conclusion we gave the student advice on how to plan her/his alcohol consumption at a party. The focus was on drinking-moderation strategies, drinking refusal, peer influences, assertive behaviour, identification of high-risk situations, and negative emotional states. The treatment program was administered in two individual 2 h sessions. The students were asked, as homework, to keep a diary of their alcohol consumption and calculate blood alcohol levels between the two treatment sessions. At the second treatment session, the topics from the first session were repeated. The homework (diary) was also discussed in detail.
(Hojjat et al., 2017)	*Training sessions* The content of the training sessions was based on harm reduction programs for families of patients with high-risk behaviours. A summary of the sessions is presented as follows: (1) The initial session entailed asking questions and engaging in a discussion about the participants' level of knowledge of substance dependence treatment methods and giving correct scientific information about the various types of treatments and the effectiveness of abstinence approaches versus maintenance treatments. Time was also spent responding to participants' questions. (2) This session focused on educating the harm reduction

	concept in treatment of high-risk behaviours. This includes substance dependence and realistic versus idealistic views regarding approaches to the disease of substance dependence and providing accurate and scientific information about the substance dependence relapse rate. (3) The goal of the third session was to raise awareness about methadone and its cognitive and physical side effects and correct false beliefs about the deadly effects of methadone treatment among families. (4) In this session, patients were educated about the effective factors in relapse. The wife's role in relapse prevention was discussed and patients were asked about their personal relapse experiences. (5) The aim of the fifth session was to correct common cognitive errors regarding excessive perfectionism in substance dependence treatment and correcting high expectations from the patients about rapid changes in lifestyle, relationships with friends, characteristics, and sexual affairs in the early stages of treatment. (6) This session focused on educating the wives about the impact of methadone treatment on reducing economic, social, and family complications of substance dependence and the effects of treatment on removing the substance dependence labelling from the families. Discussion also centred on correcting the false beliefs about the fact that "Methadone treatment has just changed the type of substance dependence." (7) The seventh session focused on educating the wives about addiction-related high-risk behaviours, such as injecting drugs, drug-related crime, and HIV transmission. (8) The final session involved a group discussion about the patients' experiences of the effects of methadone treatment on their personal life.
(Howells & Orford, 2006)	*Guidelines for therapeutic approach with partners* The main aim of the treatment is to help change coping strategies in a way that will lower the stress of the partner and hopefully help with the drinking problem. Clients are accepted into the project on their own terms, either for support for themselves, or in order to help stop or control the drinking. However the underlying philosophy is that the service is for the non-problem drinking partner. The partner's wishes are always paramount and no advice is given which places the needs of the problem drinker before those of the partner. Sessions take different routes according to the needs and requests of the participating partners. Anxiety management techniques, problem solving, discussion of the development of own interests, and role playing of assertive and clear communication, were always included. Where violence had occurred and the partner wished to leave, priority was given to help find alternative accommodation. If the partner did not wish to

	leave, s/he was encouraged to make contingency plans for leaving or calling for help quickly if necessary. If the partner wished to change the relative's drinking, the partner's expectations of change were explored. Areas of power in the relationship were often explored at an early stage. There was discussion of the fact that all families were adversely affected by heavy drinking (effects could be listed), that family members often felt ambivalent towards a problem drinker and would feel anger, frustration and despair (a normal reaction), and that partners should not hold unrealistic expectations about the speed of change of drinking and other aspects of the relative's behaviour. Partners were encouraged to continue with other friendships and activities; to confront the problem drinker in a calm, non-judgemental way, and not when the problem drinker was drunk; and to place limits on acceptable behaviour and to stick to those. There was often discussion of the need for the partner to take control of his or her own money or open a separate bank account.
(Kirby et al., 2017)	*Treatment Entry Training (TEnT)* Focused on training the affected other to identify times when the addicted person may be more amenable to the suggestion of treatment entry. This treatment approach involved an abbreviated version of communication training that focused only on treatment entry.
	ANF Educated affected others about the steps, principles, and philosophies associated with Al-Anon/Nar-Anon. The counsellor provided information about 12-step philosophy and concepts, and guidance, support, and active encouragement to engage in a 12-step group.
(Liepman et al., 1989)	*Motivational counselling intervention* This program at was designed to mobilize the alcoholic's social network to supportively confront the alcoholic about his or her substance abuse and to urge prompt entry into treatment. The program utilizes several processes of change that have been successful in mobilizing people to take action about problem behaviour. The program uses consciousness raising techniques in educating the social networks about the nature of chemical dependency and its treatment, its impact on their lives, and how they have mutually undermined each other's attempts to enhance the alcoholic's motivation to recover. Affective expression is encouraged since the social network is being mobilized to work together as a team to confront the alcoholic in describing the most worrisome examples of his or her behaviour. Finally, members of the social network

	are encouraged to take better care of themselves in relation to the alcoholic's behaviour that has affected them. In this regard they are taught action-oriented techniques. Ostensibly to prepare them for the confrontation session, participants were shown a two-part movie on "Enabling" and the "Intervention" process. Problem-solving strategies were taught to determine: 1) individualized treatment needs of themselves and their alcoholic; 2) the support they would need from each other and from treatment providers in order to successfully carry out these plans; and 3) the steps they would take if either the alcoholic refused treatment at the time of confrontation or subsequently discontinued treatment or relapsed. Assertiveness training was utilized to improve communication skills. Role play rehearsals were used to improve the participants' presentations of their concerns (with emphasis on firm but supportive statements). Additional sessions were held when requested by the members of the social network to further prepare them for the confrontation. For some (but not all), the final session was the confrontation of the alcoholic by the social network in the presence of the counsellors. In this session, members of the social network described, in a nonjudgmental fashion, some of the most worrisome examples of drinking-related events and their feelings about these events. They suggested the type of treatment they wished the alcoholic would accept, and if the alcoholic seemed resistant, they explained what they planned to do if the alcoholic refused.
(Magnusson et al., 2019) / (Magnusson et al., 2015)	*Cognitive-behavioural therapy* 1. Psychoeducation about gambling problems 2. Functional analysis and gambling free activities 3. Rewards and behavioral activation for both the CSO and problem gambler 4. Psychoeducation about motivation and protecting the CSOs economy 5. Common behaviors that inadvertently enable gambling 6. Communication training and principles from MI 7. Problem-solving 8. Inviting the gambler into treatment 9. Repetition and evaluation

(Masaeli et al., 2018)	*Matrix Method intervention* Urinary analysis, group therapy, family counseling sessions, recurrence analysis, and social support are important components of the Matrix Model intervention. The activities of the sessions were as follows: Monday: stop thinking techniques, external motivator, internal motivator, NA activities, thought and emotion, side effects of methamphetamine abuse, treatment problems, and 12 steps to identify the situation in patients and their caregivers. Thursday: social supports including stress management, acceptance, motivation, avoidance, relationships, work and money management, fatigue, warning signs, desire to consume, slip, life skills, feeling guilty, depression, fear, anger management, temptation, joke, spirituality, denial, honesty, and saying no. Saturday: the role of family in the recovery, family encounter, family reaction, family education, types of stimulant drugs, types of alcohols and cannabis.
(Miller et al., 1999)	*Al-Anon facilitation* This treatment paralleled the 12-step facilitation modality developed and tested in Project MATCH and was designed to engage the affected other in the program and processes of Al-Anon. The underlying philosophy was that the affected other is powerless to control the drinker and must detach, focusing instead on the acceptance program of Al-Anon and on strengthening his or her own mental health. This might be expected to impact the drinker indirectly (e.g., by reducing affected other enabling behaviour), but it must be noted that changing the drinker is explicitly disavowed as a goal in Al-Anon. The treatment helped the affected other to become acquainted with basic concepts and readings of Al-Anon and to complete its initial steps. The treatment lasted up to 12 sessions, including 8 core sessions intended to be delivered to all affected others.
	Johnson Institute Intervention This form of family intervention is designed to instigate treatment. In this approach, family members are prepared to confront the problem drinker with what they have experienced and observed about the drinking and related problems. In a caring and supportive manner, the drinker is encouraged to enter treatment, and sanctions may be applied for failing to do so. Procedures for conducting this intervention have been well specified and were explicitly followed in delivering this condition. This protocol consisted of six sessions:

	four preparatory sessions with affected others, the intervention session with the drinker and affected others, and a post treatment evaluation session.
(Passa & Giovazolias, 2015)	*Self-help group* No detail reported.
(Rychtarik & McGillicuddy, 2005)	*TSF* Participants in this condition learned to view their problem as one of co-dependence; the 12 steps of Al-Anon then served as a blueprint to facilitate co-dependence recovery. Participants learned the symptoms of co-dependency (i.e., denial, self-delusion), its consequences (e.g., low self-worth), and the 12 steps of Al-Anon. Sessions focused on Al-Anon Steps 1–5, enabling behaviours and detachment, co-dependency relapse, and briefly on Al-Anon Steps 6–12. To control for exposure to the SSI situations, participants in TSF were presented the same situations and in the same order as participants in CST. In TSF, however, situations were used to demonstrate and discuss issues of co-dependency and application of the 12 steps. Other than discussion of enabling behaviours, the therapist avoided specific instruction in effective behaviours and took the approach advocated in Al-Anon that, whereas it is helpful to share similar experiences, it can be harmful to advise another what she should do because she is the one who has to live with the results of the decision. Instead, the therapist helped participants to recognize what was manageable and unmanageable in the situations and used general advice such as “look to your Higher Power for guidance” or “focus on yourself and what you can change in the situation.” Participants were to attend Al-Anon weekly and were assigned Al-Anon reading material.
(Roush & DeBlassie, 1989)	*Structured group counselling* The group experience was designed to effect a positive change in the participants' knowledge, attitudes, and behaviours related to parental alcoholism. Group members received information about alcoholism and its effects on the family. Members had an opportunity to express their feelings and experiences related to their having grown up in an alcoholic home. Finally, they were encouraged to explore their maladaptive coping responses and identify alternative ways of responding to parental alcoholism.

(Yoshioka et al., 1992)	*Immediate treatment - drinking control (DC) modification program* The treatment program aims to modify the behaviour of the spouse of an alcohol abuser by controlling or reducing the quantity and/or frequency of drinking in certain situations, designated “drinking control” (DC) behaviour. In an early session, the program is initiated by identifying the spouse’s DC behaviour’s that might be potential targets of change. At this point the therapist orients the spouse further to the concept of DC by describing some of the dysfunctions associated with these behaviours. DC is described as part of the spouse’s “old sobriety influence system” which we hope to have put aside so that other, more appropriate ways of responding can be initiated. Instances of DC are thereafter referred to as the “old system,” a convenient short-hand concept that is readily understood. The final list should be screened to eliminate behaviours not specifically related to drinking or its control (e.g., general complaints about the marriage or efforts to change it The DC behaviours that survive the screening should be specified and appropriate alternative responses identified. Once all behaviours have been screened, the spouse’s willingness to reduce the frequency of the old DC efforts is sought. The spouse is asked to stop the chosen behaviour as best as he or she can and to engage in alternative responses. The spouse also is requested not to reveal the goals of the program to the drinker and to carry it out without any announcement. At the next session, the therapist reviews the behaviours chosen for reduction the week before, and any problems are addressed.
(Zetterlind et al., 1996)	*The standardized information technique*. The patient was told by a researcher about the information programme a few days after admission to the ward. It was a short information about the project and a formal inquiry which lasted for about 10 min. If the patient accepted to be included in the study, the researcher phoned the spouse/relative/friend and informed about the project. If the spouse/relative/friend accepted, the video tape was presented. The way of contacting and the information technique differed between the standardised and the individualised information conditions. In order to standardize the information concerning different types of support, a video tape with a 10 min duration was produced. The senior psychiatrist at the ward was the speaker. The manuscript was written in collaboration with the available support groups, Al-Anon, the Link's family program, the Social Services support and the professional support group at the Department. The final

	version of the video tape was approved by all these groups. In addition, it was mentioned in the video tape that some people preferred individual, marital or family support and that these types of support were available. After the video tape had been presented to the spouse/relative/friend, he/she was asked to rank the three most relevant alternatives presented on the video.
	The individualized information technique. During this condition, the researcher cooperated closely with the patient's key nurse at the ward. The family situation and the social network were evaluated according to the general clinical programme. The information to the patient about the support programme was given by the key nurse at a time considered appropriate from a psychological point of view. The key nurse met with the patient almost daily and could discuss the project and answer questions about the study on several occasions. The main problem was to motivate the patient to accept the relatives' attendance in the study. The time taken for patient information was about 45 min. If the patient gave permission, the spouse/relative/friend was contacted by the key nurse in a flexible way depending on the family's situation and the psychodynamic interactions. Contacts were taken either personally when the spouse/relative/friend visited the patient at the ward, or by telephone. Later, the key nurse and the researcher met with the relative/friend for further information. If the relative/friend agreed to participate, the video tape was presented. In order to standardize the information concerning different types of support, a video tape with a 10 min duration was produced. The senior psychiatrist at the ward was the speaker. The manuscript was written in collaboration with the available support groups, Al-Anon, the Link's family program, the Social Services support and the professional support group at the Department. The final version of the video tape was approved by all these groups. In addition, it was mentioned in the video tape that some people preferred individual, marital or family support and that these types of support were available. After the video tape had been presented to the spouse/relative/friend, he/she was asked to rank the three most relevant alternatives presented on the video.
(Zetterlind et al., 2001) / (Hansson et al., 2004)	*Individual standard information session* At the start of the standard information session it was considered important to establish an empathic rapport. The spouses were told that they were not to be blamed or held responsible for the alcoholic partner’s drinking. The scores of the coping behaviour scale were reported and discussed. The importance of effective coping strategies in alcoholic families was stressed. Negative coping strategies were nagging, blaming, threatening, arguing, controlling, avoidant, and inactive coping style. Those scoring in the highest quartile of these scales were suggested to try alternative coping strategies. Positive strategies were support, talking to the alcoholic partner, family activities, and independence in the relationship, and these

	patterns were supported in all spouses. The spouses were informed about alcohol dependence and its effects on the alcoholic partner and the family. They were given a booklet including a) information about the study, b) the ‘‘family circle’’ describing patterns in families of alcoholics, c) their own scores on the coping behaviour style, d) information on social services, e) where to call in case of domestic violence, and f) information about course of action for the alcoholic partner if he/she wanted treatment. Finally, the spouses were randomized to one of the three alternatives and given a short information concerning follow-up.
	Group support This contained the standard information session and twelve 90-min sessions every 2nd week during half a year. There were two leaders for the group. There were two closed groups, with five and six, respectively, of the spouses of the study. The themes were support in coping with the alcoholic partner and the abuse situation, communication training, and reduction of own stress. Special techniques used were role-playing, painting, watching video films about alcohol-related family problems, and physical relaxation. The themes were intermingled in the 12 group treatment sessions based on the spouses’ problems or questions.

[a] Psychosocial treatment arms that were eligible for inclusion in this review were described in this table, as well as treatments that classified as passive or active control arms.

ACOA = Adult Children of Alcoholics; AFCT = Alcohol focused couple therapy; ANF = Al-Anon/Nar-Anon Facilitation; AUD = Alcohol Use Disorder; AUDIT = Alcohol Use Disorders Identification Test; CHESS = Comprehensive Health Enhancement Support System; CRAFT = Community Reinforcement Approach and Family Training; CST = Coping Skills Training; CSO = Concerned Significant Other; DC = Drinking Control; HIV = Human Immunodeficiency Virus; MI = Motivational Interviewing; NA = Narcotics Anonymous; REBT = Rational Emotive Behaviour Therapy; SSI = Spouse Situation Inventory; TEnT = Treatment Entry Training; TSF = Twelve Step Facilitation.

References

Abbott, M., Bellringer, M., Garrett, N., & Mundy-McPherson, S. (2014). New Zealand 2012 national gambling study: Gambling harm and problem gambling. Report number 2. Auckland: Auckland University of Technology.

American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). Arlington, VA: American Psychiatric Association.

Archer, M., Harwood, H., Stevelink, S., Rafferty, L., & Greenberg, N. (2020). Community reinforcement and family training and rates of treatment entry: a systematic review. *Addiction, 115*(6), 1024-1037.

Barber, J. G., & Crisp, B. R. (1995). The 'pressures to change' approach to working with the partners of heavy drinkers. *Addiction, 90*(2), 269-276.

Barber, J. G., & Gilbertson, R. (1996). An experimental study of brief unilateral intervention for the partners of heavy drinkers. *Research on Social Work Practice, 6*(3), 325-336.

Barber, J. G., & Gilbertson, R. (1998). Evaluation of a self-help manual for the female partners of heavy drinkers. *Research on Social Work Practice, 8*(2), 141-151.

Bischof, G., Iwen, J., Freyer-Adam, J., & Rumpf, H.-J. (2016). Efficacy of the Community Reinforcement and Family Training for concerned significant others of treatment-refusing individuals with alcohol dependence: A randomized controlled trial. *Drug and Alcohol Dependence, 163*, 179-185.

Browne, M., Rawat, V., Greer, N., Langham, E., Rockloff, M., & Hanley, C. (2017). What is the harm? Applying a public health methodology to measure the impact of gambling problems and harm on quality of life. *Journal of Gambling Issues, 36*.

Buchner, U. G., Koytek, A., Wodarz, N., & Wolstein, J. (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.

Budworth, L., Prestwich, A., Lawton, R., Kotzé, A., & Kellar, I. (2019). Preoperative Interventions for Alcohol and Other Recreational Substance Use: A Systematic Review and Meta-Analysis. *Frontiers in Psychology, 10*, 34.

Campbell, M., Katikireddi, S. V., Sowden, A., McKenzie, J. E., & Thomson, H. (2018). Improving Conduct and Reporting of Narrative Synthesis of Quantitative Data (ICONS-Quant): protocol for a mixed methods study to develop a reporting guideline. *BMJ Open, 8*(2).

Clark, R., & Hanna, M.-E. (1989). Effective Short-Term Treatment Modalities for Primary Users and Significant Others in Outpatient Treatment. *Alcoholism Treatment Quarterly, 6*(2), 105-116.

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.). Hillsdale, New Jersey: Erlbaum.

Copello, A., Orford, J., Velleman, R., Templeton, L., & Krishnan, M. (2000). Methods for reducing alcohol and drug related family harm in non-specialist settings. *Journal of Mental Health, 9*(3), 329-343.

Copello, A., Templeton, L., Krishnan, M., Orford, J., & Velleman, R. (2000). A treatment package to improve primary care services for relatives of people with alcohol and drug problems. *Addiction Research, 8*(5), 471-484.

Copello, A., Templeton, L., Orford, J., & Velleman, R. (2010). The 5-Step Method: Evidence of gains for affected family members. *Drugs: Education, Prevention and Policy, 17*, 100-112.
Copello, A., Templeton, L., Orford, J., Velleman, R., Patel, A., Moore, L., . . . Godfrey, C. (2009). The relative efficacy of two levels of a primary care intervention for family members affected by the addiction problem of a close relative: A randomized trial. *Addiction, 104*(1), 49-58.
Copello, A., Velleman, R., & Templeton, L. (2005). Family interventions in the treatment of alcohol and drug problems. *Drug and Alcohol Review, 24*(4), 369-385.
Cowlishaw, S., Merkouris, S. S., Dowling, N. A., Anderson, C., Jackson, A., & Thomas, S. (2012). Psychological therapies for pathological and problem gambling. *Cochrane Database of Systematic Reviews, 11*, CD008937. doi: 10.1002/14651858.CD008937.pub2
de los Angeles Cruz-Almanza, M., Gaona-Márquez, L., & Sánchez-Sosa, J. J. (2006). Empowering women abused by their problem drinking spouses: Effects of a cognitive-behavioral intervention. *Salud Mental, 29*(5), 25-31.
Deeks, J. J., Higgins, J. P. T., Altman, D. G., & Cochrane Statistical Methods Group. (2019). Analysing data and undertaking meta-analyses. *Cochrane Handbook for Systematic Reviews of Interventions*, 241-284.
Dowling, N. A., Merkouris, S. S., Rodda, S. N., Smith, D., Lavis, T., Lubman, D., . . . Battersby, M. (2018). *Development and evaluation of an online gambling self-directed program: Effective integration into existing services*. Melbourne: Victorian Responsible Gambling Foundation.
Dowling, N. A., Rodda, S. N., Lubman, D. I., & Jackson, A. C. (2014). The impacts of problem gambling on concerned significant others accessing web-based counselling. *Addictive Behaviors, 39*(8), 1253-1257.
Dutcher, L. W., Anderson, R., Moore, M., Luna-Anderson, C., Meyers, R. J., Delaney, H. D., & Smith, J. E. (2009). Community Reinforcement and Family Training (CRAFT): An effectiveness study. *Journal of Behavior Analysis in Health, Sports, Fitness and Medicine, 2*(1), 80.
Edwards, M. E., & Steinglass, P. (1995). Family therapy treatment outcomes for alcoholism. *Journal of Marital and Family Therapy, 21*(4), 475-509.
Goodwin, B. C., Browne, M., Rockloff, M., & Rose, J. (2017). A typical problem gambler affects six others. *International Gambling Studies, 17*(2), 276-289.
Grant, J. E., & Chamberlain, S. R. (2016). Expanding the definition of addiction: DSM-5 vs. ICD-11. *CNS Spectrums, 21*(4), 300-303.
Gustafson, D. H., McTavish, F. M., Schubert, C. J., & Johnson, R. A. (2012). The effect of a computer-based intervention on adult children of alcoholics. *Journal of Addiction Medicine, 6*(1), 24-28.
Halford, W. K., Price, J., Kelly, A. B., Bouma, R., & Young, R. M. (2001). Helping the female partners of men abusing alcohol: a comparison of three treatments. *Addiction, 96*(10), 1497-1508.
Hansson, H., Rundberg, J., Zetterlind, U., Johnsson, K. O., & Berglund, M. (2006). An intervention program for university students who have parents with alcohol problems: a randomized controlled trial. *Alcohol and Alcoholism, 41*(6), 655-663.
Hansson, H., Rundberg, J., Zetterlind, U., Johnsson, K. O., & Berglund, M. (2007). Two-Year Outcome of an Intervention Program for University Students Who

Have Parents With Alcohol Problems: A Randomized Controlled Trial. *Alcoholism: Clinical and Experimental Research, 31*(11), 1927-1933.
Hansson, H., Zetterlind, U., Åberg-Örbeck, K., & Berglund, M. (2004). Two-year outcome of coping skills training, group support and information for spouses of alcoholics: a randomized controlled trial. *Alcohol and Alcoholism, 39*(2), 135-140.
Higgins, J. P. T. (2008). Cochrane handbook for systematic reviews of interventions version 5.0. 1. The Cochrane Collaboration. *http://www. cochrane-handbook. org*.
Hing, N., Tiyce, M., Holdsworth, L., & Nuske, E. (2013). All in the family: help-seeking by significant others of problem gamblers. *International Journal of Mental Health and Addiction, 11*(3), 396-408.
Hobfoll, S. E., & Spielberger, C. D. (1992). Family stress: Integrating theory and measurement. *Journal of Family Psychology, 6*(2), 99.
Hodgins, D. C., Toneatto, T., Makarchuk, K., Skinner, W., & Vincent, S. (2007). Minimal treatment approaches for concerned significant others of problem gamblers: a randomized controlled trial. *Journal of Gambling Studies, 23*(2), 215-230.
Hojjat, S. K., Rezaei, M., Hatami, S. E., Kohestani, M., & Norozi Khalili, M. (2017). The effectiveness of group family training about the principles of harm reduction approach on marital satisfaction of spouses of patients under methadone maintenance treatment. *Journal of Sex & Marital Therapy, 43*(1), 68-77.
Howells, E., & Orford, J. (2006). Coping with a problem drinker: A therapeutic intervention for the partners of problem drinkers, in their own right. *Journal of Substance Use, 11*(1), 53-71.
Kirby, K. C., Benishek, L. A., Kerwin, M. L. E., Dugosh, K. L., Carpenedo, C. M., Bresani, E., . . . Meyers, R. J. (2017). Analyzing components of Community Reinforcement and Family Training (CRAFT): Is treatment entry training sufficient? *Psychology of Addictive Behaviors, 31*(7), 818.
Kirby, K. C., Marlowe, D. B., Festinger, D. S., Garvey, K. A., & LaMonaca, V. (1999). Community reinforcement training for family and significant others of drug abusers: A unilateral intervention to increase treatment entry of drug users. *Drug and Alcohol Dependence, 56*(1), 85-96.
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.
Langham, E., Thorne, H., Browne, M., Donaldson, P., Rose, J., & Rockloff, M. (2016). Understanding gambling related harm: a proposed definition, conceptual framework, and taxonomy of harms. *BMC Public Health, 16*, 80. doi: 10.1186/s12889-016-2747-0
Laslett, A.-M., Room, R., Ferris, J., Wilkinson, C., Livingston, M., & Mugavin, J. (2011). Surveying the range and magnitude of alcohol's harm to others in Australia. *Addiction, 106*(9), 1603-1611.
Laslett, A.-M., Room, R., Waleewong, O., Stanesby, O., Callinan, S., & World Health Organization. (2019). Harm to others from drinking: Patterns in nine societies. Geneva: World Health Organisation.
Liepman, M. R., Nirenberg, T. D., & Begin, A. M. (1989). Evaluation of a program designed to help family and significant others to motivate resistant alcoholics

into recovery. *The American Journal of Drug and Alcohol Abuse, 15*(2), 209-221.
Magnusson, K., Nilsson, A., Andersson, G., Hellner, C., & Carlbring, P. (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.
Magnusson, K., Nilsson, A., Gumpert, C. H., Andersson, G., & Carlbring, P. (2015). Internet-delivered cognitive-behavioural therapy for concerned significant others of people with problem gambling: study protocol for a randomised wait-list controlled trial. *BMJ Open, 2*(12), e008724.
Makarchuk, K., Hodgins, D. C., & Peden, N. (2002). Development of a brief intervention for concerned significant others of problem gamblers. *Addictive Disorders & Their Treatment, 1*(4), 126-134.
Manuel, J. K., Austin, J. L., Miller, W. R., McCrady, B. S., Tonigan, J. S., Meyers, R. J., . . . Bogenschutz, M. P. (2012). Community reinforcement and family training: a pilot comparison of group and self-directed delivery. *Journal of Substance Abuse Treatment, 43*(1), 129-136.
Martire, L. M., Lustig, A. P., Schulz, R., Miller, G. E., & Helgeson, V. S. (2004). Is it beneficial to involve a family member? A meta-analysis of psychosocial interventions for chronic illness. *Health Psychology, 23*(6), 599.
Masaeli, N., Zarkob, H., Kheirabadi, G., Soleimani, N., & Amini, M. (2018). The effect of matrix model on depression, anxiety, and quality of life in methamphetamine users and their caregivers. *Addictive Disorders & Their Treatment, 17*(4), 186-190.
Melberg, H., Hakkarainen, P., Houborg, E., Jääskeläinen, M., Skretting, A., Ramstedt, M., & Rosenqvist, P. (2011). Measuring the harm of illicit drug use on friends and family. *Nordic Studies on Alcohol and Drugs, 28*(2), 105-121.
Merkouris, S. S., Hawker, C. O., Rodda, S. N., Youssef, G. J., & Dowling, N. A. (2020). GamblingLess: Curb Your Urge: Development and usability testing of a smartphone-delivered ecological momentary intervention for problem gambling. *International Gambling Studies*, 1-24.
Meyers, R. J., Miller, W. R., Hill, D. E., & Tonigan, J. S. (1998). Community reinforcement and family training (CRAFT): Engaging unmotivated drug users in treatment. *Journal of Substance Abuse, 10*(3), 291-308.
Meyers, R. J., Miller, W. R., Smith, J. E., & Tonigan, J. S. (2002). A randomized trial of two methods for engaging treatment-refusing drug users through concerned significant others. *Journal of Consulting and Clinical Psychology, 70*(5), 1182.
Meyers, R. J., & Wolfe, B. L. (1998). Community Reinforcement and Family Training for families of substance abusers. *The Counselor*, 24-29.
Miller, W. R., Meyers, R. J., & Tonigan, J. S. (1999). Engaging the unmotivated in treatment for alcohol problems: a comparison of three strategies for intervention through family members. *Journal of Consulting and Clinical Psychology, 67*(5), 688.
Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *Annals of Internal Medicine, 151*(4), 264-269.
Mohr, D. C., Spring, B., Freedland, K. E., Beckner, V., Arean, P., Hollon, S. D., . . . Kaplan, R. (2009). The selection and design of control conditions for

randomized controlled trials of psychological interventions. *Psychotherapy and Psychosomatics, 78*(5), 275-284.
Moos, R. H., Finney, J. W., & Cronkite, R. C. (1990). *Alcoholism treatment: Context, Process, and Outcome*: Oxford University Press.
Nayoski, N., & Hodgins, D. 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).
O'Farrell, T. J., & Fals-Stewart, W. (2003). Alcohol abuse. *Journal of Marital and Family Therapy, 29*(1), 121-146.
O'Farrell, T. J., & Clements, K. (2012). Review of outcome research on marital and family therapy in treatment for alcoholism. *Journal of Marital and Family Therapy, 38*(1), 122-144.
Orford, J., Cousins, J., Smith, N., & Bowden-Jones, H. (2017). Stress, strain, coping and social support for affected family members attending the National Problem Gambling Clinic, London. *International Gambling Studies, 17*(2), 259-275.
Orford, J., Templeton, L., Velleman, R., & Copello, A. (2005). Family members of relatives with alcohol, drug and gambling problems: a set of standardized questionnaires for assessing stress, coping and strain. *Addiction, 100*(11), 1611-1624.
Osilla, K. C., Pedersen, E. R., Gore, K., Trail, T., & Howard, S. S. (2014). Study design to develop and pilot-test a web intervention for partners of military service members with alcohol misuse. *Addiction Science & Clinical Practice, 9*(1), 18.
Osilla, K. C., Pedersen, E. R., Tolpadi, A., Howard, S. S., Phillips, J. L., & Gore, K. L. (2016). The feasibility of a web intervention for military and veteran spouses concerned about their partner's alcohol misuse. *The Journal of Behavioral Health Services & Research, 45*(1), 57-73.
Osilla, K. C., Trail, T. E., Pedersen, E. R., Gore, K. L., Tolpadi, A., & Rodriguez, L. M. (2018). Efficacy of a web-based intervention for concerned spouses of service members and veterans with alcohol misuse. *Journal of Marital and Family Therapy, 44*(2), 292-306.
Passa, I., & Giovazolias, T. (2015). Evaluation of a self-help group for parents of substance addicted offspring: a mixed methods approach. *Substance Use & Misuse, 50*(1), 32-39.
Petry, N. M. (2010). Pathological gambling and the DSM-V. *International Gambling Studies, 10*(2), 113-115.
Prochaska, J. O., & DiClemente, C. C. (1984). *The Transtheoretical Approach: Crossing Traditional Boundaries of Therapy*. Florida, USA: Krieger Publishing Company.
Rash, C. J., Weinstock, J., & Van Patten, R. (2016). A review of gambling disorder and substance use disorders. *Substance Abuse and Rehabilitation, 7*, 3.
Review Manager. (2014). Copenhagen: The Nordic Cochrane Centre, The Cochrane Collaboration.
Rodda, S. N., Dowling, N. A., Thomas, A. C., Bagot, K. L., & Lubman, D. I. (2019). Treatment for family members of people experiencing gambling problems: family members want both gambler-focused and family-focused options. *International Journal of Mental Health and Addiction*, 1-17.

Rodda, S. N., & Lubman, D. I. (2013). Characteristics of gamblers using a national online counselling service for problem gambling. *Journal of Gambling Studies*, 1-13.
Rodda, S. N., Lubman, D. I., Dowling, N. A., & McCann, T. V. (2013). Reasons for using web-based counselling among family and friends impacted by problem gambling. *Asian Journal of Gambling Issues and Public Health, 3*(1), 1.
Rodda, S. N., Merkouris, S. S., Abraham, C., Hodgins, D. C., Cowlishaw, S., & Dowling, N. A. (2018). Therapist-delivered and self-help interventions for gambling problems: A review of contents. *Journal of Behavioral Addictions, 7*(2), 211-226.
Rodriguez, L. M., Osilla, K. C., Trail, T. E., Gore, K. L., & Pedersen, E. R. (2018). Alcohol use among concerned partners of heavy drinking service members and veterans. *Journal of Marital and Family Therapy, 44*(2), 277-291.
Room, R., Babor, T., & Rehm, J. (2005). Alcohol and public health. *The lancet, 365*(9458), 519-530.
Roush, K. L., & DeBlassie, R. R. (1989). Structured group counseling for college students of alcoholic parents. *Journal of College Student Development*.
Rychtarik, R. G., & McGillicuddy, N. B. (1997). The spouse situation inventory: A role-play measure of coping skills in women with alcoholic partners. *Journal of Family Psychology, 11*(3), 289.
Rychtarik, R. G., & McGillicuddy, N. B. (2005). Coping skills training and 12-step facilitation for women whose partner has alcoholism: effects on depression, the partner's drinking, and partner physical violence. *Journal of Consulting and Clinical Psychology, 73*(2), 249.
Rychtarik, R. G., & 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.
Rychtarik, R. G., McGillicuddy, N. B., & Barrick, C. (2015). Web-based coping skills training for women whose partner has a drinking problem. *Psychology of Addictive Behaviors, 29*(1), 26.
Salonen, A. H., Castrén, S., Alho, H., & Lahti, T. (2014). Concerned significant others of people with gambling problems in Finland: a cross-sectional population study. *BMC Public Health, 14*(1), 398.
Shaffer, H. J., & Korn, D. A. (2002). Gambling and related mental disorders: a public health analysis. *Annual Review of Public Health, 23*, 171-212. doi: 10.1146/annurev.publhealth.23.100901.140532
Stanesby, O., Callinan, S., Graham, K., Wilson, I. M., Greenfield, T. K., Wilsnack, S. C., . . . Waleewong, O. (2018). Harm from Known Others' Drinking by Relationship Proximity to the Harmful Drinker and Gender: A Meta-Analysis Across 10 Countries. *Alcoholism: Clinical and Experimental Research, 42*(9), 1693-1703.
Sterne, J. A. C., Savović, J., Page, M. J., Elbers, R. G., Blencowe, N. S., Boutron, I., . . . Eldridge, S. M. (2019). RoB 2: a revised tool for assessing risk of bias in randomised trials. *BMJ, 366*.
Svensson, J., Romild, U., & Shepherdson, E. (2013). The concerned significant others of people with gambling problems in a national representative sample in Sweden–a 1 year follow-up study. *BMC Public Health, 13*(1), 1087.
Templeton, L., Velleman, R., & Russell, C. (2010). Psychological interventions with families of alcohol misusers: A systematic review. *Addiction Research & Theory, 18*(6), 616-648.

Templeton, L., Zohhadi, S. E., & Velleman, R. (2007). Working with family members in specialist drug and alcohol services: Findings from a feasibility study. *Drugs: Education, Prevention and Policy, 14*(2), 137-150.
Thomas, C., & Corcoran, J. (2001). Empirically based marital and family interventions for alcohol abuse: A review. *Research on Social Work Practice, 11*(5), 549-575.
Velleman, R., Arcidiacono, C., Procentese, F., Copello, A., & Sarnacchiaro, P. (2008). A 5-step intervention to help family members in Italy who live with substance misusers. *Journal of Mental Health, 17*(6), 643-655.
Velleman, R., Orford, J., Templeton, L., Copello, A., Patel, A., Moore, L., . . . Godfrey, C. (2011). 12-month follow-up after brief interventions in primary care for family members affected by the substance misuse problem of a close relative. *Addiction Research & Theory, 19*(4), 362-374.
Velleman, R., & Templeton, L. (2003). Alcohol, drugs and the family: results from a long-running research programme within the UK. *European Addiction Research, 9*(3), 103-112.
Volkow, N. D., Poznyak, V., Saxena, S., Gerra, G., & Network, U. W. I. I. S. (2017). Drug use disorders: impact of a public health rather than a criminal justice approach. *World Psychiatry, 16*(2), 213.
Walker, M., Toneatto, T., Potenza, M. N., Petry, N. M., Ladouceur, R., Hodgins, D. C., . . . Blaszczynski, A. (2006). A framework for reporting outcomes in problem gambling treatment research: The Banff, Alberta Consensus. *Addiction, 101*(4), 504-511.
Wareham, J. D., & Potenza, M. N. (2010). Pathological gambling and substance use disorders. *The American Journal of Drug and Alcohol Abuse, 36*(5), 242-247.
Wentzel, J., van der Vaart, R., Bohlmeijer, E. T., & van Gemert-Pijnen, J. E. W. C. (2016). Mixing online and face-to-face therapy: how to benefit from blended care in mental health care. *JMIR Mental Health, 3*(1), e9.
Wenzel, H. G., Øren, A., & Bakken, I. J. (2008). Gambling problems in the family–A stratified probability sample study of prevalence and reported consequences. *BMC Public Health, 8*(1), 412.
Yoshioka, M. R., Thomas, E. J., & Ager, R. D. (1992). Nagging and other drinking control efforts of spouses of uncooperative alcohol abusers: Assessment and modification. *Journal of Substance Abuse, 4*(3), 309-318.
Zetterlind, U., Berglund, M., & Åberg-Örbeck, K. (1996). A comparison of two techniques to reach relatives of alcoholics for information of available support. *Alcohol and Alcoholism, 31*(4), 359-363.
Zetterlind, U., Hansson, H., Åberg-Örbeck, K., & Berglund, M. (2001). Effects of coping skills training, group support, and information for spouses of alcoholics: a controlled randomized study. *Nordic Journal of Psychiatry, 55*(4), 257-262.