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Effective interventions for the treatment of gambling that is associated with harm: Rapid Evidence Review

Authors: Phoebe Weston-Stanley, Hannah Brearley-Bayliss, Imogen Martin, Dr Sokratis Dinos

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Contents

Glossary

Term	Definition
5-step method	A brief psychosocial intervention for significant others which provides support and develops coping skills through five steps. It can be delivered with individuals, couples, or in groups. The intervention is based on the Stress-Strain-Information-Coping-Support model (Orford et al., 2013).
12-Step Interventions	A self-help abstinence-based group programme which involves 12 consecutive activities or steps which make up the recovery process. The program focuses on acceptance, spirituality, and peer support. 12-Step interventions can have different focuses, such as alcohol, gambling, or other substances. Gamblers Anonymous is an example of a 12-Step Program (defined on page 9) (Donovan et al., 2013).
Academic literature	Papers published in academic journals.
Action and Coping Planning	An intervention which is based on defining actions towards goals and barriers to achieving these in order to create an action plan for implementation of strategies (Rodda et al., 2020).
Affected Others (AOs)	Those who are impacted by someone else's gambling (Gunstone and Gosschalk, 2020). The definitions of AOs and Concerned Significant Others (defined on page 7) are closely related and overlapping. In lieu of a consensus relating to this language, evidence has been presented using language consistent with authors' terms.
Aftercare	Support provided after an initial intervention or treatment programme which focuses on enabling people to sustain their recovery from gambling harms and providing longer-term support (APA, n.d.).
Alcohol Use Disorders Identification Test (AUDIT)	A measure of alcohol use which screens for consumption which is 'hazardous' and increases risk of alcohol-related problems (Bohn et al., 1995).
Art-based Treatment	Using or incorporating art and creativity within therapeutic interventions as a form of expression and to reduce distress (Mind, n.d.).
Assertiveness Training	Training with the aim of improving a person's expression and communication of their own thoughts, feelings, and needs to other people to increase interpersonal skills and self-confidence (Association for Behavioral and Cognitive Therapies, n.d.).
Assessment of Recovery Capital Scale (ARC)	A measurement of recovery capital (defined on page 13) which assesses 'recovery strengths' in a variety of areas such as psychological health, physical health, social support, housing and safety (Groshkova et al., 2013).

Attrition	Participants in a study lost from the sample, for example who discontinued the intervention and left treatment prior to receiving the recommended therapeutic dosage.
Aversion Therapy	A psychological intervention which aims to reduce certain behaviours by associating behaviours with an undesirable experience or outcome (APA, n.d.).
Beck's Anxiety Inventory (BAI)	A measure of the intensity of physical and cognitive symptoms of anxiety (Beck et al., 1988).
Beck's Depression Inventory (BDI)	A measure of a person's mood which assesses symptoms of depression, including cognitive and physical symptoms (Beck et al., 1961).
Behavioural Couples Therapy	A Couples Therapy that uses behavioural techniques. Behavioural Couples Therapy includes the individual seeking help and their partner and aims to reduce negative interactions and increase positive activities and behaviours, problem solve, improve communication, and promote acceptance and change (APA, n.d.).
Behavioural therapy (BT)	A psychological intervention with a focus on the environment and related learned responses to stimuli. The intervention aims to identify and modify behaviours which have negative impacts, and devise strategies which are focused on action to adapt response to triggers, cope with behavioural urges, and reinforce or strengthen alternate behavioural responses (APA, n.d.).
Boolean logic	A form of algebra where the values are either true or false compared to defined criteria, using operators such as 'and', 'or', and 'not' (Awati, 2022).
Brief Symptom Inventory (BSI)	A measure of psychopathological and psychological symptoms which evaluates a range of constructs relating to mental health, such as anxiety and depression. The BSI is a short version of the Symptom Checklist-90 (defined below on page 14) (Derogatis, 1993).
Brunnsviken Brief Quality of Life Scale (BBQ)	A measure of subjective quality of life in six areas: leisure time, view on life, creativity, learning, friends and friendship, and view of self (Lindner et al., 2016).
Canadian Problem Gambling Index (CPGI)	A measure which is used to screen for gambling and 'problem gambling' in the general population. Questions included in the CPGI are focused on involvement in gambling (e.g. gambling activity and behaviour), 'problem gambling' severity such as behavioural dependence and consequences from gambling, and correlates of 'problem gambling' such as beliefs about gambling (Ferris and Wynne, 2001). The CPGI includes the Problem Gambling Severity Index (PGSI) (defined on page 12) to measure 'problem gambling' severity. The CPGI results in four levels of risk depending on the score.
Clinically significant change / improvement	Clinically significant change or improvement is defined as change in a medical or therapeutic environment following intervention whereby symptoms or scores on outcome measures go from above to below the clinical threshold for

	diagnosis or meaningful presence of the symptom or behaviour of interest (Jacobson and Truax, 1992).
Clinical Outcomes in Routine Evaluation (CORE-10)	A measure of psychological distress in various aspects, including anxiety depression, trauma, physical problems, functioning, and risk to self (Evans et al., 2000).
Clinician-Administered PTSD Scale for Diagnostic Statistical Manual (Fifth Edition) (CAPS)	A measure of symptoms of Post Traumatic Stress Disorder (PTSD) according to the Diagnostic Statistical Manual, as well as the onset of symptoms, subjective distress, impact of symptoms on social and occupational functioning, improvement in symptoms, response validity, PTSD severity, and depersonalisation and derealisation (Weathers et al., 2013).
Cognitive Behavioural Therapy (CBT)	A psychotherapeutic intervention which focuses on patterns of thinking, feelings, and behaviours and their interactions. It is a common treatment for a range of mental health problems (APA, n.d.). As an intervention for gambling, CBT includes several components including addressing cognitive distortions (defined below) and attitudes and beliefs about gambling (such as belief in the influence of skill or knowledge on winning), identifying triggers (including emotional and environmental triggers) and behavioural responses to environmental stimuli, problem solving, and relapse prevention (defined below) (Cowlishaw et al., 2012).
Cognitive Bias Modification (CBM)	The prevention and reduction of the negative effects of cognitive biases. As an intervention, this uses a training task to cause implicit avoidance of stimuli related to gambling (Wittekind et al., 2019).
Cognitive distortions	Exaggerated, inaccurate, and / or irrational thoughts or patterns of thinking (APA, n.d.). The definition of cognitive distortions is closely related to that of erroneous cognitions (defined below) but used in the evidence to describe changes which were identified using different outcome measures without comparison to erroneous cognitions. Resultantly, the language used reflects that used by authors.
Cognitive Remediation Therapy (CRT)	A psychological therapy based on behaviour training to improve cognitive activities and processes (such as attention, memory, and executive function) (Qing et al., 2017).
Cognitive Therapy	A psychological intervention which aims to identify and address negative, distorted, and erroneous thought patterns. Cognitive Therapy provides information to contextualise errors in attitudes and beliefs, and restructures cognitions and cognitive processes (APA, n.d.).
Communication Training	Training which aims to improve verbal and nonverbal communication, active listening, and self-assertiveness (Tavakolizadeh et al., 2015).
Community Reinforcement Approach and Family Training (CRAFT)	An intervention which aims to improve understanding of addiction among CSOs, encourage treatment-seeking, and increase rates of engagement in treatment for individuals experiencing gambling problems. This involves several procedures, for example motivation building, functional analysis,

	contingency management training, and communication skills training (Hodgins et al., 2007).
Concerned Significant Other (CSO)	Term used in the literature to describe people who are affected by someone else's gambling, including (but not limited to) family members, partners, ex-partners, or friends (Salonen et al., 2014). The definitions of CSOs and Affected Others (defined above) are closely related and overlapping. In lieu of a consensus relating to this language, evidence has been presented using language consistent with authors' terms.
Congruence Couples Therapy (CCT)	An intervention for couples based on interpersonal and universal disconnections between member of the couple, which aims to help communication in congruent ways to solve problems (Lee et al., 2023).
Contingency Management	An intervention which is based on providing or withholding rewards and negative consequences in response to measurable behaviour (Petry, 2000).
Coopersmith Self-Esteem Inventory (CSEI)	A measurement of attitudes toward the self in a variety of areas, for example personal, social, family, and academic (Johnson et al., 1983).
Coping Self Efficacy Scale (CSES)	A measurement of a person's perceived ability to cope effectively with challenges (Chesney et al., 2006).
Counselling	A form of psychotherapy, focused on talking with a therapist about emotional issues and other problems, such as behaviours (APA, n.d.).
Couples Therapy	A talking therapy that focuses on problems within and between individuals that affect their relationship (APA, n.d.).
Diagnostic and Statistical Manual of Mental Disorders (DSM)	The manual of diagnostic criteria of mental disorders, of which there are five editions (see below for details of diagnostic criteria relating to gambling for the fourth and fifth edition). The DSM is used in the United States. In Europe, the International Classification of Diseases (ICD) is used, of which there are eleven revisions.
Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)	The fourth edition of the manual of diagnostic criteria for mental disorders. The DSM-IV is a tool for diagnosis of 'pathological gambling', which was classified as an 'impulse control disorder' (APA, 1994). The updated edition of the DSM (defined below) no longer uses 'pathological gambling' or the same categorisation.
Diagnostic and Statistical Manual of Mental Disorders (DSM-5)	The fifth edition of the manual of diagnostic criteria for mental disorders. The DSM-5 is used as a tool for diagnosis of gambling disorder, which is classified as a substance-related and addictive disorder (APA, 2013).
Diagnostic Interview for Gambling Severity (DIGS)	A diagnostic measure for 'Pathological Gambling'. The DIGS consists of twenty multiple-choice questions, two addressing each of the DSM-IV criteria (Winters et al., 2002).
Dialectical Behaviour Therapy (DBT)	A type of Cognitive Behavioural Therapy which supports emotional regulation and aims to change behaviours. The intervention aims to develop healthy

	ways to cope with stress, regulate emotions, and improve relationships with others (APA, n.d.).
Difficulties in Emotion Regulation Scale (DERS)	A measure of emotional regulation problems which assesses nonacceptance of emotional responses, difficulty in engaging in goal-directed behaviour, impulse control difficulties, lack of emotional awareness, access to emotional regulation strategies, and emotional clarity (Gratz and Roemer, 2004).
Drama-based Therapy	Use of drama and theatre processes to achieve therapeutic goals including gaining self-awareness and self-expression (APA, n.d.).
Dyadic Adjustment Scale (DAS)	A measure of an individual's perceptions of their relationship with a partner (Spanier, 1976).
Electronic Gambling Machines (EGMs)	An electronic, computerised machine or device used for gambling activities. An example of an EGM is a slot machine (Thomas et al., 2009).
Erroneous Cognitions	Thought processes which cause a person to perceive reality inaccurately, such as perceiving things to be exaggerated or irrational. In relation to gambling, examples of erroneous cognitions are illusions of control over the outcome of gambling activities and superstition (Awo et al., 2020). This definition is closely related to that of cognitive distortions (defined above) but used in the evidence to describe changes which were identified using different outcome measures without comparison to cognitive distortions. Resultantly, the language used reflects that used by authors.
Exercise Interventions	Interventions which include forms of exercise, including aerobic activities such as running (APA, n.d.).
Exposure Therapy (ET)	A psychological intervention which aims to gradually increase exposure to situations, activities, and triggers to reduce emotional reaction and craving or compulsion (APA, n.d.).
Eye Movement Desensitisation and Reprocessing (EMDR)	A psychological intervention which aims to aid processing of memories and past experiences which cause distress and affect mental health and wellbeing. EMDR involves side to side eye movements (causing bilateral stimulation in the brain) and talking therapy (Cuijpers et al., 2020).
Eysenck Impulsiveness Scale (EIS)	A measure of impulsivity, how adventurous a person is, and empathy, which is used to measure personality constructs in relation to impulsivity and risk (Eysenck and Eysenck, 1978).
Feedback Interventions	Brief self-help interventions (including Personalised Feedback and Personalised Normative Feedback) which aim to give information to people who gamble relating to their own and others' gambling activity (Derevensky, 2016).
GamAid	An intervention which provides online advice, guidance, and support for people who experience harm from their own gambling and Concerned Significant Others (CSOs) (Wood and Griffiths, 2007).

Gamblers Anonymous (GA)	A peer led program based on abstinence from gambling. Gamblers Anonymous is a type of 12-Step Program (defined on page 5). The program involves sharing experiences, problem solving, and peer support to solve common problems and help others. The only requirement for membership is a desire to stop gambling (Gamblers Anonymous, n.d.).
Gambler's Belief Questionnaire (GBQ)	A measure of gambling-related cognitive distortions, including those relating to illusion of control, luck, and perseverance. Higher scores on the measure indicate higher levels of cognitive distortions (Steenbergh et al., 2002).
Gamblers Inventory of Negative Consequences (GINC)	A measure of negative consequences of gambling during the previous three months, such as those affecting personal, emotional, and practical outcomes. It is adapted from another measure, the Drinker Inventory of Negative Consequences (Myrseth et al., 2008).
Gambling Abstinence Self-Efficacy Scale (GASS)	A measure of the degree to which an individual believes that they can abstain from gambling behaviour. The measure gives situations when people may gamble after abstaining and requires a rating of confidence in not gambling in that situation (Hodgins et al., 2004).
Gambling Attitudes and Beliefs Survey (GABS)	A measure of irrational beliefs and positive attitudes towards gambling, including sensation seeking or illusion of control, luck or gambler's fallacy, and attitudes or emotions (Bouju et al., 2014).
Gambling Craving Scale (GCS)	A measure of craving relating to gambling, specifically of anticipation of gambling, desire to gamble, and relief from negative affect (Young et al., 2009).
Gambling disorder	A term (also referred to as 'compulsive gambling') which has been used by medical professionals to describe gambling associated with harm as a condition. In the DSM-5, gambling disorder is described as 'Persistent and recurrent problematic gambling behaviour leading to clinically significant impairment or distress' (Center for Behavioral Health Statistics and Quality, 2016). Whilst this term and definition are used clinically and in health settings, it does carry stigma. The term 'gambling disorder' is used in the report to accurately reflect previous research.
Gambling Follow-up Scale, Self-Report version (GFS-SR)	A self-report version of the Gambling Follow-Up Scale (GFS), a measure which assesses 'recovering gamblers'. The scale assesses gambling frequency, time and money spent on gambling, gambling craving, debts, emotional distress, family relationships, autonomy, and frequency of and satisfaction with leisure activities (Galetti and Tavares, 2017).
Gambling harms	The preferred term within this research, 'gambling harms' refers to any adverse impacts from gambling on the health and wellbeing of individuals, families, communities, and society. This can include impacts on people's resources, relationships, and health (Gambling Commission, 2020).

Gambling intensity	In gambling research 'gambling intensity' generally refers to an individual's gambling frequency, duration, and expenditure across all types of gambling. Specific measures of gambling intensity vary within the literature.
Gambling Problems Index (GPI)	A measure of how many times during the previous six months a person has experienced a negative consequence while gambling or as a result of gambling (Neighbors et al., 2002).
Gambling Related Beliefs Inventory (GRBI)	A measure of beliefs about gambling, particularly erroneous beliefs, such as superstition and illusion of control (Smith and Giroux, 2019).
Gambling Related Cognitions Scale (GCRS)	A measure which identifies gambling related cognitions focused on illusion of control, gambling expectancies, inability to stop gambling, predictive control, and interpretive bias. This measure is designed to assess gambling, personal control, and motivations to gamble (Raylu and Oei, 2004).
Gambling Refusal Self-Efficacy Questionnaire (GRSEQ)	A measure of perceived self-efficacy in refusing to gamble in relation to situations associated with gambling, thoughts associated with gambling, the influence of substances on gambling, negative emotions associated with gambling, and positive emotions associated with gambling (Casey et al., 2008).
Gambling Self-Efficacy Questionnaire (GSEQ)	A measure which assesses an individual's perceived ability to control their gambling behaviour in a variety of situations. Different situations are rated based on confidence in controlling gambling behaviour. Control of gambling is based on limiting the amount of money and time spent gambling (May et al., 2003).
Gambling Symptom Assessment Scale (G-SAS)	A measure of gambling symptom severity. G-SAS measures gambling urges, frequency, duration, control, thoughts associated with gambling, time spent, anticipatory tension and / or excitement related to gambling, excitement and pleasure related to winning, emotional distress, and personal trouble caused by gambling (Kim et al., 2009).
Gambling Urge scale (GUS)	A measure based on the Alcohol Urge Questionnaire (AUQ). The GUS asks participants to indicate how much they agree or disagree with statements relating to urges to gamble (Smith et al., 2012).
Generalised Anxiety Disorder-7 (GAD-7)	A measure of the symptoms and severity of Generalised Anxiety Disorder, including physical and cognitive symptoms (Spitzer et al., 2006).
Grey literature	Literature which is not published in academic journals.
Helpline	A telephone service which offers help, support, and information.
Imaginal desensitisation	A relaxation-based technique which involves muscular relaxation and uses visualisation of situations which trigger behaviour and urges, and visualisation of leaving said situations whilst maintaining relaxation and without acting on urges (Blaszczynski and Nower, 2002).

Impaired Control Over Gambling (ICOG)	A measure of control relating to gambling, specifically the level of control over the desire to start playing and once the game has started (Kowalik et al., 2023).
Integrative Couples Therapy (ICT)	A therapeutic approach which is based on Behavioural Couples Therapy (defined on page 6) with a specific focus on acceptance. ICT is based on actions and emotional reactions to these (Christensen and Doss, 2017).
Inventory of Consequences of Gambling for the Gambler and CSO (ICS)	A measure of consequences of gambling for the person who gambles and Concerned Significant Others including negative emotional and behavioural consequences (Magnusson et al., 2019).
Kessler Psychological Distress Scale (K6 and K10)	A measure of psychological distress from symptoms, for example of anxiety and depression. This can be used as a six- (K6) or ten- (K10) item measure (Kessler et al., 2002).
Life Skills Training	Training to develop interpersonal and psychosocial skills (Youth Futures Foundation, 2023).
Metacognitive elements	Metacognitive elements include metacognitive knowledge and metacognitive regulation. The former is information that an individual is aware of which influences thought processes, and the latter is monitoring and adjustment of thought processes (Kessler et al., 2003).
Mindfulness-based Cognitive Therapy	A psychotherapeutic intervention based on Cognitive Behavioural Therapy which aims to increase awareness of, and relation to thoughts, feelings, and physical sensations (Williams et al., 2008).
Mindfulness Interventions	Interventions which aim to foster greater attention to and awareness of the present moment and focus on paying attention to bodily sensations, emotions, and thoughts (Creswell, 2017).
Montgomery–Åsberg Depression Rating Scale (MADRS)	A measure of the severity of symptoms of depression in adults, including emotional and physical symptoms (Montgomery and Åsberg, 1979).
Motivational Enhancement Therapy (MET)	An approach to therapy which focusses on improving an individual's internal motivation to change. It has most often been used for those experiencing drug or alcohol related harm (Miller et al., 1999).
Motivational Interventions	Interventions which aim to increase motivation to enact certain behaviours, involving empathy and aiming to improve self-efficacy (Foote, 2006).
Network Meta-Analysis	A method of analysing and comparing the effects of different interventions on a population. A meta-analysis allows treatment effects of an intervention from different studies to be combined and find an overall effect. A network meta-analysis allows the effects of multiple treatments evaluated in different studies to be compared (Chaimani et al., 2023).

Motivational Interviewing (MI)	A counselling approach designed to help people find the motivation to make a positive behaviour change, which is focused on goals and is person-centred (Bischof et al., 2021).
Node-link mapping	A counselling tool that helps clients and counsellors visualize relationships between ideas, actions, and feelings to understand causes and effects of behaviour and to solve problems (Pitre et al., 1997).
Obsessive Compulsive Drinking Scale (OCDS)	A measure of an individual's alcohol use and their attempts to control use. Questions in the measure are based on cognitions, behaviours, and emotional responses to alcohol use (Anton et al., 1996).
Pathological gambling	A disorder defined in the DSM-IV as 'persistent and recurrent maladaptive gambling behaviour that disrupts personal, family, or vocational pursuit'. In the DSM-IV, 'Pathological Gambling' was categorised as an impulse control disorder. In the DSM-5, this has been changed to 'Gambling Disorder' (defined on page 9) and reclassified as a substance-related and addictive disorder (Center for Behavioral Health Statistics and Quality, 2016).
Pathological Gambling Visual Analogue Scale	A self-rated five item 100mm visual analogue scale which measures urges, and control related to gambling (Gadermann et al., 2012).
Patient Health Questionnaire (PHQ-9)	A measure of depression symptoms which is reflective of the diagnostic criteria in the Diagnostic Statistical Manual, including cognitive, physical, and emotional symptoms (Kroenke et al., 2001).
Primary Care Evaluation of Mental Disorders (PRIME-MD)	A measure of symptoms and signs of common mental disorders, such as mood and anxiety disorders, alcohol use, physical symptoms in relation to psychological distress, and eating disorders (Spitzer et al., 1994).
Problem and Pathological Gambling measure (PPGM)	A measure of gambling problem severity which is an assessment of gambling-related harms, impaired control, and addiction symptoms over a 12-month timeframe (Williams and Volberg, 2010).
Problem gambling	Gambling which leads to negative consequences and a possible loss of control. It is widely used in relation to the Problem Gambling Severity Index (PGSI) (defined below) where a score of eight plus is equated to 'problem gambling' (Ipsos UK, 2023). A public health approach to gambling harms has moved away from this conceptualisation (which is considered stigmatising).
Problem Gambling Severity Index (PGSI)	A measure of the severity of gambling problems, including gambling behaviour and the financial, social, and health consequences of gambling. PGSI scores provide a classification of risk associated with gambling. The measure is also included as part of the CPGI (defined on page 6). The PGSI is a validated screening tool which is also widely used to measure the number of people experiencing 'gambling problems'. In the UK, the PGSI is used in the Health Survey for England, Scottish Health Survey, and the Welsh Problem Gambling Survey (Ipsos UK, 2023).

Progressive Muscle Relaxation	Ordered relaxation of muscle groups with the aim of becoming aware of tension and achieving relaxation (APA, n.d.).
Psychodynamic Therapy	A therapeutic approach that combines parts of many different types of analytic therapies. It focuses on unconscious processes (such as motivation) as they are manifested in behaviour and aims to increase self-awareness to facilitate change and development (APA, n.d.).
Psychoeducation	An intervention which provides information for people and their families to increase knowledge and understanding of presenting problems or diagnoses and to increase coping (Sarkhel et al., 2020).
Psychological intervention	Interventions to bring about change in people with a range of targets and goals. Psychological interventions include clinical and therapeutic techniques (NICE, 2023c).
Psychosocial intervention	Interventions which bring about change in psychological, social, biological, and functional outcomes. These can include psychological interventions, in addition to skills-based inventions and peer support (NICE, 2023c).
Randomised Control Trial (RCT)	A study which is used to test the impact of exposure to an intervention by comparing two or more groups which participants are randomly assigned to (NICE, n.d.).
Recovery Capital	The internal and external resources that individuals can draw upon to initiate and sustain processes of addiction recovery, which can be accumulated or exhausted over time. Recovery Capital is relevant to all stages of recovery (Best and Hennessy, 2022).
Recovery Coaching	An intervention which uses a strength-based approach for people who experience addiction. The aim of Recovery Coaching is to provide support and assistance, educate, and support individuals to encourage long-term recovery (Bora et al., 2010).
Reinforcement-based approach	A cause-and-effect approach which can be used in psychological interventions, and bases behaviour change on the outcomes and consequences which follow. For example, following a desired behaviour with something pleasurable (Vlaev and Dolan, 2015).
Relapse Prevention	A psychological intervention, or aspect of an intervention, which teaches skills prior to the end of treatment, for example to identify situations or triggers which may increase risk of relapse or recurrence of behaviours (including internal experiences like thoughts and emotions and external experiences like physical cues) and develops strategies to effectively cope with these (APA, n.d.).
Relationship Assessment Scale (RAS-G)	A measure of satisfaction within a relationship in terms of satisfaction of needs, expectations, and love (Kanth et al., 2024).
Relaxation Interventions	Interventions to reduce muscle tension and stress, such as breathing techniques, muscular relaxation, and meditation (APA, n.d.).

Residential Treatment	Staying in a residential accommodation whilst accessing other therapeutic interventions and support (APA, n.d.).
Rosenberg Self-Esteem Scale (RSES)	A measure of self-esteem, negative attitudes towards the self, and evaluation of thoughts and feelings in relation to oneself (Gnambs et al., 2018).
Self-efficacy	An individual's belief in their capacity to act in the ways necessary to reach specific goals (APA, n.d.). In gambling studies, self-efficacy has been defined mainly as an individual's 'ability to avoid gambling'. This has been measured using scales such as the Gambling Self-Efficacy Questionnaire (GSEQ), the Gambling Abstinence Self-Efficacy Scale (GASS) and the Coping Self Efficacy Scale (CSES) (defined above).
Self-help interventions	Psychological interventions that are self-directed which an individual can do in their own time (NHS, 2022). These can be professionally developed self-help programs which can be delivered in a variety of formats, such as online programs and workbooks, and self-help groups, such as Gamblers Anonymous (defined on page 9). Self-help strategies are actions that individuals can take independently, for example, to help regulate their own gambling.
Short Gambling Harms Screen (SGHS)	A measure of domains of impact of gambling, including for financial, health, relationships, psychological, social deviance, and work / study harms. This is a shortened version of a longer 'harms checklist' (Browne et al., 2022).
Short Questionnaire for Family Members Affected by Addiction measure (SQFM-AA)	A measure of the impact of gambling on Concerned Significant Others including stressful impact, symptoms of ill health, ways of coping, social support, and overall burden of gambling (Orford et al., 2017).
South Oaks Gambling Screen (SOGS)	A measure of 'pathological gambling' developed in the 1980s which is based on DSM-III criteria. The screen is a 20-item questionnaire which may be self-administered or administered by interviewers (Lesieur et al., 1987).
Stages of Change	Stages of behavioural change specifically: precontemplation (not thinking about changing behaviour); contemplation (considering changing behaviour); preparation (occasionally changing behaviour); action (practicing the behaviour on a regular basis resulting in benefits); and maintenance (continuing the behaviour). These are based on factors such as motivation and readiness (APA, n.d.).
State-Trait Anxiety Inventory (STAI)	A measure of symptoms of anxiety, specifically state anxiety symptoms (a transitory emotional state) and trait anxiety symptoms (a characteristic and personality trait) (Zsido et al., 2020).
Statistical significance	The probability that any change in the dependent variable(s) is due to change in the independent variable(s), rather than to chance. The typically accepted value for this is 0.05 (which means that the probability that the outcome is due to chance is less than 5%), although some authors define this by smaller values.

Stigma	The disapproval of, or discrimination against, an individual or group based on perceived characteristics.
Structured Clinical Interview for Pathological Gambling (SCI-PG)	A clinician-administered structured diagnostic interview which has been used as an assessment procedure in gambling research (Grant et al., 2004).
Symptom Checklist–90–Revised (SCL-90-R)	A measure of psychopathological and psychological symptoms which evaluates a range of constructs relating to mental health, such as (but not limited to) depression and anxiety. The BSI (defined above) is a short version of the SCL-90-R and measures the same constructs (Maruish, 2004).
The Centre for Epidemiologic Studies-Depression Scale (CES-D)	A measure of symptoms of depression including mood, behaviours, physical symptoms, and interactions with other people (Radloff et al., 1977).
The National Opinion Research Center DSM Screen for Gambling Problems (NODS)	A measure based on the DSM-IV. It is a telephone-screening tool that identifies 'gambling problems' as defined by the DSM-IV. It includes 34 items that yield a total score ranging from zero to ten (Brazeau and Hodgins, 2022).
Victorian Gambling Screen (VGS)	A measure of 'pathological gambling'. It consists of 21 items across three scales: Enjoyment of Gambling (EG), Harm to Partner (HP) and Harm to Self (HS) (Tolchard and Battersby, 2010).
Work and Social Adjustment Scale (WSAS)	A measure of 'impairment in functioning', which is used widely in a number of clinical settings including for gambling. The areas assessed by the WSAS are work / study, home management, social leisure, private leisure, and relationships (Mundt et al., 2002).
Yale-Brown Obsessive Compulsive Scale for 'Pathological Gambling' (PG–YBOCS)	A measure of the severity and change in severity of 'pathological gambling' symptoms. The PG-YBOCS is a ten-item clinician-administered questionnaire that measures the severity of pathological gambling over a recent time interval (Pallanti et al., 2005).

Executive Summary

This report presents findings of an evidence review funded by GambleAware to build knowledge around the effectiveness of psychological and psychosocial interventions for the treatment and reduction of gambling that is associated with harm. Gambling harms are the adverse impacts from gambling on the health and wellbeing of individuals, families, communities, and society (Gambling Commission, 2020). This research aimed to assess recent evidence about the effectiveness of psychological and psychosocial interventions, published since a similar review was conducted in 2020 (GREO, 2020). This included evidence on specific groups (including women, young adults, older adults, people with disabilities and those from marginalised and minoritised communities). It also aimed to assess enablers, barriers, and challenges to interventions, and consider if wider factors related to individuals (such as co-occurring conditions) were relevant to their effectiveness. Additionally, it aimed to assess limitations and gaps in the recent evidence base.

Summary of findings

This review has drawn on a Rapid Evidence Assessment (REA) approach to summarise key relevant literature published between 2020 and 2024. The review included both grey and academic literature. Evidence which was included focused on a range of treatment and support interventions including widely used psychological approaches such as Cognitive Behavioural Therapy (CBT) and Motivational Interventions, peer-led group programmes such as 12-Step Programmes, and Residential Treatment. This review also examined evidence on joint interventions with Concerned Significant Others (CSOs) or Affected Others (AOs) and interventions solely focused on CSOs and AOs.

Evidence of effectiveness

Effectiveness terminology

- **Strong evidence**: Multiple sources of evidence identified, including systematic reviews, which support effectiveness with no conflicting outcomes;
- **Moderate evidence**: Multiple sources of evidence identified which support effectiveness with no conflicting outcomes;
- **Mixed evidence**: Multiple sources of evidence identified with conflicting evidence about effectiveness;
- **Limited evidence**: Multiple sources of evidence which show ineffectiveness;
- **Not sufficient evidence**: Limited robust sources available (such as exploratory studies);
- **No evidence identified**: No evidence identified by this review.

- Most of the evidence identified focused on **measures related to gambling, including behavioural measures** (such as measures of 'problem gambling' using the Problem Gambling Severity Index (PGSI), gambling participation, or money spent), rather than broader measures of harm (mental health and wellbeing harm, financial harm, relationship harm). Where quantitative evidence was identified, it was also largely focused on short-term outcomes (mostly an assessment of outcomes pre- and post-treatment) rather than assessing long-term outcomes.
- As has been identified by previous reviews, there was more evidence available to assess the effectiveness of CBT compared to other intervention types and **robust evidence** on the effectiveness of CBT was found. There was strong evidence that CBT significantly and positively impacted several outcome measures including those measures relating to gambling including behavioural measures, as well as other relevant

outcomes including psychological factors. The largest volume of evidence to support CBT was for its effect in the short-term, however there was evidence for longer-term effects up to a period of three years.

- There was also **moderate evidence** to support the effectiveness of other types of psychological and psychosocial interventions for outcomes related to gambling harm. These included Motivational Interventions, Behavioural Therapy (specifically Exposure Therapy), and Joint Interventions with CSOs or AOs.
- There was **mixed evidence** to support the effectiveness of Feedback Interventions, Residential Treatment, 12-Step Interventions, and Cognitive Therapy. For these interventions lots of the evidence base focused on behavioural measures related to gambling rather than gambling harm or was primarily qualitative.
- There was **limited or not sufficient evidence** to make an assessment on the effectiveness of the following psychological and psychosocial interventions: Eye Movement Desensitisation and Reprocessing (EMDR), Exercise Interventions, Counselling, Action and Coping Planning, Psychodynamic Therapy, Art-based treatment programmes, Relaxation based interventions, Helplines, and interventions solely for CSOs or AOs.

Across intervention types, there was some evidence pointing to the effectiveness of interventions among specific groups (e.g. women or young people) but studies rarely compared findings to the general population, and it is therefore difficult to make conclusions as to whether certain interventions are effective for certain population groups. In general, the literature suggested that the type of intervention and the specific approach (e.g. online or face-to-face) should be informed by individual needs and preferences.

Barriers and enablers to the effectiveness of interventions

Several studies explored the impact of the same intervention in multiple modalities (e.g. CBT delivered remotely or in-person). In general, there was no evidence identified to suggest that a certain mode of delivery was more effective for a particular group, although there was evidence from an individual qualitative study where those who had taken part in peer programmes highlighted that many felt it was valuable to meet others with similar experiences in-person (rather than online). Qualitative research also emphasised that the composition of the peer group could be both a barrier and an enabler to effectiveness, with women and those from minority ethnic groups highlighting that in some cases, a lack of gender or ethnic diversity could make them feel less comfortable sharing their experiences and increase the risk of experiencing stigma (Brown et al., 2023; Riley, 2023).

This review also identified some evidence that combining interventions may increase effectiveness. For example, there was evidence that combining Motivational Interventions with other types of intervention such as CBT may increase effectiveness (GREO, 2020), and evidence that Feedback Interventions paired with Motivational Interventions were more effective than Feedback Interventions alone (Fiskaali et al., 2022). However, further research is required to make robust conclusions about the potential utility of combining interventions, including when this would be appropriate and who this would be effective for.

Recommendations for service and healthcare providers

- **Offer gambling-specific interventions that have evidence of effectiveness and are in line with individual needs and preferences** – interventions should be delivered in line with guidance and the quality of delivery should be assessed on an ongoing basis (Milic et al., 2023). Although CBT is the intervention type with most evidence available to suggest its effectiveness for treating harm related to gambling, there is emerging evidence from individual UK studies of challenges with CBT. For example, authors have reported

participants feeling judged during CBT treatment and arguing that the design and delivery of treatment provision often lacked lived experience input (Penfold and Ogden, 2022).

- **Ensure that a variety of methods (including online, in-person and self-help approaches) are available for delivering interventions** – evidence shows that various modes of delivery are effective, reflecting that choices about delivery can often be based on individual need and preference. However, in some cases (such as with peer support approaches) it may be beneficial to provide face-to-face delivery to aid effectiveness and to allow participants to fully engage with one another, if this is desired (Riley, 2023).

- **Consider wider social factors which will influence both how gambling harms are experienced, and treatment outcomes** – this includes stigma and discrimination related to gender, ethnicity, or socio-economic status. Approaches such as CBT, group therapy, Motivational Interventions, and interventions involving CSOs may have the potential to approach gambling harms support holistically. Such holistic approaches offer the opportunity to reflect both the wider social and political factors which can cause and influence harm and centre individual lived experience. In some cases, targeted support for some groups is likely to be required, such as the provision of women's peer support groups or interventions targeted at younger or older adults, or those from minority ethnic backgrounds.

- **Offer alternative interventions to CBT (either on their own or in combination with CBT)** - there is emerging evidence that interventions such as helplines can support pathways to treatment (GREO, 2020), Motivational Interventions can encourage people to start and continue attending treatment and play a key role in initiating change (GREO, 2020; Hakansson et al., 2024), and interventions involving CSOs / AOs may have positive impacts on family relationships and adherence to other treatment (Edgren et al., 2022; Higueruela-Ahijado et al. 2023).

- **Offer aftercare following interventions to extend support for gambling-related harms** – this should focus on addressing legacy harms such as debt and employment, and re-integration into communities, particularly after residential treatment (Spielhofer et al., 2023).

- **Consider using peer-based approaches within service and healthcare delivery** – involving those who use services in the design and delivery of interventions can ensure that needs for specific groups can be met, and that delivery approaches are appropriate (Dinos et al., 2020, Penfold and Ogden, 2023).

- **Address the complex needs of Concerned Significant Others (CSOs) or Affected Others (AOs) who are also experiencing gambling harm** – there is emerging evidence pointing to the effectiveness of joint interventions with those with experience of gambling and CSOs / AOs. Separate interventions only with CSOs or AOs have also been trialled, although evidence on their effectiveness for gambling harms is mixed.

- **Ensure that there are established links with mental health, alcohol and drugs services or in-house expertise** - this is key to providing timely, comprehensive, and coordinated services for people experiencing gambling harms alongside other health challenges and can avoid the need for multiple appointments with different services (NICE, 2023a).

Evidence gaps and recommendations for future research

Despite this review identifying a wealth of evidence on psychological and psychosocial interventions, there are several key evidence gaps which require further exploration:

- **There is a need for quantitative and qualitative evaluation studies examining interventions in the context of Great Britain**, including with a diverse range of communities and in a range of settings. Research should reflect the current landscape of healthcare provision and support and fill evidence gaps for commonly accessed services in Great Britain (e.g. telephone helplines, self-help methods, brief screening tools, and peer support for AOs such as Gam-Anon) (Gosschalk et al., 2022). There is also a need to build on the existing evidence base for CBT and explore the acceptability of CBT for varied populations and extent to which the intervention is aligned with peoples' individual preferences and expectations. Where feasible, evaluation studies should include a follow-up period (e.g. six-months following treatment, two years following treatment) to understand the long-term effect on the reduction of gambling harm and specific aftercare needs. Sub-group analysis could explore the role of broader factors such as types of gambling, length of time gambling, employment, education, household composition, and individual choice in treatment approach, on treatment outcomes.

- Future studies should also explore the potential utility of **combined interventions** (or combining elements of approaches) to assess whether such approaches may be beneficial and their long-term impact.

- Quantitative evaluation work should be combined with **qualitative work with those experiencing gambling harm and practitioners** (e.g. depth interviews, ethnographic approaches) to understand how different groups experience interventions, including barriers and enablers to effectiveness and how services should be adapted to meet diverse needs. This research will need to take an inclusive approach, ideally involving people with lived experience at all stages of the research (e.g. through lived experience panels or peer researchers) to help tailor data collection approaches and presentation of findings.

- Despite a growing focus on a public health model for gambling (emphasising the importance of harm reduction across resources, relationships, and health, both for those who gamble, CSOs / AOs, and their wider community), research on effective interventions continues to predominantly focus on treatment for, and outcomes related to, gambling disorder or 'problem gambling'. Consequently, available data does not always allow assessment of interventions against a range of types of harm. There is an opportunity for future evaluation studies about psychological and psychosocial interventions to include newer **gambling harms measurement tools** such as the Short Gambling Harms Screen (SGHS) or the gambling harms questions which are being deployed in the upcoming Gambling Survey for Great Britain (Close et al., 2023). This would allow more robust measurement of gambling harm and allow researchers to explore outcomes related to types of harm (e.g. financial versus social harm). This will be essential for making a **full and more holistic assessment** of the effectiveness of psychological and psychosocial interventions for the treatment of gambling associated with harm.

- Future studies should **explore the role of recovery capital** in the effectiveness of psychological and psychosocial interventions addressing harm related to gambling. This could involve the use of scales such as a modified version of the Assessment of Recovery Capital scale (Groshkova et al., 2013), used by Gavriel-Fried (2018) to explore gambling disorder.

1. Introduction

1.1 Background to the research

This report presents findings of an evidence review funded by GambleAware to build knowledge around the effectiveness of psychological and psychosocial interventions for the treatment and reduction of gambling that is associated with harm. Gambling harms are the adverse impacts of gambling on the health and wellbeing of individuals, families, communities, and society. These harms impact people's resources, relationships, and health and can be experienced by people who gamble, those who are connected to them (including family, friends, and employers), and communities and society more broadly (Gambling Commission, 2020).

Therapeutic interventions offer effective options in the treatment of gambling associated with harm (Eriksen et al., 2023; GREO, 2020). In Great Britain, treatment and support is provided in the community by the National Health Service (NHS) and the third sector, with residential support offered by the latter. Treatment is available for both people who are harmed by their own gambling and those affected by somebody else's gambling, often referred to as Concerned Significant Others (CSOs) or Affected Others (AOs) (Office for Health Improvement and Disparities, 2024).

Cognitive Behavioural Therapy (CBT) has been extensively researched in a number of contexts, including in the treatment of gambling disorder and related harms (GREO, 2020), and as such, there is a large evidence base which attests to its effectiveness in this context (Higueruela-Ahijado et al., 2022; Ribeiro et al., 2021; Sagoe et al., 2021). There is some further evidence that alternative interventions (such as Exposure Therapy and Motivational Interventions) and brief interventions (such as Personalised Feedback) also offer effective support and reduce gambling disorder and related harms (Ribeiro et al., 2021). Furthermore, recently emerging modalities and therapeutic techniques, such as Node-Link Mapping, CBT incorporating Virtual Reality, Psychodynamic Therapy, and Cognitive Remediation Interventions, have been tested among small, limited samples (GREO, 2020; Ribeiro et al., 2021).

There are a number of potential gaps in the existing evidence base, including:

- A lack of detailed review of causal factors for both barriers to access support, and subsequent attrition;
- Long-term post-treatment follow-up of intervention outcomes; and
- Limited inclusion and discussion of what works for certain populations, such as those from marginalised and minoritised communities.

The aim of this research was to draw together the evidence, particularly from Great Britain (or other OECD (The Organization for Economic Cooperation and Development) countries where evidence in Great Britain is scarce), on the effectiveness of psychological and psychosocial interventions for the treatment of gambling associated with harm, to critically appraise, and to identify gaps and limitations in the evidence base. This research aimed to assess evidence published since a similar review was conducted in 2020 (GREO, 2020). As part of the evidence review and critical appraisal, we have identified recommendations for further research and provided actionable insights to service and healthcare providers.

1.2 Research aims

The research aimed to address the following research questions:

1. What is the evidence for the short- and longer-term effectiveness of psychological and psychosocial intervention approaches (including CBT) used in the treatment of gambling associated with harm among the general population and specific population groups (including women, young adults, older adults, people with disabilities, and those from marginalised and minoritised communities)?
2. What (if any) critical enablers, barriers, and challenges are there to effective intervention approaches (e.g. mode of delivery, sequential or combination interventions, flexibility, and accessibility)?
3. What other factors (if any) relating to the individuals receiving the intervention(s) are relevant to their effectiveness including: comorbidities or co-occurring conditions (e.g. anxiety, depression, PTSD, alcohol or other drug use disorders, etc) and recovery capital?
4. What are the limitations and gaps in the existing recent evidence base (2020-2024) relating to psychological and psychosocial intervention approaches (including CBT) and the other relevant factors explored at research questions two and three, including to what extent stigmatising or problematic language is used in the evidence?
5. What implications are there in the evidence (and its gaps and limitations) for researchers, service and healthcare providers, and policymakers and what recommendations can be made to GambleAware about how existing evidence should be communicated and distilled for these stakeholders, and whether and how further primary research should be undertaken?

1.3 Terminology and conceptualisation

Although the aim of the present research was to gather evidence on the effectiveness of treatment and support for gambling associated with harm, there was little evidence on interventions to address harm specifically, and evidence typically focused on treatment for gambling disorder or 'problem gambling' based on clinical measures such as the Problem Gambling Severity Index (PGSI) or diagnostic criteria according to the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM-5). These measures assess aspects of harm caused by gambling (e.g. PGSI scoring captures health and financial challenges resulting from gambling). It is important to note the limitations of some of the measures of gambling used in the included studies, such as PGSI, the South Oaks Gambling Screen (SOGS) and the Clinical Outcomes in Routine Evaluation 10 (CORE-10), for reflecting clinically significant improvements. For example, there has been criticism of using PGSI as a tool to measure clinical outcomes as it was not designed for this purpose. However, it should also be noted that many interventions were not designed to address gambling harm (and rather gambling disorder or 'problem gambling') and therefore the use of PGSI or SOGS should be understood in this context. We have used the broader category of gambling harms, but this nuance will be reflected throughout the report when findings are presented.

We will discuss findings using the language in which they were reported to ensure that previous research is accurately represented and to provide context on the measurement of gambling harms and theoretical approaches. However, we acknowledge that in many contexts, including language used as part of outcome measures, these terms have been used in a way which is disempowering for people experiencing gambling harm, pathologising, and can reinforce stigma (Pliakas et al., 2022).

As previously referred to, the focus of this report was understanding psychological and psychosocial interventions for gambling associated with harm and their effectiveness. The term 'psychological and psychosocial interventions' is broad and for the purpose of this review, has been interpreted as treatments to reduce harm which is associated with gambling by facilitating change towards psychological, social, and functional outcomes. As such, the review has included formal, structured, and professionally developed and

delivered psychotherapeutic interventions, and less formal interventions such as peer support and exercise, with the aim of understanding and encapsulating the breadth of support options and their effectiveness. Please see Appendix 3 for full inclusion and exclusion criteria.

Furthermore, evidence from different sources used varied language and definitions for interventions, outcome measures, and interpretations of findings. As such, whilst we recognise authors' own representation of the data, we have attempted to meaningfully make groupings in order to ease comprehension and interpretation of the findings, although the individual outcome measures have, where possible from the evidence available, also been explicitly cited. Measures employed in the identified evidence were highly heterogeneous both in terms of validated tools and their descriptions. We therefore grouped outcomes by the following:

- 'Measures related to gambling' referred to outcomes which directly measured factors associated with gambling, including gambling behaviours (such as time and money spent gambling), symptoms of gambling disorder, and consequences of gambling. These included validated tools such as the Problem Gambling Severity Index (PGSI) and South Oaks Gambling Screen (SOGS); and
- 'Other relevant outcomes' which included a broad range of different outcomes which were assessed in relation to the outcomes of interventions for gambling associated with harm. Examples of these measures were psychological factors (such as depression, anxiety, and distress), perception of control, and substance use. Although the interventions cited are not designed to treat or directly target these outcomes, there was evidence that some of the included psychological and psychosocial interventions had positive impacts in these areas and as such, these findings have been detailed throughout.

Where measures were described using different language but identified the same or very similar outcome (largely for behavioural measures related to gambling) these were grouped for ease (such as money spent gambling and expenditure).

Similarly, there was no agreed definition for short- and long-term outcomes, and whilst we recognise that this is because there is no 'correct' way to define this, in order to understand the data from the perspective of our research aims, these have been classified as:

- **Short-term effectiveness**: data related to outcome measures which were collected immediately or soon after an intervention was delivered. For the purposes of this report, short-term findings refer to those collected up to three months after the intervention was delivered;
- **Long-term effectiveness**: data collected at follow-up. While typically defined as 6+ months after the intervention was delivered in the included papers, follow-up times varied across the evidence. For the purposes of this report, long-term findings refer to those collected three months or more after the intervention was delivered, and the specific length of time has been provided throughout.

The effect of interventions was measured in different ways in the literature. The effect of some outcomes and interventions were measured based on if changes were statistically significant, which refers to the probability that any change in the data is due to the intervention, rather than to chance. The typically accepted value for this is 0.05 (which means that the probability that the outcome is due to chance is less than 5%), although some authors define this by smaller values. For other evidence, the effect was measured by clinical significance, which is defined as change in a medical or therapeutic environment following intervention whereby symptoms or scores on outcome measures go from above to below the clinical threshold of diagnosis or meaningful presence of the symptom or behaviour of interest.

Finally, methodologies varied between papers included in the review, employing a mix of quantitative, qualitative, or mixed methods design. Throughout the report we have highlighted where findings come from Randomised Control Trial (RCT) data (considered the most robust form of impact assessment) and highlighted where concerns about methodologies used may impact the validity of some findings.

1.4 Report structure

This report is divided into the following sections:

Chapter 2 details the methodology for the evidence review;

Chapter 3 discusses evidence related to interventions for people who experience gambling harm, including effectiveness, barriers and facilitators to implementation, and gaps in evidence;

Chapter 4 discusses evidence related to interventions for concerned significant and affected others, including effectiveness, barriers and facilitators to implementation, and gaps in evidence;

Chapter 5 provides a summary of findings and a discussion of their implications for service and healthcare providers as well as detailing gaps in evidence and recommendations for future research.

Throughout the report, the findings for different interventions (Chapters 3 and 4) have been ordered broadly according to the volume of evidence that was identified.

2. Methodology

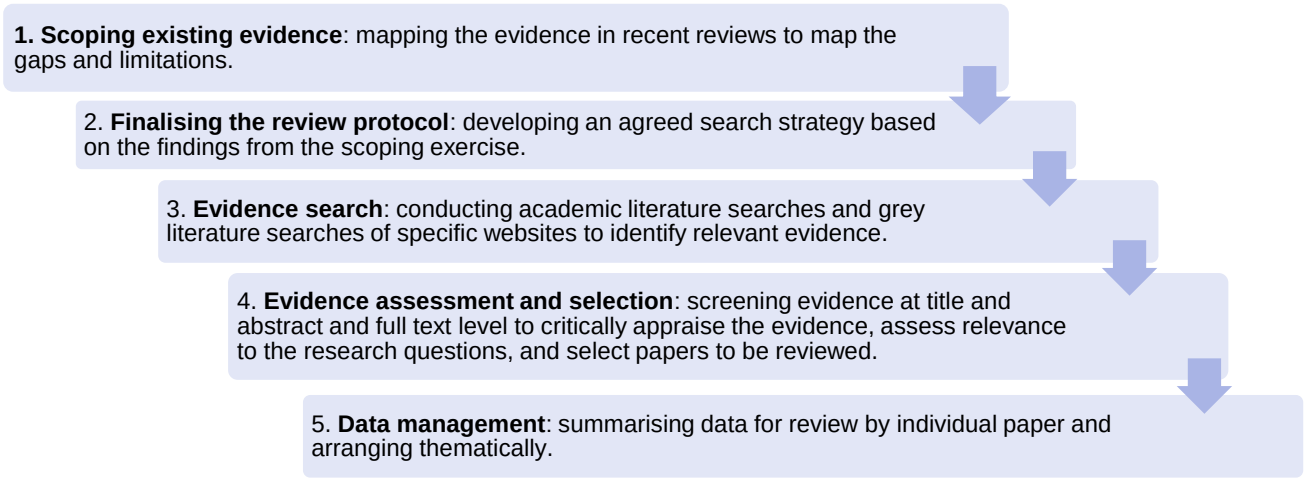
2.1 Overview of the methodology

This research took a phased approach to meet the research aims:

- **Phase one**: a scoping phase to map both existing evidence published in evidence reviews and remaining gaps to inform a further search strategy for Phase two.
- **Phase two**: to identify further evidence to answer the research questions focusing on gaps identified in existing reviews during Phase one.
- **Phase three**: summarising evidence from Phases one and two, analysing results and reporting these thematically.

Our method for identifying and analysing relevant evidence has drawn on a Rapid Evidence Assessment (REA) approach to enable efficient data collation, review, synthesis, and appraisal. A REA "is a tool for getting on top of the available research evidence on a policy issue, as comprehensively as possible, within the constraints of a given timetable" (GSR and EPPI Centre, 2008). REAs sit between literature reviews and systematic reviews: they aim to follow rigorous and explicit methods for searching, screening, assessing, and synthesising evidence, whilst making informed compromises on aspects of the systematic review process to deliver findings quickly.

Figure 1: Staged approach to the research



2.2 Evidence identification

The research took different approaches to identify evidence from academic papers versus grey literature across all stages. The search strategies for Phase one and Phase two were developed in consultation with GambleAware and an external search expert. This included developing, testing, and refining search strings.

Academic literature was located by searching academic databases *Scopus* and *PsychInfo*. Search terms for Phase one and Phase two were developed into strings (see Appendix 1) using Boolean logic (AND, OR) and in relation to the inclusion and exclusion criteria (set out in Appendix 3). Key inclusion criteria were relevance to the research questions (including intervention type and focus of the research), date of publication, and evidence being from Great Britain or comparable policy contexts (OECD (Organisation for Economic Co-operation and Development) countries). Search strings were piloted in both *Scopus* and *PsychInfo* before being finalised. The

results from the databases were then merged and duplicates were removed. The search strings for Phase two were altered to reflect the focus on gaps identified in Phase one.

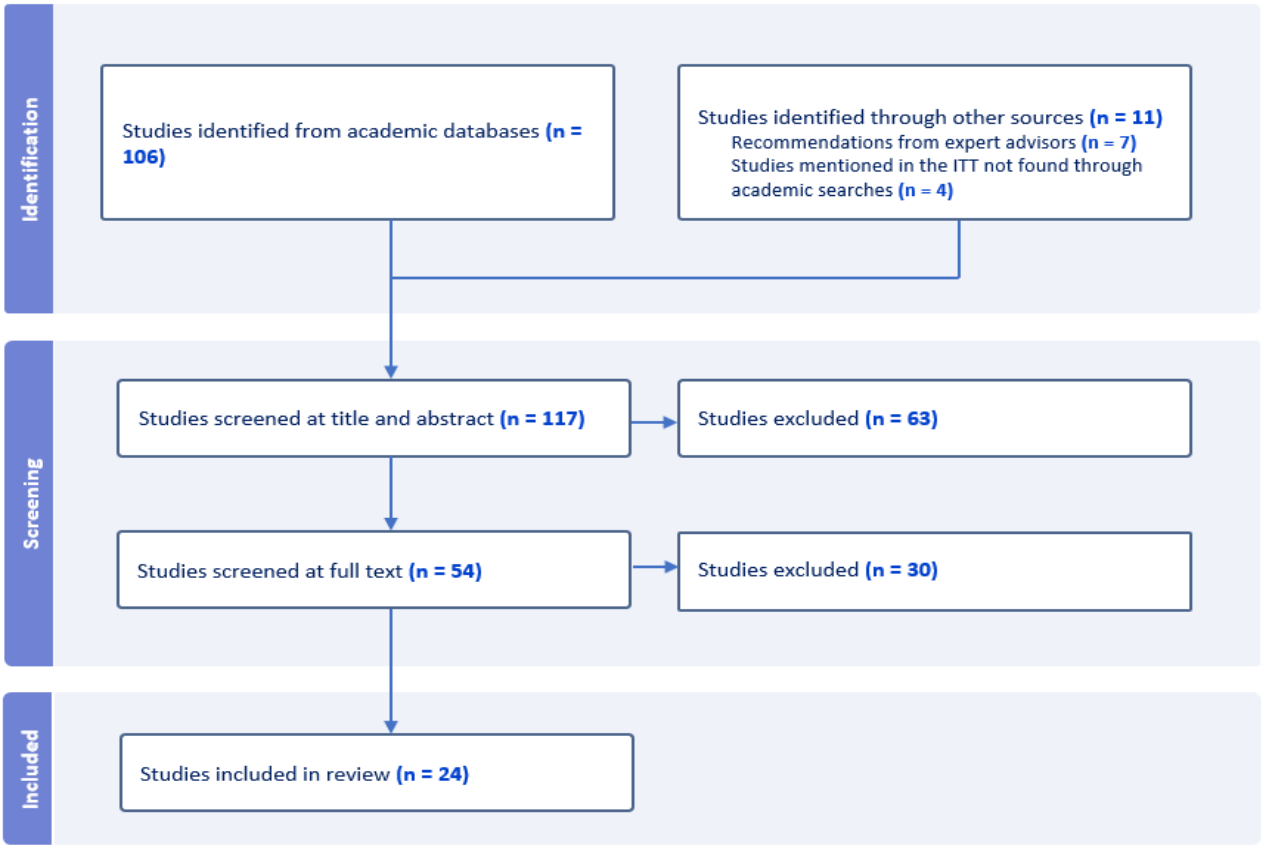
Grey literature for Phase one was identified through papers highlighted by GambleAware in the original Invitation to Tender (ITT). For Phase two, grey literature was identified through simplified keyword searches (or browsing, depending on the functionality of the website) of organisational and research websites (see Appendix 2 for the list of websites). Key terms included 'gambling' and words to represent the interventions of interest (drawn from the search strings in Appendix 1) such as 'psychological', 'psychosocial', and 'intervention'. Where the website search function was limited, Google Advanced Search allowed searches on the websites using search strings.

2.3 Evidence screening and selection

Evidence assessment and data management were carried out using a screening and evidence review tool, *Covidence*, for title and abstract screening, and *Excel* for full text screening.

Papers were screened in two stages, title-and-abstract and full-text. Figures 2 and 3 below illustrate the search and screening processes undertaken, and the total number of studies included and excluded for Phase one and Phase two, respectively.

Figure 2: Papers included in Phase one (PRISMA flowchart: screening process)

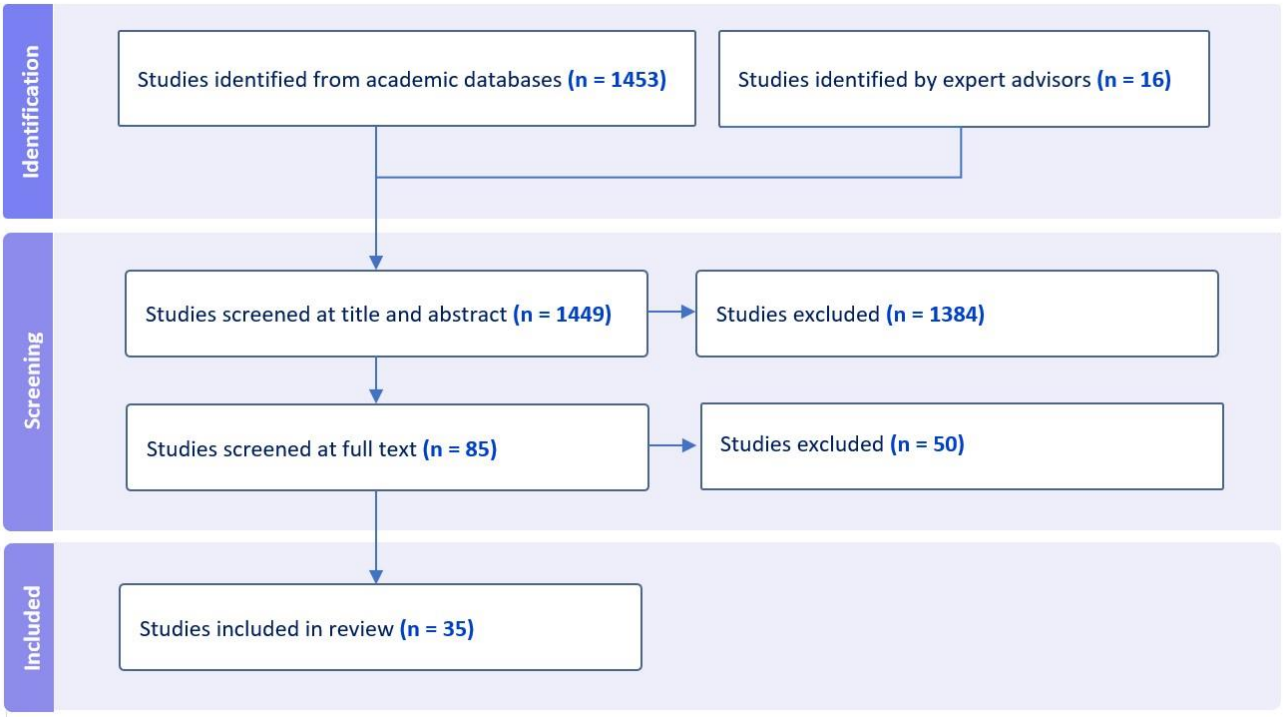


During Phase one, 106 papers were identified through academic databases and an additional 11 were identified through other sources (seven through recommendations from expert advisors and four through the ITT which were not identified through academic database searches, including grey literature). The titles and abstracts of a total of 117 papers were therefore screened, and 63 excluded, leaving 54 which were screened at full text. Of the 54 papers, 24 were included. Reasons for exclusion at title and abstract or full-text screening included papers being published before 2020, research taking place outside of OECD countries, or focusing on out-of-scope interventions, such as pharmacological interventions. Full inclusion and exclusion criteria are outlined in

Appendix 3. Evidence included at Phase one were all evidence reviews and were conducted in Australia, Austria, Canada, Denmark, Finland, Germany, Italy, Malta, Netherlands, New Zealand, Portugal, Spain, Switzerland, the United Kingdom, and the United States. The evidence reviews included during Phase one identified evidence in relation to Cognitive Behavioural Therapy (CBT) (N=16), Behavioural Therapy (N=3), Cognitive Therapy (N=2), Motivational Interventions (N=7), Feedback Interventions (N=6), Residential Treatment (N=1), 12-Step Interventions (N=4), Exercise Interventions (N=2), Counselling (N=2), remote interventions (not otherwise defined as remote formats of other interventions) (N=7), other interventions (N=5), joint interventions with Concerned Significant Others (CSOs) (N=7), and interventions delivered to CSOs (N=4).

During Phase two, academic databases identified 1453 papers and a further 16 were identified by expert advisors. The titles and abstracts of 1449 papers were screened, and 1384 papers were excluded, leaving 85 papers which were screened at full text. Thirty-five of these papers were included, which were conducted in Australia, Belgium, Canada, Denmark, Finland, Germany, The Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, the United Kingdom, and the United States. The individual studies included during Phase two identified evidence in relation to Cognitive Behavioural Therapy (CBT) (N=18), Cognitive Therapy (N=1), Motivational Interventions (N=6), Feedback Interventions (N=2), Residential Treatment (N=2), 12-Step Interventions (N=4), Eye Movement Desensitisation and Reprocessing (N=1), Counselling (N=1), other interventions (N=2), and joint interventions with Concerned Significant Others (CSOs) (N=3).

Figure 3: Papers included in Phase two (PRISMA flowchart: screening process)



Title and abstract screening: at both Phase one and Phase two, the titles and abstracts of all papers were screened against the relevant inclusion and exclusion criteria (see Appendix 3). Key inclusion criteria were relevance to the research questions (including intervention type and focus of the research), date of publication, and evidence being from Great Britain[1] or comparable policy contexts (OECD countries). Papers that appeared

[1] Evidence from Great Britian (as opposed to the United Kingdom) was prioritised in this research due to the remit of GambleAware, who commission gambling harm education, prevention, and treatment across Great Britian.

to be relevant were included for full-text review. Grey literature papers were screened at source (i.e. on each website). Where papers did not have an abstract, researchers reviewed a suitable summary or conducted a brief review of the full text. Title and abstracts for 117 and 1449 papers were screened for Phase one and two, respectively.

Full text screening: at both Phase one and Phase two the full text of each paper (both academic and grey literature) included at the title and abstract screening stage was reviewed to assess relevance. For Phase two, papers were assessed against a full text screening tool (see Appendix 4). The full text screening tool assessed relevance to the research questions and quality of evidence was also assessed using a Weight of Evidence (WoE) tool (Gough, 2007). Through this process, Phase two papers were scored based on factors such as content, clarity, accuracy and quality, appropriateness of methods, inclusion of those with lived experience of gambling associated with harm, and ethical considerations.

2.4 Expert input

The research included input from lived experience and subject matter experts. Experts had a variety of expertise which included their own experiences of gambling harms, academic expertise, gambling harms expertise, and clinical expertise related to treating gambling harms. Input was provided in a number of ways, including:

- Reviewing the final list of papers for inclusion in Phase one and suggesting additional papers for inclusion;
- Providing feedback on the research protocol and interpretation of evidence from Phase one;
- Reviewing the final list of papers for inclusion in Phase two and suggesting additional papers for inclusion;
- Providing feedback on a draft of the final report; and
- Providing guidance on language use and the presentation of research outputs.

2.5 Narrative synthesis and critical analysis

To bring the literature together, a data extraction tool (see Appendix 5) was developed for Phase one and Phase two to carry out a narrative synthesis using the ‘Framework Method’ developed by The National Centre for Social Research (Ritchie et al., 2013). The papers were closely read, and relevant information was extracted into the corresponding cells of the extraction framework. The tools captured key findings of relevance to the research questions including interventions included in the research, outcomes of interventions, impact of interventions for communities of interest, and barriers and enablers to effective interventions. The tool also captured limitations of the papers including any stigmatising language used.

3. Evidence relating to interventions for people experiencing gambling harm

3.1 Cognitive Behavioural Therapy (CBT)

Cognitive Behavioural therapy (CBT) is a psychotherapeutic intervention which focuses on patterns of thinking, feelings, and behaviours, and their interactions. Although used more broadly for addressing mental health challenges, CBT can act as an intervention for gambling which is associated with harm through identifying and addressing attitudes and beliefs about gambling (such as belief in the influence of skill or knowledge on winning), identifying triggers which lead to gambling, problem solving, adapting behaviours, and planning how to maintain changes during relapse prevention (Cowlishaw et al., 2012). The exact content of CBT focused on gambling is usually manualised, whereby the content is based on steps from a treatment protocol outlined in a manual which uses a goal-focused approach. Within the papers included there was variation in how CBT interventions were delivered, for instance regarding delivery mode (face-to-face versus remote) or duration. Where possible, we have added details about the specific interventions assessed in the included papers. Where interventions were described as Behavioural Therapy or Cognitive Therapy interventions (rather than CBT) these findings have been included in sections 3.2 and 3.3 below. The following section outlines evidence for the short and long-term effectiveness of CBT for the treatment of gambling which is associated with harm, barriers and enablers to effectiveness, and evidence on specific population groups. This was identified in 16 evidence reviews and 18 individual studies.

Key Findings

- There was a large volume of robust recent evidence that CBT significantly and positively impacted several outcome measures including those relating to gambling and other relevant outcomes, such as psychological factors, quality of life, and perception of control. The largest volume of evidence was for the effect in the short-term, however there was evidence for longer-term effects up to a period of three years.
- There was some, albeit limited evidence that CBT was effective within different populations, for example for women and people with experience of comorbidities such as Post Traumatic Stress Disorder (PTSD). However, there was minimal evidence relating to other population groups.
- Evidence from reviews and individual studies both identified evidence that CBT was effective in multiple modalities, including remote, in-person, individual, and in group settings. There was also evidence that CBT paired with other interventions, such as Motivational Interventions, maintained their efficacy. There was, however, no conclusive evidence which identified one modality as the most effective.
- The key gaps in the recent evidence for CBT were around long-term outcomes over periods longer than three years, evidence for specific population groups, and evidence within the context of Great Britian.

3.1.1 Evidence for effectiveness of CBT

Evidence for short-term effectiveness

Several evidence reviews found strong evidence to support the short-term effectiveness of CBT in the treatment of gambling associated with harm and found that a range of outcome measures were significantly improved (Augner et al., 2022; Boumparis et al., 2022; Di Nicola et al., 2020;; Eriksen et al., 2023; Fiskaali et al., 2022; GREO, 2020; Higueruela-Ahijado et al., 2023; NICE, 2023c; Pfund et al., 2023a; Pfund et al., 2023b; Pfund et al., 2023c; Ribeiro et al., 2021; Rodda, 2022; Sagoe et al., 2021; Stark et al., 2021).

In relation to the short-term effectiveness of CBT, the largest volume of evidence showed improvement to, or significant change in, measures relating to gambling, specifically behavioural measures such as time spent gambling (Higueruela-Ahijado et al., 2023; NICE, 2023c; Ribeiro et al., 2021) and frequency of gambling (Di Nicola et al., 2020; Pfund et al., 2023a; Pfund et al., 2023b; Ribeiro et al., 2023). There was additionally strong evidence that CBT significantly impacted other related gambling measures such as desire to gamble (Higueruela-Ahijado et al., 2023; Ribeiro et al., 2021), diagnostic criteria according to the Diagnostic Statistical Manual (Fourth Edition) (DSM-IV) (Higueruela-Ahijado et al., 2023; Ribeiro et al., 2021), the South Oaks Gambling Screen (SOGS) (Augner et al., 2022; Higueruela-Ahijado et al., 2023; Ribeiro et al., 2021), and the National Opinion Research Centre DSM Screen for Gambling Problems (NODS) (Augner et al., 2022; Ribeiro et al., 2021).

Evidence reviews found further strong evidence that CBT is effective in the short-term for some other relevant outcomes, such as psychological factors including measures relating to depression (for example, Beck's Depression Inventory (BDI) and Patient Health Questionnaire (PHQ-9)) (Eriksen et al., 2023; Higueruela-Ahijado et al., 2023; NICE, 2023c; Pfund et al., 2023a; Pfund et al., 2023c; Stark et al., 2021) and anxiety (for example, Generalised Anxiety Disorder-7 (GAD-7)) (Eriksen et al., 2023; NICE, 2023c; Pfund et al., 2023a; Pfund et al., 2023c; Stark et al., 2021). Finally, reviews reported supporting evidence for the impact of CBT on perception of control (Higueruela-Ahijado et al., 2023; Ribeiro et al., 2021), and quality of life (Pfund et al., 2023a; Pfund et al., 2023c; Ribeiro et al., 2021).

There was some, albeit mixed, evidence for the effectiveness of CBT across evidence reviews for some outcome measures related to gambling, such as for the Gambling Related Cognitions Scale (GCRS), which is used as a proxy to measure cognitive distortions associated with gambling (Boumparis et al., 2022; Higueruela-Ahijado et al., 2023), 'gambling symptom severity' according to the Canadian Problem Gambling Index (CPGI) (GREO, 2020; Ribeiro et al., 2021), Problem Gambling Severity Index (PGSI) (Augner et al., 2022; Fiskaali et al., 2022; Stark et al., 2021), financial loss (Di Nicola et al., 2020; Fiskaali et al., 2022; GREO, 2020; Higueruela-Ahijado et al., 2023; Sagoe et al., 2021), and duration gambled (Higueruela-Ahijado et al., 2023; Pfund et al., 2023a; Ribeiro et al., 2021). In addition, there was mixed evidence for the effectiveness of CBT in improving self-esteem (Ribeiro et al., 2021) and satisfaction with life when delivered as self-help based on CBT (Higueruela-Ahijado et al., 2023).

Evidence identified in this review did not indicate that CBT significantly changed 'gambling symptom severity' according to the Diagnostic Interview for Gambling Severity (DIGS) (Ribeiro et al., 2021) and the Pathological Gambling Visual Analogue Craving Scale (PG-VAC), which is a measure of craving (Ribeiro et al., 2021). Evidence included also did not support the effectiveness of CBT in eliciting significant change for other relevant measures, namely adherence to treatment (Di Nicola et al., 2020), gambling beliefs (Pfund et al., 2023a), and the Relationship Assessment Scale (RAS-G) (Higueruela-Ahijado et al., 2023). Furthermore, where CBT was delivered in individual or self-help formats, one review found that psychological factors, according to the Brief Symptom Inventory (BSI) were not significantly improved (Higueruela-Ahijado et al., 2023).

Some reviews included studies which measured change to alcohol or substance use as an outcome (Higueruela-Ahijado et al., 2023; Pfund et al., 2023a; Pfund et al., 2023c), and whilst this was measured, it must be noted that the focus of the intervention was gambling. One study included in the review by Higueruela-Ahijado et al. (2023) found that there was a significant change in alcohol consumption between a group who received CBT (delivered online) and a control group. However, other studies included which measured this found either no significant differences or that reduction in alcohol consumption was not related to treatment condition. Other reviews which cited substance use, including alcohol consumption, as an outcome measure for CBT focused on gambling, did not find evidence that there was a resultant significant effect (Pfund et al., 2023a; Pfund et al., 2023c).

Evidence from individual studies further supported the effectiveness of CBT, most commonly when delivered remotely, including online and telephone support. Evidence in support of CBT also often included elements of other interventions, such as Motivational Interviewing (Boumparis et al., 2023; Brazeau et al., 2024; Kruse-Diehr et al., 2022). The strongest evidence for CBT was for measures related to gambling, such as for the Gambling Symptom Assessment Scale (G-SAS) (for example, Månsson et al., 2022) including behavioural measures, such as time and money spent gambling (for example Bellringer et al., 2021) in addition to positive impacts for psychological measures, such as for depression (for example, Brazeau et al., 2024). Recent evidence (Bellringer et al., 2021) from a randomised controlled trial (RCT) which evaluated the effectiveness of face-to-face CBT, found that the intervention increased the proportion of participants who had not gambled (during the past month) from approximately 5% at baseline to 42.5% after the intervention, and reduced the proportion of participants who lost $501 or more per month from 70.9% to 28.2%. The mean PGSI score also reduced from 14.9 at baseline to 3.8 after the intervention, and 14.3% of participants who received CBT reported negative consequences from their gambling (including professional life, social life, family / home life, physical health, and legal problems) after the intervention compared to 63.5% at baseline. Psychological distress, measured by the Kessler Psychological Distress Scale (K10) also reduced; at baseline, 40.4% of participants reported having mild to severe distress, which reduced to 13.6% after the intervention. Outcomes were similar for participants who received CBT compared to those who received a Motivational Intervention with follow-up calls and a self-help workbook (Bellringer et al., 2021).

Furthermore, recent evidence identified that CBT was effective when delivered in a remote format, including online, and with additional provision of support such as telephone calls or emails for guidance (Boumparis et al., 2023; Brazeau et al., 2024; Bücker et al., 2021; Dowling et al., 2021; Erevik et al., 2020; Kruse-Diehr et al., 2022; Mide et al., 2023; Nilsson et al., 2020; Palomäki et al., 2022; Stenbro et al., 2023).This was seen as an accessible treatment option due to its anonymity (Erevik et al., 2020) and flexibility (Erevik et al., 2020; Stenbro et al., 2023) (please see section 3.1.2 below for further detail relating to barriers and enablers). CBT delivered online and supported by weekly phone calls significantly improved several outcome measures, including ‘active gambling’, scores on the SOGS, gambling-related cognitions as measured by the Gambling Belief Questionnaire (GBQ) (which assesses cognitive distortions associated with gambling), and mental health as measured by the Symptom Checklist–90–Revised (SCL-90-R) (Erevik et al., 2020). Similarly, among a sample of 24 participants, remote online CBT with personalised online support from trained practitioners significantly reduced gambling severity measured by the NODS and behavioural measures, namely time and money spent on gambling, from baseline to post-treatment (Stenbro et al., 2023). The intervention also improved outcomes for anxiety, depression, and psychological well-being, however, the statistical significance of the changes to these latter measures was not noted. When supported with phone calls *and* emails, remote CBT reduced gambling behaviours (net losses and number of days gambled), gambling severity (NODS), depression (PHQ-9), anxiety (GAD-7), alcohol consumption, relationship satisfaction (RAS-G), and consequences from gambling (measured

via the Inventory of Consequences of Gambling for the Gambler and CSO (ICS)) (Stenbro et al., 2023). The statistical significance of these changes, however, was also not reported.

CBT which was delivered remotely (rather than face-to-face) with additional support, such as through telephone, online chat, or email communication with a practitioner yielded positive outcomes, however, there was also some, albeit more mixed, evidence that CBT delivered remotely without any further support remained effective. An RCT found that among a sample of 70 people seeking treatment at a 'gambling addiction' clinic in Sweden who received remote CBT delivered online, there was a significant reduction in several measures from baseline to post-treatment. Specifically, those relating to gambling as measured by NODS, as well as measures of depression and anxiety (measured by PHQ-9 and GAD-7, respectively), gambling-related cognitive distortions (GBQ), and quality of life (Brunnsviken Brief Quality of Life Scale (BBQ)) (Mide et al., 2023). Similar to evidence from Bellringer et al., (2021), there was no significant difference between participants who received online CBT compared to a telephone delivered Motivational Intervention. Additionally, the RCT found that there was no significant effect on behavioural measures such as money and time spent gambling (Mide et al., 2023). Another RCT found that a remote intervention based on CBT, mindfulness techniques, and metacognitive elements significantly improved depression symptoms (PHQ-9), compared to a waitlist control group. There was also significant improvement according to the Yale-Brown Obsessive Compulsive Scale adapted for Pathological Gambling (PG-YBOCS) and the SOGS however, this effect was seen for both the intervention and control group, and a reduction in gambling-specific cognitive distortions, according to the Gambling Attitudes and Beliefs Survey (GABS) was observed only for the control group (Bücker et al., 2021).

When compared directly, remote CBT both with and without additional support gained comparable outcomes. A remote internet-based programme based on CBT with elements of Motivational Interventions found positive outcomes for guided and unguided formats among a sample of 206 individuals from Australia who sought help for their own gambling (Dowling et al., 2021). Guidance was provided weekly via email. Measures of gambling symptom severity (G-SAS), gambling urges (G-SAS urge subscale), gambling behaviours (frequency and expenditure), and psychological distress (Kessler 6 Psychological Distress Scale (K6)) were improved from baseline to post-intervention in both guided and unguided conditions with no significant difference between them (Dowling et al., 2021).

In some instances, CBT delivered remotely included elements of Motivational Interventions, and yielded improvements across a range of outcomes. For instance, among a sample of 122 participants from the US, an intervention based on CBT with elements of Motivational Interviewing, Stages of Change (stages of behavioural change based on factors such as motivation and readiness), and life skills significantly improved PGSI scores post-treatment but did not significantly improve Gambling Craving Scale (GCS) or the Rosenberg Self-Esteem Scale (RSES) (Kruse-Diehr et al., 2022). A further RCT study (Boumparis et al., 2023) including 360 individuals all scoring above three on the PGSI (indicating 'moderate' levels of problems related to gambling) found that both an online intervention, based on CBT and Motivational Interviewing, and a self-help manual for 'problem gambling' significantly decreased measures related to gambling, including days gambled, PGSI and G-SAS, in addition to other relevant outcomes such as depression (PHQ-9), anxiety (GAD-7), and cigarettes smoked. There was no significant difference between groups who received the online CBT versus the self-help manual intervention for the number of days gambled within the previous 30 days. However, there was a significant difference between groups for G-SAS, PGSI, cigarettes smoked, PHQ-9 and GAD-7 which favoured the CBT intervention (Boumparis et al., 2023).

Further evidence found that CBT which was enhanced with Emotion Regulation strategies was effective. Emotion Regulation refers to the ability to cope with and respond to emotional experiences and the CBT

intervention enhanced with Emotion Regulation combined elements of Emotion Regulation Group Therapy with the intention of increasing 'psychological flexibility', working towards goals, and promoting acceptance (Månsson et al., 2022). The intervention yielded significant improvements for 27 participants on gambling severity (measured using G-SAS) and money and time spent gambling, however, no such improvements were seen for measures of depression (PHQ-9), anxiety (GAD-7), and emotional regulation (Difficulties in Emotion Regulation Scale (DERS)). There was, however, no direct comparison to CBT without Emotion Regulation strategies. Participants reported that analysis of gambling behaviour, awareness and coping with emotions, homework assignments separate to the intervention sessions, and psychoeducation were effective aspects of the intervention.

Evidence for long-term effectiveness

Recently published evidence reviews presented some evidence to support the effectiveness of CBT in the long-term, although less evidence was found than in relation to short-term effects. The times at which follow-up was completed varied across reviews, but overall ranged from three months to three years.

The strongest evidence which supported the maintenance of the effects of CBT were for measures related to gambling according to the Gamblers Inventory of Negative Consequences (GINC) and DSM-IV diagnostic criteria (Higueruela-Ahijado et al., 2023; Ribeiro et al., 2021). There was also evidence that the effectiveness of CBT improved other relevant outcomes, particularly psychological factors such as anxiety (Higueruela-Ahijado et al., 2023; Ribeiro et al., 2021; Stark et al., 2021) and depression (Boumparis et al., 2022; Higueruela-Ahijado et al., 2023; Stark et al., 2021), when delivered in a group and self-help format (Higueruela-Ahijado et al., 2023). There was evidence that CBT significantly improved outcomes such as perception of control and desire to gamble (Higueruela-Ahijado et al., 2023; Ribeiro et al., 2021). One study included in the review by Ribeiro et al., (2021) found that the significant positive effect of CBT delivered online was maintained when follow-up was completed after three years for gambling severity (according to NODS), anxiety, depression, and quality of life.

There was less recent evidence that the effectiveness of CBT for specific behavioural measures related to gambling was maintained when compared to short-term effects (Di Nicola et al., 2020; Higueruela-Ahijado et al., 2023; Pfund et al., 2023a; Rodda, 2022). For instance, there was mixed evidence from several reviews that the positive impact of CBT for frequency of gambling in the short-term was maintained longer term (Di Nicola et al., 2020; Pfund et al., 2023a; Pfund et al., 2023b; Ribeiro et al., 2021). Furthermore, there was mixed evidence for longer-term effectiveness for abstinence (Higueruela-Ahijado et al., 2023), time (Higueruela-Ahijado et al., 2023; Pfund et al., 2023a; Ribeiro et al., 2021), and money (Di Nicola et al., 2020; Higueruela-Ahijado et al., 2023; Ribeiro et al., 2021; Rodda, 2022) spent gambling. Evidence related to the effectiveness of CBT in relation to some measures of psychological outcomes, specifically the Coopersmith Self-Esteem Inventory (CSEI) (Ribeiro et al., 2021), BSI (Higueruela-Ahijado et al., 2023), and State-Trait Anxiety Inventory (STAI) (Ribeiro et al., 2021) was mixed in the longer-term. There was no evidence that a significant reduction in gambling intensity post-treatment was maintained after one-year (Pfund et al., 2023a) or that a self-help intervention (delivered via an emailed workbook) based on CBT significantly reduced PGSI score or money spent gambling after three months post-intervention (Fiskaali et al., 2022).

Other papers built on the evidence for the longer-term impact of CBT for various outcome measures, however, there remains less evidence than for in the short-term, with the majority of evidence for longer-term impacts focused on remote and online CBT. From the evidence included, the longest period of follow-up was 24 months.

Evidence identified that the effects of CBT delivered remotely remained to some degree when follow-up was completed. For instance, the effectiveness of remote CBT delivered online was maintained when measured

between six- and 12-months post-intervention; improvement in outcomes for the SOGS, gambling-related cognitions (measured by GBQ to assess 'cognitive distortions' relating to gambling), and mental health (measured via the SCL-90-R) remained significant (Erevik et al., 2020). Similarly, one study cited in an evidence review found that participants who completed internet-based CBT (compared to the waiting list) showed significant reductions in measures of gambling amount, frequency, severity (G-SAS and SOGS), urge, and gambling related cognitions (GCRS) (Boumparis et al., 2022). They were also more likely to report improvements in gambling refusal; all these changes were maintained across the three, six-, and 12-month follow-ups. When comparing those that completed internet-based CBT with the active control condition (not further specified), CBT showed significantly greater reductions in gambling related cognitions (GCRS), stress, and gambling urges (Boumparis et al., 2022).

According to a survey completed at follow-up (with 36 participants) between six- and 12-months after completion of CBT delivered remotely, 75% considered that they were 'recovered' from their 'gambling problems' (Erevik et al., 2020). Furthermore, among a sample of 313 RCT participants, remote CBT with Motivational Interviewing resulted in significant reductions for gambling severity (as measured by NODS), expenditure, depression (PHQ-9), anxiety (GAD-7) and psychological distress (K10) after three-months. There was, however, no significant difference for most measures between participants who received an additional single session of Motivational Interviewing and those who did not. Further, only money spent, and psychological distress were significantly improved with the addition of the Motivational Interview after three months. The intervention, either with or without the additional Motivational Interview, did not significantly change alcohol consumption. These effects were maintained longer-term when follow-up was completed at six- and 12-months (Brazeau et al., 2024).

The effect of CBT longer-term was also maintained when delivered remotely with guidance and further support from practitioners. For instance, remote CBT with additional phone call support reduced gambling symptom severity (NODS) after six- and 12- months, although the statistical significance of these reductions was not noted (Palomäki et al., 2022). The change in gambling symptom severity was not as effective long-term for individuals with higher depression (as measured by the Montgomery-Åsberg Depression Rating Scale (MADRS)) and lower control over financial situation (Palomäki et al., 2022). Further evidence from an RCT demonstrated that when supported with phone calls *and* emails, remote CBT significantly reduced anxiety (GAD-7), in comparison to a remote Behavioural Couples Therapy intervention after six months (Nilsson et al., 2020). A further study found that remote CBT provided both with and without guidance remained effective long-term when follow-up was completed after 24-months post-baseline; the improvement in outcomes related to gambling (G-SAS, G-SAS urge subscale) including behavioural measures (frequency and expenditure), and other relevant outcomes, namely psychological factors (K6), were maintained (Dowling et al., 2021).

Face-to-face CBT was also found to have positive outcomes longer-term, although the recent evidence identified was scarcer than that for alternative modalities of CBT. An RCT found that when compared to an intervention involving one Motivational Interview with follow-up 'booster' calls and a self-help workbook, CBT substantially (although it was not noted if significantly) reduced scores for PGSI and gambling behaviours (specifically monthly days spent gambling and average amount of money lost per day gambling). At 12- and 24-months post-intervention, there was no significant difference between outcomes for participants who received CBT compared to those who received the alternative intervention for gambling behaviour, PGSI score, and psychological distress (measured via K10 and Primary Care Evaluation of Mental Disorders (PRIME-MD)) (Bellringer et al., 2021; Bellringer et al., 2023).

Evidence for effectiveness among specific population groups

There was not sufficient evidence identified from recent evidence reviews to provide insight into the effectiveness of CBT for specific populations. Where reviews discussed the effectiveness of CBT for certain populations, the samples were typically made up of only one group and there was therefore no means to understand the comparative effectiveness of CBT for different groups. For example, there was evidence that CBT was effective for women (Ribeiro et al., 2021), however, there was no direct comparison to the effect for men.

One evidence review found that dropout rates from a CBT intervention were higher among younger participants, that outcomes of CBT were consistent for men and women, and that CBT was effective for people from global majority communities and diverse groups due to its focus on individual beliefs about and influences for gambling (GREO, 2020). Several evidence reviews examined alcohol or substance use as outcomes, however, there was little evidence found to support that CBT (specifically for gambling) had any significant positive effect on these measures (Higueruela-Ahijado et al., 2023; Pfund et al., 2023a; Pfund, et al., 2023c), with the exception of one review which found significant change in alcohol consumption following online format CBT (Higueruela-Ahijado et al., 2023).

There was limited, and sometimes conflicting, additional recent evidence identified relating to the effectiveness of CBT for specific populations. One RCT found that, within a sample of 55 participants who experienced comorbid gambling disorder and Post-Traumatic Stress Disorder (PTSD), CBT resulted in positive outcomes relating to both gambling and PTSD. When a remotely delivered CBT intervention specifically for gambling and a remote CBT intervention for both gambling and PTSD were compared, both significantly reduced measures related to gambling, specifically behavioural measures (net loss of money spent gambling and number of gambling sessions), gambling severity measured via DIGS, beliefs about gambling, and gambling self-efficacy (measured by the Gambling Self-Efficacy Questionnaire (GSEQ)), in addition to functioning, coping (Coping Self Efficacy Scale (CSES)), and psychopathology (BSI). There was no significant difference between the two interventions and notably, both interventions significantly reduced PTSD symptoms as measured by the Clinician-Administered PTSD Scale for Diagnostic Statistical Manual (Fifth Edition) (CAPS). Said measures significantly improved from baseline to post-treatment and improvement remained at follow-up after 12-months. Session attendance, however, was significantly higher for the combined CBT intervention for gambling and PTSD (Najavits et al., 2023). There was some qualitative evidence from focus groups with healthcare professionals in Spain which highlighted the need for flexibility when delivering CBT to young people, particularly about the expectation of abstinence during treatment (Lopez-Gonzalez et al. 2021).

Further evidence from a sample of women found that the risk of dropping out of treatment was greater for women who had lower 'gambling disorder severity' as measured by PGSI score and higher psychological distress measured by SCL-90-R, and that those who attended fewer sessions during the intervention were typically younger (Baño et al., 2021). Among a sample of 206 people seeking help for their own gambling, gender was a significant predictor of improvement in gambling severity (according to G-SAS) whereby improvement was significantly decreased for male participants (Dowling et al., 2021). There was also evidence that improvement in gambling symptoms (according to the PG-YBOCS) following self-guided internet-based CBT was moderated by older age and those with diagnoses of 'pathological gambling' and comorbidities (specifically for participants who identified having a diagnosis of 'mental disorder' or 'comorbid anxiety symptoms'), although the study did not explore how or why this affected treatment outcomes (Bücker et al., 2021). Conversely, a further study found that participants without comorbidities benefitted more from a remotely delivered CBT intervention focused on gambling, and that symptoms of depression significantly increased the likelihood of dropping out of the intervention (Palomäki et al., 2022).

3.1.2 Barriers and enablers to the effectiveness of CBT

There were several factors noted within included evidence reviews that contributed to the effectiveness of CBT, and additional searches provided some further evidence related to barriers and enablers to effective treatment. Despite this evidence, there was no definitive evidence which identified any specific mode of CBT as being the most effective.

Barriers to effectiveness

One study found that, in a sample of 192 individuals, higher severity of gambling disorder (according to SOGS), higher levels of emotional distress, lower educational level, and lower socioeconomic status were associated with poorer outcomes and a lower response to treatment at six-month follow-up (Granero et al., 2020). Another study found that in a sample of women seeking treatment for gambling disorder, there was a greater risk of dropping out of treatment for those who had lower 'gambling disorder severity' according to DSM-5 criteria and higher psychological distress measured by SCL-90-R (Baño et al., 2021). This highlights the importance of interventions which are tailored and adaptable to the varied needs of individuals.

Qualitative evidence from semi-structured interviews with ten people who gamble and who had sought help for 'gambling problems' in the UK found that there were several factors which impacted their experience of CBT. Participants reported feeling judged during CBT treatment and authors argued that the design and delivery of treatment provision lacked lived experience input (Penfold and Ogden, 2022).

Enablers of effectiveness

Evidence identified that CBT delivered in varied formats was effective in improving different outcomes. Several evidence reviews noted that both group and individual formats of CBT were effective in the treatment of gambling associated with harm (Eriksen et al., 2023; GREO, 2020), and evidence from recent studies also supported this (Granero et al., 2020; Mestre-Back et al., 2022). When group and individual formats were directly compared, one evidence review found that CBT delivered in an individual format significantly improved measures relating to gambling, including behavioural measures (frequency and duration of gambling and money spent gambling), and other relevant outcomes, namely psychological measures (measured using BDI, STAI, and CSEI). When compared, group format CBT significantly improved the same measures, with the exception of the STAI and CSEI. After six months, 92% and 60% of people who received individual and group format CBT respectively did not meet diagnostic criteria for 'pathological gambling' (although the review did not state which diagnostic criteria this was compared to) (Ribeiro et al., 2021). However, a further evidence review by the National Institute of Health and Care Excellence (2023b) found that, according to a network meta-analysis (an analytical method of comparing the effectiveness of interventions), CBT delivered in a group setting had the highest effect on 'gambling symptom severity' (compared to no treatment) followed by individual CBT, and subsequently recommended that group then individual format CBT was provided whilst also considering practical circumstances (such as other people being available to attend a group), and individual preference and needs.

Both face-to-face and remote formats of CBT were found to significantly improve several outcomes by evidence reviews, including measures related to gambling, behavioural measures, and other relevant outcomes (Augner et al., 2022; Boumparis et al., 2022; NICE, 2023c; Ribeiro et al., 2021; Sagoe et al., 2021). However, reviews found that there was some evidence that face-to-face CBT was more effective than remote (Sagoe et al., 2021), and there was some evidence that the effectiveness of remotely delivered CBT for some outcome measures was maintained longer-term (up to three years) (Ribeiro et al., 2021). There was further RCT evidence that both face-to-face and remote modes of delivery positively impacted a variety of outcomes (Bellringer et al., 2021; Boumparis et al., 2023; Mide et al., 2023). Remote CBT which was delivered with guidance or support from a therapist was found to be more effective than with no support (GREO, 2020; Higueruela-Ahijado et al., 2023;

NICE, 2023c; Sagoe et al., 2021). However, recent evidence which directly compared guided and unguided CBT did not find significant differences between the groups in relation to a range of outcomes, including treatment engagement (Dowling et al., 2021).

Additional recent qualitative evidence related to the effectiveness of remote versus face-to-face CBT was identified. Interviews with 36 people who received remotely delivered CBT in Norway reported an appreciation for the anonymity and flexibility of remote support (Erevik et al., 2020). Similarly, interviews with people seeking treatment for gambling (Stenbro et al., 2023) found that an online CBT intervention, which included elements of Motivational Interviewing, reduced stigma due to its format and was valued for its flexibility, which reduced strain on other activities and empowered participants to engage with the intervention when it was practically more suitable and when in the right mindset. Among a sample of ten people who sought support for gambling in the UK, participants felt that human contact and connection within face-to-face treatment was, in their experience, fundamental and found that online interventions were isolating (Penfold and Ogden, 2022). This evidence therefore highlights that personal preferences must be considered in a holistic view of the effectiveness of treatment, and flexibility in delivery is central to meeting individual expectations.

Furthermore, reviews provided evidence that, when paired with other interventions, the effects of CBT remained or were improved. For instance, CBT combined with Gamblers Anonymous showed greater effectiveness than Gamblers Anonymous alone (Higueruela-Ahijado et al., 2023). CBT combined with mindfulness-based techniques was also effective (Higueruela-Ahijado et al., 2023), although there was no direct comparison to CBT alone (Di Nicola et al., 2020; GREO, 2020; Bücker et al., 2021). A node-link mapping-enhanced format of CBT positively impacted self-rated control of gambling and ability to refrain from gambling as well as psychological factors (depression as measured by BDI and anxiety as measured by Beck's Anxiety Inventory (BAI)) (Ribeiro et al., 2021). Evidence was mixed in relation to the effectiveness to change DSM-IV diagnostic criteria, frequency of gambling, and self-efficacy, and there was minimal evidence that the effects were maintained after six months. This format of CBT enhanced with node-link mapping was, however, not directly compared to CBT without node-link mapping (Ribeiro et al., 2021).

CBT combined with both Motivational Enhancement Therapy (compared to a control group who received brief psychoeducation), was also effective (GREO, 2020). Recent studies provided further evidence that CBT with motivational elements positively impacted a range of outcomes (Boumparis et al., 2023; Brazeau et al., 2024; Dowling et al., 2021; Kruse-Diehr et al., 2022; Mide et al., 2023; Stenbro et al., 2023). One RCT (Brazeau et al., 2024) found that a remote intervention based on CBT with motivational elements significantly improved a range of outcome measures, however, the addition of a single Motivational Interviewing session did not significantly affect outcomes, engagement, or satisfaction with the programme. Additionally, there was a significant positive association between the number of modules completed and reduction in gambling expenditure and gambling severity according to NODS after three months.

There was evidence that several characteristics or factors impacted outcomes following CBT. For instance, Mestre-Bach et al., (2022) found that the type of gambling activity engaged in, and certain characteristics of people who gamble, impacted outcomes from CBT. The likelihood of dropping out of treatment (defined as not attending three consecutive sessions) was significantly lower for people who engaged in sports betting than other types of gambling. There was also an association between dropping out of treatment and several other characteristics, such as being unemployed for those who engage in sports betting, or being female and being older for those who engage in other types of gambling. The likelihood of relapse, which was defined as gambling after starting CBT treatment, was associated with not being married and increased psychological distress across the whole sample (Mestre-Bach et al., 2022). Similarly, further evidence found that gambling using Electronic

Gambling Machines (EGMs) and participants' perceived importance of limiting or stopping gambling was significantly associated with short-term improvement to gambling severity (measuring using G-SAS score), and internet use was additionally associated with long-term treatment outcomes from CBT (Dowling et al., 2021).

3.1.3 Gaps in evidence

The following evidence gaps were identified for CBT:

- **Long-term outcomes**: despite the identification of some recent evidence for the longevity of outcomes of CBT, there continues to be gaps in relation to long-term effectiveness. The longest follow-up period included in the evidence was three years and we identified no evidence relating to the effectiveness beyond this time period. As the impact of gambling harms can be enduring and extend far beyond this, understanding the impact of CBT at further timepoints would be beneficial. Furthermore, evidence gathered at follow-up periods shows lower effect than that immediately following treatment, which requires further investigation.
- **Format of CBT**: Whilst the evidence identified that CBT can remain effective when delivered in varied formats (such as group, individual, online, unguided) and when paired with other interventions (such as Motivational Interventions and mindfulness), there was limited qualitative evidence relating to the lived experience of these variations and the impact on effectiveness and treatment experience as a whole. Additional qualitative evidence would provide further insight into variations of CBT, including when and for whom variations are most beneficial.
- **Context**: whilst there is evidence which attests to the effectiveness of CBT in comparable policy contexts, such as Sweden, Canada, Australia, Norway, Spain, Finland, Denmark, and the United States, there remains a lack of evidence from Great Britain.
- **Specific populations**: there is a lack of evidence which attests to the effectiveness of CBT for specific populations, such as for different age groups, those with different gender identities and sexualities, and those from global majority communities. Where this was available, there was limited exploration of the effects compared to other population groups and those with varied experiences, and exploration of factors which contribute to differences between groups. Further, there was not sufficient evidence which explored the acceptability of CBT for varied populations and extent to which the intervention is aligned with peoples' individual preferences and expectations.

3.2 Behavioural Therapy

Behavioural Therapy is a psychological intervention with a focus on the environment and related learned responses to stimuli. The intervention aims to identify and modify behaviours which have negative impacts, and devise strategies which are focused on action to adapt response to triggers, cope with behavioural urges, and reinforce or strengthen alternate behavioural responses (APA, n.d.). Behavioural Therapy focuses solely on behavioural response, whilst Cognitive Behavioural Therapy (CBT) considers behavioural, cognitive, and emotional processes and the interactions between them. The definition of Behavioural Therapy is broad and encompasses a variety of therapeutic techniques. Whilst the techniques involved in Behavioural Therapy are often part of CBT, literature identified evidence relating specifically to Behavioural Therapy and as such, this evidence has been presented independently. Exposure Therapy is a form of Behavioural Therapy which involves systematic and repeated exposure, including imagined exposure (Imaginal Desensitization), to a stimulus including situations, activities, and triggers (APA, n.d.). The aim of the exposure is to reduce emotional reaction and craving for, or compulsion to, gamble. This section presents evidence relating to the short- and long-term effectiveness of Behavioural Therapy, including Exposure Therapy, barriers and enablers to effectiveness, and evidence on specific population groups. Some reviews presented evidence related to Behavioural Therapy separately from that relating to Exposure Therapy, and therefore, evidence has been presented in accordance with how it was described. Evidence relating to Behavioural Therapy was identified in three reviews.

Key Findings

- There was moderate evidence suggesting that Behavioural Therapy, specifically, Exposure Therapy, is effective in improving measures related to gambling including behaviours, with some evidence that positive outcomes are sustained longer term.
- There was no evidence identified within this review relating to the effectiveness of Behavioural Therapy for specific populations.
- There was a lack of evidence found relating to barriers or enablers to the effectiveness of Behavioural Therapy.
- There were gaps in the evidence relating to the effectiveness of Behavioural Therapy in large and diverse populations, and in relation to the effect of the intervention for outcomes related to gambling harms, such as psychological factors.

3.2.1 Evidence for the effectiveness of Behavioural Therapy

Evidence for short-term effectiveness

There was a lack of evidence identified relating to the effectiveness of Behavioural Therapy in the treatment of gambling associated with harm and evidence which was identified as part of the present review was found in only one evidence review. In a network meta-analysis, where the effects of different interventions from multiple studies were compared, Behavioural Therapy had the third largest effect on ‘gambling symptom severity’, following group then individual format CBT (NICE, 2023c). Furthermore, the review found that Behavioural Therapy improved further measures related to gambling, specifically, money spent gambling.

Two reviews included evidence to support the use of Exposure Therapy, including Imaginal Desensitisation, in the treatment of gambling associated with harm (Bergeron et al., 2022; Ribeiro et al., 2021). There was significant improvement for outcomes identified for measures related to gambling (South Oaks Gambling Screen (SOGS)), Gambling Urge Scale (GUS), and Victorian Gambling Screen (VGS) (Bergeron et al., 2022; Ribeiro et al., 2021)), including behavioural measures (gambling frequency (Ribeiro et al., 2021) and time spent gambling (Bergeron et al., 2022)). Evidence did not support that Exposure Therapy significantly reduced thoughts about

gambling, specifically gambling-related ‘cognitive distortions’ (according to the Gambling Related Cognitions Scale (GRCS)) in the short-term (Bergeron et al., 2022).

Evidence for long-term effectiveness

There was some evidence from the included evidence reviews that Exposure Therapy was effective longer-term, up to 12 months post-treatment (Bergeron et al., 2022, Ribeiro et al., 2021). Changes to measures related to gambling, namely SOGS, GUS (Bergeron et al., 2022), VGS (Bergeron et al., 2022, Ribeiro et al., 2021), and gambling frequency (Ribeiro et al., 2021) remained significant at follow-up. Imaginal Desensitisation was found to significantly increase ‘controlled gambling symptoms’, where follow-up was completed between two- and nine-years post-treatment. Gambling related cognitions (GRCS), although not significant post-treatment, were significantly improved longer-term (Bergeron et al., 2022).

Evidence for effectiveness among specific population groups

There was no evidence identified about the effectiveness of Behavioural Therapy for specific population groups.

3.2.2 Barriers and enablers to the effectiveness of Behavioural Therapy

One evidence review found that Exposure Therapy alone was more effective (in relation to gambling frequency) than when the intervention was paired with Cognitive Therapy (Ribeiro et al., 2021). There was also evidence that Imaginal Desensitisation paired with Motivational Interviewing effectively reduced measures related to gambling according to the Yale-Brown Obsessive Compulsive Scale for ‘Pathological Gambling’ (PG-YBOCS) and the Gambling Symptom Assessment Scale (G-SAS), however, only PG-YBOCS remained effective over time (Ribeiro et al., 2021).

3.2.3 Gaps in evidence

As the evidence included around Behavioural Therapy was somewhat limited, further evaluation of the effectiveness of the intervention in the short- and longer-term for large and varied samples, and for outcome measures which are relevant for understanding gambling harms (such as psychological factors) would be beneficial. Furthermore, effectiveness should be evaluated for specific population groups.

3.3 Cognitive Therapy

Cognitive Therapy is a psychological intervention which aims to identify and address negative, distorted, and erroneous thought patterns (APA, n.d.). Cognitive Therapy provides information relating to gambling to contextualise errors in attitudes and beliefs and restructures cognitions and cognitive processes. Cognitive Behavioural Therapy (CBT), whilst considering cognitive processes, also encompasses behavioural and emotional processes and the interactions between them. Whilst the techniques involved in Cognitive Therapy are often part of other interventions, such as CBT, literature identified evidence relating specifically to Cognitive Therapy and as such, this evidence has been presented independently. Furthermore, specific interventions, such as Cognitive Bias Modification and Cognitive Remediation were included where this was specified in the evidence. Cognitive Bias Modification is a psychological intervention which aims to directly change biases in cognitive processes (Wittekind et al., 2019), whereas Cognitive Remediation is a therapeutic approach to improve cognitive ability and learn cognitive strategies (Qing et al., 2017). The following section outlines evidence for the short- and long-term effectiveness of Cognitive Therapy for the treatment of gambling which is associated with harm, barriers and enablers to effectiveness, and evidence on specific population groups. Evidence regarding Cognitive Therapy was identified in two evidence reviews and one individual study.

Key Findings

- There was some limited evidence from one review that Cognitive Therapy was effective in both the short-term and long-term at improving measures related to gambling and other relevant outcomes (such as perceived self-efficacy and control). Evidence which related specifically to Cognitive Bias Modification and Cognitive Remediation did not find that either effectively improved outcomes.
- There was no evidence relating to the efficacy of Cognitive Therapy for specific population groups.
- There was some evidence that Cognitive Therapy was more effective when delivered in isolation than when paired with Exposure Therapy, and some evidence that both group and individual formats gained positive outcomes. Cognitive Bias Modification was deemed to be too long and lacking in face-to-face contact.
- Key gaps in evidence for Cognitive Therapy were evidence on effectiveness from large and diverse samples, and the effectiveness of the intervention in comparison to CBT and Behavioural Therapy.

3.3.1 Evidence for the effectiveness of Cognitive Therapy

Evidence for short-term effectiveness

The evidence around the effectiveness of Cognitive Therapy was limited; Cognitive Therapy was effective in improving measures related to gambling, such as according to diagnostic criteria in the Diagnostic Statistical Manual (Fourth Edition) (DSM-IV) and the South Oaks Gambling Screen (SOGS), and other relevant outcomes such as perceived self-efficacy and perception of control (Ribeiro et al., 2021). There was mixed evidence that Cognitive Therapy significantly impacted the frequency of gambling and desire to gamble (Ribeiro et al., 2021).

There was no evidence identified within evidence reviews included in this study to support the use of Cognitive Bias Modification or Cognitive Remediation; one review found that the former had no significant effect according to SOGS (GREO, 2020). Evidence from reviews found that Cognitive Remediation could provide intervention for gambling disorder, however, there was no specific evidence relating to the effect for specific outcomes (GREO, 2020).

Minimal further evidence relating to Cognitive Bias Modification was identified in further searches. A pilot study evaluating the effectiveness of the intervention for gambling associated with harm and assessing the feasibility

of a further Randomised Controlled Trial (RCT), found that there was no significant difference in gambling frequency and expenditure after three- and six- months compared to baseline. However, it must be noted that the study cited a dropout rate of 90% (Snippe et al., 2023). Qualitative evidence from interviews with four participants conducted to understand the high attrition rate found that many participants considered the content of the Cognitive Bias Modification intervention to be irrelevant due to the type of gambling activity that they engaged with (the intervention referred to land-based gambling) and also viewed the intervention as long and tedious. Furthermore, participants found that the self-guided nature of the Cognitive Bias Modification lacked human interaction which reduced motivation to maintain engagement. A motivational feedback element, which was incorporated with the aim of reducing attrition, was further deemed by participants to be "superficial" and lacked relevance (Snippe et al., 2023).

Evidence for long-term effectiveness

An evidence review by Ribeiro et al., (2021) presented evidence to support the use of Cognitive Therapy longer-term for gambling associated with harm across several outcomes when measured at six-, 12- and 24- months. The positive effect of the intervention for measures related to gambling, namely DSM-IV diagnostic criteria, SOGS, and Victorian Gambling Screen (VGS), and other relevant outcomes (perceived self-efficacy and perception of control) remained significant in the long-term. Frequency of gambling and desire to gamble were significantly improved in the longer-term for individual but not group format Cognitive Therapy. There was no further evidence identified in relation to long-term effectiveness for Cognitive Therapy.

Evidence for effectiveness among specific population groups

The present study (examining evidence published in the last four years) did not identify any evidence for the effectiveness of Cognitive Therapy for specific populations.

3.3.2 Barriers and enablers to the effectiveness of Cognitive Therapy

Barriers to effectiveness

Qualitative evidence from four participants who received Cognitive Bias Modification and participated in interviews reported that the online automated format gave a sense of autonomy and freedom which created internal motivation to change their behaviour relating to gambling (Snippe et al., 2023). Despite this benefit, participants generally experienced the online format to be depersonalised and resultantly 'superficial' due to the automated nature and lack of human contact. Participants of this feasibility study further found that the intervention was too long and required a large time commitment, which was reported to be demotivating and "tedious" (Snippe et al., 2023).

Enablers to effectiveness

Both group and individual formats of Cognitive Therapy were found to significantly improve measures related to gambling (specifically according to SOGS and DSM-IV criteria), and other relevant measures, specifically perception of control, self-efficacy, and desire to gamble (Ribeiro et al., 2021). These effects were maintained up to a period of 24-months for the former, and 12-months for the latter format. Frequency of gambling was, however, only significantly reduced if Cognitive Therapy was delivered individually, rather than in a group format. This was the case both in the short and longer-terms.

There was no further evidence identified related to the barriers or enablers to the effectiveness of Cognitive Therapy, or any evidence relating to enablers of either Cognitive Bias Modification or Cognitive Remediation.

3.3.3 Gaps in evidence

As the evidence around Cognitive Therapy was limited, further evidence to evaluate the effectiveness of the intervention in the short and longer-term for large and varied samples would be beneficial. It would also be beneficial to evaluate the specific elements of Cognitive Therapy (for example techniques used for Cognitive Bias Modification) which elicit positive impacts for gambling associated with harm. Furthermore, the effectiveness should be evaluated for specific populations.

3.4 Motivational Interventions

Motivational Interventions (MI) are interventions aimed at increasing a person's motivation and desire to change through support to identify strengths and build self-efficacy (Foote, 2006). The following section outlines evidence for the short and long-term effectiveness of Motivational Interventions for the treatment of gambling which is associated with harm, barriers and enablers to effectiveness, and evidence on specific population groups. Evidence for Motivational Interventions was identified from seven evidence reviews and six individual studies.

Key Findings

- There is recent evidence to support the effectiveness of Motivational Interventions for improving a number of measures related to gambling, including behavioural measures such as gambling frequency, money spent, financial loss, and self-exclusion from gambling. There is also evidence that Motivational Interventions can improve psychological measures for up to 18 months and evidence that they may enhance the likelihood of attending treatment.
- A lack of evidence was found regarding the effectiveness of Motivational Interventions for specific population groups.
- There was evidence that Motivational Interventions delivered via different modes (such as via phone, text, or email) can be effective, and some evidence that combining Motivational Interventions with other intervention types (e.g. Cognitive Behavioural Therapy (CBT)) can improve effectiveness.
- There is a lack of literature focused on Great Britain exploring the effectiveness of Motivational Interventions, and a lack of evidence regarding the experiences of specific population groups.

3.4.1 Evidence for the effectiveness of Motivational Interventions

Evidence for short-term effectiveness

Evidence reviews found evidence that Motivational Interventions were effective for treating gambling associated with harm. Regarding the short-term effectiveness, the largest volume of evidence to support the use of Motivational Interventions was for measures related to gambling, particularly around behavioural measures related to gambling, such as financial loss (Di Nicola et al., 2020), frequency of gambling (Fiskaali et al., 2022), and money spent (Fiskaali et al., 2022; GREO, 2020), and The National Institute of Health and Care Excellence (2023c) found that Motivational Interviewing was more effective than no treatment according to a Network Meta-Analysis (an analytical method of comparing the effectiveness of interventions). There was additional evidence to support that Motivational Interventions improved diagnostic criteria as defined by the Diagnostic Statistical Manual (Fourth Edition) (DSM-IV) (GREO, 2020; Higueruela-Ahijado et al., 2023), Problem Gambling Severity Index (PGSI), and the South Oaks Gambling Screen (SOGS) (GREO, 2020). However, one review found that Motivational Interventions did not have a significant effect on 'gambling severity', however, it did not specify which outcome measure this was related to (Eriksen et al., 2023). When authors examined the potential of wider outcomes as part of evidence reviews, there was minimal evidence that Motivational Interventions were effective in relation to psychological factors, including depression (Beck's Depression Inventory (BDI)) (Higueruela-Ahijado et al., 2023), but did effectively improve quality of life and impulsive behaviour (GREO, 2020). An evidence review by Di Nicola et al. (2020) found that an intervention which combined a self-help workbook with a telephone-delivered Motivational Intervention resulted in higher proportions of significant improvement in 'gambling symptoms' (not further specified) than when the self-help intervention was delivered alone.

Additional evidence was found for the effectiveness of Motivational Interventions on measures related to gambling in individual papers. Among a sample of people using a Swedish online gambling website, those who

received a Motivational Interview over the phone were significantly more likely to self-exclude from gambling websites and set gambling limits, and experienced a greater reduction in theoretical loses post-intervention when compared to a control group (Hakansson et al., 2024). A further study found that a single 30-minute Motivational Interview resulted in a significant reduction in median days gambled and median money spent on gambling one to two weeks after the intervention (Milic et al., 2022). This paper also identified a statistically significant reduction in PGSI, and a statistically significant reduction in psychological distress, as measured by the Kessler Psychological Distress Scale (K10) (Milic et al., 2022).

Furthermore, combined interventions that included elements of Motivational Interviewing were found to be effective. A 12-week course delivered in the United States which included elements of CBT and Motivational Interviewing was successful in significantly decreasing self-reported 'gambling disorder symptom severity' (measured by the Gambling Craving Scale (GCS)), PGSI, and the Rossenberg Self-Esteem Scale (RSES) at post-treatment (Kruse-Diehr et al., 2022). Similarly, a further RCT found that an online self-help intervention, which included elements of Motivational Interviewing and Cognitive Behavioural Therapy, had a significant effect for both the Gambling Symptom Assessment Scale (G-SAS) and PGSI, in addition to depression and anxiety symptoms (Boumparis et al., 2023). Additionally, an RCT study compared a CBT intervention to an intervention that included Motivational Interviewing alongside a self-help workbook and "booster sessions" (motivational telephone calls lasting approximately 10 to 15 minutes focused on motivation and reinforcement of behaviour change). Both interventions were effective in improving measures related to gambling, specifically for control over gambling, gambling expenditure, and time spent gambling post-treatment and at 12-month follow-up, and reduced PGSI scores at 12-months (Bellringer et al., 2021). Motivational interventions have also been shown to enhance the likelihood of attending treatment and decrease dropout (GREO, 2020).

Evidence for long-term effectiveness

Within evidence reviews identified, there was some evidence that the effects of Motivational Interventions were maintained over time. Follow-up was conducted over a range of time periods, but overall ranged from three- to 12-months. Reviews predominantly found evidence that Motivational Interventions were effective longer-term for measures related to gambling, such as financial loss (Di Nicola et al., 2020) and money spent (Higueruela-Ahijado et al., 2023), from three- to 12-months. However, there was limited evidence on the effectiveness for DSM-IV diagnostic criteria, PGSI (GREO, 2020) and for other relevant outcomes, specifically measures of depression (BDI) and anxiety (Beck's Anxiety Inventory (BAI)) (Higueruela-Ahijado et al., 2023) after three- to 12-months. There was mixed evidence for the effectiveness of Motivational Interventions on frequency of gambling or time spent gambling in the long-term (Di Nicola et al., 2020; Higueruela-Ahijado et al., 2023; and GREO, 2020), and no evidence found within evidence reviews for improvement in 'gambling severity' (measured using the National Opinion Research Center DSM Screen for Gambling Problems (NODS) (Ribeiro et al., 2021) and substance use (Higueruela-Ahijado et al., 2023).

One further individual study (rather than an evidence review) found that significant positive outcomes pertaining to gambling, specifically time spent gambling, money spent, and PGSI score, and other relevant outcomes related to psychological outcomes (mental distress as measured by K10) were sustained up to 18-months post-treatment (Milic et al., 2022). In an RCT, one group received an online remote intervention based on CBT and Motivational Interviewing, and a second group received the same CBT intervention in addition to a one-off brief Motivational Interview. Both groups saw a significant reduction in 'gambling severity' (measured by NODS) and gambling expenditure at three-, six- and 12-months post-randomisation, with the greatest reduction for both groups seen at three-months but with no significant differences found between the intervention groups for these measures (Brazeau et al., 2024). Significant reductions were also found for both groups on outcomes of other relevant, specifically psychological outcomes (depression measured by the Patient Health Questionnaire (PHQ-

9), anxiety measured by the Generalised Anxiety Disorder Scale (GAD-7), and psychological distress measured by K10) at all three time points. Those who received a one-off Motivational Interview in addition to the remote intervention had a significant reduction in psychological distress compared to those who did not at three-months, but not at six- or 12-months (Brazeau et al., 2024). The authors found that neither group (receiving the online intervention based on CBT / MI alone, or in addition to a one-off Motivational Interview) experienced a significant reduction in time spent gambling at three-months post-randomisation, but they both saw significant reductions at six- and 12-months (Brazeau et al., 2024).

Furthermore, an RCT by Bellringer et al., (2021) – which compared a CBT intervention to an intervention that included Motivational Interviewing alongside a self-help workbook and "booster sessions" (motivational telephone calls lasting approximately 10 to 15 minutes focused on motivation and reinforcement of behaviour change) found that both interventions were effective in improving measures related to gambling, namely control over gambling, gambling expenditure, time spent gambling, and PGSI score at 12-month follow-up. This intervention was also assessed at 24-months post-randomisation in a separate paper. At this time point, positive impacts on measures related to gambling, specifically gambling behaviours (days gambled and expenditure) and gambling risk level, were maintained for both intervention types. At 24-months, gambling urge also reduced, and perceived control over gambling, motivation to reduce / stop gambling, and confidence in meeting treatment goals increased (Bellringer et al., 2022).

Evidence for effectiveness among specific population groups

One evidence review cited that Motivational Interventions were effective for use with diverse cultural groups as the intervention is based upon personal beliefs and experiences (GREO, 2020). However, this was drawn from one included paper within the review and did not state if this was directly measured or the opinions of the authors. A further study found that among those who received a Motivational Interview over the phone, the outcome of self-exclusion was significantly positively associated with older age, and abstinence from gambling was associated with younger age (Hakansson et al., 2024). There was no further evidence related to the effectiveness of Motivational Interventions for specific populations.

3.4.2 Barriers and enablers to the effectiveness of Motivational Interventions

Barriers to effectiveness

One paper that looked at the effectiveness of a Motivational Interview intervention found that the approach of practitioners in delivering the intervention had an impact on the success of the intervention. Where the intervention delivered by practitioners did not strictly adhere to Motivational Interviewing practises – by exhibiting the non-adherent behaviours of "confront" or "persuade" – participants experienced higher levels of psychological distress, higher PGSI scores and correlated with decreased satisfaction with the service (Milic et al., 2022).

Enablers to effectiveness

There were several factors noted within evidence reviews which contributed to the effectiveness of Motivational Interventions. One evidence review found that a Motivational Intervention paired with CBT significantly improved measures related to gambling and those related to gambling harms, such as quality of life and impulsive behaviour (GREO, 2020). There was also evidence that Motivational Interviewing paired with Imaginal Desensitisation, which involves using imagery to reduce urges to engage in behaviours, effectively reduced scores for the Yale-Brown Obsessive Compulsive Scale for 'Pathological Gambling' (PG-YBOCS) and the Gambling Symptom Assessment Scale (G-SAS). However, only the effect on gambling severity measured by PG-YBOCS, remained over time (Ribeiro et al., 2021). The same review found that remote telephone-based Motivational Interviews with a self-help workbook effectively improved measures related to gambling (GREO,

2020), however, it did not state what these changes were in comparison to. Evidence reviews found that various formats of Motivational Interventions were effective. There was evidence that when delivered over the telephone, Motivational Interviewing led to a significant decrease in PGSI score (although the authors did not specify how "significance" was determined). There was also evidence that receiving a letter including elements of Motivational Interviewing increased the likelihood of attending treatment (GREO, 2020).

Furthermore, an RCT found a significant positive association between the number of modules completed of an online intervention (based on CBT and MI) and reduction in measures related to gambling at three-months, specifically NODS and money spent gambling (Brazeau et al., 2024) – suggesting that higher levels of engagement are an enabler to positive treatment outcomes. In the Bellringer et al., (2021) RCT, only participants receiving the intervention involving Motivational Interviewing with text messages (instead of without text messages or receiving a CBT intervention with or without text messages) saw a reduction in PGSI scores that resulted in participants moving into the moderate risk category at 12-months (although all intervention groups saw a reduction in PGSI). However, this requires further exploration as text messages did not impact long-term outcomes at 24-months (Bellringer et al., 2022).

3.4.3 Gaps in evidence

Overall, there is a lack of evidence from Great Britain relating to the effectiveness of Motivational Interventions for reducing gambling harm. Papers identified that looked at Motivational Interventions were from Australia, Canada, New Zealand, Sweden, and the United States. Furthermore, minimal evidence was found relating to the effectiveness of Motivational Interventions for specific populations. Authors of some of the papers also noted how the validity of their findings could be improved with the addition of a control group. While some of the data presented here draws on findings from RCTs, some of the findings would benefit from being replicated in a RCT study design.

3.5 Feedback Interventions

Personalised Feedback, including Personalised Normative Feedback, is a brief self-help intervention which aims to give information to people who gamble relating to their own and others' gambling activity (Marchica and Derevensky, 2016). Often it is targeted towards those experiencing less significant harms and has been classified in some cases as a preventative intervention (Fiskaali et al., 2022). The following section outlines evidence for the short- and long-term effectiveness of Feedback Interventions for the treatment of gambling which is associated with harm, barriers and enablers to effectiveness and evidence on specific population groups. Evidence relating to Feedback Interventions was identified through six reviews and two individual studies.

Key Findings

- The majority of the evidence identified on the effectiveness of Feedback Interventions related to behavioural measures associated with gambling, with limited evidence found relating to other measures related to gambling or psychological factors. Evidence was found for the effectiveness of Feedback Interventions for improving some behavioural outcomes (such as money spent, and gambling duration), with mixed results for some outcome measures (e.g. gambling frequency).
- Evidence also was found that mode of delivery of the intervention did not impact effectiveness, and some limited evidence suggested that a Feedback Intervention paired with a Motivational Intervention was more effective than a Feedback Intervention alone.
- Key evidence gaps for the effectiveness of Feedback Interventions include a lack of evidence from Great Britain, a lack of evidence relating to specific population groups, and a lack of evidence against a broad range of outcome measures (including those related to psychological factors).

3.5.1 Evidence for the effectiveness of Feedback Interventions

Evidence for short-term effectiveness

Limited and conflicting evidence was found within six evidence reviews (Fiskaali et al., 2022; Higueruela-Ahijado et al., 2023; Paterson et al., 2020; Ribeiro et al., 2021; Rodda, 2022; Stark et al., 2021) to support the use of Feedback Interventions for the treatment of gambling associated with harm in the short-term. There was minimal evidence for measures related to gambling, namely behaviours such as money spent on gambling (Fiskaali et al., 2022), and 'harms' which was not further specified (Stark et al., 2021). There was positive evidence for feedback interventions in relation to gambling severity according to the Gambling Symptom Assessment Scale (G-SAS) (Higueruela-Ahijado et al., 2022). There was further evidence that outcomes according to the South Oaks Gambling Screen (SOGS) significantly reduced following a computer-based Personalised Normative Feedback intervention (GREO, 2020).

There was mixed evidence from evidence reviews for several behavioural measures related to gambling, such as expenditure (Rodda, 2022), frequency of gambling (Higueruela-Ahijado et al., 2023; Rodda, 2022), and money spent gambling (Higueruela-Ahijado et al., 2023). Although not the focus on the intervention, evidence within reviews did not support improvement in wider outcomes which measured substance use, quality of life, satisfaction with life, and psychological factors, such as depression and anxiety (Higueruela-Ahijado et al., 2023).

Further evidence was found for the short-term effectiveness of Feedback Interventions on improving measures related to gambling, such as according to the Canadian Problem Gambling Index (CPGI). One study with a matched pairs design (with a treatment and control group with no randomisation) explored the impact of receiving Personalised Feedback via phone or email (compared to a control group who did not receive any

feedback), among a sample of online gambling website users who exhibited traits of “problematic gambling”. Both those who received an email and those who received a phone call showed significant reductions in measures of gambling behaviour, including amount of money deposited to the site, money wagered, number of monetary deposits and gambling duration when compared to a matched control. No significant decrease was found for gambling frequency. There were no statistically significant differences between those who received the intervention via email versus via telephone, suggesting that Feedback Interventions can be successful at reducing gambling behaviour in the short-term when delivered remotely through either email or telephone (Auer and Griffiths, 2022). A further Randomised Controlled Trial (RCT) also with two treatment groups – both receiving Personalised Feedback, with one receiving an additional personalised text message while the other received a general (not personalised) educational message – looked at the impact of Personalised Feedback on a sample of college students who showed signs of “at-risk gambling” (McAfee et al., 2020). Following the intervention, participants perceived levels of gambling for other students to be lower, which was associated with fewer ‘gambling problems’ according to the CPGI. However, there was no significant impact of receiving personalised text messages (McAfee et al., 2020).

Evidence for long-term effectiveness

There was evidence found to support longer-term positive impacts of Feedback Interventions for measures of related to gambling, such as CPGI (Ribeiro et al., 2021), the Gambling Problems Index (GPI) (Fiskaali et al., 2022), and money lost (Fiskaali et al., 2022). These effects were measured between three- and six-months. There was mixed evidence for several measures related to gambling, specifically behavioural measures such as days gambled (Fiskaali et al., 2022; Stark et al., 2021) and expenditure (Rodda, 2022), in the longer-term. There was additionally no evidence that Feedback Interventions effectively impacted scores on the Problem Gambling Severity Index (PGSI) after three months (Fiskaali et al., 2022).

One RCT found that, for both an intervention group receiving Personalised Feedback with an additional personalised text message, and a group receiving a general (not personalised) educational message, there was a significant impact on abstinence from gambling, money wagered and CPGI one-month post-treatment (McAfee et al., 2020). There was no significant difference between the two treatment groups for these outcome measures.

Evidence for effectiveness among specific population groups

One evidence review found that feedback was effective for reducing scores on the South Oaks Gambling Screen (SOGS) for people attending college (GREO, 2020) and one RCT also looked at a population of college students and found Feedback Interventions to be successful in reducing ‘problem gambling’ scores measured using the CPGI and money wagered, and increasing abstinence from gambling (McAfee et al., 2020). There was no evidence related to the effectiveness of Feedback Interventions for other specific population groups.

3.5.2 Barriers and enablers to the effectiveness of Feedback Interventions

One evidence review found that Feedback Interventions which were paired with Motivational Interviewing were more effective than a Feedback Intervention alone (Fiskaali et al., 2022). Furthermore, one review found significant effects for SOGS from an internet-based Personalised Normative Feedback Intervention (GREO, 2020), but no comparison was made to other delivery modes.

Other individual papers found that there was no significant difference on outcome measures when feedback was delivered via phone or via email (Auer and Griffiths, 2022) and no significant difference when an additional personalised text message was sent versus an additional general educational message was sent (McAfee et al.,

2020). It is therefore unclear whether different modes of delivery or additional personalisation is a barrier or enabler to effectiveness.

3.5.3 Gaps in evidence

Minimal evidence was found relating to the effectiveness of Feedback Interventions for specific population groups. One paper looked at college students, who were sampled based on attendance at a particular college, rather than based on their age specifically, and no comparisons were made to other groups. Population groups of the included studies were quite specific, for example including people who engaged in only certain types of gambling or college students. This may limit the generalisability of findings, with an evidence gap existing around studies with more diverse samples, including, for example, people of different ages, gender identities, and ethnicities. In general, there was also a lack of evidence from Great Britain, with a majority of evidence coming from the United States and the Netherlands. Furthermore, most evidence on outcomes related to measures of behaviours related to gambling (rather than harm), with minimal evidence found regarding gambling severity, and no evidence found regarding effectiveness on broader psychological factors, such as depression, anxiety, and distress (although it should be noted that interventions were not designed with the intention of reducing these factors).

3.6 Residential Treatment

Residential Treatment involves staying in a residential accommodation whilst accessing therapeutic interventions and support, such as Cognitive Behavioural Therapy (CBT), Exposure Therapy and other forms of support including sports therapy and social and creative therapies (GREO, 2020). The following section outlines evidence for the short and long-term effectiveness of residential services for the treatment of gambling which is associated with harm, barriers and enablers to effectiveness, and evidence on specific population groups. Evidence for Residential Treatment was included from one review and two individual studies.

Key Findings

- Recent evidence from the UK was identified which supported the effectiveness of Residential Treatment for women and people with comorbidities, with the strongest evidence around improving psychological factors such as anxiety and depression (with outcomes maintained over the longer-term), and more mixed findings around measures related to gambling.
- There is a gap in evidence around robust quantitative data on the efficacy of Residential Treatment for other population groups (e.g. men) among all outcome measures.

3.6.1 Evidence for the effectiveness of Residential Treatment

Evidence for short-term effectiveness

Previous research (not included in this review as the focus of the research did not meet the inclusion criteria) found that 100% of people in Great Britain who received residential treatment (among a sample of 58 service users) achieved clinically significant change in PGSI score at the end of treatment (Hickman and Chakraborty, 2022). Papers identified in this review found some further evidence to support the effectiveness of residential treatment. Among evidence reviews identified, there was evidence from one review to support the effectiveness of Residential Treatment for measures related to gambling, specifically for the Victorian Gambling Screen (VGS), as well as other relevant outcomes, including psychological factors such as distress (as measured by the Kessler Psychological Distress Scale (K10)), and the Work and Social Adjustment Scale (WSAS) (GREO, 2020). Two further papers found both quantitative and qualitative evidence that Residential Treatment is effective in the short-term at improving scores for the Problem Gambling Severity Index (PGSI), behavioural measures related to gambling, and psychological factors (Baker-Frampton et al., 2024; Spielhofer et al., 2023). Both of these papers looked at specific population groups and specific findings are explored below.

Evidence for long-term effectiveness

Evidence that was found in evidence reviews in relation to Residential Treatment was not sufficient. The evidence which was identified found that the effects of Residential Treatment were maintained in the longer-term. There was evidence that measures related to gambling, namely the VGS, the South Oaks Gambling Screen (SOGS) and the Structured Clinical Interview for 'Pathological Gambling' (SCI-PG), and other relevant outcomes, specifically psychological factors (K10, anxiety, mental distress), the WSAS, self-doubt, self-control and social engagement were maintained up to one year (GREO, 2020). However, it was not indicated if these changes were significant.

One paper found that positive effects of Residential Treatment for women were maintained in the longer-term – six-months post-treatment – for psychological factors (anxiety, depression, and psychological distress), and measures related to gambling with mixed findings for gambling severity (Baker-Frampton et al., 2024). These findings are explored in more detail below.

Evidence for effectiveness among specific population groups

One study, which examined Residential Treatment for men in the UK, included in an evidence review found that treatment dropout was predicted by being over the age of 26 (GREO, 2020). However, there was no further evidence related to the effectiveness of Residential Treatment for other specific populations within evidence reviews.

Two further papers were included that measured the effectiveness of Residential Treatment services in the UK, both of which focused on specific population groups. An evaluation commissioned by GambleAware assessed Residential Treatment for people experiencing gambling harm alongside other comorbidities, including substance use. The quantitative strand found that there was a significant reduction in PGSI scores post-treatment. Participants who took part in an interview about their experiences felt that the treatment helped them to reduce gambling behaviours and improved their mental health by improving their self-awareness of responses to positive and negative emotional triggers. Participants reported reduced stress, feeling happier, developing coping strategies, increased quality of life, reduced feelings of isolation and feeling more able to deal with past traumas. Participants also valued financial support that they had accessed, facilitating debt management and access to benefits. In the medium-term these qualitative findings became more mixed; while positive impacts continued, participants also reported that it became more difficult to avoid triggers for gambling following the completion of Residential Treatment (including physical triggers such as seeing gambling venues). Participants also reported challenges using skills and techniques gained from their treatment without the support of a therapist after they had returned to a community environment (Spielhofer et al., 2023).

Furthermore, another study evaluated women's experiences at Gordon Moody (a Residential Treatment provider in the UK). Authors found that nearly 50% of women who had taken part in treatment were not participating in gambling six-months post-treatment and a further 13% were low-risk for gambling harms, as measured by PGSI (Baker-Frampton et al., 2024). Levels of 'problem gambling' (measured using PGSI) decreased following treatment and reached their lowest level six-months post-treatment (compared to immediately post-treatment or three-month follow-up). In terms of psychological factors, six-months post-treatment over 50% of participants reported no depression or psychological distress, with psychological distress (measured using the Clinical Outcomes in Routine Evaluation (CORE-10)) significantly decreasing following treatment. Over 50% of participants were under the clinical threshold for anxiety or depressive symptoms and no one scored in the severe anxiety or severe depression range post-treatment (Baker-Frampton et al., 2024). However, results for gambling severity were mixed, with 20.4% of participants remaining high-risk for 'problem gambling' after treatment (as measured by PGSI). The authors suggested that Residential Treatment might work particularly well for women as it can take them away from caregiving and other responsibilities, allowing them the space and time to address trauma and coping strategies (Baker-Frampton et al., 2024).

3.6.2 Barriers and enablers to the effectiveness of Residential Treatment

One paper found that people experiencing gambling harms alongside other health challenges (e.g. harm related to substance use) who dropped out of Residential Treatment felt that more could be done to "reintegrate them into their community"; the authors recommended that improved aftercare could go some way to address this barrier, including follow-up therapeutic support and potentially the development of care plans involving Affected Others / Concerned Significant Others (Spielhofer et al., 2023). Furthermore, the complexity of comorbid needs was highlighted by the authors as a barrier to treatment, alongside health services being slow in giving patient information, particularly in cases where participants needed support for alcohol and substance use (Spielhofer et al., 2023). There was no further evidence of factors which acted as enablers or barriers to the effectiveness of Residential Treatment for gambling associated with harm found in the review.

3.6.3 Gaps in evidence

The study exploring women's experiences of Residential Treatment found that 20.4% of women remained high-risk for gambling harm following treatment (Baker-Frampton et al., 2024). The authors proposed that following up with participants could uncover why the treatment did not work for them and explore the impact of other factors on recovery, such as mental health or environmental factors (e.g. cost of living). A gap also exists around evidence on the experiences of men who access Residential Treatment Services, which would allow comparisons to the evidence found for women and provide a broader view on the general experiences of those who access Residential Treatment in Great Britain. A paper of this nature looking at a Gordon Moody treatment centre in the UK is currently being prepared for publication but was not available at the time of writing.[2] Further research could also explore who residential treatment suits best by comparing outcomes for different groups and whether positive effects are maintained over a longer period (longer than six-months). Future research should seek to quantitatively measure the positive impacts of Residential Treatment reported in qualitative interviews by those in other population groups, including those with comorbidities.

[2] Dragomir, D., Baker-Frampton, R. & James, R. (Forthcoming). Evaluating a men's residential treatment centre for gambling harm.

3.7 12-Step Interventions and peer support (including Gamblers Anonymous)

12-Step Interventions are abstinence-based group programmes consisting of 12 consecutive activities or steps which make up the recovery process, focusing on acceptance, spirituality, and peer support (Donovan et al., 2013). Gamblers Anonymous is a type of 12-Step Intervention, which is peer-led and involves sharing experiences, problem solving, and support to solve common problems and help others (Gamblers Anonymous, n.d.). Gamblers Anonymous is abstinence based and primarily aims to stop attendees taking part in gambling. Peer support is a process of mutual help and learning among people who share similar experiences or challenges, and is designed to provide emotional, social, or practical support to others, as well as knowledge and experience. Peer support groups for gambling harms exist both online and in-person. The following section outlines evidence for the short- and long-term effectiveness of peer support and 12-Step Interventions for the treatment of gambling which is associated with harm, barriers and enablers to effectiveness, and evidence on specific population groups. Evidence in relation to 12-Step Interventions was included from four reviews and four individual studies.

Key Findings

- Qualitative evidence was found that suggests that 12-Step Interventions are effective. There was also some minimal quantitative evidence suggesting that Gamblers Anonymous is successful in reducing gambling harm and depression in the short-term only, and qualitative evidence also identified peer support as a positive intervention.
- Qualitative evidence suggests that the composition of the group in which 12-Step Interventions and peer support are delivered can act as a barrier or enabler to treatment, in particular for certain population groups (for instance in relation to the ethnic or gender diversity of group members).
- More robust quantitative evidence with control group comparison is needed to determine the efficacy of 12-Step Interventions and peer support, particularly in the long-term.

3.7.1 Evidence for the effectiveness of 12-Step Interventions

Evidence for short-term effectiveness

There was a lack of evidence found in included evidence reviews that demonstrated the effectiveness of the 12-Step Facilitated Treatment. Evidence showed that only the frequency and intensity of gambling behaviours and one broader psychological factor (depression) was effectively changed in the short-term (Higueruela-Ahijado et al., 2023). There was no evidence that the intervention effectively changed other psychiatric symptoms, diagnostic criteria outlined in the Diagnostic Statistical Manual (Fourth Edition) (DSM-IV) or self-efficacy (Ribeiro et al., 2021), although it should be noted that this was not the primary objective of interventions. The National Institute of Health and Care Excellence (2023c) found that a 12-Step Intervention was more effective than no treatment according to a Network Meta-Analysis (an analytical method of comparing the effectiveness of interventions). This was, however, from a very small sample.

A qualitative study found that among individuals who had sought help for ‘gambling problems’, Gamblers Anonymous was held in high regard as the most effective intervention as it gave them something to “truly believe in” and provided them with “authentic” emotional connections and the opportunity to receive empathy. In comparison, interventions such as Cognitive Behavioural Therapy (CBT) were not thought by participants to provide authentic emotional connection or the same level of empathy. Hearing other people's stories in Gamblers Anonymous meetings helped participants believe they could recover and dissuaded them from

relapsing when hearing from others about their negative experiences of starting to gamble again. For CBT and other Counselling Interventions, participants felt that not having other people to compare themselves to “spurred on” gambling (Penfold and Ogden, 2022). No further quantitative evidence was found for the effectiveness of 12-Step Interventions in the short-term.

There was some evidence relating to peer support for gambling associated with harm. A qualitative study from the UK reported that peer support groups, and the ability to interact with other people with lived experience, helped participants to feel understood, "sometimes for the first time". Participants felt that shared experiences created trust and built confidence. They also felt that peer support provided opportunities to learn coping strategies from others and helped them to deal with triggers associated with their experiences of gambling, for example through awareness and understanding of their emotions (Riley, 2023).

Evidence for long-term effectiveness

One evidence review that explored the effectiveness of a 12-Step Facilitated Treatment did not find any evidence that the intervention was effective in the long-term, measured at six- and 12-months. There was no significant improvement in desire to gamble, DSM-IV diagnostic criteria, frequency of gambling, and self-efficacy compared to a node-link mapping enhanced CBT intervention after six months (Ribeiro et al., 2021). There was additionally no significant change to substance use or psychiatric symptoms after 12 months following the intervention (Higueruela-Ahijado et al., 2023). No further evidence relating specifically to the long-term outcomes from Gamblers Anonymous or other forms of peer support was identified in any other papers.

Evidence for effectiveness among specific population groups

There was no evidence related to the effectiveness of the 12-Step Facilitated treatment for specific populations found within evidence reviews. A further qualitative study exploring minority ethnic peoples’ experiences of gambling harms treatment reported that one participant had positive experiences of Gamblers Anonymous, which they described as a supportive environment where other people were welcoming (Brown et al., 2023).

Further qualitative evidence found that participants’ experiences of peer support, particularly for women, were improved by "feeling understood" in the group setting. Female participants additionally favoured women-only groups, attributing this to experiencing less stigma, and reported that this particularly created bonds of trust, and built confidence and self-esteem (Riley, 2023). No quantitative evidence on the effectiveness of 12-Step Interventions or peer support for specific populations was identified.

3.7.2 Barriers and enablers to the effectiveness of 12-Step Interventions

Barriers to effectiveness

A study exploring women’s experiences of gambling harms treatment reported that women found male-dominated support groups “difficult to relate to” and that female-led peer support groups were highly useful and valued by participants (Riley, 2021). Furthermore, a report exploring experiences of those from minority ethnic communities reported that the lack of ethnic diversity within Gamblers Anonymous groups was a barrier to the intervention being effective for some participants and meant that it did not always meet their needs (Brown et al., 2023).

Enablers to effectiveness

One evidence review found that the Gamblers Anonymous intervention was more effective when paired with CBT for ‘reducing problem gambling and related harms’, however, no further detail was provided (GREO, 2020).

In evidence identified in additional searches, participants in qualitative interviews viewed online group meetings as being valuable due to them enabling an accessible form of peer support and found that online meetings could help overcome barriers such as caring commitments and social anxiety (Riley, 2023). However, face-to-face meetings were seen as more valuable due to the emotional connection with others that they facilitate. Furthermore, a qualitative study by Penfold and Ogden (2022) found that the in-person nature of Gamblers Anonymous meetings was considered an enabler by participants. This was because participants perceived the most important aspect of interventions aiming to treat gambling harm as engaging with people who had experience of gambling and gambling harms, an opportunity which in-person Gamblers Anonymous meetings provide (Penfold and Ogden, 2022).

Further survey evidence identified found that, within a sample including people who did and did not participate in Gamblers Anonymous, being a member of Gamblers Anonymous significantly predicted lower levels of gambling urges according to the Gambling Urge Scale (GUS). However, level of social support was not significantly associated with membership of Gamblers Anonymous. There was additionally no significant association between membership with Gamblers Anonymous and quality of life (Penfold and Ogden, 2023).

3.7.3 Gaps in evidence

More research is needed to assess the short- and long-term effectiveness of 12-Step Interventions such as Gamblers Anonymous and other peer support programmes, with larger and more diverse samples – including specific population groups – to produce more robust quantitative findings on effectiveness, including comparisons to a control group or other types of interventions. However, it should be noted that this current gap is likely influenced by the anonymous nature of many 12-step programmes, presenting challenges for collecting follow-up data on outcomes.

3.8 Eye Movement Desensitisation and Reprocessing (EMDR)

EMDR (Eye Movement Desensitisation and Reprocessing) is a therapy that helps individuals process and recover from past experiences that are affecting their mental health and wellbeing. It involves using side to side eye movements combined with talk therapy in a specific and structured format (Cuijpers et al., 2020). The following section outlines evidence for the effectiveness of EMDR interventions for the treatment of gambling which is associated with harm. Evidence for EMDR was included from one study.

Key Findings

- There was a very small amount of recent evidence identified that suggests that EMDR is effective in reducing gambling urges and improving self-control. However, this study was not generalisable due to a small study size.
- Further research is needed into the efficacy of EMDR in treating gambling harms.

3.8.1 Evidence for the effectiveness of EMDR

Evidence for short-term effectiveness

The effect of EMDR for people in The Netherlands who experience harm from their own gambling was analysed in one paper, which measured changes in self-control in the context of gambling disorder (measured using the Gambling Abstinence Self-Efficacy Scale (GASS)) and urge (measured using the Obsessive Compulsive Drinking Scale (OCDS)) before and after the intervention. There were some positive effects for behavioural outcomes related to gambling for two participants, namely gambling urge (OCDS) and self-control (GASS). However, the small sample size means these findings are not generalisable. No other evidence was found for the effectiveness of EMDR (van Minnen et al., 2020).

3.8.2 Barriers and enablers to the effectiveness of EMDR

No evidence was found on barriers or enablers to the effectiveness of EMDR.

3.8.3 Gaps in evidence

Only very minimal evidence was found to support the effectiveness of EMDR to treat gambling related harms, the findings of which are not generalisable. Further research should be conducted on the effectiveness of EMDR with larger sample sizes.

3.9 Exercise and Physiotherapy Interventions

Physical Exercise and physiotherapy were used in the intervention of gambling associated with harm. The Exercise Interventions included were described as aerobic exercise and running. The following section outlines evidence for the effectiveness of Exercise Interventions for the treatment of gambling which is associated with harm. Evidence for Exercise Interventions was identified in two reviews.

Key Findings

- A lack of evidence was found regarding the effectiveness of Exercise Interventions, with further research needed to validate findings suggesting positive outcomes for measures related to gambling and psychological factors.

3.9.1 Evidence for the effectiveness of Exercise and Physiotherapy Interventions

Evidence for short-term effectiveness

Evidence for the effectiveness of Exercise Interventions was both mixed and limited. Evidence reviews found that the intervention effectively reduced psychiatric comorbidities (Carrascosa-Artega et al., 2023; Ribeiro et al., 2021) and symptoms of anxiety and depression (Carrascosa-Artega et al., 2023). However, the Exercise Intervention did not significantly improve the Gambling Follow-up Scale (self-report version) (GFS-SR), which measured gambling frequency, time and money spent gambling, gambling craving, debts, emotional distress, family relationships, autonomy, and frequency of and satisfaction with leisure activities in comparison to a control group who engaged in a stretching activity without aerobic exercise (Ribeiro et al., 2021). One evidence review found that improvements to psychiatric comorbidities, but not to measures related to gambling (GSF-SR), were maintained after two months post-treatment (Ribeiro et al., 2021).

Evidence for long-term effectiveness

There was no evidence identified in this review to support the effectiveness of exercise or physiotherapy interventions longer-term.

Evidence for effectiveness among specific population groups

There was no evidence identified in this review related to the effectiveness of exercise interventions for specific populations.

3.9.2 Barriers and enablers to the effectiveness of Exercise Interventions

There was no evidence identified in this review about barriers or enablers to the effectiveness of Exercise Interventions for gambling associated with harm.

3.9.3 Gaps in evidence

Large evidence gaps exist around the effectiveness of Exercise Interventions for the treatment of gambling harms on a range of outcome measures in both the long- and short- term and for specific population groups.

3.10 Counselling

Counselling is a psychotherapy, focused on talking with a therapist about emotional issues (APA, n.d.). There are various forms of counselling including Client Centred Therapy, which is a form of counselling focused on self-change (which we identified the most evidence for). The following section outlines evidence for the effectiveness of counselling interventions for the treatment of gambling which is associated with harm. Evidence in relation to counselling was identified in two reviews and one individual study.

Key Findings

- Very minimal evidence was found regarding the effectiveness of counselling interventions for people harmed by their own gambling.

3.10.1 Evidence for the effectiveness of Counselling

Evidence for short-term effectiveness

One evidence review (NICE, 2023c) reported that Client Centred Therapy Counselling was more effective than no treatment for gambling associated with harm, however, outcome measures were not specified. Qualitative evidence from interviews found that participants viewed Counselling as helpful, not this was not further elaborated on (Brown et al., 2023).

Evidence for long-term effectiveness

There was no evidence identified for long-term effects of counselling in this review.

Evidence for effectiveness among specific population groups

There was minimal evidence identified about effectiveness of counselling among specific population groups in this review. One evidence review included one study which found that an online counselling-based webinar (which was delivered with a workbook) for women was positively received, and resulted in participants gambling less frequently, having reduced urge to gamble, an increased awareness of triggers and behaviours, and an increased sense of happiness, hopefulness, and wellness (GREO, 2020). Specific outcome measures or the statistical or clinical significance in these changes was not reported on.

3.10.2 Barriers and enablers to the effectiveness of Counselling

There was no evidence of factors which acted as enablers or barriers to the effectiveness of Counselling for gambling associated with harm.

3.10.3 Gaps in evidence

There are significant gaps in the recent evidence (included in this review) around Counselling for gambling associated with harm and, as such, further evidence relating to both short- and long-term outcomes is required. Further, there were gaps around specific factors which acted as enablers or barriers for Counselling, and effectiveness for specific population groups.

3.11 General evidence about remote interventions

Seven evidence reviews identified discussed remote interventions in general (across types of intervention), including self-help, online, guided, and unguided interventions (Augner et al., 2022; Boumparis et al., 2022; Di Nicola et al., 2020; GREO, 2020; NICE, 2023c; Paterson et al., 2020; Stark et al., 2021). Evidence for remote formats of other specific interventions included in previous sections, such as Cognitive Behavioural Therapy (CBT), were included under the relevant sub-headings for intervention types where this was clearly identified.

3.11.1 Evidence for the effectiveness of remote interventions

Evidence for short-term effectiveness

Remote interventions, when grouped and not separated by psychological or psychosocial intervention or specific modality (for example by phone, online, and self-help) were found to be effective according to some outcome measures:

- Measures related to gambling, such as the South Oaks Gambling Screen (SOGS) (Augner et al., 2022; Boumparis et al., 2022; GREO, 2020; Stark et al., 2021), 'remission' (GREO, 2020), the Yale-Brown Obsessive Compulsive Scale for 'Pathological Gambling' (PG-YBOCS) (Augner et al., 2022; Boumparis et al., 2022; GREO, 2020), diagnostic criteria according to the Diagnostic Statistical Manual (Fourth Edition) (DSM-IV) (Stark et al., 2021), the Gambling Refusal Self-Efficacy Questionnaire (GRSEQ) (Boumparis et al., 2022), the Gambling Attitudes and Beliefs Survey (GABS) (Boumparis et al., 2022), and 'gambling symptoms' (not further specified) (Di Nicola et al., 2020). Remote intervention also effectively increased abstinence (GREO,2020); and
- Other relevant outcomes, such as quality of life (GREO, 2020; Paterson et al., 2020), and alcohol consumption (GREO, 2020), and those related to psychological outcomes such as measures relating to depression (Boumparis et al., 2022; GREO, 2020) and distress (GREO, 2020).

There was some, albeit mixed, evidence for the effectiveness of remote interventions across evidence reviews for measures related to gambling , such as expenditure (Boumparis et al., 2022; Di Nicola et al., 2020; GREO, 2020; NICE, 2023c), frequency of gambling (Di Nicola et al., 2020; GREO, 2020), time spent gambling (Di Nicola et al., 2020; GREO, 2020), and according to the Problem Gambling Severity Index (PGSI) (Augner et al., 2022; GREO, 2020), the National Opinion Research Center DSM Screen for Gambling Problems (NODS) (Augner et al., 2022; Boumparis et al., 2022), and the Gambling Symptom Assessment Scale (G-SAS) (Boumparis et al., 2022; GREO, 2020). There was also mixed evidence related to measures of anxiety (GREO, 2020; Paterson et al., 2020).

There was no evidence within the reviews to support improvement in outcomes which measured 'gambling craving' (GREO, 2020) or impulsiveness (measured via the Eysenck Impulsiveness Scale (EIS)) (Boumparis et al., 2022). One review included evidence that a self-help intervention based on a workbook delivered to women increased awareness and understanding of gambling triggers, improved mood and anxiety, reduced feelings of isolation, and resulted in positive changes in their relationship (GREO, 2020). The review did not provide details relating to the sample or outcome measures used.

Evidence for long-term effectiveness

There was very little recent evidence that remote interventions (not otherwise defined) were effective longer-term. One evidence review found that an internet-based intervention 'reduced gambling' up to three years after the intervention, however, this was not further specified (Di Nicola et al., 2020). Evidence that remote interventions maintained their effect over time were mixed for outcomes relating to time and money spent

gambling (Boumparis et al., 2022; Stark et al., 2021), PGSI (Boumparis et al., 2022; GREO, 2020), G-SAS (GREO, 2020), and DSM-IV diagnostic criteria (Stark et al., 2021).

Further evidence relating to the short- and long-term effect of remote interventions is included in prior sections relating to the specific interventions which were delivered in a remote format.

3.11.2 Barriers and enablers to the effectiveness of Remote Interventions

One review reported several factors relating to the barriers and enablers to the efficacy of self-help interventions (Di Nicola et al., 2020). This review reported that self-help interventions could overcome barriers to and facilitate access to treatment. In relation to factors which affected the effectiveness, the review reported that those who benefit from self-help interventions tended to be high in motivation, resourcefulness, and education, and possessed certain personality traits (for example, stability and determination). Conversely, the review found that treatment benefit was limited by the brief nature of interventions, and treatment effects for self-help were limited for those with comorbid personality disorders, psychological problems, and interpersonal difficulties (Di Nicola et al., 2020). It was not clear whether these barriers and enablers to the effectiveness of remote self-help interventions were the subject of the included research, or conclusions drawn by the author.

3.12 Other interventions with limited evidence

Evidence in relation to additional interventions with either extremely limited or no evidence on their effectiveness were included in five reviews.

3.12.1 Evidence for the short-term effectiveness of other interventions

- **Action and Coping Planning** (defining actions towards goals and barriers to achieving these (Rodda et al., 2020)) - There was no evidence that Action and Coping Planning effectively impacted adhering to a limit for gambling and money spent in the short-term or after 30 days (Fiskaali et al., 2022).
- **Psychodynamic Therapy** (treating underlying emotions and conflicts which trigger gambling (APA, n.d.) - There was some minimal evidence that Psychodynamic Therapy improved scores on the Problem Gambling Severity Index (PGSI) and psychological factors (depression and anxiety) (GREO, 2020). However, the significance of these findings was not included.
- **Art-based Treatment Programmes** (using art as expression to reduce distress (Mind, n.d.) – an Art-based Treatment Programme received positive feedback however there was no specific evidence around the effectiveness of the intervention (GREO, 2020)
- **GamAid** (provides online advice, guidance, and support for people who experience harm from their own gambling and Affected Others / Concerned Significant Others (Wood and Griffiths, 2007)) - The intervention received positive feedback, however, there was no specific evidence that the online advice, guidance, and support intervention effectively or significantly changed any outcome measures (Paterson et al., 2020).
- **Relaxation Interventions** (such as breathing techniques and muscle relaxation techniques (APA, n.d.) – There was minimal evidence that Relaxation Interventions were effective in the treatment of gambling associated with harm. Relaxation exercises reduced anxiety and depression symptoms, stress, and improved life satisfaction, sleep quality, and routine (Carrascosa-Artega et al., 2023). However, the significance of these findings was not included.
- **Helplines** – There was some evidence that helplines (which can be considered a brief intervention themselves as well as a signposting mechanism) improved behaviours related to gambling, emotional well-being, and quality of life (GREO, 2020).

3.12.2 Evidence for the long-term effectiveness of other interventions

Helplines (GREO, 2020) – Evidence from New Zealand found that, following contact with a national gambling helpline, outcomes improved over a period of three-years. One evidence review reported that a national helpline in New Zealand provided a ‘standard care intervention’ which was not defined, however frequently involves listening and provision of information relating to the accessible support and interventions for gambling. Following contact with the helpline, ‘problem gambling’ severity according to PGSI decreased after one and three years; scores decreased from an average of 17 to an average of nine and 7.5 after one- and three-years, respectively. Depression also reduced, with 42% and 41% of participants having depression at one- and three-year follow-up compared to 74% at baseline, although the evidence review did not state how depression was measured.

There are additional interventions, both psychological and psychosocial, which potentially have benefits for people experiencing gambling associated with harm. Further alternative interventions include Aversion Therapy, reinforcement-based approaches such as Contingency Management, skills training such as Assertiveness training, Life Skills Training, Communication Training, Dialectical Behaviour Therapy, Mindfulness-based Cognitive Therapy, and Drama-based Therapy. There was, however, no evidence identified published within the period examined for this review which provided insight into the effectiveness of these interventions. Relapse Prevention was also included within interventions and viewed as an important aspect of treatment (NICE,

2023c), however there was no evidence relating to the standalone impact of Relapse Prevention, or the importance of it within interventions or to support longer-term outcomes.

4. Evidence relating to interventions for Affected or Concerned Significant Others

Concerned Significant Others (CSOs) or Affected Others (AOs) are those affected by someone else's gambling, such as family members, partners, ex-partners, and friends. Both the terms CSO and AO were used in the literature to describe people affected by others' gambling and as such, evidence has been presented using language consistent with authors' terms. This chapter first explores findings related to interventions for both the CSO / AO and person who gambles jointly (4.1), before exploring findings related to interventions targeted solely at CSOs / AOs (4.2).

4.1 Joint interventions with Concerned Significant Others (CSOs) or Affected Others (AOs)

Joint interventions with Concerned Significant Others (CSOs) or Affected Others (AOs) included Couples Therapy and Residential Treatment. While Couples Therapy can vary in relation to content, it is an intervention which includes both the person who gambles and the CSO. Evidence for Couples Therapy interventions included several types. Behavioural Couples Therapy focuses on thought processes and behaviours, improving the couple's relationship, support, and acceptance (APA, n.d.), and Integrative Couples Therapy for 'Pathological Gambling' (ICT-PG) is based on Behavioural Couples Therapy albeit with a greater focus on distress and promotion of emotional acceptance (Christensen and Doss, 2017). Additionally, Congruence Couples Therapy (CCT) is an intervention for couples based on interpersonal and universal disconnections between couples (Lee et al., 2023). Other approaches to treatment, such as Residential Treatment, also occasionally included CSOs. The following section outlines evidence for the short and long-term effectiveness of joint interventions with CSOs for the treatment of gambling which is associated with harm, barriers and enablers to effectiveness and evidence on specific population groups. This evidence was identified in seven reviews and three individual studies.

Key Findings

- There was some recent evidence that joint interventions involving CSOs positively affected outcomes, with the largest volume of evidence focused on Couples Therapy. There was a lack of evidence for the longevity of these effects.
- There was some limited qualitative evidence relating to barriers, such as practical barriers of attending treatment alongside someone else, and facilitators, such as therapeutic alliance (which is the relationship between a person receiving a therapeutic intervention and the therapist).
- The key gaps for interventions involving CSOs included evidence with larger sample sizes, evidence about long-term outcomes, and efficacy for specific populations.

4.1.1 Evidence for the effectiveness of Joint interventions with Concerned Significant Others (CSOs) or Affected Others (AOs)

Evidence for short-term effectiveness

There was some recent evidence that Couples Therapy resulted in positive outcomes for both those experiencing harm due to their own gambling and CSOs, although throughout the evidence, it was not always clear for whom the interventions were effective, or to whom the changes in outcome measures were related.

Behavioural Couples Therapy had the strongest evidence and was shown to positively impact psychological factors, namely, depression and anxiety, for the CSO (GREO, 2020; Vassallo et al., 2023) and for those experiencing harm due to their own gambling (GREO, 2020). For those experiencing harm due to their own gambling, Behavioural Couples Therapy also positively impacted measures related to gambling including the National Opinion Research Center DSM Screen for Gambling Problems (NODS) (GREO, 2020; Ribeiro et al., 2021) and the Gambling Symptoms Assessment Scale (G-SAS) (Ribeiro et al., 2021), and behaviours related to gambling such as days gambled (Ribeiro et al., 2021) and money lost, (GREO, 2022; Ribeiro et al., 2021). There was some evidence to support a positive impact of Behavioural Couples Therapy according to the Inventory of Negative Consequences for the Gambler and CSO (ICS), which measures consequences for the person who gambles, and negative and behavioural consequences for the CSO (Edgren et al., 2022; Stark et al., 2021). Evidence also supported a positive impact on family system functioning (Edgren et al., 2022) and adherence to treatment for the person experiencing harm due to their own gambling (Higueruela-Ahijado et al., 2023). The evidence reviews included did not find evidence that Behavioural Couples Therapy significantly impacted alcohol use for either the CSO or those experiencing harm due to their own gambling (Stark et al., 2021) or improved relationships, according to the Relationship Assessment Scale (RAS) (Higueruela-Ahijado et al., 2023; Stark et al., 2023; Vassallo et al., 2023). There was, however, little difference for outcomes for the person who gambles when compared to remotely delivered individual CBT; the only difference between CBT and Behavioural Couples Therapy was a significant improvement in depression for those experiencing harm due to their own gambling in favour of the CBT intervention post-treatment (Nilsson et al., 2020).

One evidence review reported that CCT was more effective than no treatment (NICE, 2023c). There was further evidence from reviews that the intervention improved mental distress for the CSO according to the Brief Symptom Inventory (BSI) (Edgren et al., 2022; GREO, 2020; Vassallo et al., 2023), spousal functioning, and gambling severity for those experiencing harm due to their own gambling as measured by diagnostic criteria outlined in the DSM-IV (GREO, 2020).

No specific evidence from the evidence reviews included was found to attest to the effectiveness of ICT-PG on specific measures. One review reported that, between participants who received either individual treatment (described as ‘usual treatment for pathological gambling’ for the person who gambled, which was not further specified, and ‘family member services’ for partners which aimed to support wellbeing and increase understanding of gambling disorder) or ICT-PG, those who received ICT-PG reported more positive experiences (GREO, 2020). Further, participants reported that the couple intervention improved communication and mutual understanding. People who gamble and reported difficulty discussing their gambling with their partner however, reported a preference for individual treatment (GREO, 2020). The methods for understanding the perspectives of those who received the interventions were, however, not described in the review.

Additional papers found further evidence for the effectiveness of ICT-PG. One Randomised Controlled Trial (RCT) compared ICT-PG with individual manualised Cognitive Behavioural Therapy (CBT) for those experiencing harm associated with their own gambling and individual or group support (with a focus on communication, understanding of gambling, and wellbeing) for partners in a sample of 80 couples (Tremblay et

al., 2022). Money spent gambling and reported negative consequences from gambling, for people who gamble in relation to the former, and both people who gamble and partners for the latter, improved for both individual and couple treatment with no difference between conditions. ICT-PG however, resulted in significantly greater improvement in relation to control over gambling (as measured by the Impaired Control over Gambling (ICOG)) measure and reduction in craving (according to the Gambling Symptom Assessment Scale (G-SAS)) for those who gamble. Additionally, both those who gamble and CSOs showed significantly greater improvement in relation to erroneous cognitions (measured by the Gambling Related Beliefs Inventory (GRBI)), depression (as measured by the Centre for Epidemiologic Studies-Depression Scale (CES-D)), and relationship satisfaction (according to the Dyadic Adjustment Scale (DAS)) following ICT-PG compared to individual treatment (Tremblay et al., 2022). Further evidence from a case study approach involving three couples found that, for those experiencing harm associated with their own gambling, ICT-PG improved shame and guilt and levels of 'problem gambling' according to the PGSI compared to baseline. For CSOs, the intervention improved feelings of revenge, avoidance, and benevolence, and improved satisfaction with the relationship (based on the DAS), although outcomes were not consistent for all participants (Côté et al., 2022).

Evidence for long-term effectiveness

There was a lack of evidence in evidence reviews on the long-term effectiveness of joint interventions with CSOs or AOs and as with short-term, evidence relating to the long-term effectiveness did not clearly differentiate between outcomes relating to CSOs themselves compared to those experiencing harm due to their own gambling. One evidence review found mixed evidence on the effect of Couples Therapy on anxiety and depression when reviewed after three- and six-months, although it was not specified whether these changes related to the CSO or those experiencing harm due to their own gambling (Vassallo et al., 2023). Another evidence review found that, in the longer-term, Couples Therapy improved anxiety and depression both for CSOs and those experiencing harm due to their own gambling, and gambling severity and money lost to gambling for the latter. However, the length of follow-up was not specified (GREO, 2020).

RCT evidence found that at four- and ten-month follow-up, ICT-PG improved several indices of gambling severity, for instance in relation to control, craving, and 'erroneous cognitions' relating to gambling (such as illusions of control over the outcome and superstition), as measured by the Gambling Related Beliefs Inventory (GRBI) for those experiencing harm due to their own gambling. ICT-PG was also associated with improved couple wellbeing and lower depression for people who gamble and CSOs (Tremblay et al., 2022).

Evidence for effectiveness among specific population groups

In an RCT, Behavioural Couples Therapy delivered remotely resulted in significantly improved consequences from gambling for the CSO, as measured by ICS after 12-months (Nilsson et al., 2020). There were, however, no further differences between outcomes for depression, anxiety, alcohol consumption, relationship satisfaction, and adherence to treatment when compared to a control group who did not receive any intervention.

One evidence review identified that including CSOs in Residential Treatment for men resulted in fewer 'psychological problems' for those experiencing harm due to their own gambling following treatment (although this was not expanded on further), as well as increasing attendance to sessions, and reducing dropout. Furthermore, where a spouse was involved in treatment, people who gamble were less likely to relapse and more likely to follow treatment guidelines (GREO, 2020). There was, however, no comparison to populations of women receiving Residential Treatment.

4.1.2 Barriers and enablers to the effectiveness of Joint interventions with Concerned Significant Others (CSOs) or Affected others (AOs)

Barriers to effectiveness

One evidence review reported that between participants who received either ICT-PG or individual treatment (not specified), the people who gambled favoured individual treatment when they had trouble talking about their gambling with their partner (GREO, 2020). Furthermore, a study evaluating the effectiveness of ICT-PG using a case study design noted that one of the three couples involved did not complete the treatment due to separating (Côté et al., 2022). Qualitative evidence from interviews with participants of interventions from Canada and Sweden included in an evidence review found that individual interventions for CSOs and those experiencing gambling harm should be offered first to allow participants to tackle issues independently before starting Couples Therapy (Vassallo et al., 2023). The same review found that Couples Therapy was viewed as generic and not tailored to individual need, seen to limit self-expression, and can be impacted by practical issues such as conflicting schedules, which can increase likelihood of drop-out from treatment (Edgren et al., 2022).

Enablers to effectiveness

People experiencing gambling harms who received Residential Treatment with a CSO had fewer 'psychological problems' after treatment ended and were more likely to attend therapy sessions (GREO, 2020). One evidence review found that couples who received ICT-PG reported that receiving the intervention as a couple developed communication skills and improved mutual understanding (GREO, 2020). Qualitative evidence found that therapeutic alliance, trust, understanding, and exploring needs and wishes facilitated treatment (Vassallo et al., 2023).

4.1.3 Gaps in evidence

As there was a lack of evidence that interventions involving CSOs in treatment, primarily Couples Therapy, was effective, further evidence is required, particularly differentiating between the various interventions which are categorised as Couples Therapy. Furthermore, evidence identified did not always specify whether changes to outcomes were statistically significant and there is a need for robust RCT evidence to fully assess effectiveness. Couples Therapy was an effective intervention for people who are harmed by their own gambling in relation to some outcome measures, however, additional direct comparison to individual treatment would provide further insight into their effectiveness. Although CSOs were involved in treatment, there was a lack of evidence relating to effectiveness of the interventions for CSOs themselves. Finally, there was also a lack of evidence for the effectiveness of Couples Therapy and other interventions involving CSOs for specific populations.

4.2 Interventions solely delivered to Concerned Significant Others (CSOs) or Affected Others (AOs)

Concerned Significant Others (CSOs) or Affected Others (AOs) are people affected by someone else's gambling, including (but not limited to) family members, partners, ex-partners, and friends. Both of these terms were used in the literature to describe people affected by others' gambling and as such, evidence has been presented using language consistent with authors' terms.

Interventions which were delivered solely to CSOs or AOs included: Community Reinforcement Approach and Family Training (CRAFT); the 5-step method; online chat consultations for CSOs; Cognitive Behavioural Therapy (CBT) (delivered online); and individual Counselling. CRAFT is an intervention delivered to CSOs and focuses on communication, stress management, self-worth, and encouraging the person who is harmed by their own gambling to enter treatment and subsequently reduce gambling (Hodgins et al., 2007). The 5-step method is a psychosocial intervention to support CSOs which focuses on coping skills and communication (Orford et al., 2013). Online chat consultations for CSOs included information and support, and individual Counselling focused on coping skills.

The following section outlines evidence for the short- and long-term effectiveness of interventions solely for CSOs or AOs for the treatment of gambling which is associated with harm, barriers and enablers to effectiveness and evidence on specific population groups. This evidence was identified in four evidence reviews.

Key Findings

- There was some evidence in relation to interventions aimed at CSOs, however, this was extremely limited and focused on short, rather than longer-term outcomes.
- There was no evidence identified relating to CSOs from specific population groups.
- Minimal evidence suggested that interventions for CSOs were effective both when delivered individually with CSOs and in a self-help format. There was, however, no further evidence for barriers and enablers.
- Evidence gaps remain, including evidence for the short- and long-term efficacy of interventions for CSOs from large samples and with diverse populations.

4.2.1 Evidence for the effectiveness of Interventions solely delivered to Concerned Significant Others (CSOs) or Affected Others (AOs)

Evidence for short-term effectiveness

Weak evidence was found for interventions for CSOs in a small number of evidence reviews (Archer et al., 2020; Edgren et al., 2022; NICE, 2023b; Vassallo et al., 2023). In relation to CRAFT, one included paper found no significant difference for psychological distress (Brief Symptom Inventory (BSI)), consequences from gambling (Inventory of Consequences of Gambling for the Gambler and CSO (ICS)), or relationship satisfaction when compared with a control group who received a CRAFT self-help workbook (Edgren et al., 2022). A review by the National Institute for Health and Care Excellence (2023a) also found no significant effect for psychological wellbeing or relationship functioning following CRAFT. Another review found a very small effect of CRAFT on improved depression symptoms but no significant effects for anxiety (Vassallo et al., 2023).

Only one paper included evidence on the 5-step method for CSOs. It found that 'family burden' as an outcome measure was significantly improved, and 'total symptoms', according to the Short Questionnaire for Family Members Affected by Addiction measure (SQFM-AA) (which measures stressful impact, symptoms of ill health,

ways of coping, social support and overall burden for CSOs) decreased following the 5-step method (Edgren et al., 2022). There was also evidence in one review that individual Counselling for CSOs which focused on building coping skills significantly improved both depression and anxiety (NICE, 2023b).

CBT, which was delivered in an online format, was evaluated in one evidence review (Edgren et al., 2022) and was found to effectively improve measures of depression (via the Patient Health Questionnaire (PHQ-9)) and anxiety (via the Generalised Anxiety Disorder Scale (GAD-7)) for CSOs compared to a control. Wellbeing was also improved following CBT, particularly in relation to emotional consequences and relationship satisfaction, which was measured via the ICS (Edgren et al., 2022).

Online chat consultations were included in one evidence review (Edgren et al., 2022). There was no data from Randomised Controlled Trials (RCT) identified relating to their effectiveness based on specific outcome measures. However, an evaluation of one intervention in Australia found that chat consultations were perceived by CSOs who received a single session of support (including counselling and information) with a counsellor online to be helpful. Furthermore, the majority of CSOs who participated rated the chat service as 'enough' or 'definitely enough' (Edgren et al., 2022).

Evidence for long-term effectiveness

One evidence review found that, at three- and six-month follow-up, there was no significant difference for relationship functioning and psychological wellbeing for CSOs who received individual treatment based on CRAFT compared to a CRAFT self-help workbook (NICE, 2023b). There was no additional evidence relating to the long-term effectiveness of interventions solely for CSOs.

Evidence for effectiveness among specific population groups

There was no evidence related to the effectiveness of interventions for CSOs or AOs in specific populations groups.

4.2.2 Barriers and enablers to the effectiveness of Interventions solely delivered to Concerned Significant Others (CSOs) or Affected Others (AOs)

Barriers to effectiveness

One evidence review reported that patient treatment entry rates following CRAFT for CSOs were much higher within studies looking at alcohol or drug harm compared to gambling harm (Archer et al., 2020). However, the review did not discuss factors which may have contributed to this difference. There was no further specific evidence relating to barriers of interventions for CSOs.

Enablers to effectiveness

Evidence from one review found that there were no differences in outcomes for CSOs who received CRAFT in varying modalities; there were no significant differences between when the intervention was delivered individually compared to in a self-help workbook version (NICE, 2023b). CSOs who engaged with online chat consultations (which comprised single sessions of information, counselling, and support) reported choosing the intervention due to the online format and associated ease of access and communication, privacy, and anonymity.

4.2.3 Gaps in evidence

There was a lack of evidence which clearly identified strong positive results to attest to the effectiveness of interventions delivered directly to CSOs. The range of outcomes measured in relation to these interventions limited the conclusiveness and strength of evidence and leaves a gap in relation to both the short- and long-term

outcomes. Furthermore, RCTs with larger populations were missing from the current evidence base. Further research into the effectiveness of interventions delivered to CSOs affected by gambling harm should include diverse samples to understand their effect for different population groups.

5. Reflections and Recommendations

5.1 Summary of findings

This review summarised findings from academic and grey literature on the effectiveness of psychological and psychosocial interventions for the treatment and reduction of gambling that is associated with harm, published between 2020 and 2024 (since a similar review conducted by GREO in 2020). Evidence which was included focused on a range of treatment and support interventions including widely used psychological approaches such as Cognitive Behavioural Therapy (CBT) and Motivational Interventions, peer-led group programmes such as 12-Step Programmes, and Residential Treatment. This review also examined evidence on joint interventions with Concerned Significant Others (CSOs) or Affected Others (AOs) and interventions solely focused on CSOs and AOs.

Evidence of effectiveness

- Across interventions, the majority of evidence identified focused on measures related to gambling (such as measures of 'problem gambling' using the Problem Gambling Severity Index (PGSI), gambling participation, or money spent), rather than broader measures of harm (mental health and wellbeing, financial harm, or relationship harm). Where quantitative evidence was identified, it was also largely focused on short-term impacts (mostly an assessment of outcomes pre- and post-treatment) rather than assessing long-term impact.
- As has been identified by previous reviews, there was more evidence available to assess the effectiveness of CBT compared to other intervention types and **robust evidence** on the effectiveness of CBT was found. There was strong evidence that CBT significantly and positively impacted several outcome measures including those measures relating to gambling (including behavioural measures), as well as other relevant outcomes including psychological factors. The largest volume of evidence to support CBT was for its effect in the short-term, however there was evidence for longer-term effects up to a period of three years.
- There was also **moderate evidence** to support the effectiveness of other types of psychological and psychosocial interventions for outcomes related to gambling harm. These included Motivational Interventions, Behavioural Therapy (specifically Exposure Therapy), and Joint Interventions with CSOs or AOs.
- There was **mixed evidence** to support the effectiveness of Feedback Interventions, Residential Treatment, 12-Step Interventions, and Cognitive Therapy. For these interventions, lots of the existing evidence focused on behavioural measures related to gambling rather than gambling harm or was primarily qualitative.
- There was **not sufficient evidence** to make an assessment on effectiveness of the following psychological and psychosocial interventions: Eye Movement Desensitisation and Reprocessing (EMDR), Exercise Interventions, Counselling, Action and Coping Planning, Psychodynamic Therapy, Art-based treatment programmes, Relaxation based interventions, Helplines and interventions solely for CSOs or AOs.

Across intervention types, there was some evidence pointing to the effectiveness of interventions among specific groups (e.g. women or young people) but studies rarely compared findings to the general population, and it is therefore difficult to make conclusions as to whether certain interventions are more or less effective for certain

population groups. In general, literature suggested that the type of intervention and the specific approach (e.g. online or face-to-face) should be informed by individual needs and preferences. It is also important to consider the diverse experiences, and therefore needs, within specific groups (e.g. women) and tailor services accordingly (Riley, 2021).

Across various intervention types, there was some evidence pointing to the effectiveness of brief interventions. This included brief advice (e.g. through a helpline) or a one-off short intervention (such as a single Motivational Interview). For example, a Randomised Controlled Trial found that the addition of a single Motivational Interview to remote CBT significantly improved outcomes related to money spent gambling and psychological distress (measured using the Kessler Psychological Distress Scale (K10)) after three months (Brazeau et al., 2024). There was also evidence for the effectiveness of Motivational Interviews alone, with one study finding that people who received a single Motivational Interview were significantly more likely to self-exclude from gambling websites and set gambling limits than a control group who did not receive the intervention (Hakansson et al., 2024). Evidence from New Zealand also found that following a single contact with a national gambling helpline, gambling severity (as measured by PGSI score) decreased after one and three years (GREO, 2020).

Barriers and enablers to the effectiveness of interventions

Several studies explored the impact of the same intervention in multiple modalities (e.g. CBT delivered remotely or in-person). In general, there was no evidence identified to suggest that a certain mode of delivery was more effective for a particular group, although there was evidence from an individual qualitative study where those who had taken part in peer support programmes highlighted that many felt it was valuable to meet others with similar experiences in-person (rather than online). Qualitative research also emphasised that the composition of the peer group could be both a barrier or enabler to effectiveness, with women and those from minority ethnic groups highlighting that in some cases, a lack of gender or ethnic diversity could make them feel less comfortable sharing their experiences and increase the risk of experiencing stigma (Brown et al., 2023; Riley, 2023).

Gender was also raised in relation to Residential Treatment. Authors suggested that attending Residential Treatment (when possible) might work particularly well for women as it can take them away from caregiving and other responsibilities, allowing them the space and time to address trauma and build coping strategies. However, caregiving responsibilities were also identified as a barrier to accessing treatment (GambleAware, 2023).

This review also identified evidence that combining interventions may increase effectiveness. For example, there was evidence that combining Motivational Interventions with other types of intervention such as CBT may increase effectiveness (GREO, 2020), and evidence that Feedback Interventions paired with Motivational Interventions were more effective than Feedback Interventions alone (Fiskaali et al., 2022). However, further research is required to make robust conclusions about the potential utility of combining interventions, including when this would be appropriate and who this would be effective for.

Authors of papers included in this review also raised wider barriers which were not specific to certain types of intervention but will likely be important to consider across interventions to increase reach and effectiveness. This included barriers to accessing support related to stigma, and subsequent concerns about confidentiality and anonymity during treatment (GambleAware, 2023; Palmer du Preez et al., 2021). It should be noted that stigma may manifest differently for different groups; in the case of women, authors highlighted women with children fearing that they would be labelled an ‘irresponsible mother’ due to their experiences with gambling harms (Palmer du Preez et al., 2021). Other key considerations included low awareness of available treatment and support services and a lack of accessible information about the types of support available (and expected

outcomes), and practical barriers to accessing support (for example transport challenges, difficulties related to low incomes, caring responsibilities, or disabilities) (GambleAware, 2023).

5.2 Implications of findings for service and healthcare providers

As has been identified by previous reviews, there was more evidence available to assess the effectiveness of CBT compared to other intervention types and robust evidence on the effectiveness of CBT was found. There is also some evidence that CBT is effective among specific groups (such as women and those experiencing mental health challenges). However, there is emerging evidence from individual UK studies of challenges with CBT, with authors reporting participants feeling judged during CBT treatment and arguing that the design and delivery of treatment provision often lacked lived experience input (Penfold and Ogden, 2022).

Evidence also supports the use of other modalities including Motivational Interventions, Exposure Therapy, and Joint Interventions with CSOs or AOs. Despite mixed quantitative evidence to support the effectiveness of Feedback Interventions, Residential Treatment, 12-Step Interventions and Cognitive Therapy, evidence also points to effectiveness for some specific outcome measures. Alternative approaches to CBT (either on their own or in combination with CBT) may provide specific benefits; there is emerging evidence that helplines can support pathways to treatment (GREO, 2020), motivational interventions can encourage people to start and continue attending treatment and play a key role in initiating change (GREO, 2020; Hakansson et al., 2024), and interventions involving CSOs / AOs may have positive impacts on family relationships and adherence to treatment (Edgren et al., 2022; Higueruela-Ahijado et al., 2023). Evidence identified in this review highlighted that interventions should be delivered in line with guidance, emphasising the importance of practitioner training and ongoing assessment of quality of delivery (Milic et al., 2023). Despite not being the focus of this current evidence review, authors also highlighted the importance of aftercare for long-term effectiveness of interventions and supporting people to transition back into communities, particularly after interventions such as residential treatment (Spielhofer et al., 2023).

Across different types of intervention, evidence highlighted that various modes of delivery were effective (including online, in-person and self-help approaches), reflecting that choices about delivery can often be based on individual need and preference. In some cases, providing flexibility may itself benefit outcomes through giving greater choice and agency to those accessing support. Evidence about the remote delivery of CBT pointed to participants valuing the anonymity of support delivered via phone (Erevik et al., 2020) and self-help interventions which can be accessed on the internet may provide an accessible support option (Dowling et al., 2021; Stenbro et al., 2023). In other cases (such as with peer support approaches) it may be beneficial to provide face-to-face delivery to aid effectiveness and allow participants to fully engage with one another, if this is desired by participants. Support groups should also be kept small to facilitate deeper connection between participants (Riley, 2023).

In addition to the type of intervention, service and healthcare providers should also consider wider social factors which will influence treatment outcomes including barriers to accessing treatment such as stigma and discrimination, and factors affecting drop-out rates (such as caregiving responsibilities and accessibility of support). In general, interventions and evidence identified in this review largely focused on outcomes for individual behaviours and measures of ‘problem gambling’ or ‘pathological gambling’ (using screening tools such as the PGSI or the South Oaks Gambling Screen (SOGS)) or clinical diagnosis of gambling disorder using Diagnostic and Statistical Manual (DSM) criteria, rather than gambling harms measurement tools. In general, this is because most interventions identified were specifically targeted at addressing gambling disorder or ‘problem gambling’. Consequently, the impact of psychological and psychosocial interventions on a broad spectrum of

harms (e.g. harm to relationships and communities) is not well understood. In some cases, interventions may already be addressing (or have scope to address) a broad range of gambling harms. One paper included in this review argued that Gamblers Anonymous is effective partially because it addresses challenges with social connection and increases feelings of belonging (Penfold and Odgen, 2023). Other approaches, such as CBT, Motivational Interventions and interventions involving CSOs may also have the potential to approach gambling harms support holistically, reflecting both the wider social and political factors which can cause and influence harm, and the wide-ranging impacts gambling can have on various aspects of participants' lives.

Across interventions, service and healthcare providers should involve people with lived experience in the design and delivery of treatment and support. Peer-based approaches, which involve those using services, or with lived experience, in the design or delivery of interventions, can ensure that needs for specific groups can be met, and delivery approaches are appropriate (Dinos et al., 2020). Qualitative research about Gamblers Anonymous in the UK described how participants emphasised the value of interventions led by people with experience of gambling harms, with authors suggesting an increased focus on mutual aid practices (support provided by, and to, members of a group) (Penfold and Ogden, 2023). This review has also demonstrated the importance of addressing the complex needs of CSOs and AOs who are also experiencing gambling harm, either in joint interventions with those with experience of gambling or separately. Despite a lack of available evidence identified about the effectiveness and needs of specific groups in relation to psychological and psychosocial interventions, targeted support is likely to be required. This may include the provision of women's peer support groups or interventions targeted at younger or older adults, or those from minority ethnic backgrounds. It is also important that service and healthcare providers working to support those experiencing gambling harms have links with mental health, alcohol, and drugs services or in-house expertise given the established links between gambling harm and mental health challenges, and alcohol and drug use (Johnstone and Regan, 2020). This is key to providing timely, comprehensive and coordinated services for people experiencing gambling harms alongside other health challenges and can avoid the need for multiple appointments with different services (NICE, 2023a). This approach may also reduce drop-out rates. For example, evidence suggests that providing support for mental health challenges alongside gambling harms support can result in increased engagement with gambling support (Najavits et al., 2023).

Given the lack of published evidence from Great Britain on the effectiveness of psychological and psychosocial interventions, healthcare and support providers have a key role to play in both conducting and facilitating evaluation work. Partnerships between service and healthcare providers, people with experience of gambling harms, and academic and research institutions will be key to this and where feasible, service providers would benefit from dedicated research and evaluation staff to facilitate robust research (including peer-based research involving those with experience of gambling harm).

5.3 Limitations of the rapid evidence review

This review included a synthesis of both academic and grey literature, and the inclusion of evidence reviews allowed a broad assessment of the recent evidence base. However, there are a several limitations which should be highlighted. Firstly, the review aimed to assess recent evidence about the effectiveness of psychological and psychosocial interventions published since a similar review was conducted in 2020 (GREO, 2020). Although evidence reviews which were included draw on a much wider timescale, some papers which were published before 2020 will not have been included. The inclusion of evidence reviews allowed a broad assessment of evidence; however, these papers may not have included all the details of previous studies (for example information about the moderating effects of demographic factors on the effectiveness of interventions) and this review therefore does not reflect the whole evidence base. Most of the evidence included in this review was also

from outside Great Britain, with our findings drawing heavily on evidence from Australia, Canada, and the United States. Although findings may be applicable in the context of Great Britain, the effectiveness of interventions may be influenced by factors specific to Great Britain such as demographic factors, types of harm experienced (and pathways to harm) and specificities of the healthcare system in Great Britain (such as referral pathways). Finally, although the review has allowed us to assess the strength of evidence for various types of psychological and psychosocial interventions, it is challenging in some cases to make comparisons between interventions due to the variety of outcome measures which have been used in studies, limiting overall conclusions.

5.4 Strengths and weakness of the included research

Across interventions, studies had varied methodologies. For some interventions (particularly CBT) there was a wealth of robust evidence from Randomised Controlled Trials (RCTs) but in other areas it was more difficult to make a more robust assessment of impact due to study designs without a comparative control group. In multiple cases authors highlighted that RCT designs were not possible due to ethical implications. Authors also highlighted challenges with self-report measures (which they were largely reliant on), particularly the potential for bias or issues with recall. For example, self-report measures were used to assess outcomes related to gambling (Canadian Problem Gambling Index (CPGI) (McAfee et al., 2020) and Gambling Symptom Assessment Scale (G-SAS) (Dowling et al., 2021)), including behavioural measures (gambling frequency and money spent gambling (Dowling et al., 2021)), and other relevant outcomes, such as psychological factors (Brief Symptom Inventory (BSI) (Najavits et al., 2023)). Other data challenges included small sample sizes for some studies which reduced their generalisability (where this is the case, this has been highlighted in the report). For some interventions, strong evidence was identified for short-term impacts but across all types of intervention identified there was a lack of long-term data – in general, outcomes generally focused on pre- and post-treatment.

Despite a growing focus on a public health model for gambling (emphasising the importance of harm reduction across resources, relationships, and health, both for those who gamble, AOs and their wider community), research identified in this review has largely focused on individual behaviours and individual treatment approaches that have largely been designed and tested to address gambling disorder or 'problem gambling'. In line with this, evaluations of interventions have largely relied on measures of 'problem gambling' or 'pathological gambling' (using screening tools such as the PGSI or the South Oaks Gambling Screen (SOGS)) or clinical diagnosis of gambling disorder using Diagnostic and Statistical Manual (DSM) criteria, rather than gambling harms measurement tools. Consequently, available data does not always allow assessment of interventions against a range of types of harm. This emphasises the value of non-quantitative evaluation approaches (such as qualitative interviews) for fully understanding the role of interventions in recovery as well as the need for a new generation of measurement approaches developed with people with lived experience that consider what recovery from gambling harms looks like for them.

5.5 Evidence gaps and recommendations for future research

Despite this review identifying a wealth of evidence on psychological and psychosocial interventions, there are a number of evidence gaps which require further exploration:

Limitation of current research: Most of the evidence included was from outside Great Britain, with this review drawing heavily on evidence from Australia, Canada, and the United States. Although multiple papers explored the effectiveness of CBT, Motivational Interventions, Feedback Interventions, Exposure Therapy, and Couples Therapy, there was less evidence about other approaches including Residential Treatment, Counselling, 12-Step Interventions, and interventions other than Couples Therapy which include AOs. Across

all types of intervention, there was also a lack of evidence about long-term outcomes post-treatment, including factors influencing the risk of relapse. The lack of evidence in Great Britain and need for evaluation studies on psychological interventions has also been highlighted by previous evidence reviews (Bowden-Jones et al., 2022; GREO, 2020).

Recommendations:

- There is a need for quantitative and qualitative evaluation studies examining interventions in the context of Great Britain, including with a diverse range of communities, and a range of settings. Researchers (and funders) should reflect the current landscape of healthcare provision and support and fill evidence gaps for commonly accessed services in Great Britain (e.g. telephone helplines, self-help methods, brief screening tools and peer support for AOs such as Gam-Anon) (Gosschalk et al., 2022). Where feasible, evaluation studies should include a follow-up period (e.g. six-months following treatment, two years following treatment) to understand long-term effectiveness on the reduction of gambling harm and specific aftercare needs. Researchers should prioritise robust evaluation methodologies such as Randomised Control Trials (RCTs), although they should fully consider the ethical implications of any approaches which involve randomisation.
- There is a need to build on the existing evidence base for CBT and explore the acceptability of CBT for varied populations and extent to which the intervention is aligned with peoples' individual preferences and expectations.

Limitation of current research: Across types of intervention, there was a lack of evidence about the effectiveness (and enablers and barriers to effectiveness) for specific population groups including people from marginalised and minoritised communities, people from LGBTQ+ communities, women, younger and older adults, people with disabilities and neurodiverse individuals. However, it should be noted that our inclusion of evidence reviews may not have included all the details of previous studies (for example information about the moderating effects of demographic factors on the effectiveness of interventions). There was also a lack of evidence about how services should be adapted to meet the needs of diverse populations (for example those of different genders, cultural backgrounds, and varying neurodiversity). Although authors emphasised the importance of flexibility to individual needs and preferences, more research is required to fully understand the impact of such an approach for treatment outcomes. There was also a lack of evidence about co-occurring conditions (e.g. gambling harm experienced alongside mental health challenges or challenges with drug or alcohol use), particularly for widely used intervention types such as CBT.

Recommendations:

- Future quantitative research should include large and diverse samples of adults in Great Britain to allow sub-group analysis to assess the effectiveness of interventions for specific population groups. In some cases, studies focussing on specific groups (e.g. people with disabilities) may be more appropriate. Further analysis could also explore the role of broader factors such as types of gambling, length of time gambling, employment, education, and household composition. Additionally, it would be valuable to explore how factors such as individual choice in treatment approach impact treatment outcomes. When future systematic reviews report results, it would also be beneficial to include (where possible) findings related to sub-group analysis.
- Quantitative evaluation work should be combined with qualitative work with those experiencing gambling harm and practitioners (e.g. depth interviews, ethnographic approaches) to understand how different groups experience interventions, including barriers and enablers to effectiveness and how services should be adapted to meet diverse needs. This research will need to take an inclusive approach, ideally involving

people with lived experience at all stages of the research (e.g. through lived experience panels or peer researchers) to help tailor data collection approaches and presentation of findings.

Limitation of current research: Identified research largely focused on individual behaviours and clinical treatment. In line with this, the literature largely relied on measures of 'problem gambling' or 'pathological gambling' (using screening tools such as the PGSI or the South Oaks Gambling Screen (SOGS)) or clinical diagnosis of gambling disorder using Diagnostic and Statistical Manual (DSM) criteria, rather than gambling harms measurement tools. This is generally because the interventions themselves were designed to address 'problem gambling' or gambling disorder. However, such an approach does not allow assessment of current interventions against a range of types of harm (such as financial, social or health harm).

Recommendations:

- Future evaluation studies about psychological and psychosocial interventions should include newer gambling harms measurement tools such as the Short Gambling Harms Screen (SGHS) or the gambling harms questions which are being deployed in the upcoming Gambling Survey for Great Britain (Close et al, 2023). This would allow more robust measurement of gambling harm and allow researchers to explore outcomes related to types of harm (e.g. financial versus social harm). This will be essential for making a full and more holistic assessment of the effectiveness of psychological and psychosocial interventions for the treatment of gambling associated with harm.

Limitation of current research: Although some evidence was presented about combined interventions (e.g. Motivational Interventions with CBT or Feedback Interventions paired with Motivational Interventions), there was a lack of evidence presented about the effectiveness of other combinations, and specifically who such combinations may be more or less effective for.

Recommendations:

- Future studies should explore the potential utility of combined interventions (or combining elements of approaches) to assess whether such approaches may be beneficial and their long-term impact.

Limitation of current research: There was no evidence identified in this review about the role of recovery capital in the effectiveness of different psychological and psychosocial interventions. Recovery capital refers to the internal and external resources that individuals can draw upon to initiate and sustain processes of recovery (such as peer support and social networks) (Cloud and Granfield, 2001).

Recommendations:

- Future studies should explore the role of recovery capital in the effectiveness of psychological and psychosocial interventions addressing harm related to gambling. This could involve the use of scales such as a modified version of the Assessment of Recovery Capital scale (Groshkova et al., 2013), used by Gavriel-Fried (2018) to explore gambling disorder (Gavriel-Fried, 2018).

Appendix 1: Search Strings

The final search strings used in electronic academic databases *Scopus* and *PsychInfo* for academic literature are shown in Tables 1 to 4 below.

Table 1: Search strings in Scopus for Phase one

Search string for use in Scopus for Phase one	
(TITLE-ABS-KEY (psychological OR psychosocial OR cognitive OR cbt OR "aversion therap*" OR psychotherapeutic* OR counselling OR counseling OR "harm reduction" OR psychodrama OR dramatherapy OR "drama therapy" OR "trauma intervention*" OR "eye movement desensitisation" OR "eye movement desensitization" OR emdr OR "brain stimulation" OR "transcranial magnetic" OR tms OR "deep brain" OR "cognitive bias modification" OR "residential treatment*" OR retreat OR "self-help" OR helpline* OR "personalized feedback" OR "personalised feedback" OR gamification OR psychotherapy OR (("life skills" OR "social skills" OR communication) W/3 (intervention* OR training)) OR ((family OR community OR peer OR support) W/3 (therapies OR therapy OR intervention*)))) AND ((TITLE ("systematic review" OR "umbrella review" OR "realist review" OR "rapid review" OR "critical review" OR "scoping review" OR "systematic literature review" OR "rapid evidence assessment")) AND (TITLE-ABS (gambling) OR AUTHKEY (gambling))) AND PUBYEAR > 2019 AND PUBYEAR < 2025	
Limit to English	84

Table 2: Search strings in PsychInfo for Phase one

Search string for use in PsychInfo for Phase one	
S1: TI(psychological OR psychosocial OR cognitive OR cbt OR "aversion therap*" OR psychotherapeutic* OR counselling OR counseling OR "harm reduction" OR psychodrama OR dramatherapy OR "drama therapy" OR "trauma intervention*" OR "eye movement desensitisation" OR "eye movement desensitization" OR emdr OR "brain stimulation" OR "transcranial magnetic" OR tms OR "deep brain" OR "cognitive bias modification" OR "residential treatment*" OR retreat OR "self-help" OR helpline* OR "personalized feedback" OR "personalised feedback" OR gamification OR psychotherapy OR (("life skills" OR "social skills" OR communication) N3 (intervention* OR training)) OR ((family OR community OR peer OR support) N3 (therapies OR therapy OR intervention*)) OR AB(psychological OR psychosocial OR cognitive OR cbt OR "aversion therap*" OR psychotherapeutic* OR counselling OR counseling OR "harm reduction" OR psychodrama OR dramatherapy OR "drama therapy" OR "trauma intervention*" OR "eye movement desensitisation" OR "eye movement desensitization" OR emdr OR "brain stimulation" OR "transcranial magnetic" OR tms OR "deep brain" OR "cognitive bias modification" OR "residential treatment*" OR retreat OR "self-help" OR helpline* OR "personalized feedback" OR "personalised feedback" OR gamification OR psychotherapy OR (("life skills" OR "social skills" OR communication) N3 (intervention* OR training)) OR ((family OR community OR peer OR support) N3 (therapies OR therapy OR intervention*)) OR SU(psychological OR psychosocial OR cognitive OR cbt OR "aversion therap*" OR psychotherapeutic* OR counselling OR counseling OR "harm reduction" OR psychodrama OR dramatherapy OR "drama therapy" OR "trauma intervention*" OR "eye movement desensitisation" OR "eye movement desensitization" OR emdr OR "brain stimulation" OR "transcranial magnetic" OR tms OR "deep brain" OR "cognitive bias modification" OR "residential treatment*" OR retreat OR "self-help" OR helpline* OR "personalized feedback" OR "personalised feedback" OR gamification OR psychotherapy OR (("life skills" OR "social skills" OR communication) N3 (intervention* OR training)) OR ((family OR community OR peer OR support) N3 (therapies OR therapy OR intervention*))	
S2: TI (gambling) OR AB(gambling) OR SU(gambling)	
S3: TI ("systematic review" OR "umbrella review" OR "realist review" OR "rapid review" OR "critical review" OR "scoping review" OR "systematic literature review" OR "rapid evidence assessment")	
S4: S1 AND S2 AND S3	
Publication date limit 2020 to present.	40

Table 3: Search strings in Scopus for Phase two

Search string for use in Scopus for Phase two	
((TITLE-ABS (psychological OR psychosocial OR cognitive OR cbt OR "aversion therap*" OR psychotherapeutic* OR counselling OR counseling OR "harm reduction" OR psychodrama OR dramatherapy OR "drama therapy" OR "trauma intervention*" OR "eye movement desensitisation" OR "eye movement desensitization" OR emdr OR "brain stimulation" OR "transcranial magnetic" OR tms OR "deep brain" OR "cognitive bias modification" OR "residential treatment*" OR retreat OR "self-help" OR helpline* OR "personalized feedback" OR "personalised feedback" OR gamification OR psychotherapy OR (("life skills" OR "social skills" OR communication) W/3 (intervention* OR training)) OR ((family OR community OR peer OR support) W/3 (therapies OR therapy OR intervention*))) OR AUTHKEY(psychological OR psychosocial OR cognitive OR cbt OR "aversion therap*" OR psychotherapeutic* OR counselling OR counseling OR "harm reduction" OR psychodrama OR dramatherapy OR "drama therapy" OR "trauma intervention*" OR "eye movement desensitisation" OR "eye movement desensitization" OR emdr OR "brain stimulation" OR "transcranial magnetic" OR tms OR "deep brain" OR "cognitive bias modification" OR "residential treatment*" OR retreat OR "self-help" OR helpline* OR "personalized feedback" OR "personalised feedback" OR gamification OR psychotherapy OR (("life skills" OR "social skills" OR communication) W/3 (intervention* OR training)) OR ((family OR community OR peer OR support) W/3 (therapies OR therapy OR intervention*))))) AND ((TITLE-ABS (gambling) OR AUTHKEY (gambling)))) AND NOT ((TITLE-ABS-KEY(china OR Malaysia OR Indonesia OR Africa OR india OR brazil OR russia))) AND (LIMIT-TO (PUBYEAR,2020) OR LIMIT-TO (PUBYEAR,2021) OR LIMIT-TO (PUBYEAR,2022) OR LIMIT-TO (PUBYEAR,2023) OR LIMIT-TO (PUBYEAR,2024)) AND (LIMIT-TO (LANGUAGE,"English"))	1196

Table 4: Search strings in Psychinfo for Phase two

Search string for use in PsychInfo for Phase two	
TI(psychological OR psychosocial OR cognitive OR cbt OR "aversion therap*" OR psychotherapeutic* OR counselling OR counseling OR "harm reduction" OR psychodrama OR dramatherapy OR "drama therapy" OR "trauma intervention*" OR "eye movement desensitisation" OR "eye movement desensitization" OR emdr OR "brain stimulation" OR "transcranial magnetic" OR tms OR "deep brain" OR "cognitive bias modification" OR "residential treatment*" OR retreat OR "self-help" OR helpline* OR "personalized feedback" OR "personalised feedback" OR gamification OR psychotherapy OR (("life skills" OR "social skills" OR communication) N3 (intervention* OR training)) OR ((family OR community OR peer OR support) N3 (therapies OR therapy OR intervention*)) OR AB(psychological OR psychosocial OR cognitive OR cbt OR "aversion therap*" OR psychotherapeutic* OR counselling OR counseling OR "harm reduction" OR psychodrama OR dramatherapy OR "drama therapy" OR "trauma intervention*" OR "eye movement desensitisation" OR "eye movement desensitization" OR emdr OR "brain stimulation" OR "transcranial magnetic" OR tms OR "deep brain" OR "cognitive bias modification" OR "residential treatment*" OR retreat OR "self-help" OR helpline* OR "personalized feedback" OR "personalised feedback" OR gamification OR psychotherapy OR (("life skills" OR "social skills" OR communication) N3 (intervention* OR training)) OR ((family OR community OR peer OR support) N3 (therapies OR therapy OR intervention*)) OR SU(psychological OR psychosocial OR cognitive OR cbt OR "aversion therap*" OR psychotherapeutic* OR counselling OR counseling OR "harm reduction" OR psychodrama OR dramatherapy OR "drama therapy" OR "trauma intervention*" OR "eye movement desensitisation" OR "eye movement desensitization" OR emdr OR "brain stimulation" OR "transcranial magnetic" OR tms OR "deep brain" OR "cognitive bias modification" OR "residential treatment*" OR retreat OR "self-help" OR helpline* OR "personalized feedback" OR "personalised feedback" OR gamification OR psychotherapy OR (("life skills" OR "social skills" OR communication) N3 (intervention* OR training)) OR ((family OR community OR peer OR support) N3 (therapies OR therapy OR intervention*))	1533900
TI (gambling) OR AB(gambling) OR SU(gambling)	13075
S1 AND S2	5624
TI(china OR Malaysia OR Indonesia OR Africa OR india OR brazil OR Russia) OR AB(china OR Malaysia OR Indonesia OR Africa OR india OR brazil OR Russia) OR SU(china OR Malaysia OR Indonesia OR Africa OR india OR brazil OR Russia)	120963
S3 NOT S4	5541
Publication date limit 2020 to present	926
Limit to English	898

Appendix 2: List of grey literature websites

The following websites were searched as part of the grey literature search. The searches conducted depended on the capacities of website functions, but key words included ‘gambling’ and key terms to represent interventions and populations of interest (drawn from the search strings outlined in Appendix 1).

- Adferiad Recovery
- Aquarius
- ARA
- Beacon Counselling Trust
- Breakeven
- GambleAware
- GamCare
- Gambling Commission
- Gambling Research Australia
- Greo Evidence Insights (Canada)
- GamCare
- Betknowmore UK
- Gordon Moody
- NECA
- NIHR
- GOV.uk
- NHS England
- NHS Inform
- NHS Wales
- National Centre for Social Research
- RCA Trust
- The SCIE online database
- Victorian Responsible Gambling Foundation (Australia)

Appendix 3: Inclusion and exclusion criteria

The inclusion and exclusion criteria for papers included in Phase one and two can be seen in Table 5 and 6 below.

Table 5: Inclusion and exclusion criteria for evidence included in Phase one

Criterion	Inclusion criteria	Exclusion criteria
Intervention type	Psychological and psychosocial interventions for the treatment and reduction of gambling that is associated with harm.	Interventions which fall outside the scope of the inclusion criteria, including papers which focus only on pharmacological interventions or other out of scope interventions, such as brain stimulation.
Focus of the research	Papers focused on the effectiveness of psychological and psychosocial interventions, including: for specific population groups OR barriers and enablers to successful intervention outcomes OR other factors relating to the individuals receiving the intervention(s) relevant to their effectiveness.	Papers outside the scope of the inclusion criteria AND papers which provide only a description of intervention(s) with no findings on effectiveness, enablers, barriers etc.
Evidence type / methods	All types of evidence reviews such as systematic reviews, rapid evidence reviews, and meta-analyses.	Other types of evidence-based research (i.e., evaluations, observational studies, quantitative, qualitative, mixed methods, evidence from grey literature reports or publications), protocols, opinion pieces, popular media (e.g. blogs, social media feeds and / or newspaper articles), evidence where methods are unclear, do not respond to the research questions, and / or are of low quality (excluding grey literature).
Date of publication	January 2020 onwards (in line with the research aims).	Literature which pre-dates January 2020.
Geography	We anticipate primarily including papers which include evidence from Great Britain. However, we will include evidence from other OECD countries if the key areas of	Papers which present evidence from non-OECD countries only.

	the research questions are not addressed in British literature.	
Language	English	Papers not in English.

Table 6: Inclusion and exclusion criteria for evidence included in Phase two

Criterion	Inclusion criteria	Exclusion criteria
Intervention type	Psychological and psychosocial interventions for the treatment and reduction of gambling that is associated with harm.	Interventions which fall outside the scope of the inclusion criteria, including papers which focus only on pharmacological interventions or other out of scope interventions, such as brain stimulation.
Focus of the research	Papers focused on the effectiveness of psychological and psychosocial interventions, including: for specific population groups OR barriers and enablers to successful intervention outcomes OR other factors relating to the individuals receiving the intervention(s) relevant to their effectiveness.	Papers outside the scope of the inclusion criteria AND papers which provide only a description of intervention(s) with no findings on effectiveness, enablers, barriers etc.
Evidence type / methods	Most types of evidence-based research (i.e. evaluations, observational studies, quantitative, qualitative, mixed methods, evidence from grey literature reports or publications), with particular focus on more specific methods to address the evidence gaps, such as methods involving people with lived experience.	Evidence reviews, protocols, opinion pieces, popular media (e.g. blogs, social media feeds and / or newspaper articles). Evidence where methods are unclear, do not respond to the research questions, and / or are of low quality (excluding grey literature).
Date of publication	January 2020 onwards (in line with the research aims).	Literature which pre-dates January 2020.
Geography	We anticipate primarily including papers which include evidence from Great Britain. However, we will include evidence from other OECD countries if the key areas of the research questions for Phase two are not addressed in British literature (e.g. interventions for specific groups).	Papers which present evidence from non-OECD countries only.
Language	English	Papers not in English.

Appendix 4: Full text screening tool for Phase two

The full-text screening tool captured the following in open text boxes:

- Author(s)
- Title
- Citation
- Date of publication
- Type of document (academic or grey literature)
- Source
- Country of publication

The full-text screening tool further scored papers against the following:

- Does the paper discuss psychological and psychosocial interventions for the treatment of gambling harms (excluding brain stimulation) (Yes = 1; No = 0)
- Is the treatment population is people who experience gambling harms (including AOs / CSOs; excluding people who gamble without experiencing harm) (Yes = 1; No = 0)
- Does the paper measure efficacy of treatment against outcome measures related to gambling harm (excluding preventative interventions) (Yes = 1; No = 0)
- Does the paper discuss barriers and enablers to accessing treatment / successful treatment outcomes (Yes = 1; No = 0)
- Does the paper use appropriate methods - no evidence reviews or study protocols (Yes = 1; No = 0) (Yes = 1; No = 0)
- Does the paper discuss specific population groups of interest with regard to treatment efficacy (Yes = 1; No = 0)
- Was the evidence from the UK or other OECD country (Yes = 1; No = 0)
- Was the paper published post-2020 (Yes = 1; No = 0)
- Does the paper have clear research question(s) (Yes = 1; No = 0)
- Do the methods of data collection align with the aims of the research (Yes = 1; No = 0)
- Is the data evidence sufficient to support the discussion / conclusions (Yes = 1; No = 0)
- Is the research paper explicit about sources of funding (Yes = 1; No = 0)
- Does the paper involve those with lived experience of gambling harms (Yes = 1; No = 0)

Appendix 5: Data extraction tools

For Phase one, the data extraction tool captured the following in open text boxes:

- Authors of the paper
- Title of the paper
- Date of publication
- Evidence review design
- Methods of data collection in the included papers (including if they included those with lived experience)
- Number of papers included in the review
- Country in which the evidence review was conducted
- Countries in which studies included in the review were conducted
- Date range of included research
- Intervention(s) included in the review
- Populations included in the review
- Summary of the evidence
- Findings where there were significant or clinically important effects (including measures used)
- Findings where there were no significant or clinically important effects (including measures used)
- Findings where there were mixed effects (including measures used)
- Time range at which follow-up data was captured
- Key findings for long-term effectiveness
- Evidence for the effectiveness of the intervention(s) in specific age groups (e.g. older people, younger people)
- Evidence for the effectiveness of the intervention(s) in specific groups based around gender or sexuality (including women / men, people with LGB sexual orientation, people with minority gender identities)
- Evidence for the effectiveness of the intervention(s) among people with disabilities or long-term health conditions
- Evidence for the effectiveness of the intervention(s) among people from global majority communities
- Evidence for the effectiveness of the intervention(s) among people experiencing challenges with drug or alcohol use
- Evidence for the effectiveness of the intervention(s) for CSOs / AOs
- Evidence for the effectiveness of the intervention(s) for any other specific populations
- Evidence for the enablers or barriers to effective intervention approaches
- Evidence for other factors related to the individuals receiving the interventions which are relevant to the effectiveness
- Any key implications for healthcare providers and / or policy makers

- Any gaps in the findings identified in the paper (e.g. gaps in the literature identified) or suggestions for future research
- Key limitations of their research highlighted by the authors
- Any other key limitations of or concerns about the study
- Any other specific notes on the review

For Phase two, the data extraction tool captured the following in open text boxes:

- Type of evidence: academic literature or grey literature
- Title of the paper
- Authors of the paper
- Organisation
- Year of publication
- Citation
- Study design
- Country of publication
- Total score from full text screening
- Intervention category (broad category by which the intervention studied can be categorised)
- Intervention (description of the intervention details, including modality)
- Brief description of the study design and methods
- Population / sample (including who the intervention is aimed at, how people were screened into the study, achieved sample)
- Quality and / or appropriateness of the study design and methods
- Summarised findings in relation to the research questions
- Quantitative findings on the efficacy of the intervention among the general population (including significant findings, against which measures, follow-up timeframe periods, comparison group)
- Quantitative findings on the efficacy of the intervention among specific population groups (for example according to age, gender, ethnicity, and other populations)
- Qualitative findings on the efficacy of the intervention among the general population
- Qualitative findings on the efficacy of the intervention among specific population groups
- Findings related to enablers and barriers to effective intervention approaches
- Other factors related to the individuals receiving the interventions which are relevant to the effectiveness
- Implications of the findings for healthcare providers and / or policy makers
- Gaps and recommendations for future research
- Limitations of the research highlighted by the authors
- Other limitations not identified by the authors of the paper, including use of stigmatising language
- Further notes

Appendix 6: Included Papers

Table 7: Papers included during Phase one

Included paper	Evidence review design	Number of papers included	Country where evidence review was conducted	Types of intervention included
Archer, M., Harwood, H., Stevelink, S., Rafferty, L., and Greenberg, N. (2020). Community reinforcement and family training and rates of treatment entry: a systematic review. *Addiction*, *115*(6).	Systematic review	14 (five gambling related)	UK	Community Reinforcement Approach and Family Training (CRAFT)
Augner, C., Vlasak, T., Aichhorn, W., and Barth, A. (2022). Psychological online interventions for problem gambling and gambling disorder – A meta-analytic approach. *Journal of Psychiatric Research, 151*, 86–94.	Systematic review and meta-analysis	11	Austria	CBT-based online psychological interventions
Bergeron, P.-Y., Giroux, I., Chrétien, M., and Bouchard, S. (2022). Exposure Therapy for Gambling Disorder: Systematic Review and Meta-analysis. *Current Addiction Reports, 9*(3), 179–194.	Systematic review and meta-analysis	13	Canada	Exposure Therapy
Bodor, D., Ricijaš, N., and Filipčić, I. (2021). Treatment of gambling disorder: review of evidence-based aspects for best practice. *Current Opinion in Psychiatry, 34*(5), 508–513.	Literature review	Not specified	Croatia	CBT, Motivational Interventions, Self-help interventions, Couples Therapy, Gamblers Anonymous, Mindfulness
Boumparis, N., Haug, S., Abend, S., Billieux, J., Riper, H., and Schaub, M. P. (2022). Internet-based interventions for behavioral addictions: A systematic review. *Journal of Behavioral Addictions*.	Systematic review	29 (22 gambling related)	Switzerland and The Netherlands	CBT, Self-help interventions
Brandtner, A., Antons, S., King, D. L., Potenza, M. N., Tang, Y.-Y., Blycker, G. R., Brand, M., and Liebherr, M. (2022). A preregistered, systematic review considering mindfulness-based interventions and neurofeedback for targeting affective and cognitive processes in behavioral addictions. *Clinical Psychology: Science and Practice*.	Systematic review	15 (seven gambling related)	Germany, Australia and the US	Mindfulness
Carrascosa-Arteaga, P., Remedios López Liria, Catalán-Matamoros, D., and Rocamora-Pérez, P. (2023). Effectiveness of Physiotherapy in Managing Symptomatology in Gambling Disorder Patients: A Systematic Review. *Healthcare, 11*(14), 2055–2055.	Systematic review of clinical trials	8	Spain	Physiotherapy
Di Nicola, M., De Crescenzo, F., D'Alò, G. L., Remondi, C., Panaccione, I., Moccia, L., Molinaro, M., Dattoli, L., Lauriola, A., Martinelli, S., Giuseppin, G., Maisto, F., Crosta, M. L., Di	Meta-review	26	Italy	CBT, Motivational Interventions, Self-help interventions

Pietro, S., Amato, L., and Janiri, L. (2019). Pharmacological and Psychosocial Treatment of Adults with Gambling Disorder. *Journal of Addiction Medicine, 1*.				
Edgren, R., Pörtfors, P., Raisamo, S., and Castrén, S. (2022). Treatment for the concerned significant others of gamblers: A systematic review. *Journal of Behavioral Addictions, 11*(1), 1–25.	Systematic review	17	Finland	Community Reinforcement Approach and Family Training (CRAFT), CBT, 5-step method, Couples Therapy, Online Counselling
Eriksen, J. W., Fiskaali, A., Zachariae, R., Kaare Bro Wellnitz, Ørnbøl, E., Anna Westh Stenbro, Marcussen, T., and Marie Weinreich Petersen. (2023). Psychological intervention for gambling disorder: A systematic review and meta-analysis*. Journal of Behavioral Addictions, 12*(3), 613–630.	Systematic review and meta-analysis	30	Denmark	CBT, Motivational Interviewing
Fiskaali, A., Stenbro, A. W., Marcussen, T., and Rask, M. T. (2022). Preventive Interventions and Harm Reduction in Online and Electronic Gambling: A Systematic Review. *Journal of Gambling Studies*.	Systematic review	18	Denmark	CBT, Feedback Interventions, Motivations Enhancement Therapy (MET), Motivational Interviewing, Action and Coping Planning
Gambling Research Exchange Ontario (GREO). (2020). Effective Treatment and Support for Problem Gambling. *Report prepared for the Gambling Commission*. Available from: https://www.greo.ca/en/resources/GREO_05_2020_TreatmentRER_Final.pdf [Accessed on 28th June 2024]	Rapid Evidence Review	93	UK	CBT, Motivational Interventions, Self-help interventions, Helplines, Treatment concerning significant others, Residential Treatment, Gamblers Anonymous
Higueruela-Ahijado, M., López-Espuela, F., Caro-Alonso, P. Á., Novo, A., and Rodríguez-Martín, B. (2022). Efficacy of cognitive-behavioral therapy in improving the quality of life of people with compulsive gambling, a systematic review. *Archives of Psychiatric Nursing, 43*.	Systematic review	9	Spain	CBT
National Institute for Health and Care Excellence (NICE) (2023b). Harmful gambling: identification, assessment and management. Interventions for families and affected others*. NICE.* Available from: https://www.nice.org.uk/guidance/gid-ng10210/documents/evidence-review-11 [Accessed on 1st July 2024]	Literature review of RCTs	5	UK	Community Reinforcement Approach and Family Training (CRAFT), Counselling
National Institute for Health and Care Excellence (NICE) (2023c). Harmful gambling: identification, assessment and management. Psychological and psychosocial treatment of harmful gambling. *NICE.* Available from: https://www.nice.org.uk/guidance/gid-ng10210/documents/evidence-review-9 [Accessed on 1st July 2024]	Systematic review	51	UK	CBT, Motivational Interviewing, Counselling, Exposure Therapy, Self-help interventions, Couples Therapy, 12-Step Group Therapy
Paterson, M., Whitty, M., and Boyer, C. (2020). An overview of digital and online strategies to reduce gambling harm. *Health Promotion Journal of Australia*.	Scoping review	16	Australia	Psychotherapy, Counselling, Online forums, Responsible gambling tools
Pfund, R.A., Ginley, M. K., Kim, H. S., Boness, C. L., Horn, T. L., and Whelan, J. P. (2023a). Cognitive-behavioral treatment for gambling harm: Umbrella review and meta-analysis. *Clinical Psychology Review, 105:* 1-11.	Umbrella review and meta-analysis	5	US	CBT

Pfund, R. A., Forman, D. P., Whalen, S. K., Zech, J. M., Ginley, M. K., Peter, S. C., McAfee, N. W., and Whelan, J. (2023b). Effect of cognitive-behavioral techniques for problem gambling and gambling disorder: A systematic review and meta-analysis. *Addiction, 118*(9).	Systematic review and meta-analysis	29	US	CBT, Motivational Interviewing
Pfund, R. A., King, S. A., Forman, D. P., Zech, J. M., Ginley, M. K., Peter, S. C., McAfee, N. W., Witkiewitz, K., and Whelan, J. P. (2023c). Effects of cognitive behavioral techniques for gambling on recovery defined by gambling, psychological functioning, and quality of life: A systematic review and meta-analysis. *Psychology of Addictive Behaviors*.	Systematic review and meta-analysis	9	US	CBT
Ribeiro, E. O., Afonso, N. H., and Morgado, P. (2021). Non-pharmacological treatment of gambling disorder: a systematic review of randomized controlled trials. *BMC Psychiatry, 21*(1).	Systematic review	22	Portugal	CBT, Exposure Therapy, Motivational Interviewing, Couples Therapy, 12-Step Group Therapy, Personalised Feedback Intervention, Physical activity
Rodda, S.N. (2022). A systematic review of internet delivered interventions for gambling: Prevention, harm reduction and early intervention. *Journal of Gambling Studies, 38*: 967-991.	Literature review of longitudinal studies	15	New Zealand	Personalised Feedback, Limit setting, Self-directed CBT, Online self-exclusion
Sagoe, D., Griffiths, Mark. D., Erevik, E. K., Høyland, T., Leino, T., Lande, I. A., Sigurdsson, M. E., and Pallesen, S. (2021). Internet-based treatment of gambling problems: A systematic review and meta-analysis of randomized controlled trials. *Journal of Behavioral Addictions, 10*(3).	Systematic review and meta-analysis	13	Norway, UK and South Africa	CBT, Personalised Normative Feedback, Motivational Interviewing
Stark, S., Kunduru, B., and Robinson, J. (2021). Evidence review of remote treatment intervention and support for gambling harm. *The Responsible Gambling Council for GambleAware*. Available from: https://www.gambleaware.org/sites/default/files/2021-11/RGC_Evidence_Review_Remote_Intervention_and_Support%20_for_Gambling_Harm.pdf [Accessed on 1st July 2024]	Systematic review	16	UK	CBT, Couples Therapy, Counselling, self-guided interventions
Vassallo, M., DeGiovanni, K., and Montgomery, P. (2023). The Efficacy of Psychosocial Interventions in Minimising the Harm Caused to Affected Others of Problem Gambling: A Systematic Review and Meta-Analysis. *Journal of Gambling Studies, 39*(4): 1927–1958.	Systematic review and meta-analysis	16	Malta and UK	Couples Therapy

Table 8: Papers included during Phase two

Included paper	Study Design	Country where evidence review was conducted	Types of intervention included
Auer, M., and Griffiths, M. D. (2022). The Impact of Personalized Feedback Interventions by a Gambling Operator on Subsequent Gambling Expenditure in a Sample of Dutch Online Gamblers. *Journal of Gambling Studies, 39,* 929-246.	Quantitative (Secondary data analysis using pre / post intervention design)	Netherlands	Feedback Intervention

Baker-Frampton, R., Dragomir-Stanciu, D., James, R., Sharman, S., and Roberts, A. (2024). Evaluating a women's residential treatment centre for gambling harm.	Quantitative (questionnaire data using pre / post intervention design)	UK	Residential Treatment
Baño, M., Mestre-Bach, G., Granero, R., Fernández-Aranda, F., Gómez-Peña, M., Moragas, L., del Pino-Gutierrez, A., Codina, E., Guillén-Guzmán, E., Valero-Solís, S., Lara-Huallipe, M. L., Baenas, I., Mora-Maltas, B., Valenciano-Mendoza, E., Solé-Morata, N., Gálvez-Solé, L., González-Bueso, V., Santamaría, J. J., Menchón, J. M., and Jiménez-Murcia, S. (2021). Women and gambling disorder: Assessing dropouts and relapses in cognitive behavioral group therapy. *Addictive Behaviors, 123*, Article 107085.	Quantitative (regression analysis)	Spain	CBT
Bellringer, M. E., Palmer du Preez, K., Vandal, A., Hodgins, D. C., Battersby, M., Riley, B., Henry, N., Mauchline, L., and Landon, J. (2022). Effectiveness of Face-to-Face Gambling Interventions: Two Years Later.	Quantitative (randomised control trial)	New Zealand	CBT and Motivational Intervention
Bellringer, M. E., Palmer du Preez, K., Vandal, A., Janicot, S., Ikeda, T., Hodgins, D. C., Battersby, M., van Kessel, K., Sullivan, S., Riley, B., Te Ao, B., Henry, N., Mauchline, L., and Landon, J. (2021). Effectiveness of Face-to-Face Gambling Interventions: A Randomised Controlled Trial.	Quantitative (randomised control trial)	New Zealand	CBT and Motivational Intervention
Boumparis, N., Baumgartner, C., Malischnig, D., Wenger, A., Achab, S., Yasser Khazaal, Keough, M. T., Hodgins, D. C., Bilevicius, E., Single, A., Haug, S., and Schaub, M. P. (2023). Effectiveness of a web-based self-help tool to reduce problem gambling: A randomized controlled trial. *Journal of Behavioral Addictions*. *12*(3), 744-757.	Quantitative (randomised control trial)	Switzerland	CBT and Motivational Intervention
Brazeau, B. W., Cunningham, J. A., and Hodgins, D. C. (2024). Evaluating the impact of motivational interviewing on engagement and outcomes in a web-based self-help intervention for gambling disorder: A randomised controlled trial*. Internet Interventions, 35*, 100707–100707.	Quantitative (randomised control trial)	Canada	CBT and Motivational Intervention
Brown, G., Trbilcock, J., and Harding, N. (2023). Lived experiences of gambling, gambling- related harms, and crime within ethnic minority communities The report of the Commission on Crime and Gambling Related Harms. *BetKnowMore*. Available at: https://howardleague.org/wp-content/uploads/2023/04/Howard-League_Report_Lived-experiences-of-gambling-gambling-related-harms-and-crime-within-ethnic-minority-communities_-April-2023.pdf [Accessed on 11th June 2024]	Qualitative (interviews and focus groups)	UK	Gamblers Anonymous and Counselling
Bücker, L., Gehlenborg, J., Moritz, S., and Westermann, S. (2021). A randomized controlled trial on a self-guided Internet-based intervention for gambling problems. *Scientific Reports*, *11*(1), 13033.	Quantitative (randomised control trial)	Germany	CBT and mindfulness

Côté, M., Dufour, M., and Tremblay, J. (2022). Integrative couple treatment for pathological gamblers with an emphasis on forgiveness processes: A case study with three couples. *Journal of Marital and Family Therapy, 48*, 1017-1039.	Mixed methods (case study design - questionnaire data using pre / post intervention and qualitative analysis of therapeutic content)	Canada	Couple Therapy
Dowling, N. A., Merkouris, S. S., Rodda, S. N., Smith, D., Aarsman, S., Lavis, T., Lubman, D. I., Austin, D. W., Cunningham, J. A., Battersby, M. W., and O, S. C. (2021). GamblingLess: A Randomised Trial Comparing Guided and Unguided Internet-Based Gambling Interventions. *Journal of Clinical Medicine, 10*(11), 2224.	Quantitative (randomised trial with two arm parallel group design)	Australia	CBT and Motivational Intervention
Erevik, E. K.., Pallesen, S., Mohn, M., Aspeland, T., Vedaa, Ø., and Torsheim, T. (2020). The Norwegian remote intervention programme for problem gambling: Short- and long-term outcomes. *Nordic Studies on Alcohol and Drugs, 37*(4), 365–383.	Mixed methods (questionnaire data using pre / post intervention design and qualitative interviews)	Norway	CBT
GamblerAware. (2023). Building Knowledge of Women's Lived Experience of Gambling and Gambling Harms Across Great Britain Final Report. Available at: https://www.gambleaware.org/sites/default/files/2023-05/Building%20Knowledge%20of%20Women%E2%80%99s%20Lived%20Experience%20of%20Gambling%20and%20Ga [Accessed on 29th May 2024]	Mixed methods (qualitative depth interviews, focus groups, analysis of forum data, and quantitative secondary analysis of survey data)	UK	Other - not specified
Granero, R., Valero-Solis, S., Fernández-Aranda, F., Gómez-Peña, M., Moragas, L., Mena-Moreno, T., Pino-Gutierrez, A. del, Codina, E., Martín-Romera, V., Casalé, G., Agüera, Z., Baenas-Soto, I., Valenciano-Mendoza, E., Mora-Maltas, B., Sánchez, I., Lozano-Madrid, M., Menchón, J. M., and Murcia, S. J. (2020). Response trajectories of gambling severity after cognitive behavioral therapy in young-adult pathological gamblers. *Journal of Behavioral Addictions, 9*(1), 140–152.	Quantitative (questionnaire data using pre / post intervention quasi-experimental design)	Spain	CBT
Hakansson, A., Franklin, K., Dahlström, M., and Lyckberg, A. (2024). Motivational telephone intervention to risk gamblers by a state-owned gambling operator in Sweden. *Frontiers in Psychiatry, 15*, 1343733.	Quantitative (regression analysis)	Sweden	Motivational Intervention
Kruse-Diehr, A. J., Shamblen, S. R., and Courser, M. W. (2022). Longitudinal Assessment of a Manualized Group Treatment Program for Gambling Disorder: The Ohio Problem Gambling Treatment Model for Adults with Co-Occurring Disorders. *Journal of Gambling Studies*. *38*(4), 1493-1502.	Quantitative (questionnaire data using pre / post intervention design)	United States	CBT and Motivational Intervention
Lopez-Gonzalez, H., Jimenez-Murcia, S., Rius-Buitrago, A., and Griffiths, M. D. (2021). Do Online Gambling Products Require Traditional Therapy for Gambling Disorder to Change? Evidence from Focus Group Interviews with	Qualitative (focus groups)	Spain	CBT

Mental Health Professionals Treating Online Gamblers. *Journal of Gambling Studies, 38*(2), 681–697.			
Månsson, V., Molander, O., Carlbring, P., Rosendahl, I., and Berman, A. H. (2022). Emotion regulation-enhanced group treatment for gambling disorder: a non-randomized pilot trial. *BMC Psychiatry, 22*(1).	Mixed methods (quantitative questionnaire data using pre / post intervention design and qualitative interviews)	Sweden	CBT
McAfee, N. W., Martens, M. P., Herring, T. E., Takamatsu, S. K., and Foss, J. M. (2020). The Efficacy of Personalized Feedback Interventions Delivered via Smartphone among At-Risk College Student Gamblers. *Journal of Gambling Issues, 45*.	Quantitative (randomised control trial)	USA	Feedback Intervention
Mestre-Bach, G., Granero, R., Mora-Maltas, B., Valenciano-Mendoza, E., Munguía, L., Potenza, M. N., Derevensky, J. L., Richard, J., Fernández-Aranda, F., Menchón, J. M., and Jiménez-Murcia, S. (2022). Sports-betting-related gambling disorder: Clinical features and correlates of cognitive behavioral therapy outcomes. *Addictive Behaviors, 133*, 107371.	Quantitative (analysis of covariance)	Spain / US	CBT
Mide, M., Mattiasson, J., Norlin, D., Sehlin, H., Rasmusson, J., Ljung, S., Lindskog, A., Petersson, J., Saavedra, F., and Anna Söderpalm Gordh. (2023). Internet-delivered therapist-assisted cognitive behavioral therapy for gambling disorder: a randomized controlled trial. *Frontiers in Psychiatry, 14*.	Quantitative (randomised control trial)	Sweden	CBT and Motivational Intervention
Milic, J., Lohan, A., Petch, J., Turner, W., and Casey, L. (2021). The Effectiveness of a Motivational Interviewing Treatment for Help-Seeking Problem Gamblers in a Community Organization. *Journal of Gambling Studies, 38*(2).	Quantitative (questionnaire data using pre / post intervention design)	Australia	Motivational Intervention
Najavits, L. M., Ledgerwood, D. M., and Afifi, T. O. (2023). A Randomized Controlled Trial for Gambling Disorder and PTSD: Seeking Safety and CBT. *Journal of Gambling Studies, 39,* 1865-1884.	Quantitative (randomised control trial)	Canada	CBT
Nilsson, A., Magnusson, K., Carlbring, P., Andersson, G., and Hellner, C. (2019). Behavioral Couples Therapy vs. Cognitive Behavioral Therapy for Problem Gambling: a randomized controlled trial. *Addiction, 115*(7).	Quantitative (randomised control trial)	Sweden	CBT and couple
Palmer du Preez, K., Landon, J., Maunchline, L., and Thurlow, R. (2021). A Critical Analysis of Interventions for Women Harmed by Others' Gambling. *Critical Gambling Studies, 2*(1), 1–12.	Qualitative (interviews)	New Zealand	Other - not specified
Palomäki, J., Heiskanen, M., and Castrén, S. (2022). Online 8-week cognitive therapy for problem gamblers: The moderating effects of depression symptoms and perceived financial control. *Journal of Behavioral Addictions, 11*(1), 75–87.	Quantitative (questionnaire data using pre / post intervention design)	Finland	CBT

Penfold, K. L., and Ogden, J. (2022). Exploring gamblers' experiences of problem gambling interventions: A qualitative study. *Cogent Psychology, 9*(1).	Qualitative (interviews)	UK	GA and CBT and Other (online resources, self help, and Counselling)
Penfold, K. L., and Ogden, J. (2023). The Role of Social Support and Belonging in Predicting Recovery from Problem Gambling. *Journal of Gambling Studies*.	Quantitative (regression analysis)	UK	Gamblers Anonymous
Riley, L. (2021). Treatment and Support Services For Women Experiencing Gambling Harms: What Women Get and What Women Want. *BetKnowMore*. Available at: https://assets.website-files.com/6083d49a695f4ad43b5148c9/61e691bec135a273411b61d9_BKM_Women_%26_Gambling_2021_Part%202 [Accessed on 17th June 2024]	Qualitative (focus groups)	UK	Support groups and online
Riley, L. (2023). Peer Support Groups for Gambling Harms. *BetKnowMore*. Available at: https://assets.website-files.com/6083d49a695f4ad43b5148c9/63e51562ae0da5e7acac9ff7_Peer%20Support%20Group%20Report%20Betknowmore%20UK.pdf [Accessed on 17th June 2024]	Qualitative (interviews)	UK	Peer support
Snippe, L., Boffo, M., Galvin, H., Willemen, R., Pronk, T., Dom, G., and Wiers, R. W. (2023). How We Lost 90% of Participants on a Bad Bet: Results from a Pilot Randomized Controlled Trial on Cognitive Bias Modification in Problem Gamblers. *Journal of Gambling Studies*.	Mixed methods (quantitative randomised control trial and qualitative interviews)	Belgium/The Netherlands	Cognitive Bias Modification
Spielhofer, T., Hahne, A. S., Stokes, N., Copeland, R., Mealings, G., Elliott, S., Beninger, K. (2023). Residential Rehabilitation Services for Gambling Disorder with Complex and Comorbid Presentation: Evaluation Report. *GambleAware.* Available at: https://www.gambleaware.org/sites/default/files/2024-02/Residential%20Rehabilitation%20Evaluation%20Report.pdf [Accessed on 17th June 2024]	Mixed methods evaluation (Quantitative questionnaire data using pre / post intervention design and KPI data and qualitative interviews)	UK	Residential Treatment
Stenbro, A. W., Moldt, S., Eriksen, J. W., and Frostholm, L. (2023). "I was Treated by the Program, the Therapist, and Myself": Feasibility of an Internet-Based Treatment Program for Gambling Disorder. *Journal of Gambling Studies, 39*, 1885-1907.	Mixed methods (quantitative questionnaire data using pre / post intervention design and qualitative interviews)	Denmark	CBT and Motivational Intervention
Tremblay, J., Dufour, M., Bertrand, K., Saint-Jacques, M., Ferland, F.,Blanchette-Martin, N., ... and Beaulieu, M. (2023). Efficacy of a randomized controlled trial of integrative couple treatment for pathological gambling (ICT-PG): 10-month follow-up. *Journal of Consulting and Clinical Psychology*, *91*(4), 221.	Quantitative (randomised control trial)	Canada	Couples Therapy

van Minnen, M., Markus, W., and Blaauw, E. (2020). Addiction-Focused EMDR Therapy in Gambling Disorder: A Multiple Baseline Study. *Journal of EMDR Practice and Research, 14*(1), 46–59.	Quantitative (interrupted time series analysis)	Netherlands	Eye Movement Densensitisation and Reprocessing

Appendix 7: Additional References

See below for full references of additional papers that were not included in the evidence review but which were cited in the report.

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