

Thesis Submitted in Partial Fulfilment of the Degree of Doctor of Clinical Psychology (DClinPsych)

Jessica McGovern

Candidate number: 1494404

Oxford Institute of Clinical Psychology Training and Research

Green Templeton College

University of Oxford

May 2024

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Word Counts

Systematic Review of Research Literature (SRL) **7408 words**

Secondary School-based, Cognitive-Behavioural Interventions to Enhance Positive Self-Concept in Adolescents At-Risk of Mental Health Difficulties: A Systematic Review of Randomised Controlled Trials

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Service Improvement Project (SIP) **5229 words**

The Importance of Group Engagement for the Experience of a Transdiagnostic Group Intervention: An ACT-based Group Intervention for Young People in CAMHS

Theory-Driven Research Project (TDRP) **5500 words**

Self-Cognitions in Adolescent Paranoia: a Causal-Interventionist Test with Young People Attending CAMHS

Executive Summary **773 words**

Connecting Narrative **987 words**

Total **19,897 words**

Secondary School-based, Cognitive-Behavioural Interventions to Enhance Positive Self-Concept in Adolescents At-Risk of Mental Health Difficulties: A Systematic Review of Randomised Controlled Trials

Abstract

Background. Self-concept is a broadly defined factor which may contribute to, or be impacted by, mental health difficulties. Self-concept is malleable during the period of adolescence, providing opportunity for enhancing positive self-concept, and mitigating the formation and impact of a negative self-concept which may emerge during this period and contribute to poor mental health at a later stage.

Aims. This review identified and synthesised evidence on the effectiveness of secondary school-based, cognitive-behavioural interventions to enhance self-concept in adolescents at-risk of mental health difficulties.

Methods. Electronic bibliographic databases including MEDLINE, Embase, PsycINFO, CINAHL were searched. Randomised controlled trials were included if they examined the effectiveness of a secondary school-based intervention that included key elements of cognitive-behavioural therapy and was implemented in selected groups considered to be at-risk for mental health difficulties, or groups with subclinical symptoms where intervention was indicated. Quality of studies was appraised using the Cochrane Risk of Bias tool 2. Findings are summarised in relation to our key research questions and in the context of our quality synthesis.

Results. We identified 17 studies describing various individual and group-based cognitive-behavioural interventions that have been examined in at-risk secondary school groups. Overall, findings suggest that interventions for adolescents at-risk of anxiety or paranoia do not appear to enhance self-esteem measured as either a primary or secondary outcome, although there is an overall lack of research in these groups. There is some evidence that group and skills-based CBT

interventions can enhance self-concept in adolescents at-risk of mental health difficulties because of neurodevelopmental, educational, and social (minority status) factors, although the studies have some risk of bias. There are mixed findings for group and individual CBT on self-concept in adolescents at-risk for depression and limited research on dysfunctional anger.

Conclusion. Findings described heterogenous at-risk groups and measures of self-concept, and further research clarifying closely related concepts of self is needed, together with theory-driven interventions to improve self-concept in at-risk adolescents in order to improve mental health outcomes.

The Importance of Group Engagement for the Experience of a Transdiagnostic Group Intervention: An ACT-based Group Intervention for Young People in CAMHS

Abstract

This project aimed to understand and improve adolescents' experience of the DNA-v group, an Acceptance and Commitment Therapy approach to intervention delivered within a specified health service. The project followed three phases. In phase 1 routinely collected qualitative interview data and quantitative service outcome data were analysed using to understand adolescents' engagement within the group. Findings were used in phase 2 to design service improvement recommendations targeting group engagement with input from adolescents. Recommendations were implemented within a follow-on group and phase 3 used the same design as phase 1 to examine changes in group engagement once recommendations were implemented. Participants were adolescents (aged 13-17) attending the DNA-v groups before (N=19), and after (N=9) recommendations were implemented. Findings suggested small positive changes in mean group alliance scores, and in adolescents' experiences of engaging within the group following implementation of recommendations. Results were interpreted with caution due to methodological and theoretical limitations but highlight the importance of group engagement for adolescents' experiences within similar group interventions.

Key Words: Acceptance and Commitment Therapy, DNA-v, Children and Young People, Group, Engagement

Self-Cognitions in Adolescent Paranoia: A Causal-Interventionist Test with Young People Attending CAMHS

Abstract

Background. Self-beliefs contribute to the occurrence of paranoia. The development of self-beliefs is a fundamental developmental task during adolescence. Therefore, self-beliefs may play a particular role in adolescent paranoia. Compassionate imagery may be one route to change self-beliefs, and hence paranoia. Using a proof-of-concept experimental design, with embedded tests of mediation, we set out to test the effects of a brief, compassion-focused imagery intervention and examine the role of negative and positive self-cognitions in the occurrence of state paranoia in adolescents.

Method. Thirty-four help-seeking adolescents with paranoia (*M* age=17, 78% female) in the U.K.'s National Health Service were randomly assigned to a single session compassionate-imagery intervention that targets self-cognitions or a time-matched imagery control condition. Assessments of state paranoia, positive and negative self-cognitions were conducted at four timepoints (T1[pre-intervention], T2, T3, T4). Eight 2x4 ANOVAs were conducted to examine changes in these outcomes across the intervention period between groups.

Results. There were no statistically significant effects of the intervention on our primary and secondary paranoia outcomes when compared to an active control condition. Compared to the control group, we found large, significant effects of the intervention on positive self-cognitions "I can keep going", "I am worth something" (p=0.004, η_p^2=0.152; p=0.005, η_p^2=0.154), but not for negative self-cognitions.

Conclusions. Our findings showed initial positive, short-term effects of our brief compassionate-imagery intervention for adolescents' positive thoughts abouts themselves, but not for paranoia. We had insufficient evidence to establish the impact of changing self-cognitions on paranoia. Further research is now required with larger samples examined longitudinally.

Systematic Review of the Literature

Secondary School-based, Cognitive-Behavioural Interventions to Enhance Positive Self-Concept in Adolescents at-Risk of Mental Health Difficulties:

A Systematic Review of Randomised Controlled Trials

Candidate: Jessica McGovern (jessica.mcgovern@gtc.ox.ac.uk)

Internal Supervisor: Dr Louise Johns (louise.johns@psych.ox.ac.uk)

Resubmission July 2024

Word Count: 7408

Proposed Journal: Journal of *Child and Adolescent Mental Health* was chosen as it is internationally recognised for its publications in child and adolescent mental health and thus, reaches a wide audience of practitioners and academics alike. Author guidelines are available in Appendix A.

Internal supervisor has read and provided feedback on this paper and deems it suitable for assessment.

Abstract

Background. Self-concept is a broadly defined factor which may contribute to, or be impacted by, mental health difficulties. Self-concept is malleable during the period of adolescence, providing opportunity for enhancing positive self-concept, and mitigating the formation and impact of a negative self-concept which may emerge during this period and contribute to poor mental health at a later stage.

Aims. This review identified and synthesised evidence on the effectiveness of secondary school-based, cognitive-behavioural interventions to enhance self-concept in adolescents at-risk of mental health difficulties.

Methods. Electronic bibliographic databases including MEDLINE, Embase, PsycINFO, CINAHL were searched. Randomised controlled trials were included if they examined the effectiveness of a secondary school-based intervention that included key elements of cognitive-behavioural therapy and was implemented in selected groups considered to be at-risk for mental health difficulties, or groups with subclinical symptoms where intervention was indicated. Quality of studies was appraised using the Cochrane Risk of Bias tool 2. Findings are summarised in relation to our key research questions and in the context of our quality synthesis.

Results. We identified 17 studies describing various individual and group-based cognitive-behavioural interventions that have been examined in at-risk secondary school groups. Overall, findings suggest that interventions for adolescents at-risk of anxiety or paranoia do not appear to enhance self-esteem measured as either a primary or secondary outcome, although there is an overall lack of research in these groups. There is some evidence that group and skills-based CBT interventions can enhance self-concept in adolescents at-risk of mental health difficulties because of neurodevelopmental, educational, and social (minority status) factors, although the studies have

some risk of bias. There are mixed findings for group and individual CBT on self-concept in adolescents at-risk for depression and limited research on dysfunctional anger.

Conclusion. Findings described heterogenous at-risk groups and measures of self-concept, and further research clarifying closely related concepts of self is needed, together with theory-driven interventions to improve self-concept in at-risk adolescents in order to improve mental health outcomes.

Key Practitioner Message

What is known?

- Self-concept is a broadly defined concept that may contribute to, or be impacted by, mental health difficulties
- Positive self-concept may serve as a protective factor for young people who are at risk of various mental health difficulties due to their current symptoms or characteristics (e.g. social deprivation).

What is new?

- This is the first systematic review to synthesis the available evidence on various secondary school-based CBT interventions that could potentially enhance self-concept in those at-risk of mental health problems.
- Findings suggest that there are no clear benefits of CBT in various formats for secondary school pupils at-risk of anxiety, paranoia and other mental health difficulties.

What is significant for clinical practice?

- Group or skills-based CBT interventions may have benefits when used with adolescents at-risk of mental health problems due to neurodivergence or social factors, but we need more research to be sure of this.
- Adolescents at-risk of depression may also benefit from school-based CBT intervention but we need further evidence of this. We need further research on adolescents at-risk of other mental health problems in schools.

Keywords: Self-concept, CBT, targeted school-based interventions, at-risk, adolescent mental health

Introduction

The Self in Adolescence

Developmental theories outline adolescence as a period of rapid development (Marsh et al., 2018), during which adolescents' core belief structures about themselves, others, and the world are malleable (Smith et al., 2015). Young people's perspectives can become increasingly egocentric as they move away from family life and into peer environments (Elkind, 1967). There are multiple developmental changes that occur during adolescence, including changes in social cognition and affect regulation (Nelson et al., 2016), which may contribute to adolescents' ongoing development of negative, and positive, views about themselves. Adolescents have heightened social processing (e.g. Engelman et al., 2012), and sensitivity to peer evaluation (Mills et al., 2014), social exclusion and rejection (Sebastian et al., 2010). Further, self-evaluative skills (Weil et al., 2013) and the ability to decipher others' mental states have not yet reached maturation (e.g. Mills et al., 2014; van den Bos et al., 2011), which may draw adolescents' attention toward themselves. Coupled with unsupportive environments or negative life experiences, these developmental changes may act as risk factors for feelings of vulnerability and negative views about the self to emerge. Conversely, this significant period of development also invites opportunity for positive change, and prevention or transformation of maladaptive processes that can occur within this period (Morton & Montgomery, 2013).

The Self & Adolescent Mental Health

Self-concept is a broad concept with varying definitions, but most commonly relates to a person's perceptions of themselves (Shavelson & Bolus, 1982), and thus overlaps with concepts of self-compassion, self-efficacy, self-esteem, etc. Shavelson et al. (1976) proposed the multidimensional hierarchical model of self-concept that places perceptions of personal behaviour in specific situations at the base of the hierarchy, inferences about self in broader domains (social,

emotional and academic) in the middle of the hierarchy, and a global self-concept or self-esteem at the apex. Global self-esteem is defined as feelings of satisfaction and happiness in relation to the self, and self-competence, and has been the standard meaning given to self-esteem for many years (Tafarodi & Milne, 2002). Research supports the conceptual claim that self-compassion is distinct from global self-esteem, where self-compassion relates to (a) being kind and understanding toward oneself rather than being self-critical, (b) seeing one's fallibility as part of the larger human condition and experience rather than as isolating, and (c) holding one's painful thoughts and feelings in mindful awareness rather than avoiding them or overidentifying with them (Neff, 2003). Examining these three concepts alone demonstrates the overlap between various concepts of self examined within the literature.

Research has examined multiple concepts of self and their relationship to mental health in young people (YP) (Peñate et al., 2020), including self-esteem (Masselink et al., 2018), self-compassion and self-kindness (Marsh et al., 2018), self-efficacy (Grealish et al., 2017), and attitudes towards, or judgements of, oneself. For example, maladaptive self-esteem is a proposed risk factor for mental health problems (MHP) in YP (Shirk et al., 2003), self-compassion may protect against MHP in YP (Reddy et al., 2013) and self-criticism or negative self-judgement could increase risk of developing MHP (Marsh et al., 2018). An inverse relationship between self-compassion and psychological distress has been found (r= -0.55; Marsh et al., 2018). Cognitive models of mental health difficulties propose that negative or maladaptive perceptions of self (e.g. I am vulnerable, inferior and outcast), may, by cognitive and affective processes such as through cognitive reasoning biases (e.g. jumping to conclusions) , and often in the context of past or present adverse experiences (e.g. bullying), lead adolescents to attend to information that inadvertently confirms maladaptive perspectives about themselves and form maladaptive core beliefs (e.g. others are out to get me, I will be harmed). Such core beliefs, in line with cognitive behavioural models of mental health difficulties, act as pluripotent risk factors for mental health problems (e.g.

role of negative self-beliefs in paranoia persistence; Bird et al., 2017). Thus, building a positive concept of the self for adolescents may serve as protective of longer-term difficulties (Henriksen, Ranøyen, Indredavik & Stenseng, 2017).

However, a bidirectional relationship between self-concept and wellbeing likely exists and experiencing mental health problems could contribute to, or compound, difficulties with aspects of the self for YP (Ferrie et al., 2020). Thus, supporting the development of positive self-concept for YP may protect against MHP, particularly for those at-risk, and prevent further deterioration in any existing negative self-views.

Enhancing Self-Concept for Adolescents

The literature contains intervention studies directly targeting aspects of self in YP and studies where self-concept is measured as a secondary outcome. The interventions that have been examined thus far are mainly forms of *second-* or *third-wave* cognitive behavioural therapy (CBT), based on theoretical models that hold a central role for self-concepts (e.g. negative self-beliefs in CBT; Beck, 1979). Intervention effects vary, depending on the focus and type of intervention. Some studies report no clear beneficial effects of generic CBT on self-esteem in YP when it was not the primary target of intervention, for clinical, and at-risk (for depression) groups (Taylor & Montgomery, 2007; Stallard et al., 2011). Conversely, interventions that target self-esteem directly in general and at-risk samples (minority group) have led to improvements in YP's self-esteem (Iwahori et al., 2022; Golshiri et al., 2023). Third-wave compassion-focused interventions have shown positive effects on both, self-compassion, and MHP, for YP with mental health needs, when examined as a primary outcome in schools (Egan et al., 2022). However, third-wave mindfulness- or acceptance-based interventions have yielded mixed results for self-esteem and self-compassion, in general, and at-risk (for paranoia) samples respectively (Perkins et al., 2022;Parker & Kingston, 2021). Taken together, the literature reports mixed findings for intervention effects on enhancing positive self-concept in YP. It is unclear which interventions and therapeutic processes serve to

strengthen positive self-concept in YP, and for which groups of adolescents, including those at-risk of MHP.

School-based Interventions

One means of enhancing positive self-concept in adolescents is through school-based interventions. Schools can provide a safe and non-judgmental environment for mental health intervention for YP, and can increase access to support, without increasing demands on clinical services (Marks, 2012). Further, schools can provide a more accessible route for YP to access support from socio-economically disadvantaged families or marginalised groups, who are at increased risk for MHP (Knight & Samuel, 2022). School-based interventions for MHP can be broadly grouped into three types: universal, selective, and indicated (Neil & Christensen, 2009). Both selective and indicated interventions are often referred to as 'targeted' intervention. Selective interventions target YP at-risk of MHP, due to individual or environmental characteristics (e.g. social economic status), whilst indicated approaches are aimed at students identified as having attenuated or subthreshold symptoms of MHP. Thus, school-based interventions offer a means of enhancing positive self-concept in adolescents, particularly those at increased risk for MHP.

Targeted, school-based interventions have been used for YP displaying subthreshold symptoms of MHP such as anxiety (de Hullu et al., 2017), and depression (Do et al., 2021), and for YP with increased risk of MHP due to their characteristics (i.e. social graces) (Katz et al., 2020). Similar to outcomes for interventions in child and adolescent mental health more generally, research outcomes from school-based interventions include self-concepts measured as both a primary (Berry & Hunt, 2009) and secondary outcome (Amin et al., 2020) of the research and findings appear mixed.

Previous Reviews

Previous reviews examining adolescent samples have aimed to synthesise evidence for interventions by the concepts of self-esteem, self-compassion, or self-enhancement separately (Morton & Montgomery, 2013). Approximately three reviews report on interventions that directly or indirectly target self-compassion for YP under 19 years and include at least 10 controlled trials (Barnard & Curry, 2011; Cheang et al., 2019; Egan et al., 2022). Approximately six reviews include interventions that examine self-esteem indirectly (Barry et al., 2011; Caldwell et al., 2019: Durlak & Wells, 1997; Taylor & Montgomery 2007) or both directly and indirectly (Haney & Durlak, 1998) for YP under 19 years and include at least 103 controlled trials, although most of these interventions are parenting/infant or physical health interventions. There are also several existing reviews demonstrating small effects of school-based interventions on MHP, with slightly higher levels of effectiveness reported for targeted, compared to universal, interventions (Knight & Samuel, 2022). The therapeutic approach predominantly used across school-based studies to inform the interventions was CBT, and there is a lack of a comparable research base using other therapeutic approaches. Of note, the studies reviewed have primarily evaluated the impact of the interventions on decreasing symptoms of poor mental health as opposed to increasing wellbeing or enhancing self-concept. There has been no review conducted to date that synthesises the available, targeted, school-based interventions for YP at-risk of MHP and their impact on related aspects of the self. Thus, the current review aims to synthesise interventions that could be offered through school to encourage the development of positive self-concept for YP, during a developmental stage when any difficulties in this area may be relatively treatable. The review covers cognitive-behavioural interventions for YP (delivered individually, or within a group or classroom), rather than family or parenting interventions. As well as synthesising research on overlapping aspects of self-concept in YP, the review contributes to clinical practice by synthesising evidence-based treatments for YP at-risk of MHP for use within schools.

Research Questions

1. Which secondary school-based CBT interventions to enhance positive self-concept in adolescents at-risk of mental health difficulties have been examined in RCTs?
2. How effective are these interventions in improving adolescents' positive self-concept relative to control interventions/conditions?

Methods

This review adhered to the updated Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement (Moher et al., 2015; Page et al., 2021). The PRISMA checklist was completed accordingly. Our protocol will be retrospectively registered with International Platform of Registered Systematic Review and Meta-analysis Protocols (INPLASY).

Search Strategy

The search strategy comprised of terms for concepts of self (e.g. self-concept, self-esteem, self-compassion), children and young people (e.g. adolescen*, young person) and randomised-controlled trials (RCTs). Terms were developed through citation tracking and collation of *key words* from relevant publications on the topic (see Appendix B). The Ovid Expert Searches References resource was also used to derive terms for RCTs. The search strategy was developed to capture all relevant research articles related to the broad topic of self-concept. Given the breadth of the topic, we aimed to be over-inclusive in our search terms and database search so as not to miss key articles. We used Boolean operators in the individual databases (e.g. *not* 'physical intervention.mp') in an aim to then reduce the number of irrelevant records produced by the search. Electronic bibliographic databases PscyhINFO, MEDLINE, Embase via OvidSP and CINAHL via EBSCO were searched fully in January 2024 and final searches were updated on February 18th 2024.

Study Selection

Records from individual databases were exported to, and managed in, EndNote software (EndNote, version 21, 2023). Search results from the individual databases were merged and duplicate records removed using the duplicate removal function in EndNote. The first reviewer JM screened titles and abstracts of all records against inclusion criteria and studies that were not relevant were excluded. Original inclusion criteria were; RCTs, examining adolescents ages 11-18

years, with, and without, mental health problems, psychological intervention delivered, and self-concepts measured. Exclusion criteria were; uncontrolled trials, non-peer reviewed studies, studies not written in English, study protocols, review papers, and studies examining resilience only, parenting or physical health interventions.

Once title and abstract screening commenced it became clear that the initial inclusion criteria were too broad to create a clinically meaningful review. Our initial inclusion criteria were not limited by intervention type (e.g. family intervention, body image interventions were included), or by intervention setting (e.g. school, clinical and other settings were included), nor by adolescent group. As a result, there were approximately 500 articles for initial full text review and the studies were extremely heterogeneous. The number of relevant articles generated by the initial criteria was unexpected, as the number of studies that examined interventions targeting self-concept in the initial scoping search appeared to be low. However, many articles were included based on inclusion of papers that examined self-concept as a secondary outcome. The research team considered it helpful to keep papers that evaluated self-concept as a secondary outcome, so as not to exclude relevant interventions that may benefit self-concept. Therefore, JM and LJ refined the research questions and inclusion/exclusion criteria in order to develop a more clinically meaningful and novel review. The final inclusion criteria for studies are shown in Table 1.

Table 1

Inclusion Criteria

Criteria	Specification
Population	Young people attending secondary school (i.e. likely age range between 11-18 years) considered to be at increased risk or 'vulnerable' for mental health difficulties as outlined by study authors (e.g. elevated scores on psychometric measures of DSM-V mental health disorders, categorised to be possessing biopsychosocial risk factors for mental health difficulties [social deprivation, gender – minority status, alternative education, migrant status]) or by the reviewers (n=1, developmental disorder and socially deprived).
Intervention	Any Cognitive-Behavioural intervention delivered through identifying, and directly or indirectly providing resource to, individuals in schools. Interventions can include; protocolised, non-protocolised, cognitive, behavioural, second- or third-wave CBT, social-emotional learning, digital, face-to-face, self-help, group or individual interventions.
Comparator	Alternative active (e.g. alternative therapy) or inactive (waitlist control) intervention or no intervention at all (practice as usual).
Outcome	Effectiveness of the intervention in improving global positive concepts of self when measured as a primary or secondary outcome on pre- and post- intervention measures (e.g. self-esteem, self-compassion, self-worth, global self-efficacy, etc).
Setting	Secondary educational settings. This includes state, public and independent schools or colleges of further education and non-mainstream settings.
Study Design	Randomised Controlled Trials any design (e.g. cluster, single-blinded)
Country	Any
Language	English Language
Year	1992-Present day*

*Haney and Durlak (1998) conducted a comprehensive synthesis of interventions for self-esteem in children and adolescents including papers up to 1992.

Studies identified as potentially relevant based on the criteria in Table 1 were retrieved and their full texts were examined. The second reviewer EP screened 20% of titles and abstracts, and 35% of studies retrieved for full text screening, blind to the first author's decisions. Substantial agreement for inter-rater reliability (IRR; Cohen's kappa = 0.71) was satisfied for title and abstract screening. 35% of studies were read by the second reviewer at full text level, following which substantial inter-rater reliability was achieved (Cohen's kappa=0.70). Although inter-rater agreement was high, inter-rater reliability scores were lower than expected owing to *Cohen's kappa paradox* (Zec, Soriani, Comoretto & Baldi, 2017; Cicchetti & Feinstein, 1990). Disagreements were resolved through discussion with the supervisor of this review, LJ.

Data Extraction

Data extraction from the final studies for inclusion in the review was led by the first reviewer and recorded in Excel. The data extracted included author, publication date, title, country, study aims, design, *N*, population (i.e. risk factor for MHP), mean age, demographic information (i.e. percentage female), intervention type (e.g. brief Compassion-Focused Therapy intervention), duration of intervention, delivery format and facilitator, comparator, primary or secondary outcome measure related to this review (e.g. *Self-Compassion Scale*), and key findings. The data extraction form increased specificity and reliability of collected data and minimised potential errors. A second rater also extracted data for 30% of studies and discrepancies (n=1) were resolved via discussion.

Quality Appraisal

The risk of bias in all included studies was appraised by JM using the Cochrane Risk of Bias Tool version 2 (RoB 2; Sterne et al., 2019). This is a highly comprehensive tool for the assessment of RCTs, designed for use in systematic reviews. The RoB 2 Excel tool macro and Robvis visualisation tool were used alongside their associated guidance (Higgins et al., 2016) to

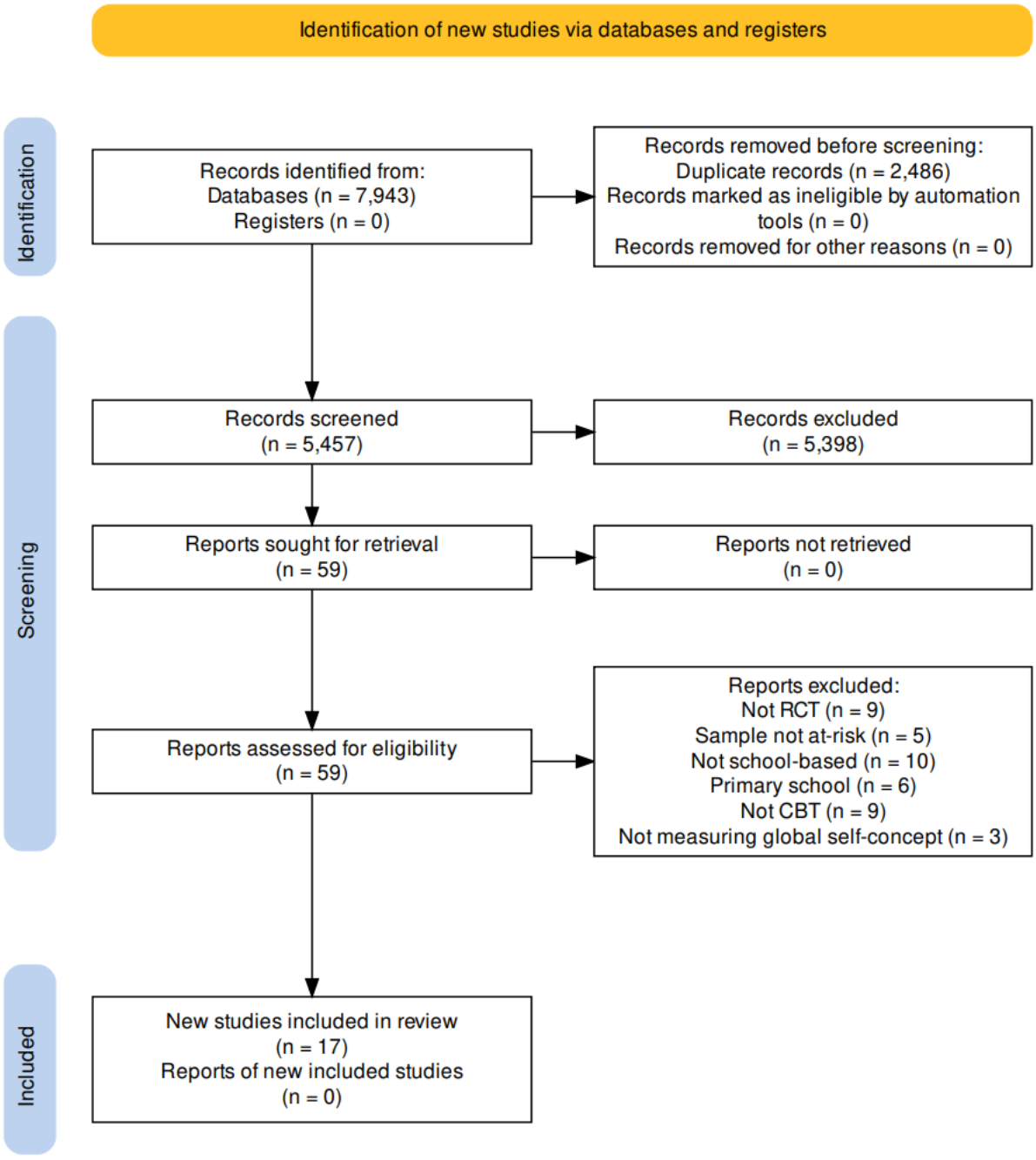
aid the quality appraisal synthesis. Studies were provided with an overall rating as low (green), some (amber), or high concerns (red) of bias. Overall scores were derived from reviewer's composite of ratings across five domains; bias arising from randomisation processes, deviations from intended interventions, missing outcome data, measurement of the outcome, and selection of the reported result. Each domain was rated using the RoB 2 Excel tool macro by JM answering signalling questions embedded within this tool. The macro's algorithm then produced an overall rating. The second reviewer rated 30% of the studies and satisfactory IRR was met (Cohen's kappa =1.00).

Synthesis of Results

A summary table of findings is provided in Table 2, in addition to a narrative synthesis below. Findings are described separately for intervention studies that measure concepts of self as a primary or secondary outcome, and further delineated by at-risk samples.

Figure 1

PRISMA Flow Diagram



***5398 records excluded = 4998 excluded based on initial inclusion criteria *400 more excluded based on refined inclusion criteria.**

Results

A total of 7943 records were identified through our initial search strategy, resulting in 5457 records for title and abstract screening following the removal of duplicates (see comment * in Figure 1). Fifty-nine studies were screened at full text level and 17 studies describing unique at-risk populations were included in the final review (see Figure 1). Detailed characteristics of included studies can be found in Table 2.

Study and Sample Characteristics

Most of the studies (n = 12) were published in the last ten years (since 2013), with six published since 2020 and the COVID-19 pandemic. Studies were conducted globally, with the majority carried out in Western countries (n = 13), including the United Kingdom (U.K.), Europe, the United States of America (U.S.A) and Canada, and a minority completed in Asia. A total number of 7162 participants were included in the final studies, although sample sizes varied (N = 46–5030), and not all studies reached their pre-determined sample size or included a power calculation. Studies were mostly conducted across entire secondary schools (n = 10), with a smaller number focusing on older or younger year groups. Samples ranged in age from 11 to 19 years, with two studies not reporting this information. Two studies focused on either males or females (Berry & Hunt, 2009; Golshiri et al., 2023), but most studies matched gender distributions across comparison groups.

Recruited samples were at-risk for multiple mental health difficulties and eligibility for individual studies was ascertained through various psychometric measures or participant characteristics. Authors considered their intervention to be *targeted* (selective or indicated) in all studies but one, where this was not clearly stated. Participants were mostly at-risk for depressive or (n = 5), anxiety disorders (n = 4) or both (n = 1). The remaining studies examined samples considered to be at-risk of other, specific mental health difficulties (n = 2) or considered to be

within an at-risk population by the authors e.g. due to neurodiversity or social factors (n = 5). Measures used to ascertain risk for depression were the Short Mood and Feelings Questionnaire (MFQ; Angold et al., 1995), the Patient Health Questionnaire 9 (PHQ-9; Kroenke et al., 2001) and Centre for Epidemiologic Studies Depression Scale (CES-D; Fenrich et al., 1990), the Children's Depression Inventory (CDI; Kovacs, 1985) and DSM-III-R criteria for Major Depressive Disorder (American Psychiatric Association, 1987). Measures used to assess risk for anxiety were the Revised Children's Anxiety and Depression Scale (RCADS; Chorpita et al., 2000), the Test Anxiety Inventory (TAI; Van der Ploeg, 1988), Liebowitz Social Anxiety Scale for Children and Adolescents (LSAS-CA; Masia-Warner et al., 2003), the Hospital Anxiety and Depression Scale (HADS-A; Chan et al., 2010), Screen for Child Anxiety Related Disorders (SCARED; Birmaher et al., 1997) and clinician ratings of symptoms. Other assessments were for paranoia (the Paranoia Scale; Fenigstein & Vanable, 1992) or emotional difficulties (Multidimensional Anger Scale; MDAS; Balkaya & Sahin, 2003; Rosenberg Self-Esteem Scale; RSES;Rosenberg et al., 1995), or being in a high-risk group for MHP, including neurodiverse, socially deprived, alternative education setting, migrant and minority status.

Intervention Characteristics

Details of cognitive-behavioural-based interventions delivered within individual studies are included in Table 2. CBT interventions predominantly contained facets of second- and third-wave CBT (Parker & Kingston, 2022) and were characterised by psychoeducation, increasing awareness of emotion and cognition, cognitive restructuring or bias-modification, and skill-based interventions (e.g. Wong & Raine, 2019). Most trials offered a minimum of six sessions (six to fifteen weeks, n = 15), with just two studies offering a brief, once-off or one-day intervention. Durations of sessions were similar to that offered in clinical settings, ranging from thirty minutes to two hours (n = 16). Methods of delivery were not always reported, however, for those that

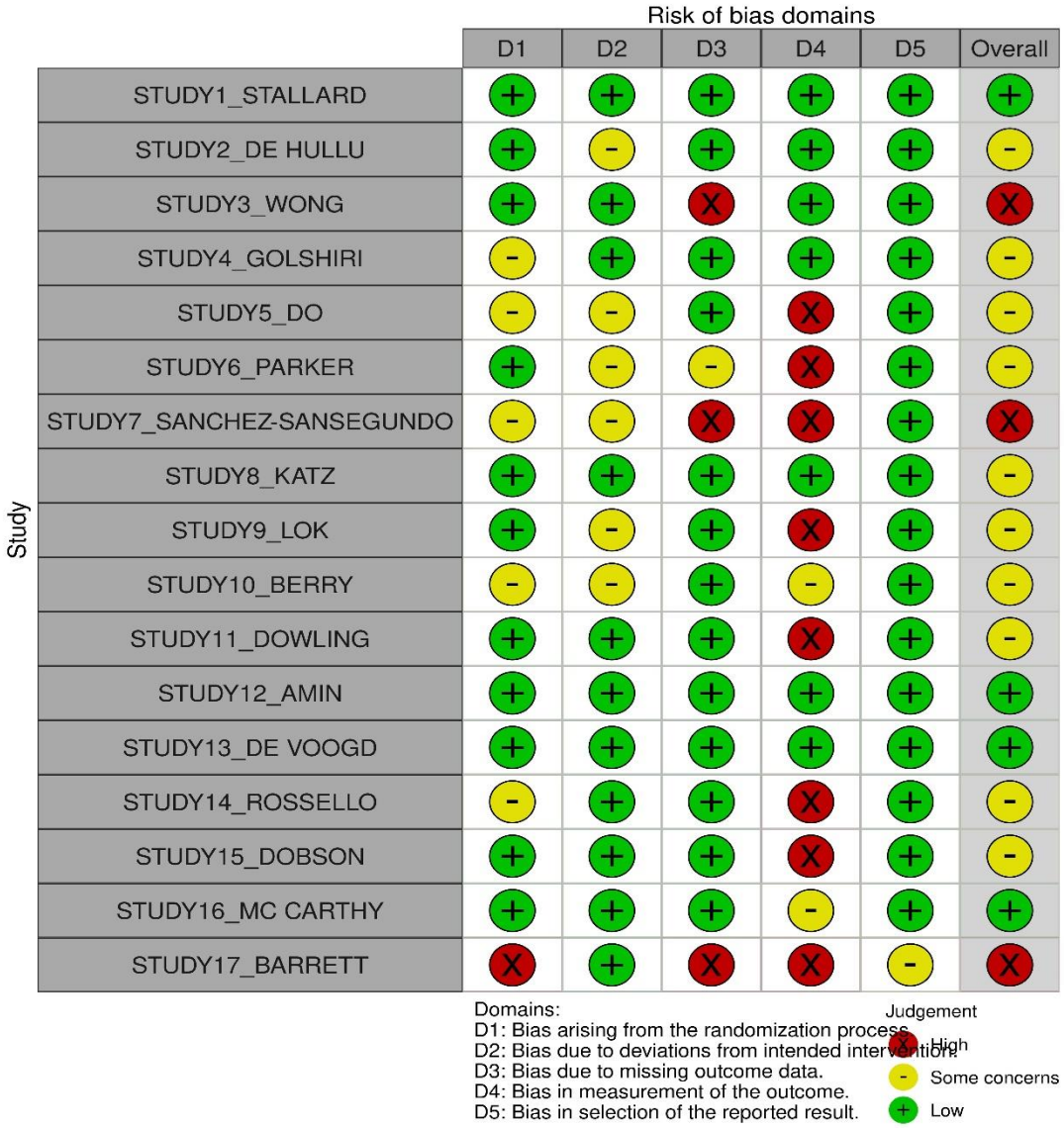
reported on the intervention format, the majority were classroom or group-based and delivered by mental health professionals, with few digital interventions trialled through schools.

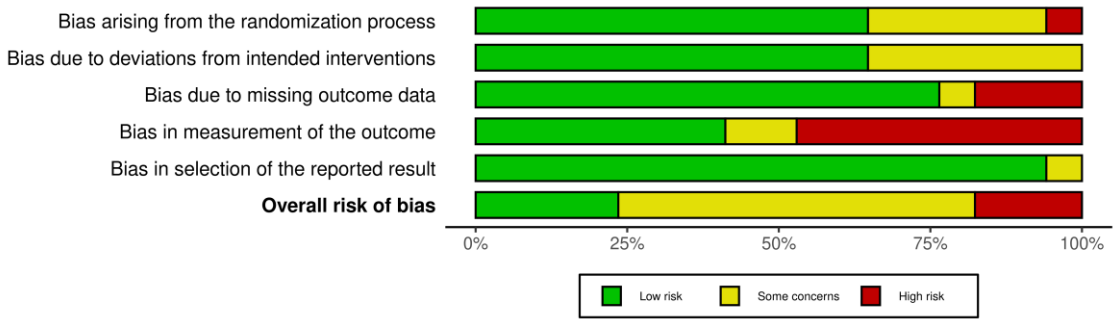
Overall Quality of Included Studies

The ROB Excel macro tended to rate studies favourably. Quality ratings for all included studies are shown in Figure 2. The most common rating of overall risk of bias across studies was 'some concern' of bias (n = 10 papers; 44.4%), with four studies rated as 'low risk' and three rated as 'high risk' of bias. Many studies (n = 11) were rated as low risk of bias for randomisation processes, where there were some concerns of bias for five studies due to lack of reporting on blinding, concealment and some baseline differences between groups (e.g.Golshiri et al., 2023). Studies were rated as either low (n = 11) or some risk (n = 6) for deviations from their intended intervention, as most did not appear to deviate majorly from the protocol or this information was not provided (e.g. de Hullu et al., 2017). Intention-To-Treat analyses were implemented frequently, and risk of missing outcome data was rated as low for most studies (n = 13). Eight studies were rated as high risk of bias in measurement of outcome data, and two studies were rated as some concerns of bias for this domain. Outcome measures appeared to be appropriate in most studies and outcomes were measured the same in the intervention and control groups, although it was not always clear that assessors were blind to allocation (e.g. Berry & Hunt, 2009). Finally, risk of selection of the reported results was low in all but one article (n = 16). Notably, implementation fidelity was assessed by intervention-specific assessments in just five studies (Katz et al., 2020; McCarty et al., 2013; Rosselló et al., 2008; Stallard et al., 2012; Wong & Raine, 2019). All studies reported 'good' or high levels of fidelity/adherence.

Figure 2

Risk of Bias Appraisal for Individual Studies





Intervention Quality and Effectiveness; Self-Concept Outcomes

Self-Concept as a Primary Outcome

Six studies examined global self-concept or self-esteem as a primary outcome (STUDY4, STUDY7, STUDY8, STUDY10, STUDY11, STUDY17). Five of the six articles selected adolescents based on personal or social factors that increased their risk of MHP. These studies used six different outcome measures, and there was evidence for enhancement of self-esteem and self-concept post-intervention as measured by the Self-esteem Inventory (SEI; Coppersmith, 1967; 1981) and Description Questionnaire–General Subscale (Marsh et al., 2005), and at 6-month follow up on the RSES (Rosenberg et al., 1995), but findings were mixed. Three studies measured self-esteem using the RSES (STUDY7, STUDY11, STUDY17; Rosenberg et al., 1995), whilst three employed versions of the SEI (STUDY4; Coppersmith, 1967; 1981), The Self-Perception Profile for Children and Adolescents (STUDY10; SPPC/A; Harter, 1988) and the Description Questionnaire–General Subscale (STUDY8; Marsh et al., 2005), respectively. Notably, the studies examining self-concepts as a primary outcome compared CBT with inactive control conditions.

At-Risk for Anxiety & Depression. No studies examined self-concept as a primary outcome in at-risk for depression groups. One study examined effects of a manualised group CBT plus a parallel parent program in males at-risk of anxiety and ongoing bullying (STUDY10). Compared to a waitlist control condition, no statistically significant effects were found for the intervention group on global self-esteem as measured by the SPPC/A post-intervention, nor at 3-month follow up, and study quality was of some concern (Berry & Hunt, 2009). Notably, this was one of just two studies that examined self-concept as a primary outcome and assessed intervention effects at follow-up, but management of missing data at follow-up was unclear, owing to reduced reliability of results reported on long-term intervention effects.

Other At-Risk Groups. Five studies assessed self-esteem or self-concept as a primary outcome in groups considered to be at increased risk of MHP due to intersectionality of gender and social class (STUDY4), education through disadvantaged schools (STUDY11) or alternative education provision (STUDY7), migrant status of non-English speaking backgrounds (STUDY17) and 'developmental disabilities' (STUDY8). Three compared effects of group CBT, CBT skills-based intervention (assertiveness and problem-solving), and the *Reasoning & Rehabilitation programme* (Ross & Hilborn, 2004) to waitlist or usual-practice conditions, and all reported significant improvements in self-esteem ($p<0.05$-0.01; STUDY4, STUDY7) and self-concept ($g=1.53$; STUDY8) on various outcome measures post-intervention for CBT compared to the control condition. One study included follow-up measures, and reported statistically significant improvements at 6-month follow-up (STUDY7), but follow-up data were not available for all participants and outcomes may have been biased by missing data. Two studies employing the *MindOut* school-based social and emotional learning program (SELP) and group CBT reported no intervention effects on the RSES compared with usual class lessons (e.g. $p=0.139$; STUDY11). Again, validity of results were limited by lack of information on missing data (e.g. STUDY17) and blinding of assessors.

Studies reporting positive effects of CBT on self-concept may have had greater risk of bias than those reporting no significant intervention effects. STUDY4 and STUDY7 did not report information on whether random allocation was concealed until participants were enrolled in the assigned intervention and no information on whether assessors were blinded was available for STUDY7. However, all studies had some or high risk of bias, mostly owing to unclear management of missing outcome data and blinding.

Self-Concept as a Secondary Outcome

Eleven studies examined self-esteem or self-concept as a secondary outcome (STUDY1, STUDY2, STUDY3, STUDY5, STUDY6, STUDY9, STUDY12, STUDY13, STUDY14,

STUDY15, STUDY16). Studies evaluating self-esteem or self-concept as a secondary outcome were interventions for adolescents at-risk of a specific MHP, and it was expected that the intervention would improve self-esteem, based on the cognitive model of the MHP.

At-Risk for Anxiety. The majority of studies reported that CBT does not enhance self-esteem as measured by the RSES in adolescents at-risk of anxiety. Three studies examined effects of group CBT (with and without parental involvement), digital cognitive-bias modification, and guided CBT self-help in adolescents at-risk of anxiety disorders (social and general anxiety; STUDY2, STUDY3, STUDY12). One study examined cognitive-bias modification (versus imagery focused interpretation training) in those at-risk of both anxiety and depression (STUDY13). One study with low risk of bias found statistically significant improvements in self-esteem as measured by the RSES for a guided self-help intervention compared to an active control condition ($p<0.001$; support provided by a teacher; STUDY12). Blinding of assessors, an active comparison and availability of data for almost all participants increased the validity of this study. However, three studies, reported no additional benefits of the CBT intervention compared to one inactive and two active control conditions for self-esteem as measured by the RSES (STUDY2, STUDY3, STUDY13). Of note, randomisation procedures were followed in all of STUDY2, STUDY3 and STUDY13, and STUDY2 employed blinding of assessors of outcomes at two-year follow-up and assessed for bias in outcomes owing to missing data. Thus, the only concern for all three studies reporting no intervention effects for self concepts was the potential of bias being introduced by missing outcome data in STUDY3. Nonetheless, overall, study quality did not appear to explain the lack of evidence for intervention effects in those at-risk of anxiety.

At-risk for Depression. There was some evidence for positive effects of group and individual CBT interventions on outcome measures other than the RSES in those at increased risk of depression. Five studies examined effects of a classroom-based individual, digitalised, and group CBT, and the *Coping with Stress Course* (Clarke et al., 1995) in groups at-risk of depression

(STUDY1, STUDY5, STUDY14, STUYD15, STUDY16). Three studies reported greater increases in self-esteem as measured by the BASC-2 (p=0.003) and RSES, and greater enhancement in self-concept as measured by the PHCSCS, for those assigned to group CBT interventions compared to an active control (individualised supportive interview; STUDY14, STUDY16) or inactive control (STUDY5). Of note, STUDY14 reported greater enhancement of self-concept for group and individual CBT when compared to Interpersonal Therapy ([IPT] p=0.006; average adolescent in CBT was better than 67% of those in IPT), which may provide stronger evidence than studies with inactive control conditions. Nonetheless, two studies reported no significant differences between CBT interventions and active or inactive control conditions, including at 3-, 6- and 12-months follow-up (STUDY1, STUDY15) as measured by the RSES and the longitudinal design may have increased reliability of outcomes. As all studies had low or just some risk of bias, again mixed outcomes did not appear to be owing to study quality.

Other At-Risk Groups. There was mixed evidence for positive effects of brief CBT interventions on self-esteem as measured by the RSES in those at increased risk of MHP other than anxiety and depression. Two studies examined effects of specific interventions, a values-based action (Acceptance and Commitment Therapy-based) intervention compared to an active control condition (reflection and writing task), and anger management skills compared with no intervention, in groups with elevated non-clinical paranoia (one standard deviation above the non-clinical norm on the Paranoia Scale (Fenigstein & Vanable, 1992); STUDY6) and dysfunctional anger (specified scores on the MDAS [Balkaya & Sahin, 2003]; STUDY9). No significant effects were found for the values-based action intervention on self-esteem as measured by the RSES (Rosenberg et al., 1995), in those with paranoia, although trends in the data suggested improved self-esteem from baseline to 6-weeks post-intervention (p=0.06). Conversely, self-esteem levels on the RSES (Rosenberg et al., 1995) of the adolescents in anger management did significantly increase after the program ($p < 0.05$) and this was not observed in control condition. Both studies

did not provide information on missing data nor fidelity of treatment and thus, both had scores of "some concerns" of bias in the quality assessment.

Table 2.

Study Characteristics

Authors	At-Risk Group	N, power analysis (Yes/No)	Mean age (SD/range) Sex (% female)	Description of intervention: key facets Session (number), duration Method of delivery Facilitators	Description of Comparison	Self-concept Outcome Measure(s) (Follow-up Period)	Key Findings
Self-Concept as a Primary Outcome							
STUDY10 Berry & Hunt (2009) Australia	**Anxiety** score of at least one SD above the population mean on any subscale of SCARED and disabling and disturbing bullying in last month on the BIS	N= 46 Intervention: 22 Control: 24 No.	Total: 13.04 (SD 0.79, 12-15) 0% female	Classroom-based, manualised group CBT and parallel parent program for anxiety management ‘‘Confident Kids Program’’: psychoeducation, cognitive restructuring, graded exposure, understanding and coping with bullying, cognitive strategies for self-esteem, role play and homework. 8 sessions (60 minutes) Clinical psychologists	Waitlist control	Self-esteem SPPC/SPPA (Harter, 1988) (pre- and post-intervention, and after 3 months)	There were no statistically significant differences between control and intervention conditions in self-reported global self-esteem, F(1, 44)= 3.17, ns).
STUDY17	Young, culturally diverse	N= 139/324 with	Total M=14.31 (11-19)	CBT FRIENDS group program: building self-esteem, problem-solving and self-	Waitlist control	Self-esteem	A significant difference between Chinese wait-list and intervention participants at

Barrett et al., 2003 Australia	**migrants** of non-English speaking backgrounds (NESB) considered at-risk by authors.	follow-up data Intervention: 166 Control: 154 High school: 189 No.	Intervention: 48.2% female Control: 47.4% female	expression, relationship building. 10 sessions (60 minutes)		RSES (Rosenberg, 1965) (pre- and post-intervention and after 6 months)	pre- ($F(1,181) = 8.59$, $p < .01$) and post-assessment ($F(1,181) = 17.21$, $p < .001$), but there was no significant effect of the intervention.
STUDY11 Dowling et al., (2019) **Ireland**	**Disadvantaged (DEIS) schools**: 70% of the students are classified as educationally disadvantaged by the Department of Education and Skills and considered at-risk groups by author	N= 497 Control: 251 Intervention: 246. Yes (not meeting sample).	Total: M= 15.87 (SD 0.69, 15 - 18) Control: 24.5% female Intervention: 25.8% female	*MindOut* - a universal school-based social and emotional learning program: self-awareness, self-management, social awareness, relationship management, decision- making 13 sessions (time N/A) Teachers	Social personal and health education	Self-esteem RSES (Rosenberg, 1965) (2 weeks pre- and post-intervention)	No differences between groups. Linear Mixed Model: ES:1.48 (-0.15,1.14), *p*= 0.139
STUDY4 Golshiri et al. (2023)	**Girls** attending public school in Isfaha, moderate SES, considered	N= 96 Intervention: 32 Control: 64	Total: M = N/A (15-16) 100% female	Problem-solving and assertiveness training group: question and answer, brainstorming, video resources,	Routine school training	Self-esteem CSEI (1967)	Mean scores of the self-esteem variable changed significantly in the intervention group compared to control group before

Iran	at-risk group by authors.	No.		role play, homework, life skills information. 6 sessions (90 minutes) Facilitators N/A		(one-month pre- and post-intervention)	(25.2±2.905) and after (29.9±4.155) the intervention ($p<0.05$).
STUDY8 Katz et al. (2020) Canada	**'Developmental disabilities'**: ASD, ID, Foetal Alcohol Syndrome and from socially deprived area**	N= 113 Intervention: N/A Control: N/A No.	Total: Age N/A (mixed primary and secondary schools) Intervention: 44% female Control: 40% female	Mental Health Literacy and DBT skills classroom sessions with suggested lesson plans: interpersonal effectiveness, emotional regulation and mindfulness skills. 12 (DBT) lessons (N/A) Trained teachers	Control school	Self-concept (general) Description Questionnaire–General Subscale (Marsh et al., 2005) (baseline[Oct], post-treatment[Feb] and after 4 months [Jun])	Large effects were found for the program on measures of self-concept, *g*=1.53. Most change was found between Oct-Feb when content was taught. No differences between primary or secondary school (*p*= 0.528).
STUDY7	Attending **alternative**	N= 142	Total:	R&R2 intervention programme classroom sessions: training	Waitlist control	Self-esteem	Significant increase in mean total score of self-esteem for

Sánchez-Sansegundo et al., (2020) **Spain**	**education provision** considered at-risk group by authors.	Intervention: 68 Control: 74 No.	M= 16.04 (SD= 0.83, 13 - 17) Intervention: 54.5% female Control: 54.5% female	cognitive, attitudinal, emotional and behavioural characteristics that are associated with negative behaviours and mental health problems. 12 sessions (120 minutes) 'Qualified trainers'		RSES (Rosenberg, 1965) (baseline, posttreatment and after 6 months)	intervention compared to control group between Time 2 (post intervention) and Time 3 (follow-up) (F=16.6; p= 0.01; η^2 = 0.19) even after controlling for age and the mean scores in Time 1 (pre-intervention).
Self-Concept as a Secondary Outcome							
STUDY5 Do et al. (2021) Korea	At-risk for **depression**: Score above the threshold for mild depression (PHQ-9, CES-D)	Intervention: 28 Control: 27 No.	Total (sample screened 376): M= 15.71 53.7% female	Computerised Individual CBT: 'Hangbok-Nuri program': interpersonal skills and learning ability training, psychoeducation, relaxation training, cognitive restructuring. 10 sessions (30 minutes) Master's level clinical psychology graduates	Waitlist control	Self-esteem RSES (Rosenberg, 1965) (pre- and post-intervention)	The treatment group showed significant improvements in self-esteem compared to the waitlist group.
STUDY15 Dobson et al., (2010) **Canada**	At -risk for **depression:** scored 24 or higher on the CES-D (Radloff, 1977).	N= 46 CBT: 25 Control: 21 No.	Total: M= N/A (13-18) Intervention: M= 15, 68% female	Group "Adolescent Coping with Stress Course,": cognitive restructuring and skill-based sessions. 15 sessions (45 minutes) Doctoral clinical psychology trainees	"Let's Talk" control group was developed for this study as a	Self-esteem RSES (Rosenberg, 1965)	Analysis of RSES scores revealed a significant main effect of Time, F(3, 78)=4.18, p< .01, but not of Group, F(1, 26)= 0.10, ns, or Time × Group, F(3, 78)= 0.10, ns. Scores at 3-month follow-up

			Control: M = 15, 71% female		control/attention condition 15 sessions	(baseline, after 3- and 6-months)	were significantly higher than postintervention, t(28) =–3.10, p< .01, whereas no other pairwise comparisons were significantly different.
STUDY16 McCarty et al. (2013) U.S.A.	At-risk for **depression**: 14 or higher (top 25%) on the MFQ	N= 120 Intervention: 58 Control: 62 No.	Total: (11-15 years) 60% female Intervention: M= 12.8 (SD 0.69) 38% female Control: M= 12.7 (SD 0.77) 35% female	Group CBT preventative intervention: Positive Thoughts and Actions (PTA) which is designed to assess cognitive-behavioural maintenance factors for depression: goal-setting, positive thoughts/feelings, cognitive restructuring, skills learning, relationships, relapse prevention. 12 sessions (50 minutes) Trained Master's level graduate students	Individual support programme, a modified version of the Measurement for Adolescent Potential for Suicide intervention 45-90 session	Self-esteem BASC-2-self-esteem subscale (Reynolds & Kamphaus, 2004) (pre- and post-intervention, after 5-7 months)	Youth in PTA showed greater increases in personal adjustment on two of three measures: sense of inadequacy and self-esteem *p*= 0.003
STUDY14 Rossellò et al. (2008)	At risk for **depression** (met DSM–III–R criteria (American	N= 112 CBT-I: 23 CBT-G: 29	Total: M= 14.52, (SD 1.85) 55.4% female	Individual CBT Group CBT: CBT culturally and developmentally adapted, focused on how thoughts,	Individual Interpersonal psychotherapy	Self-esteem RSES	The results suggest that CBT and IPT are robust treatments in both group and individual formats. However, CBT produced significantly greater

Puerto Rico	Psychiatric Association, 1987) for Major Depressive Disorder OR score of 13 or higher on the CDI	IPT-I: 31 IPT-G:29 No.		activity and interactions influence mood, up to 2 parent sessions. 12 sessions (1 hour for individual, 2 hour for group) Advanced graduate clinical psychology students	Group Interpersonal psychotherapy	(Rosenberg, 1965) (baseline, after 3- and 6-months):	decreases in depressive symptoms and improved self-concept than IPT, F(1, 107)= 7.93, p= 0.006]. The average adolescent in CBT was better than 67% of those in IPT.
STUDY1 Stallard et al. (2012) U.K.	At-risk for **depression:** 5 or more on the short MFQ on two occasions	N= 5030 At risk: CBT(n)= 392 AC(n)= 374 USP(n)= 298 Yes.	Total: M= N/A (12-16) CBT: M = 14.4 (1.0) 66% female Attention control(AC): M= 14.1 (1.0) 64% female Usual school provision(USP): M= 13.9 (1.2) 66% female	'Resourceful Adolescent Programme' CBT, universal classroom-based depression prevention programme: building resilience, cognitive restructuring, problem-solving skills, interpersonal skills learning, stress management, coping skills and emotional regulation, positive self-concept, and relapse prevention. 11 sessions (60 minutes) Undergraduates with a relevant qualification	AC: personal social and health education (PSHE) with 2 additional facilitators OR Usual school provision of PSHE	Self-esteem RSES (Rosenberg, 1965) (screening, baseline, after 6 & 12 months)	No differences between the treatment arms on secondary outcomes including self-worth. Adjusted difference (95% CI) at 12 months: CBT vs USP: 0.12 (−0.81 to 1.05) CBT vs AC: −0.13 (−1.12 to 0.87).

STUDY12 Amin et al. (2020) Pakistan	At risk for **social anxiety**: < 29.5 on the LSAS-CA	N= 76 Intervention: 38 Control: 38 Underpowered.	Total: M= 14.84 (SD = 0.98, 13-16) Intervention: 44.7% female Control: 36.8% female	Culturally adapted CBT guided self-help manual 'Khushi aur Khatoon': 'thinking, feeling, behavioural aspects', exposure techniques, cognitive restructuring methods, and problem-solving techniques. 8 weeks Master's level postgraduate psychologists	Support provided by a teacher	Self-esteem Urdu translated version of RSES (Rizwan et al., 2012) (baseline and posttreatment)	After therapeutic sessions, participants in the intervention group showed a significant improvement in self-esteem ($p< 0.001$) from baseline compared with participants in the control group. Large effects $\eta^2 = 0.422$.
STUDY2 deHullu et al. (2017) The Netherlands	At risk of **social anxiety**: Girls >10 on RCADS social phobia and >43 on TAI; Boys were >9 on RCADS social anxiety and >38 on TAI Clinician Severity Rating of 4 or lower (CSR scale).	N = 240 Yes (reached power).	Total: M= 13 years (12-16 years) 72.5% female	Internet-based cognitive bias modification training: modify interpretation and attention bias, enhance implicit self-esteem and tasks to strengthen positive association with positive outcomes. 20 sessions (40 minutes) Psychologist?	Classroom-based CBT 10 sessions (90 minutes) Psychologist OR No intervention control	Self-esteem Dutch adaptation RSES (Mayer et al., 2009)(pre-test, post-test, after 2 years)	No effect of intervention group. There was an overall increase of self-esteem between pre-test and follow-up, $F(1,128.8)= 55.41$, $p < 0.001$, but there was no additional benefit for the active conditions.
STUDY3	At-risk for **anxiety**: > 9 or	N= 136	Total:	CBT-PI	Identical to CBT-PI	Self-esteem	CBT-PI condition exhibited greater increases in the RSE

Wong et al. (2020) China	above on the anxiety subscale of HADS-A	Yes (reached power).	M= N/A (12-19) CBT-PI: 57.8% female CBT 52.2% female Control: 60% female	Group CBT plus parental involvement: Coping Cat program and was culturally adapted to meet the needs of Chinese adolescents + parent of each adolescent received five 2-hr psychoeducation group sessions. 8 sessions (120 minutes) Trained staff and CBT therapists	without parent involvement OR Social activity	RSES Chinese adaptation (Cheng and Hamid, 1995). (pre- and post-treatment and after 6-months)	score (p= 0.088) but this did not reach statistical significance. The RSES scores increased over time in the CBT-PI condition, but the increase in this outcome appeared to decelerate over time.
STUDY6 Park & Kingston (2022) U.K.	At-risk for **paranoia**: those who exceeded a pre-established cut-of score of 1SD above the nonclinical norm on the Paranoia Scale	N= 90 Intervention: 51 Control: 39 Yes (reached power).	Total: M= 14.5 years (SD = .52, 14-16) 72% female	30-minute self-directed classroom values-plus-goals intervention: identified and ranked goals, reflected on value and set value-based goal. 1 session (30 minutes) Self-directed	Active control same information about values offered and completed same ranking exercise but writing task reflecting	Self-esteem RSES (Rosenberg, 1965) (baseline, 2- and 6-weeks post-baseline)	The Condition*Time interaction for self-esteem was not significant (F(2, 112)=2.86, p=.06). (although it was for paranoia).

					on least important value and no goal-setting task offered.		
STUDY 9 Lok et al., (2018) **Turkey**	Dysfunctional **anger and low self-esteem**: 35 points from the first section, 105 from the second, 75 from the third, 115 from the fourth, and 65 from the fifth on MDAS, having low or medium levels of self-esteem according to the RSES.	N= 60 Intervention: 30 Control: 30 Yes (reached power).	Age and gender N/A. (final year in secondary school)	Classroom-based anger management psychoeducation and coping skills based on numerous papers 6 sessions (45-60 minutes) Psychiatric nurses	No intervention control	Self-esteem RSES (Rosenberg, 1965) (pre- and post-intervention)	Self-esteem levels of the adolescents in the experimental group were found to significantly increase after the program ($p < 0.05$). No significant difference was found in the self-esteem levels of the adolescents in the control group before and after the program ($p > 0.05$).
STUDY 13 De Voogd et al. (2017) **The Netherlands**	At risk for **anxiety and depression**: > 16 on the SCARED and/or > 7 on the CDI	N= 119 Yes (sample size not reached).	Total: M= 15.68 (SD = 1.33, 12-18) Scenario training: 63.9% female	Cognitive Bias Modification - text-based scenario training (Mathews and Mackintosh,2000): presented with 3-line ambiguous scenarios, with a missing word in the last sentence - completing the word with the correct letter	picture-word imagery training (Burnett Heyes et al., 2017; Holmes et al., 2008):	Self-esteem RSES (Rosenberg, 1965) (pre- and post-	No significant group differences were observed on primary or secondary emotional outcomes. For self-esteem, the expected Condition x Time interactions were also not observed, both adjusted p's > 0.99.

	P-W imagery training: 59.1% female Control: 69.7% female	disambiguated the scenario in a positive way. Scenarios included relevant situations from adolescent daily life that could provoke anxiety- or depression related negative interpretations. 8 sessions (15 minutes) Online	imagery focused interpretation training based on the picture-word task. OR Neutral control condition (Mathews and Mackintosh,2000):	training and after 3 and 6 months)

Note* N/A= not available; ASD = autism spectrum; BASC-2 = Behavior Assessment Scale for Children–Second Edition (Reynolds & Kamphaus, 2004); BIS = Bullying Index Scale (Berry & Hunt, 2009); CBT = Cognitive Behavioural Therapy; CBT-P = Cognitive Behavioural Therapy with Parenting Intervention; CDI = Children's Depression Inventory (Kovacs, 1983); CSEI = Self-esteem Inventory (Coppersmith, 1967; 1981); CES-D = Center for Epidemiological Studies Depression Scale (Fenrich et al., 1990); ES = Effect size; LSAS-CA = Liebowitz Social Anxiety Scale for Children and Adolescents (Masia et al., 2003); HADS-A; Hospital Anxiety and Depression Scale (Chan et al., 2010); ID = intellectual disability; M = mean; MDAS = Multidimensional Anger Scale (Balkaya et al., 2003); MFQ = Mood and Feelings Questionnaire (Angold et al., 1995); PHQ-9 = Patient Health Questionnaire 9 (Kroenke et al., 2001); RCADS = Revised Children's Anxiety and Depression Scale (Chorpita et al., 2000); RSES = Rosenberg Seld-Esteem Scale (Rosenberg et al., 1995); SCARED = Screen for Child Anxiety Related Disorders (Birmaher et al., 1997); SD = Standard Deviation; SPPC/SPPA = The Self-Perception Profile for Children and Adolescents (Harter, 1988); TAI = Test Anxiety Inventory (Van der Ploeg, 1988).

Discussion

The aim in this review was to synthesise and appraise the evidence for the effectiveness of secondary school-based CBT interventions on self-concept outcomes in adolescents at-risk of mental health problems. We identified 17 studies describing various CBT interventions that were evaluated in RCTs. The review found limited evidence for effectiveness of CBT in enhancing positive self-concept in adolescents at-risk of anxiety or other mental health difficulties such as paranoia, whereas two forms of CBT may provide some benefits for those at-risk of depression. There was mixed evidence for the effectiveness of CBT in enhancing positive self-concept in adolescents selected to be at-risk of MHP due to neurodevelopmental or social factors.

Synthesis of Intervention Quality and Effectiveness

The review found that when self-concepts were a primary outcome for the study, some positive intervention effects were found for those in selected at-risk populations, but not for those at-risk of anxiety. Studies in those at-risk of MHP due to alternative education, gender and social class minority status and neurodivergence employed group, skills-based or digital CBT interventions, and reported positive impacts of the interventions for self-concept when compared to inactive control conditions. Notably, studies reporting positive effects of CBT on self-concept may have had greater risk of bias than those reporting no significant intervention effects. Further, no research could be identified that examined intervention effects on self-concept as a primary outcome for those at-risk of depression and just one study was found for those at-risk of anxiety. Thus, further research is required to understand which interventions may appropriately enhance positive self-concept in YP with increased risk of depression and anxiety and to address the methodological limitations of research in *selected* samples.

The review identified a greater number of studies that examined effects of CBT in at-risk groups and measured self-concept as a secondary outcome. Overall, studies reported no significant

intervention effects for enhancing self-concept when the intervention was indicated, in groups at-risk of anxiety or paranoia. Studies reporting non-significant results used various forms of CBT, in group, and individual format, compared to both active, and inactive control conditions, and risk of bias was low overall. Firstly, significant positive effects were found for a guided self-help intervention compared to an active control in selected samples of YP at-risk of anxiety, and low risk of bias in this study suggested increased reliability of results (Amin et al., 2020). Secondly, group and culturally-adapted CBT enhanced self-concept in one study in YP at-risk of depression and again, low risk of bias suggested reliability of results (e.g. McCarty et al., 2013). However, although outcomes suggested that interventions which do not wholly target self-concept can enhance self-concept in groups at-risk of anxiety and depression, the majority of studies measuring self-concept as a secondary outcome did not find positive effects. This was true when interventions were compared to either an active or inactive control condition. Again, these findings suggest that further (and appropriately powered) research is needed to explore interventions that could enhance positive self-concept in YP at increased risk of depression and anxiety.

The review identified two studies that examined self-concept as a secondary outcome for a brief, 1.5 hour third-wave CBT-based intervention and a brief, one-day anger management intervention, in those at-risk of paranoia and dysfunctional anger respectively. Although the one-day anger management-based intervention enhanced self-concept as measured by the RSES (Rosenberg et al., 1995), no changes were seen on the RSES for the third-wave CBT-based intervention. As both studies had some concerns of bias, and findings were contradictory, future research is required to understand effects of interventions on self-concept in at-risk groups for MHP other than anxiety and depression.

The review found little research examining the impact of secondary schools-based intervention on facets of self-concept other than self-esteem. The review identified one intervention that implemented a selective, DBT skills-based intervention in groups of socially

disadvantaged and neurodivergent adolescents, which enhanced global self-concept as measured by the Description Questionnaire–General Subscale (Marsh et al., 2005). As risk of bias was low, CBT skills-based interventions delivered in schools show some early promise, particularly for students from socially deprived backgrounds who may also be neurodivergent and at-risk of MHP. Studies of some concerns regarding risk of bias examined global self-concept in those at-risk of depression, using both individual, and group CBT-based interventions, and reported significant positive effects when compared to alternative therapies. This suggests that individual or group CBT may enhance self-concept in those at-risk of depression, but research is in its infancy and further evaluation of such interventions is required before recommendations could be made.

Clinical Implications

Overall, it appears that research has not examined effects of CBT on positive self-concepts other than self-esteem and global self-concept in adolescents at-risk of MHP in secondary school. Given the rise in third-wave compassion-focused interventions to treat mental difficulties in youth (Egan et al., 2022), it is interesting that no such interventions have been applied to at-risk groups within secondary schools. Findings suggest that although various forms of individual and group CBT have been trialled in secondary schools with students at increased risk of anxiety and depression, these interventions do not appear to reliably enhance positive self-concept for these populations, at the very least when self-concept is measured as a secondary outcome. There is some preliminary evidence to suggest that guided self-help/computerised and group-based CBT interventions could potentially be used in secondary schools to enhance self-concept for adolescents at-risk for depression (e.g. Positive Thoughts and Actions Intervention, McCarty et al., 2013), although further research is required to confirm this. No reliable evidence exists for CBT interventions delivered in school that may enhance positive self-concept in adolescents at-risk of other mental health difficulties.

There is some evidence for group and skills-based CBT interventions for populations that are at increased risk of MHP due to factors such as social deprivation, minority status or neurodivergence. This is in line with developmental theories which suggest that adolescence is a period in which we are sensitive to adverse experiences regarding social evaluation and rejection, including experiences related to social disadvantage of some kind. Early evidence suggests that schools could enhance positive self-concept in selected groups through skills-based CBT interventions, and that this may lead to improved outcomes for adolescents (e.g. using DBT skills training, (Katz et al., 2020). As adolescents' perspectives about themselves continue to mature during this period (Mills et al., 2014), such interventions that can offer benefits for self-development may be a promising avenue for research for early intervention clinicians (Morton & Montgomery, 2013). Additionally, this is an avenue for further exploration through continued research, as the quality of the current studies is not high.

Limitations of the Research Studies

Several studies did not describe the content of the interventions delivered, whether their sample size was powered to detect intervention effects, or whether processes of randomisation were successful. Due to limited time, authors were not contacted for further information on the details of interventions delivered. This limits our ability to confidently interpret their findings. Studies may not have been fully powered to detect intervention effects on the primary outcome or on secondary outcomes. Thus, caution is warranted when generalising results, due to our inability to make clear recommendations for practitioners on which facets of CBT interventions to implement for improved outcomes in secondary school students.

Strengths and Limitations of the Review

This is the first systematic review of RCTs that assessed the effectiveness of secondary school-based CBT interventions to enhance positive self-concept among adolescents at-risk of MHP. An

obvious strength of this review is the inclusion of studies only with randomised designs. Due to their methodological strengths, their internal validity is high and thus, this review synthesises research evidence from studies with stronger methodological designs for practitioners wanting to offer intervention in secondary schools. Moreover, the broad inclusion criteria in terms of different at-risk groups examined, and plus studies that examined self-concept as a secondary outcome, allowed for a comprehensive synthesis of school-based interventions aimed at improving outcomes for a wide range of secondary school students.

Despite its strengths, there are limitations to this review. Our search strategy was developed to be very broad, ensuring that we could identify all relevant articles on the topic. However, this reduced the efficiency of processes at all levels of record screening and our search could have been biased by refining our inclusion criteria following initial title and abstract screening. Further, we adopted a transdiagnostic approach to synthesising all of the literature on all concepts of positive self, which may have contributed to the heterogeneity of results. Future research may benefit from synthesising findings by the target of the intervention (e.g. self-compassion versus self-esteem) or by at-risk group (e.g. young people with chronic pain).

Conclusions and Future Directions

Overall, the evidence for secondary school-based interventions that may enhance concepts of self in adolescents at-risk of developing mental health problems appears to be limited to global self-concept and self-esteem, without addressing other related concepts such as self-compassion. There is some evidence for the effectiveness of varying forms of CBT in secondary educational settings to enhance positive self-concept for students and protect against mental health problems, particularly for groups with neurodevelopmental and social risk factors. Nonetheless, further research is required to understand if CBT can enhance self-concept in those at-risk of anxiety and other mental health problems such as psychosis, and to address methodological limitations of the current research in adolescents at-risk for depression or at-risk for MHP based on

neuro/psychosocial determinants. Longitudinal research examining cognitive-behavioural, school-based interventions that primarily target self-concept in adolescents at risk of specific mental health outcomes (e.g. paranoia) is now needed. Research could offer more robust insights regarding the effects of such interventions on self-concept, and any preventative effects on long-term mental health outcomes, through sufficiently powering studies to examine self-concept as a primary outcome, through clarifying the components of the intervention used, and through obtaining follow-up outcomes. This is an important area of research as it can point to pathways for early and accessible intervention for those who are at increased risk of developing severe and enduring mental health problems.

Acknowledgements

The first author JM thanks the second-rater EP, and supervisor LJ, for their contributions. JM was supported by funding for professional clinical psychology training by Oxford Health NHS Foundation Trust. The authors have declared that they have no competing or potential conflicts of interest.

Ethical Approval

Ethical approval was not required.

Correspondence

Jessica McGovern, Oxford Institute of Clinical Psychology Training and Research, Medical Sciences Division, University of Oxford, Oxford, UK; jessica.mcgovern@gtc.ox.ac.uk.

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Service Improvement Project

The Importance of Group Engagement for the Experience of a Transdiagnostic Group Intervention; An ACT-based Group Intervention for Young People in CAMHS

Candidate: Jessica McGovern (jessica.mcgovern@gtc.ox.ac.uk)

Internal Supervisor: Dr Fin Williams (fin.williams@hmc.ox.ac.uk)

External Supervisor: Dr Rebecca Tyrer (Rebecca.Tyrer@oxfordhealth.nhs.uk)

Resubmission July 2024

Word Count: 5229

Proposed Journal: Journal of Child and Adolescent Psychiatry and Mental Health (journal focusses on improving the knowledge base for the diagnosis, prognosis and treatment of mental health conditions in children and adolescents, and aims to integrate basic science, clinical research and the practical implementation of research findings).

Abstract

This project aimed to understand and improve adolescents' experience of the DNA-v group, an Acceptance and Commitment Therapy approach to intervention delivered within a specified health service. The project followed three phases. In phase 1 routinely collected qualitative interview data and quantitative service outcome data were analysed to understand adolescents' engagement within the group. Findings were used in phase 2 to design service improvement recommendations targeting group engagement with input from adolescents. Recommendations were implemented within a follow-on group, and phase 3 used the same design as phase 1 to examine changes in group engagement once recommendations were implemented. Participants were adolescents (aged 13-17) attending the DNA-v groups before (N=19), and after (N=9) recommendations were implemented. Findings suggested small positive changes in mean group alliance scores, and in adolescents' experiences of engaging within the group, following implementation of recommendations. Results were interpreted with caution due to methodological and theoretical limitations but highlight the importance of group engagement for adolescents' experiences within similar group interventions.

Key Words: Acceptance and Commitment Therapy, DNA-v, Children and Young People, Group, Engagement, Group Alliance

Introduction

The Care Quality Commission (CQC, 2019) underlined mental health service provision for Children and Young People (CYP) as a national priority, subsequent to their finding that accessibility and quality of CYP's mental health care is falling below their benchmark standards. Qualitative accounts from CYP that "you shouldn't need to be suicidal to get an appointment" further emphasise the problem of lengthy waitlists to access care (*p*.4, CQC, 2018). The current, post-pandemic climate means for even greater demands for treatment in the context of reduced service provision (Power et al., 2020; Young Minds 2018).

National guidelines recommend evidence-based psychological intervention and carer-focused support as first-line treatments within community Child and Adolescent Mental Health Services (CAMHS; e.g. Anxiety Disorders Quality Standard, 2014). Clinicians are increasingly implementing *transdiagnostic* psychological interventions to improve treatment access (Barlow et al., 2017) based on the philosophy that "transdiagnostic" accounts of psychological distress are more parsimonious than multiple, disorder-specific models. Transdiagnostic interventions address heterogenous disorders and co-morbidity within one treatment, arguably leading to increased access and efficiency of treatment (Newby et al., 2016). Meta-analyses of randomised trials report moderate combined overall effect sizes for manualised, transdiagnostic interventions (g=0.452) on depression and anxiety outcomes within CYP and adults (*Unified Protocol*; Carlucci et al., 2021). Additionally, there is literature favouring transdiagnostic Acceptance and Commitment Therapy (ACT) interventions compared to control conditions for CYP (Swain et al., 2015). The strongest evidence from randomised trials suggests small to large effect sizes for ACT on various conditions such as chronic pain (Wicksell et al., 2009), high-risk sexual behaviour (Metzler et al., 2000) and depression (Hayes et al., 2011).

Transdiagnostic group interventions by nature may present practical benefits (Carlucci et al., 2021) and increase access to care. Research examining transdiagnostic ACT groups delivered

with CYP suggests improved outcomes for clinical anxiety (Smith et al., 2020) clinical stress, depression and psychological flexibility (Livheim et al., 2015). Nonetheless, group processes can significantly impact therapeutic outcomes. Based on Environmental Press theory (Mackenzie, 1981), the *group climate concept* suggests that environmental attributes will facilitate or impede individuals' motivation for goal-directed behaviour (e.g. engagement). Group engagement, defined as mutual liking/caring, collaborative problem-solving, active participation, constructive confrontations, and self-disclosure, most consistently predicts positive group processes and therapeutic outcomes (Bonsaksen et al., 2013). Thus, services should consider not only the content of group interventions delivered to CYP to increase access to care, but also the context in which they are delivered.

Service Context

This project was conducted within a CAMHS service providing assessment and treatment for CYP presenting with various mental health difficulties. The service offer a biannual group, ACT-based intervention, referred to as DNA-v. This was a transdiagnostic treatment (adolescent model for ACT) described by Hayes and Ciarrochi (2015). DNA-v stands for three types of behaviour, **D**iscoverer, **N**oticer, **A**dviser, that are theorised to be embedded within our self, and social context, and can be used to build **V**itality and **V**alues (Hayes & Ciarrochi, 2015). In the contextual model Discoverer behaviour refers to trial-and-error behaviour that functions to develop or expand skills, resources, networks, etc. Noticer behaviour refers to behaviour that increases awareness of experience. Advisor behaviour refers to verbal behaviour that prevents the need for trial-and-error learning and helps people to navigate the world efficiently and safely. Of those that initiate psychological treatment with the service, approximately 21.2% attend the DNA-v group (October 2021 – October 2022 attendance). This model has been shown to have beneficial effects for CYP's wellbeing within previous research (Hayes et al., 2011; Livheim et al., 2015) and within the service. Nonetheless, the service reported difficulties with group processes and

engagement within DNA-v; young people were reportedly not actively engaging within the peer group (e.g. disengaging from peer discussions), nor with the group content, once in treatment (e.g. disengaging with group-based activities). The service wanted to improve the quality of CYP's experience of the service, specifically of the DNA-v intervention.

Aims

The service managers and psychology team were consulted to gather their understanding of the service issue, agree this project's objectives and relevant outcomes. The objectives for the project's three phases are outlined below. Objectives were based on the overall aim; to understand and improve CYP's experiences of engaging within the group.

i. In Phase 1, we aimed to understand; what was CYP's engagement within previous DNA-v groups and with group content.
ii. In Phase 2, we aimed to produce and implement recommendations to improve the CYP's experience of engaging with the DNA-v group processes and group content.
iii. In Phase 3, we aimed to understand any preliminary changes in engagement within the DNA-v group following implementation of recommendations.

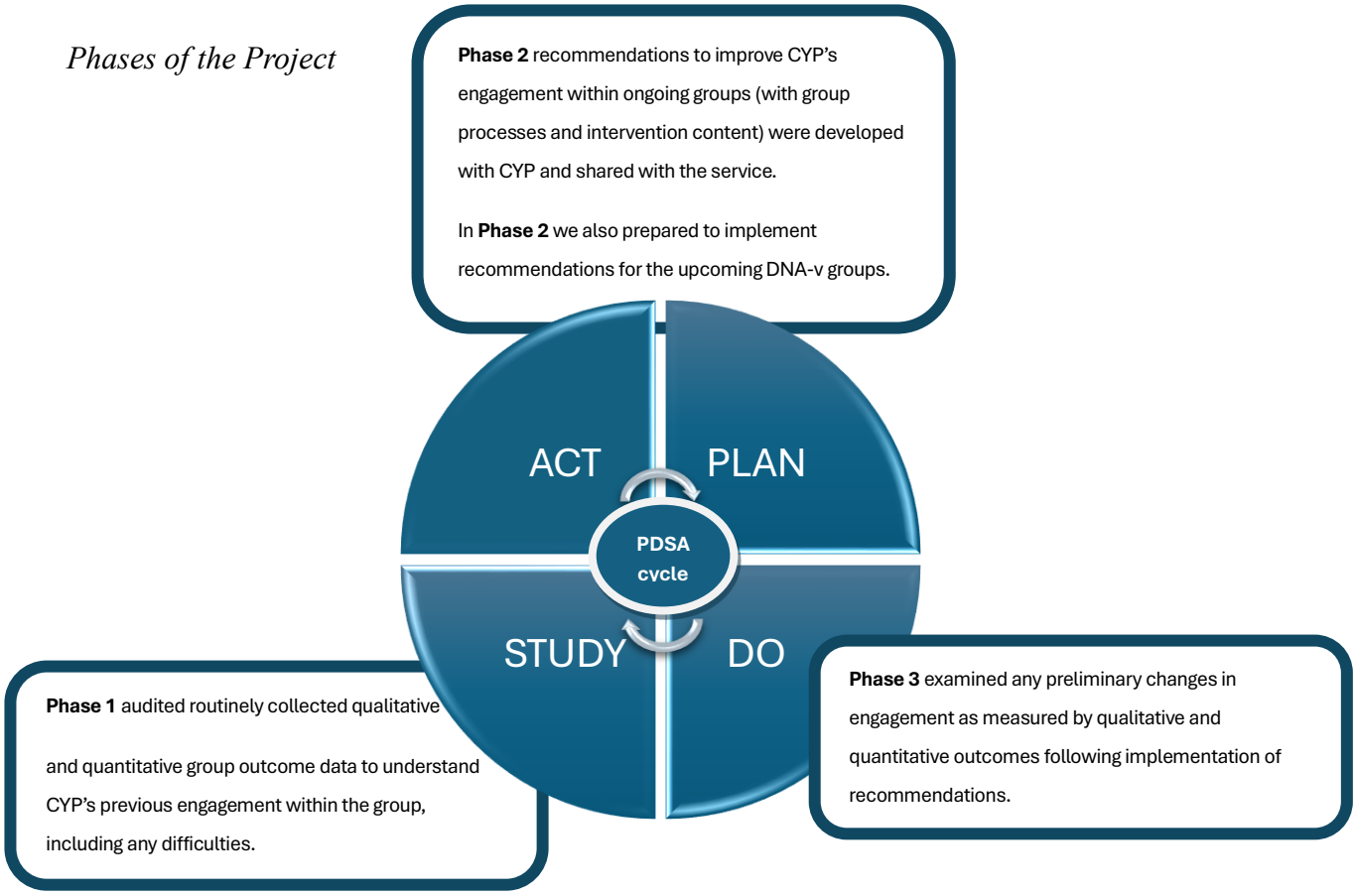
The project outcomes will inform allocation of resources and ongoing offers of psychological intervention within the service.

PDSA Cycle Design

The project design follows the Plan-Do-Study-Act (PDSA) research cycle (see Figure 3; Institute for Healthcare Improvement [IHI], 2020) and encompasses elements of service improvement and quality improvement. A mixed-methods design was implemented across project phases. The methodology and findings for the three phases are outlined in turn.

Figure 3

Phases of the Project



Phase 1 "STUDY"

Phase 1 Methodology

Design

In **Phase 1**, routinely collected evaluative service data, from previous cycles of DNA-v groups (October 2021 to September 2022), were analysed to gain an understanding of CYP's engagement within the group. A mixed-method design, combining the available qualitative and quantitative data, was used to generate more enhanced insights than those which could be deducted from the qualitative or quantitative findings alone (Guetterman et al., 2015). Mixed-methods were used to triangulate CYP's voiced experiences with a quantitative measure of group alliance.

Researcher Perspective

Data analysis was performed by JM (trainee psychologist), a white female with prior experience of delivering transdiagnostic group interventions and working with CYP. JM adopted a critical realist stance which assumes our understanding of the world is subject to complex social realities and context, meaning individuals hold their own account of reality independent of observation (Sturgiss & Clark, 2020). JM had no experience working within the service and no relationship with participants. The research team included FW and RT (clinical psychologists), both of whom implement transdiagnostic interventions with CYP, but FW does not work in the service. Reflecting on prior assumptions about transdiagnostic groups with a reflexive log was integral to attend to alternative positions and realities.

Participant Selection

Participants (N= 19) attended the service's DNA-v groups from October 2021 to September 2022 (for service inclusion criteria see Appendix C). Participants' demographic data (age, gender, ethnicity) and sample characteristics (education, neurodivergence) were collected by self-report questionnaires as part of routine data collection. One CYP attended session 2 only and their data were excluded from the analysis based on this. Quantitative data were analysed for the remaining sample (N= 18). Due to the limited scope of this project, qualitative data were analysed for a smaller, random sample (n= 10) of interviews from the same participants. Ten interviews were randomly selected for analysis in line with recommendations regarding minimum sample size for qualitative interview data saturation (Hennink & Kaiser, 2022).

Data Collection

Qualitative Interviews. Semi-structured interview schedules were adapted by the DNA-v group lead (RT) from the Client Change Interview (*CCI*; Elliott & Rodgers, 2008) and consisted of open-ended questions (e.g. "What kinds of things about the therapy have been hindering,

unhelpful, negative or disappointing for you?") that could be followed with prompts (see Appendix D). Mean interview length was 60 minutes and covered a range of topics; CYP's understanding and attribution of therapeutic change, unfulfilled needs, helpful versus unhelpful aspects of the group. To reduce power imbalances within interviews, CYP had been interviewed by staff that did not facilitate any of their treatment.

Quantitative Outcomes. The *Group Session Rating Scale* (GSRS; Duncan & Miller, 2007) is an adapted version of the *Session Rating Scale* (SRS; Duncan et al., 2003). The measure consisted of four visual analogue scales (VAS) to assess group-therapy alliance across four domains: group relationship(s), goals and topics, acceptability of the leader's approach, and sense of overall (group) fit (see Appendix E). A maximum score of 40 exists, with higher total scores representing greater group alliance. The GSRS demonstrates high internal consistencies (α= 0.86 to α= 0.90) and adequate test-retest reliability in adult group interventions (*r*= 0.42 to 0.62; Quirk et al., 2013). The GSRS demonstrated internal consistency/reliability scores ranging from acceptable to excellent (Tavakol & Dennick, 2011) for our overall sample across the 10 DNA-v intervention sessions; Cronbach's Alpha (α) = 0.75-0.97. Good internal consistency was found for the GSRS in all but one session (session 5, lowest Cronbach Alpha (α) of 0.75).

Analysis

Average total scores on the GSRS (Duncan & Miller, 2007) were generated for each DNA-v session and examined for trends using descriptive statistics and visual inspection of plotted data points to understand changes in group alliance across the treatment period. Qualitative data were recorded, transcribed and anonymised by the service and analysed by JM through fully adhering to (Braun & Clarke, 2022) step-by-step framework for thematic analysis (TA; see Appendix F); familiarisation, generating initial codes, searching for themes, reviewing, defining, naming themes, producing the report. A reflexive TA approach was taken. Inductive methods were adopted to generate data-driven (as opposed to theory driven) codes and themes and understand CYP's

experience from their positions. Data familiarisation and immersion was completed through re-reading a data subset (five interviews). A detailed reflexive log accounted for interpretive bias. Thereafter, initial semantic, and to a lesser extent, latent codes were manually generated from reading of entire scripts, the dataset was re-coded, and codes were manually grouped prior to supervisory review. Initial themes were generated by JM from groups of codes with one central underlying concept. Themes were triangulated, defined, and redefined and renamed with supervisor FW in a continual process until a consensus was reached.

Ethics

All CYP provided informed written assent (under sixteen years) and consent (sixteen years plus) for participation in all project phases. The project did not require full ethics board review. It was approved by the Oxford Health NHS Foundation Trust (OHFT) audit committee as a service improvement project, approved by CAMHS Quality Improvement Hub (presented September 6th 2022).

Phase 1 Findings

Demographics

Participants (N= 18) were aged 13.9-17.8 years (*M*= 15.84) predominantly white (72.22%), female (88.88%) and attending school (100%). 11% had a neurodevelopmental diagnosis. The CYP who attended just one session was 17 years old and identified as white and female. The random subsample of CYP (n=10) whose qualitative interview data were analysed were aged 13.9-17.8 (*M*= 17.55 years) and predominantly white (70%) female (90%; Table 3).

Table 3

Phase 1: Sample Demographics & Characteristics

Demographics	Frequency (N=18)	Frequency (n=10)
Age (years)		
13	1	1
14	4	1
15	6	4
16	2	2
17	5	2
Gender Identity		
Female	16	9
Male	0	0
Not specified	2	1
Ethnicity		
White	13	7
Mixed	1	1
Asian	2	1
Not specified	2	1
Characteristics	Frequency (N=18)	
Neurodivergent traits	4	
Neurodevelopmental diagnosis	2	
Neurotypical	10	
Not specified	2	

Qualitative Themes

Themes from the qualitative data were organised into three overarching themes (*engaging in group processes, using group content,* and *daring to discover*) and expanded with two, three and two subthemes respectively. See Table 4 and Figure 4 for further details of all themes.

Table 4

Phase 1 Overarching and Sub Themes

Overarching Theme 1: Engagement in Group Processes	
Subtheme 1: Isolation is Inhibiting	
Self-Awareness as Isolating	Most CYP acknowledged discomfort in coming into contact with negative internal experiences and feelings of isolation followed their realisation that one's own cognitions are not universal. "*Yeah, I mean, I know that no one's ever gonna have the same thoughts, but I did think that there would be people that had intrusive thoughts like mine and I think I just felt more weird than before (the group)"* (D1).
Avoiding is Easier	The majority of CYP spoke to the paradox of changes in recognition, access and relationship with thoughts bringing about both positive changes and paralysing discomfort. CYP voiced difficulties that arose from the group content requiring them to focus on cognitions and felt that avoidance of internal experiences was easier and safer than experiencing them. "*with the difficult thoughts sometimes I try, but it's not always helpful and it doesn't happen a lot, because it's hard to think about if you're feeling really anxious and sad, to think about thoughts without pushing them aside and trying to distract yourself*" (D8).
Is It Just Me?	Most CYP reflected on wanting to behave in line with peers so as not to be negatively judged or othered. "*I think always think I'm an exception to the rule…it just means I find it harder to share stuff, because if someone says something for example you know I was saying stuff that fits with what they were saying rather than what the true answer was for me. Just because you know, I didn't think that. And you know, no child wants to hear what I have going on in my mind*" (D2). For some CYP, uncertainty about peers' perspectives and experiences in relation to their own, resulted in anxiety, feelings of unsafety and hampered self-expression within the group. *"I wanted to understand obviously a bit more about, I'm not the only one which that's happened to, and then obviously I've been able to speak up a little bit more*" (D3). "*There should be more talk about like the actual issues that people go through, like self-harm, hospital visits, eating disorders, all the stuff that happened to them. Like, you know, trying to like kill yourself. Just all of that…get people that*

	are like, who can relate to eachother, and can talk about the same stuff, and then maybe like they'd be able to talk openly easier to each other and relate to each other" (D6).
Lying Low in Silence	The majority of CYP spoke to the lack of reciprocal conversation within the group, noting that only some members of the group engaged within group discussions. CYP commented on periods of silence that caused discomfort, uncertainty about peers' and feelings of entrapment within the group. Some CYP suggested removing long pauses because "*we (they) didn't speak to eachother much. And if it was more interactive it would have made it easier*" (D1). *"No one was very comfortable with each other, and nobody was talking you know"* (D8).
Subtheme 2: Connection is Helpful	
It's Not Just Me	Despite difficulties with group engagement, most CYP acknowledged the utility of hearing others' experiences for normalising and accepting their own difficulties. CYP acknowledged the importance of not feeling alone in their experiences. "*I think not necessarily what we learnt in the group but more because I was in a group and then, when we spoke about certain things we were asked what did you take on that, and someone said something that was exactly what I was thinking or close to it, kind of gave me that, because I know everyone says oh but everyone feels a similar way, it was very much it's not just me so I can kind of be more accepting of it*." (D4).
A Problem Shared is a Problem Halved	Most CYP spoke of a desire for a safe place to discuss their distress. Some CYP voiced the utility of individual sessions and "smaller" group discussions as providing safety for collective contribution. *"Yeah, or even being more encouraged to, if you felt comfortable, to discuss these kinds of things…Uhm, with other people, so if it if it was just like talking to the person next to you about, if you felt comfortable, about what kind of difficult situation, then it would sort of bring it out"* (D1).
Let's Figure This out Together	CYP spoke to the value of having the support of others to trial content that was delivered within the group with family or with peers. '*Well, my mom is always very supportive. You know, we are very close. It's good to talk about stuff that happened in the group and we kind of try and figure it out together'* (D1). "*To be honest, I thought it was a bunch of rubbish that people tell me, but now that we're shown how to do it and talked through it, and then I do it myself*" (D3).

Overarching Theme 2: Using Group Content

Subtheme 1: Getting Stuck Into the Thinking

Most young people reported that the group content facilitated recognition of, and access to, cognitions and internal experiences. CYP mostly identified that they were engaging with and relating to thoughts differently because of the group, and most recognised small cognitive changes.

> *"They said in the sessions um about not pushing away your thoughts which I do a lot, like thoughts about myself…it's not been a massive change at all, but very small. I've tried to sometimes accept the thought and actually think about it"* (D8).
>
> *"Mainly just with the advisor being able to recognise which thoughts are going to be most helpful and using discoverer to find out what I can do"* (D7).

Subtheme 2: 'You Talking to Me?'

Some CYP spoke to difficulties with engaging with the group content outside of therapeutic settings due to the concepts not being understood, or perceived as unrelatable, whilst others felt able to apply group material. Overall, most CYP preferred content that was "something I (they) could apply easily to outside the group" (D2) and highlighted that a case study presented in one of the sessions was particularly helpful group content.

> *"I think the group taught me skills. Uhm, I wasn't sure how to link these back to my intrusive thoughts…it felt like it just wasn't quite hitting the mark of what I was trying to deal with*" (D1).
>
> "*I like it when they put in situations, even if it wasn't close to something (they experienced), you could be like I get how they've done that*" (D4).

Subtheme 3: Need to ACT it Out

Trialling practical applications of skills introduced by the intervention and "talking through" DNA-v content was valued. CYP referred to learning being facilitated by observing and then actively trying things out, through active exercises for example (e.g. pretending to be seaweed and allowing waves of emotion wash over). *"I think learning like the exercises and being able to test things out what works for you and what doesn't"* was considered helpful. Interestingly, some CYP had expectations to learn how to physically manage symptoms of distress.

> "*Yeah I think I was more like, that management part of it, like more like physical management, was more that I was expecting. This is very much your, like they say*

it's like your DNA-v it's the inside type of thing, whereas I think I've been used to being told to do physical things like do this, do that, that's why I think more management' (would be better)" (D4).

Overarching Theme 3: Daring to Discover

Subtheme 1: 'Let's Just Give it a Go'

CYP spoke to the theme of willingness being central to engagement with peers and with the DNA-v content. Willingness was viewed as a strength by some CYP. Openness to trialling DNA-v content and resilience were acknowledged as factors that optimised engagement within the group and with DNA-v content.

"Yeah, it's that, yeah you've put it in good words, it is, it's more, because before I'd avoid it, coz I was like, just even if like I didn't feel the anxious part of it, I was like it's best to just avoid it anyway, whereas now in certain situations I'm like let's just give it a go". (D4)

"*I don't really like new places or a lot of people…but I came every week, I think I missed one week because I was ill, and even though I didn't really want to go I knew that it would help me and it would be beneficial so I managed to still go every single time and join in and be there. Like there's another word for join in that I was going to use but I don't know – engaged, that's the one*" (D3).

Subtheme 2: Great Expectations

This subtheme conveys the paradox that both positive and negative expectation regarding the peer group and the intervention content could result in both positive and negative outcomes for engagement. For example, misalignment of positive expectations and the reality of the group hampered open, meaningful engagement with peers and group content, whilst misalignment of negative expectations of the group and positive experiences promoted engagement.

"If I'm going to be honest, I didn't really think it was going to be very useful but then my mum started saying that it has worked for her so I tried it and I think it's been quite helpful actually' (D3).

Quantitative Outcomes

The group average total GSRS (Duncan & Miller, 2007; group alliance) score for each session of the DNA-v groups, prior to any recommendations being implemented, are reported in Table 8 (see Appendix G) and Figure 5. For the cycle of the group from October 2021 to January 2022 GSRS scores ranged from 23.7 to 34.5 (*M*= 30.27; *SD*= 3.09), increased over time and were stronger and more stable than the group cycle from May 2022 to September 2022 when scores ranged from 16.6 to 38.5 (*M*= 24.77; *SD*= 5.61). Qualitative and quantitative findings are further integrated in the discussion section.

Phase 2 "ACT & PLAN"

Phase 2 Methodology

Design & Procedure

Phase 2 implemented the *ACT* and *PLAN* component of the PDSA cycle (IHI, 2020). Following Phase 1, once CYP's means of engaging within the group were better understood, recommendations were developed to improve engagement within ongoing DNA-v informed by Experts-by-Experience CYP (EbEs) who had lived experience of the service issue. Initially, service improvement recommendations were developed by JM using Phase 1 findings and reviewed by supervisor FW. EbEs input on the proposed recommendations was achieved through qualitative interviews. The finalised recommendations (see Table 5) were delivered to the service's DNA-v group facilitators and JM provided consultation and materials to the service for implementation of recommendations in forthcoming cycles of the group.

Participant Selection

EbEs (N= 2) who co-designed service improvement recommendations were recruited by the service following their attendance at the May 2022 to September 2022 cycle of the group. All CYP attending this group cycle (n=10) were verbally informed about the opportunity to be involved in this project and provided with a Participant Information Sheet. Thus, EbEs were a sample of convenience; both participants were the only CYP to provide consent to be contacted about the project.

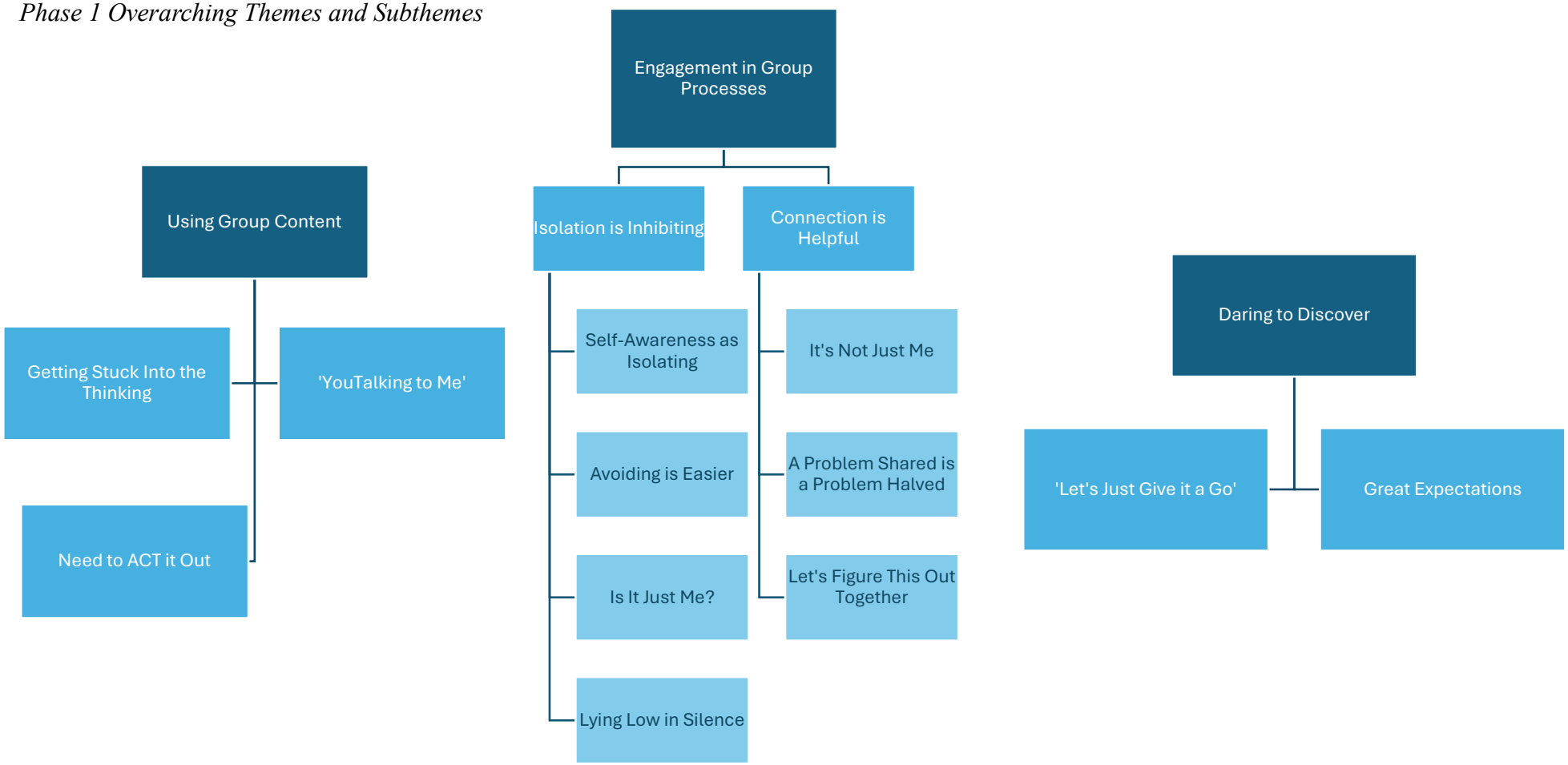
Data Collection

A semi-structured interview schedule was developed by the author and reviewed by supervisors (see Appendix H). It consisted of open-ended questions that could be followed with prompts for clarification. JM conducted both interviews. Interviews were audio recorded, 46-61 minutes in length, and focused solely on obtaining EbEs' feedback about proposed service recommendations. Again, JM had no prior relationship with participants which may have reduced expression of socially desirable responses and impact of demands characteristics within EbE interviews (Louise Barriball & While, 1994).

Group facilitators (N=6; psychologists, trainee and assistant psychologists) were encouraged to provide anonymous feedback using a digital platform (*Mentimeter.com*) at the presentation of recommendations to the service. Facilitators gave positive verbal feedback, noting that recommendations appeared helpful, but only one facilitator provided formal written feedback through the digital platform. All EbEs were reimbursed £20 for their time.

Figure 4

Phase 1 Overarching Themes and Subthemes



Phase 2 Findings

Expert-by-Experience Feedback

EbEs (N= 2) were aged 14 and 15 years, white, female and attending school. Qualitative analysis was not appropriate given the small sample. Overall, feedback on the recommendations was positive and supportive.

EbEs highlighted:

i. that a peer facilitator would provide a safe person to speak with who may understand CYP's experiences and be well placed to increase group motivation and engagement by means of verbal contributions
ii. wishes to apply the model to themselves in "real-life" scenarios
iii. more case study material or relatable examples would be helpful (e.g. inclusion of discussion around more personal values and examples relevant to specific mental health concerns)
iv. a preference for creative engagement strategies (e.g. games, drawing and repeated topic changes)
v. that inclusion of digital forms for anonymous contribution and a pre-group video resource to increase willingness to engage were positive ideas
vi. an ice-breaker sessions (e.g. a picnic) or discussions where peers were sharing information about themselves (e.g. in small groups of three) would improve CYP's confidence to engage and sense of connection.

Implementation of Recommendations & Service Response

Final recommendations are presented in Table 5. The service implemented recommendation 2, 3 and 4 in the December 2022 to March 2023 cycle of the group (Phase 3). Recommendations were implemented across the DNA-v group to good effect (for

implementation log see Appendix I). Additionally, ethical approval was sought for recommendation 5 to be implemented in future DNA-v group cycles, and this had been implemented at the time of writing the report (June 2023). For recommendation 5, the service created a video resource with a young person who had previously attended the DNA-v group, in which the adolescent discussed their experience of the group and how to best benefit from it. This would be shown at the beginning of future DNA-v groups. Unfortunately, the service were unable to receive ethical approval, funding and an honorary contract for a peer facilitator to help deliver the group and were therefore unable to implement recommendation 1.

Materials. Consultation between the service and JM ensured that staff received relevant resources for implementation of the service recommendations in forthcoming cycles of the group:

i. Relevant literature on simple, appropriate activities to improve relationships within CYP's groups was provided. The service designed and implemented a pre-intervention, ice-breaker session (S1) in Phase 3 which included three of the activities recommended (Kiruthiga & Pavithra, 2021; Knickle & McNaughton, 2021; DeLucia-Waack, 2006).

ii. JM reviewed the group protocol and highlighted opportunities in each planned session for the addition of case study or 'real life' examples to illustrate application of group content.

iii. JM also designed multiple brief digital surveys, to be implemented by facilitators as required for anonymous contribution throughout group sessions (see Appendix J).

Phase 3 "DO"

Phase 3 Methodology

Phase 3 followed the same design as Phase 1, to examine any preliminary changes in engagement following implementation of service improvement recommendations within the group. Routine outcome service data collected during the period December 2022 and March 2023, were used to achieve Phase 3 objectives. The data collection methods, measures used, and data management and analysis procedures were identical to those in Phase 1. Quantitative data included the entire sample from this follow-on group. Due to heterogenous groups and sample sizes pre- and post-recommendations, inferential statistics were not appropriate to analyse the data. Due to the limited scope of this project, qualitative data included a smaller, random sample (first five interviews collected) of interviews from this group cycle.

Participant Selection

Participants (N= 9) were those meeting the inclusion criteria for (see Appendix C), and attending, the group that implemented the service improvement recommendations (December 2022 to March 2023).

Table 5

Service Improvement Recommendations to Improve Engagement within the DNA-v Group

Relevant Theme(s)	Resulting Recommendations
Engagement in Group Processes Daring to Discover	**1. Peer facilitator:** Introduce a peer facilitator who has completed the group previously to help lead the group. This may increase relatability of content through examples shared by the peer facilitator, increase motivation for change and willingness to be open to the intervention content, a sense of connection to the group, normalisation of difficulties and could encourage contribution.
Engagement in Group Processes Using Group Content	**2. Application of content;** Provide more opportunities for young people to apply the group material to their own important experiences or to experiences that happen to lots of young people (Stige et al., 2021). This could involve including more case studies, using a partner to discuss how the material might apply to them following the introduction of new concepts, hearing a peer facilitator discuss their experiences of applying the group content.
Engagement in Group Processes	**3. Anonymous contribution**: Give space for everyone to anonymously contribute their thoughts, feelings and experiences related to group content (by going "around the circle" and asking for contributions to be written on paper and be chosen from a hat/ using *Mentimeter* on the available iPad to log anonymous responses).
Engagement in Group Processes	**4. Group climate:** Try to create stronger relationships and a safer group climate between group members to encourage young people to share their experiences more willingly, openly and honestly. This could include: an additional ice-breaker session, more time to discuss items in pairs, making space for people to share more about themselves through exercises/activities.
Engagement in Group Processes Daring to Discover Using Group Content	**5. Motivation for change:** Help young people to feel more motivated or willing to trial group content from the beginning by creating a video of a young person sharing what the group is about and the ways in which they found the group helpful and/or making changes to the group booklet so attendees understand how they can best engage and benefit from the first session.

Phase 3 Findings

Demographics

Participants (N= 9) were aged 15.4-17.8 years (*M*= 16.63) predominantly white (77.77%), female (55.56%) and attending school (88.89%). 44% had a neurodevelopmental diagnosis. The random subsample of CYP (n=5) whose qualitative interview data were analysed were aged 15.4-17.8 (*M*=16.6), white (100%), attending school (100%) and predominantly female (n=3; see Table 6).

Table 6

Phase 3 Sample Demographics & Characteristics

Demographics	Frequency (N=9)	Frequency (n=5)
Age (years)		
13	0	0
14	0	0
15	3	2
16	3	1
17	3	2
Gender Identity		
Female	5	3
Male	2	1
Non-binary	1	1
Not specified	1	0
Ethnicity		
White	7	5
Mixed	1	0
Asian	0	0
Not specified	1	0
Characteristics	Frequency (N=9)	
Traits of neurodivergence	2	
Neurodevelopmental diagnosis	4	
Neurotypical	2	
Not specified	1	

Qualitative Themes

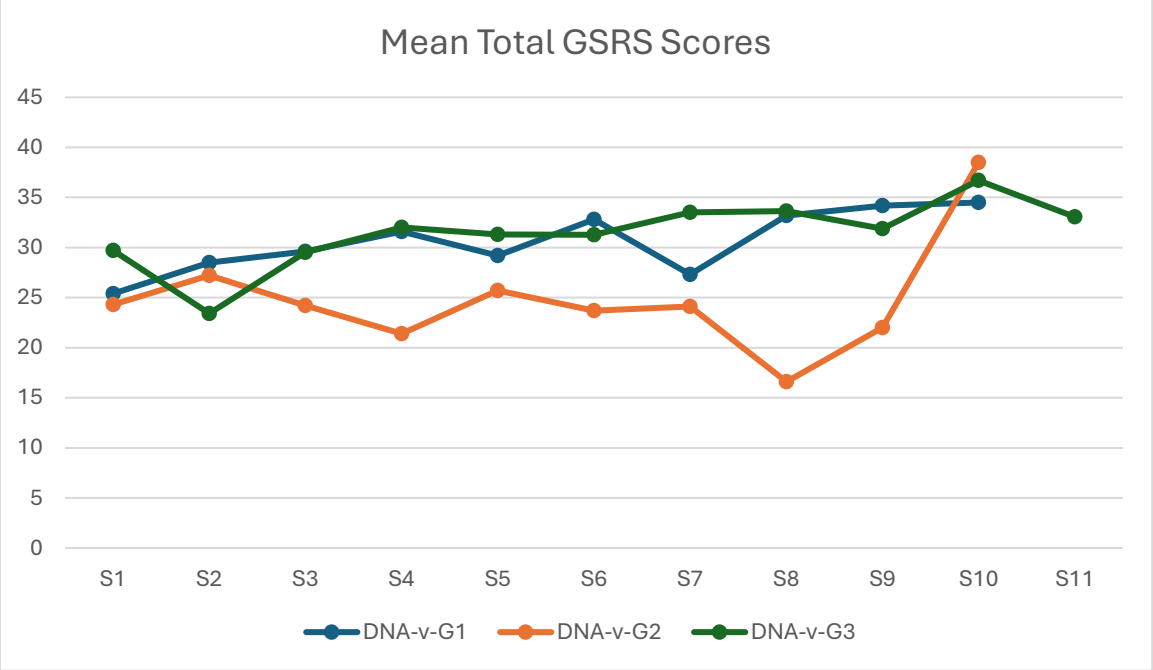
The analysis generated 172 codes. Themes were organised into two overarching themes (*resilience is key* and *context matters*) and expanded with two, and three subthemes respectively. Themes are defined and exemplified in Table 7 and Figure 6.

Quantitative Outcomes

CYP's average total GSRS (Duncan & Miller 2007; group alliance) score for each session of the group after recommendations had been implemented are reported in Table 8 (see Appendix G) and Figure 5. For the December 2022 to March 2023 cycle of the group GSRS scores (*M*=31.45; *SD*= 3.33) indicated that group alliance increased incrementally over time and was stronger than the group cycles prior to recommendations being implemented within DNA-v (*M*=27.7; *SD*= 3.33). Qualitative and quantitative findings are integrated in the discussion below.

Figure 5

Session-by-Session Mean Total Group Alliance Scores Pre- and Post-Recommendations



Note S[X]; group session X, *M*; mean average total Group Session Rating Scale (GSRS) score, DNA-v-G1; pre-recommendations cycle of DNA-v group from Oct 21' to January 22', DNA-v-G2; pre-recommendations cycle of DNA-v group from May 22' to September 22', DNA-v-G3; post-recommendations cycle of DNA-v group from December 22' to February 23'.

Figure 6

Phase 3 Overarching and Sub Themes

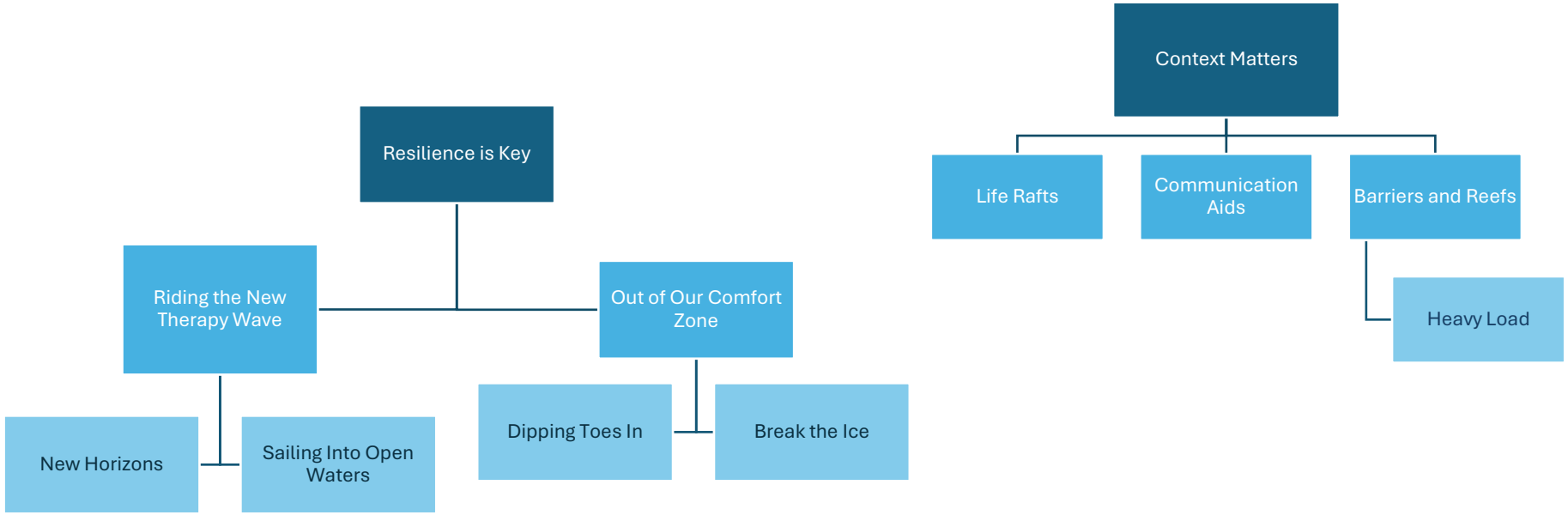


Table 7

Phase 3 Overarching and Sub Themes

Overarching Theme 1: Resilience is Key	
Subtheme 1: Riding the New Therapy Wave	
New Horizons	This theme speaks to a significantly positive relationship that existed between CYP and the group, including with group processes and content. The majority of CYP seemed to experience the group as positively different from previous therapeutic experiences and categorised the content as mostly helpful. Two CYP referred to negative experiences of therapy earlier in their life and formed a more positive relationship with the DNA-v group. CYP appeared to have a sense of curiosity regarding the group. All five CYP spoke to the idea that group did not bring about any negative outcomes, and for some, positive changes were experienced unexpectedly. *"This is probably my best experience of therapy I've ever had. Because I've been in the CAMHS system since I was 9 and that was definitely the best experience of therapy I've had"* (D1). *"The group was very good, it was very helpful. I would go again*" (D2).
Sailing Into Open Waters	This theme speaks to the openness of CYP to engage with concepts presented in the group, particularly to shifting their perspectives about internal experiences, even if they were negative. Engaging with content in this way seemed to unlock a sense of freedom or choice in action. One CYP acknowledged the utility of activities involving movement delivered throughout the group and engaged most with these activities. Most CYP voiced an experience of reduced resistance to unwanted thoughts through the group and noticed that they were more accepting of internal experiences. Just one CYP described becoming more fused with thoughts throughout the cycle of the group, which they suggested was due to external factors. *"And it was just a really different way of looking at stuff. And with the advisor, noticer and discoverer, just putting a name to it. Like before I could you know identify that yeah, the thoughts were just rushing about my thoughts and stuff, but I couldn't put a name to that. Whereas now I can be like oh that's just my advisor working overtime" (D3).*

Subtheme 2: 'Out of Our Comfort Zone'

Dipping Toes

Most CYP spoke to the nature of engaging in a group as something that requires persistence in the presence of feelings of insecurity or fear (fear of speaking, of judgement, etc). Four CYP acknowledged initial apprehension to join the group, but it was clear that rapport between group members was built quickly and maintained. This meant for CYP that their initial discomfort and apprehension was outweighed by the benefits of connecting with the group, which could only be achieved through taking the initial steps towards their values.

> *"Yeah, and I guess just a bit of courage. I mean I was really scared to go to the first group and even after the first one I was still scared to go to the second one. But I think just managing to get there for the first few meant that I could you know carry it on. Whereas, if I had just said to dad, I'm not going to the first one because I'd got too scared or whatever, then I wouldn't have gone to the second one or the third one because I'd just be like, everyone will know each other"* (D3).

A Break in the Ice

One element that appeared to initiate early willingness to experience discomfort was the pre-group ice-breaker session. Two CYP highlighted that the ice-breaker session was important for deconstructing unhelpful group tensions, becoming more open and making connections within the group.

> *"This is not a suggestion but just that introduction session, make sure you keep it. It was vitally important for our group…Yeah I believe that was very very important…It immediately sort of broke the ice really. We could already tell by the next session we were more comfortable with each other. So even though it put all of us out of our comfort zone it meant that we already had gone out of it so there was no need to worry about it in other sessions because we had already passed that boundary. And the way it was done as well, the games as well. It was done in a very good way…I didn't even really realise I did leave my comfort zone until afterwards when I realised oh I've just made like three new friends! So yeah, keep that first session"* (D1).

Overarching Theme 2: Context Matters

Subtheme 1: Life Rafts

CYP all endorsed attending therapy in a group format as a positive experience, simply because of valued peer connections developed through the group. For two CYP, ambivalence about individual therapy potentially being more helpful than the group existed. However, the majority of CYP spoke to enjoying the structure of the group, presence of peers and activities with peers (both inside and outside of therapy).

> *"I think it was more the support of people in the group like other people in the group and like leaders as well…. Urm, I feel like because they are in the same situation and like you guys have had training and just like understanding… I don't know if it is like I just liked having the structure of going to the group"* (D4).

CYP spoke to the concept of normalisation; that comparing their difficulties to peers' helped them to understand themselves, feel understood and relatable in some way. A sense of feeling understood by facilitators was also voiced by two young people and coincided with positive change.

> *"The aspect of having people to talk to is definitely very helpful. The fact that you are sort of within a group of people means that it's not always just on you. You know that there are others that have had similar experiences and that makes it a lot less stressful*" (D3).

Family support also promoted engagement with the group content through discussion about its content outside of the group context and this often led to CYP to feel heard and understood.

> *"Family is a big one. I have very very open communication with my parents, always have done and it's been throughout my whole mental health journey one of the things that has been the most helpful. Just talking about my problems and sharing how I feel. And obviously my dad doing the sessions, we've been able to talk about it and he's been able to support me in that. So that's been a big help"* (D1).

Subtheme 2: Communication Aids

Further, the group was described as a microcosm, representing CYP's wider social world, in which they could develop confidence for socialising in wider contexts. This speaks to feelings of safety in the group, and experiences in the group being used to guide CYP in their social world. CYP acknowledged that the group encouraged them to socialise with others and form new relationships. This was true despite many young people having a diagnosis of autism and struggling to maintain past relationships.

CYP engaged with the idea that expressing themselves within a group setting was more beneficial than remaining silent. This realisation appeared to be achieved through socialising with attendees and experiencing the benefits when other peers spoke up. Some CYP believed that others benefitted from them sharing within the group and thus, spoke to the reciprocal relationship between giving through "speaking up" and taking back through hearing others.

> *"Yeah, relating to others and almost their confidence boosted mine. Like when other people would say something I would be like okay I'm going to say something now because they managed to do it and no one laughed or pointed at them, so now maybe it's okay for me to say what I think"* (D3).

Subtheme 3: Barriers and Reefs

All CYP referred to factors outside of the therapeutic setting that impacted on their engagement within the group. One CYP referred to the school environment as a place to apply the group content, but most CYP referred to school-related stresses as a barrier to engagement with group content. One CYP's mental health significantly deteriorated, and they were unable to engage with any group content throughout the 10-week protocol, which they believed was entirely related to factors external to the group.

> *Um, I mean probably school. Like I'm in year 11 so we're getting a tonne of homework for GCSE's and a tonne of revision for mocks and so when we get set our life enhancement exercises sometimes, I would just completely forget because I'd be trying to work through this massive pile of homework, and it was like extra homework. But also, I think I would just forget completely what they were and then on the way there my dad would be like, so what was the task?" (D3).*

Several CYP noticed that their ability to engage within the group (with processes and content) was dependent on motivation and moreover, emotional state. Some CYP described periods of overwhelming emotion that hampered their ability to bring to mind the coping

Heavy Load	techniques taught in the group. Amotivation in the context of depression was experienced by two CYP. Nonetheless, "that motivation barrier" did not override CYP's positive sense of growth that emerged in the interviews. Even the one person whose mental health deteriorated across the group cycle described attempts to socialise more than previously despite their difficulties. *"I think I've definitely done more stuff. It might just be the time of year as a lot of my friends have had birthdays recently, but I've gone to more parties and met new people. About a year ago I would never have done these things. I have been trying to push myself out of my comfort zone, doing stuff I know that I used to enjoy. But the thoughts and feelings are still very prominent while I am doing those things"* (D5)

A follow-up presentation of outcomes to the service occurred on 16th of August 2023 and the service response was overly positive and of gratitude.

Discussion

In this service improvement project we aimed to understand and improve CYP's experience of an ACT-based group intervention, the DNA-v group, being delivered within a single CAMHS service. The project design followed the PDSA research cycle (IHI, 2020):

- In **phase 1** we analysed available service data to understand how CYP previously engaged within the DNA-v group, including within group processes and with content.
- Findings were used in **phase 2** to develop recommendations for improving CYP's experience of engaging within the group and planning began for their implementation in forthcoming DNA-v groups.
- In **phase 3**, after recommendations had been implemented, we examined data from a small sample for any changes in patterns of engagement within the group.

Quantitative findings from Phase 1 and 3 were suggestive of small positive changes in group engagement after a number of service improvement recommendations had been implemented. Average group alliance scores on the GSRS (Duncan & Miller, 2007) were minimally higher, after implementation of recommendations than before. Stronger alliance with the facilitators, group, content and approach, seemed to have been established earlier and remained stable in the group once recommendations had been implemented. This is in line with research which suggests that group engagement may be positively impacted by means of implementing ice-breaker sessions (e.g. DeLucia-Waack, 2006), tailoring material (Stige et al., 2021) and digital platforms.

Alongside quantitative findings, qualitative findings expanded our understanding of engagement within the group before and after recommendations had been implemented. Similarities and differences between groups existed. However, findings suggested more positive

experiences and improved engagement within the group after recommendations had been implemented.

In terms of perspectives about the DNA-v, data from the group after recommendations had been implemented suggested that DNA-v was experienced as positive, different to other interventions and without negative outcomes. This theme was not captured in the group data collected before recommendations in which some CYP reported feeling more isolated through participating in the group. This suggests that overall, CYP's experience of the group may have improved following implementation of recommendations in line with literature which suggests that DNA-v has positive outcomes for CYP (e.g. Livheim et al., 2015) and that group engagement can impact on therapeutic outcomes more generally (Bonsaksen et al., 2013).

Regarding group processes, themes from the group after recommendations had been imbedded, referred to early rapport building, deconstruction of initial tensions through the icebreaker, experiences of safety to build social skills and confidence and self-expression being more helpful than lack thereof. The group data collected after recommendations also conveyed a sense of enjoyment from the group structure. This contrasts with themes addressing stagnancy of reciprocal conversation, uncertainty about peers' perceptions, feelings of entrapment and hesitancy communicating referred to in themes developed from the pre-recommendations group. There were also stronger references made to the value of small group discussions in the group before recommendations, which may suggest that CYP in the group before recommendations could engage less in the group processes that we know benefit CYP in their experience of group content (Down et al., 2011). Perhaps, in line with the literature, group climate required improvement before group content could be engaged with in a beneficial way (Bonsaksen et al., 2013).

Regarding engagement with group content, data collected from the group cycle after implementation of recommendations suggested themes of using group content to change behaviour

(e.g. new perspectives about choice in action), enjoying group activities and openness to change. Contrarily, themes from the group data before recommendations referred to a desire for content that could be easily applied. This suggests that elements of the group content could be more readily applied following implementation of recommendations in line with literature that outlines the impact of changes in group engagement, namely active participation, on experience and outcomes (Orkibi et al., 2017).

Qualitative data also highlighted factors that were consistently important for group engagement across phase 1 to 3; willingness to sit with difficult internal and external experiences was crucial for beneficial engagement, all members were apprehensive in initial group stages but ultimately, all CYP valued connection, feeling heard, understood and 'normal'. This supports the literature on the effectiveness of change in factors outlined in the ACT model, namely psychological flexibility, and willingness (Hayes & Ciarrochi, 2015). Findings also support the impact of positive group processes on experiences of change (Down et al., 2011).

Limitations

In this project, group processes within a DNA-v group (Hayes & Ciarochi 2015) were examined for the first time, offering novel contribution to the literature. Despite noteworthy strengths, this project is not without limitations in terms of methodology and theoretical contribution. Firstly, the methodology did not control for confounding variables, namely heterogenous group characteristics, when measuring the changes in group engagement following implementation of recommendations. This limits our ability to make conclusive statements about the effect of implementing service recommendations within ACT-based groups. Additionally, data on facilitator views about group engagement was not obtained despite efforts and is an avenue for further research (Sharry & Owens, 2000).

Secondly, results may not be representative of outliers due to the use of mean quantitative scores to represent the data, convenience sampling for EbEs and the small sample (n=5) of interviews analysed in Phase 3. Additionally, the phase 3 sample size may not have provided enough data for qualitative data saturation (Hennink & Kaiser, 2022). Together these factors limit the ecological validity of findings, particularly regarding the group after recommendations. It is noteworthy that this research is mainly descriptive of CYP's experiences who are white, female, and attending school.

Furthermore, a proportion of the phase 1 and phase 3 sample, 11% and 44% respectively, were neurodiverse, which may have impacted on experiences of engaging within the group context and question the validity of our findings for neurotypical CYP. However, this also increases generalisability of results for clinical practice, in which many neurodivergent CYP are now seen. Further research is required to understand the impact of neurodiversity, if any, on group process and engagement within this ACT-based group intervention.

Conclusion

Nonetheless, this project highlights the importance of group engagement for CYP's experience of transdiagnostic or ACT-based interventions such as the DNA-v model, where differences between group attendees may be stark. Simple recommendations to improve group engagement may improve CYP experience of ACT-based groups and early findings appear promising. Caution is warranted when generalising results to wider contexts, however. Further research is now required to address methodological limitations outlined above and to create safe and positive group climates within transdiagnostic therapeutic interventions for CYP so as to optimise their growth through the power of the group.

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Theory Driven Research Project

Self-Cognitions in Adolescent Paranoia:

a Causal-Interventionist Test with Young People Attending CAMHS

Candidate: Jessica McGovern (jessica.mcgovern@gtc.ox.ac.uk)

Internal Supervisors: Dr Louise Johns (louise.johns@psych.ox.ac.uk)

& Dr Joanna Adams (joanna.adams@hmc.ox.ac.uk)

Consultant Advisor: Dr Felicity Waite (felicity.waite@psy.ox.ac.uk)

Resubmission July 2024

Word Count: 5500

Proposed Journal: Journal of *Child and Adolescent Mental Health* was chosen as it is internationally recognised for its publications in child and adolescent mental health and thus, reaches a wide audience of practitioners and academics alike. Author guidelines are available in Appendix A. Additional sections required by the journal are available in Appendix R.

Internal and external supervisors have read and provided feedback on this paper and deem it suitable for assessment.

Abstract

Background. Self-beliefs contribute to the occurrence of paranoia. The development of self-beliefs is a fundamental developmental task during adolescence. Therefore, self-beliefs may play a particular role in adolescent paranoia. Compassionate imagery may be one route to change self-beliefs, and hence paranoia. Using a proof-of-concept experimental design, with embedded tests of mediation, we set out to test the effects of a brief, compassion-focused imagery intervention and examine the role of negative and positive self-cognitions in the occurrence of state paranoia in adolescents.

Method. Thirty-four help-seeking adolescents with paranoia (*M* age=17, 78% female) in the U.K.'s National Health Service were randomly assigned to a single session compassionate-imagery intervention that targets self-cognitions or a time-matched imagery control condition. Assessments of state paranoia, positive and negative self-cognitions were conducted at four timepoints (T1[pre-intervention], T2, T3, T4). Eight 2x4 ANOVAs were conducted to examine changes in these outcomes across the intervention period between groups.

Results. There were no statistically significant effects of the intervention on our primary and secondary paranoia outcomes when compared to an active control condition. Compared to the control group, we found large, significant effects of the intervention on positive self-cognitions "I can keep going", "I am worth something" (p=0.004, η_p^2=0.152; p=0.005, η_p^2=0.154), but not for negative self-cognitions.

Conclusions. Our findings showed initial positive, short-term effects of our brief compassionate-imagery intervention for adolescents' positive thoughts abouts themselves, but not for paranoia. We had insufficient evidence to establish the impact of changing self-cognitions on paranoia. Further research is now required with larger samples examined longitudinally.

Introduction

Paranoia can be defined as the unfounded belief that others are, or are planning to, intentionally cause one harm (Freeman, 2016). Paranoia frequently emerges during adolescence (Bird et al., 2019) and is understood to exist on a continuum of experiences found within the general population, ranging from mistrust to persecutory beliefs (e.g. Bebbington et al., 2013; Freeman et al., 2005). Large-scale studies report weekly paranoid cognitions in 7-32% of general adolescent samples (Bird, Evans, et al., 2021; Ronald et al., 2014; Wigman et al., 2011). Rates of paranoia are elevated (35%) amongst help-seeking adolescents in contact with Child and Adolescent Mental Health Services (CAMHS) in the U.K. (Bird et al., 2021). For adolescents in CAMHS, paranoid cognitions may result in difficulties trusting others, social withdrawal, and emotional distancing from others (Bird et al., 2021, 2022). Thus, paranoid ideation can be a barrier to mental health service use (Iredale et al., 2016) and engagement with support in adolescent samples, similar to adult samples (Lawlor, Hall & Ellett, 2015). Evidence-based conceptualisations of adolescent paranoia, and subsequent treatments, are therefore imperative for optimising adolescents' current and future well-being, particularly for help-seeking groups (Bird et al., 2022)

Conceptualisations of Adolescent Paranoia

To date, no single evidence-based model of adolescent paranoia exists, and our current understanding is informed by cognitive models of adult paranoia and developmental theory. The predominant cognitive framework (Freeman, 2016) of persecutory delusions in adults conceptualises paranoia as unwarranted threat beliefs that are maintained by both cognitive and affective factors. Longitudinal research evaluating these maintenance factors has found medium to large associations (r=0.34-0.56) between baseline negative self-beliefs ("I am vulnerable"), worry processes, sleep dysfunction, safety-seeking behaviours and perceptual anomalies and three-month post-baseline paranoia in adolescents attending CAMHS (Bird et al., 2017). The strongest evidence was found for negative self-beliefs, worry and insomnia, with all three having medium

effects on the persistence of paranoia when controlling for baseline symptomology (Bird et al., 2017). However, it can be argued that children are not small adults and should not be treated as such (Larcher, 2015; McGorry, 2007). Conceptual frameworks and treatment approaches for paranoia may not be transferable across ages and may require consideration of developmental factors.

Threat beliefs about vulnerability to harm, which are central to the emergence of paranoia (Freeman, 2016), may build on typical social concerns and changes in social cognition and affect regulation that occur during adolescence (Nelson et al., 2016). Heightened social processing (e.g. Engelmann et al., 2012), sensitivity to peer evaluation (Mills et al., 2014) social exclusion and rejection (Sebastian et al., 2010), and ongoing maturation of self-evaluative skills (i.e. egocentric perspectives) (Weil et al., 2013) and of the ability to decipher others' mental states (e.g. van den Bos et al., 2011; Dumontheil et al., 2012) may provide conditions for unfounded attributions of threat from others to develop. These changes are often accompanied by uncertainty in adolescents' social worlds as they move towards independence and into ever-changing and unpredictable social media platforms (Bird, Evans, et al., 2018). Together, these developmental changes may act as pluripotent risk factors for emergence of mental health difficulties, including paranoia, and may inform developmentally appropriate conceptualisations of paranoia.

Key Factors in Adolescent Paranoia

Few research studies have specifically examined adolescent paranoia. However, one large scale research study (N= 801) in non-clinical adolescent samples outlines three key facets of adolescent paranoia as measured by the Bird Checklist of Adolescent Paranoia (BCAP; Bird, Loe, et al., 2020): social harm, physical harm and conspiracy concerns (Bird et al., 2018). Factors potentially contributing to the development of concerns about harm can be understood through qualitative research. A recent qualitative study conducted with help-seeking adolescents in the U.K. found that onset appears to be rooted in the discovery of interpersonal threat and personal

vulnerability to physical, sexual, social and emotional harm, shaped by challenging peer interactions (e.g. changeable friendships, bullying, betrayal), moving away from family life, and personal adverse experiences (e.g. sexual harm) that can first occur during adolescence (Bird et al., 2022). Notably, earlier longitudinal studies reported that bullying and cyber victimization also predict persistent paranoia (Bird et al., 2017). This highlights the important role of adverse experiences in maintaining paranoia in adolescents (Bird et al., 2017). Importantly, multiple research findings highlight a role for negative beliefs about oneself as vulnerable in the development and maintenance of adolescent paranoia. Additionally, Bird and colleagues (2018) identified a likely causal pathway from negative affect to paranoia.

A Role for Self-Beliefs?

Negative self-beliefs are central to the development and maintenance of paranoia in adults (Freeman et al., 2014.). Freeman and colleagues theorise that paranoia is a direct reflection of conscious low self-esteem, and that threat-based appraisals of imminent harm build on a sense-of-self as vulnerable, activated by negative self-cognitions (Freeman, 2016; Freeman et al., 2002). Systematic reviews report associations between paranoia and negative self-cognitions and beliefs in clinical, adult samples (Kesting & Lincoln, 2013; Tiernan et al., 2014). Cross-sectional research findings also suggest more negative self-beliefs in those at-risk of psychosis compared to healthy controls (Appiah-Kusi et al., 2017). Additionally, experimental studies report that altering negative self-beliefs and self-confidence impacts levels of paranoia in adults (Atherton et al., 2016; Freeman et al., 2014). Compassionate imagery interventions (e.g. imagining a compassionate coach) have been used to mitigate the role of negative self-beliefs in the persistence of paranoia in adults without (Brown et al., 2020) and with a psychosis diagnosis (Forkert et al., 2022), with large and medium effects respectively.

Associations have also been reported between negative self-beliefs (self-esteem) and adolescent paranoia (Gin et al., 2021). However, only one study has targeted negative self-beliefs

(low self-esteem) in adolescents with paranoia. Parker & Kingston (2021) examined the effect of a values-based action intervention on self-esteem and paranoia, reporting overall reductions in paranoia, but not improved self-esteem. Despite initial evidence of a role for self-beliefs in the emergence and/or persistence of paranoia, no further research has used an experimental design to examine this in adolescents.

One means of establishing the link between negative and positive self-beliefs and paranoia in adolescents is through an interventionist-causal approach (Kendler & Campbell, 2008), testing the effect of an intervention on the hypothesised mechanism (self-cognitions) and the key clinical outcome (paranoia). This design allows for testing of a theoretical position whilst also developing treatment evidence (Kendler & Campbell, 2008). Compassionate imagery techniques have been used as a clinical intervention to alter self-beliefs in adults with paranoia with good effects (Brown et al., 2020). As such, the current study used this approach to evaluate whether a brief, self-compassion-focused imagery intervention affects state paranoia cognitions in help-seeking adolescents in CAMHS. We had one primary outcome, one secondary outcome, and multiple exploratory analyses. Our primary hypothesis predicted that, compared to a control group, the compassionate-image intervention group would lead to a reduction in state paranoia threat cognitions. Our secondary hypothesis predicted that, compared to a control group, the compassionate-image intervention group would lead to a reduction in state paranoia safety cognitions. For our exploratory analyses we predicted that that the compassionate-image intervention group would lead to, (i) a reduction in two negative self-cognitions (ii) an increase in four positive self-cognitions and (iii) improved affect (reduced anxiety and sadness). We also predicted that changes in adolescents' paranoia would be mediated by changes in self-cognitions and affect.

Method

The study was pre-registered on the Open Science Framework (McGovern et al., 2023).

Design

A between-groups, experimental design was used, specifically, an interventionist-causal approach.

Participants

Participants were adolescents aged 11-18 years in contact with CAMHS or Early Intervention Services (EIS) in two large NHS Foundation Trusts in England. Participants were recruited by JM through triage and clinical teams in both Trusts via emails to staff, poster advertisements (waiting rooms, NHS websites and clinic rooms), team visits and presentations to special interest groups. Potential participants were referred by members of their clinical care team with their consent, or self-referred using the contact details in the advertisement. Fifty-two adolescents were screened and 36 met inclusion criteria of at least *mildly elevated* paranoia (score of 23 on the Bird Checklist of Adolescent Paranoia [B-CAP; Bird et al., 2020]) and were willing to participate (see Figure 8). Exclusion criteria were inability to provide informed consent, inability to understand intervention materials in written English, or a diagnosed psychotic disorder. Adolescents not meeting eligibility criteria received information on local support services.

Procedure

Adolescents meeting inclusion criteria attended a single 90-minute session at various health services, online or in-person at home, based on their preferences. Adolescents completed baseline outcome measures (T1) using a unique identifier. Adolescents were then randomly assigned to compassionate-image intervention group (IG) or control group (CG) using an online randomisation programme (Sealed Envelope Ltd, 2019). JM was unblinded to allocation and delivered the assigned IG or CG protocol. There were four stages within each group; imagery

training, image generation (T2) and two image application phases (T3, T4; past and future scenario respectively). See Figure 7 for details. Following completion of the assigned IG or CG and data collection at T2, T3, T4, all adolescents were offered the opportunity to complete a relaxation exercise and invited to give qualitative feedback on their experience of creating an image (i.e. ability to engage with the task, imagery vividness), and then given a debrief information sheet and compensation (£5 Amazon voucher).

Intervention

Adolescents in both groups completed T1 outcome measures and an identical imagery training stage, employing imagination to create a vivid, neutral mental image of a lemon (age-adapted version of Holmes et al., 2006).

Compassionate-Image Intervention Group

Adolescents in the IG created an individualised *compassionate companion*. The companion could have any identity (appearance, voice, smell) but had to embody key compassionate qualities of kindness, warmth, wisdom, and support. Brief psychoeducation about compassion and imagery was provided beforehand. After practising generating the image once, adolescents completed (T2) intervention outcome measures. The image was generated twice more using a difficult past and future scenario chosen by the adolescent based on their answers to questions (Q.1-4, 7, 13) on the BCAP (Bird et al., 2020). Adolescents completed intervention outcome measures again following each image generation (T3, T4).

Control Group

The CG was an established time-matched, neutral imagery script adapted for adolescents in which participants generated a weather forecaster image (Brown et al., 2020) and listened to the image in a neutral, past, and future scenario. Again, adolescents completed intervention outcome measures following each image generation (T2, T3, T4).

The IG and CG were developed to be identical apart from the qualities embodied by the image generated. Both conditions were individualised for the adolescents' needs through opportunities for feedback and problem-solving after each round of image generation.

Further details of the IG and CG are detailed in Appendix K. The compassionate imagery intervention was developed and made accessible for young people by JM, LJ, JA and FW, based on two available scripts (Beaumont & Welford, 2020; Welford., 2012). The relaxation exercise was based on a pre-existing script (Hazlett-Stevens & Craske, 2009).

Patient and Public Involvement

All study documents were reviewed by adolescents and caregivers for age-appropriateness and suitability of content prior to the study.

Measures

Baseline (T1) Outcome Measures

Demographics. Demographic characteristics collected at baseline were adolescents' age, sex, gender identity, ethnicity, neurodiversity (diagnosis and traits), diagnoses, and presence of ongoing adverse experiences (limited to bullying, cyberbullying and peer difficulties; see Appendix L for details). Baseline outcome measures collected at T1 are in Table 9 and Appendix L.

Intervention Outcome Measures

Adolescents completed eight visual analogue scales (VAS) to measure changes in state paranoia and positive and negative self-cognitions at baseline (T1) and following each image generation with the CI via share screen functions when online or on the CI's laptop when in person (T2, T3, T4, see Table 9 and Appendix M for details of scales). Adolescents were asked "are you

ready to move on" before proceeding to each questionnaire. Due to an identified role for negative affect in the persistence of paranoia, two VAS measured change in affect across the intervention.

Sample Size Calculation

We computed a power analysis using G*power software. Our recruited sample of *N*=34 had 80% power to detect a moderate interaction (*f)* effect size of 0.25 at a significance level of 0.05 for the main analysis to answer our primary research question (mixed-method ANOVA). Based on the adult literature, we would expect to find a moderate (Forkert et al., 2022) to large (Brown et al., 2020) effect size for changes in state paranoia and negative self-beliefs using the compassionate imagery intervention.

Figure 7

Study Flow

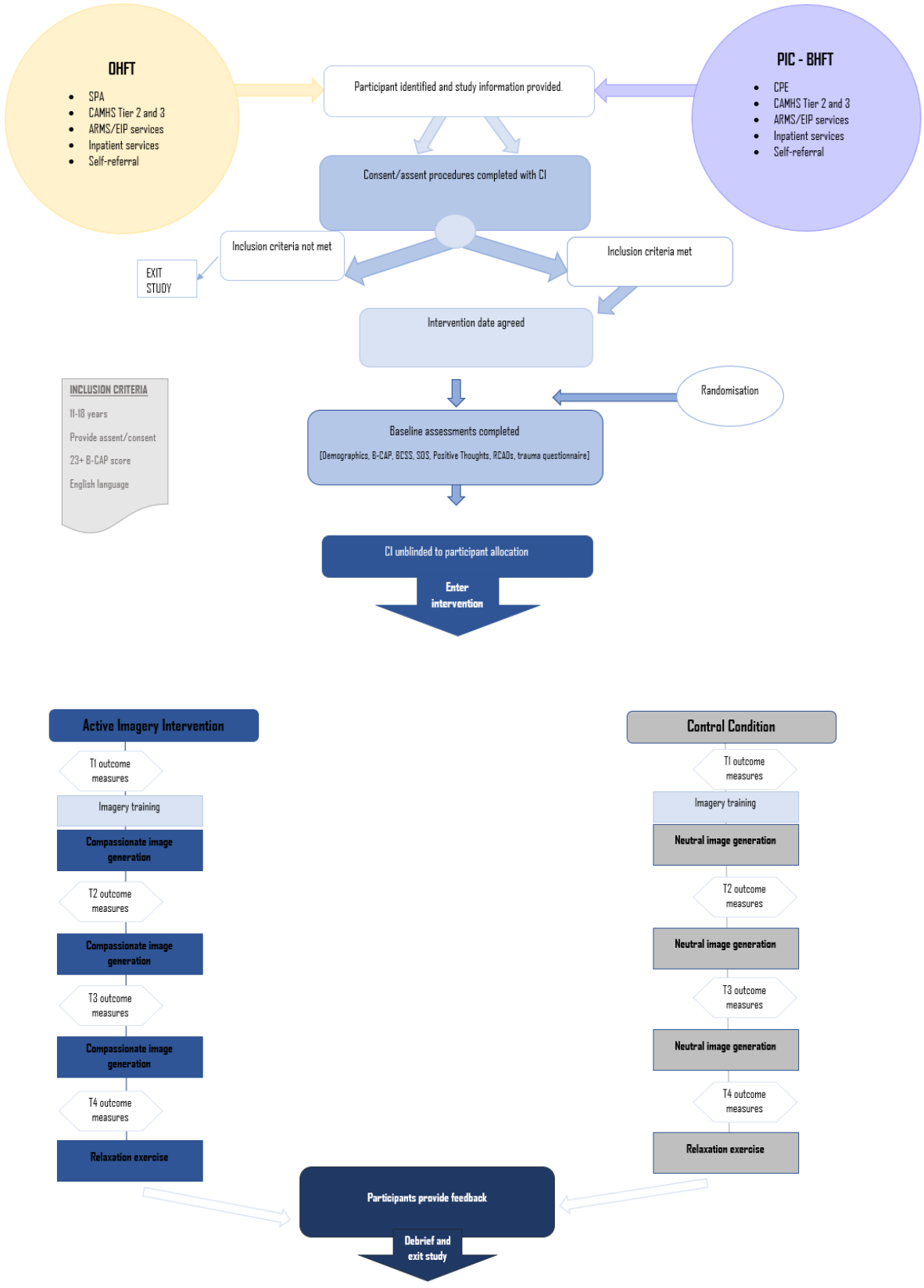


Figure 8

CONSORT Diagram

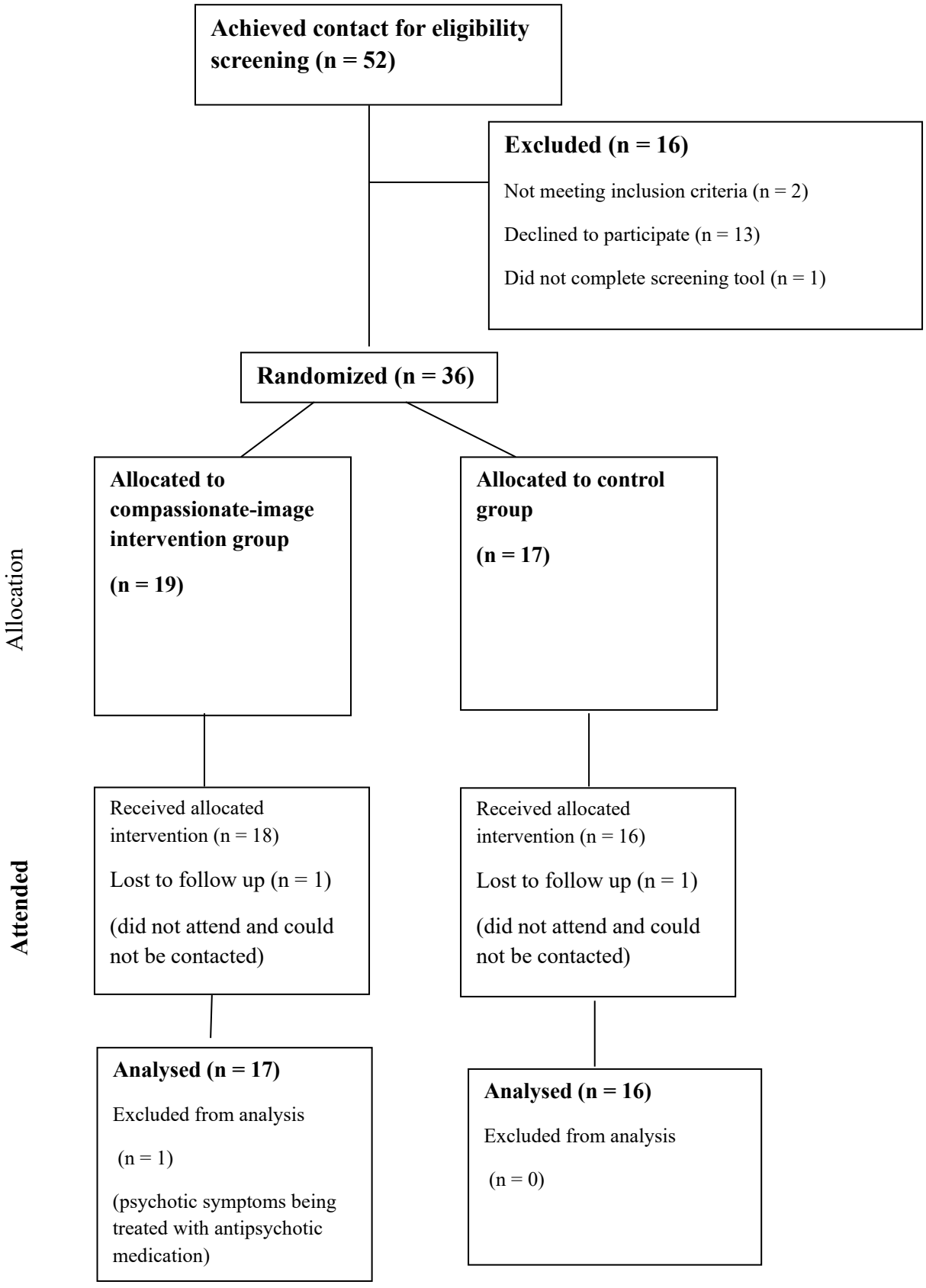


Table 9

Baseline and Intervention Outcome Measures

Baseline Outcomes (T1)			
Construct	**Measure**	**Details**	**Psychometric Properties**
Paranoia	**The Bird Checklist of Adolescent Paranoia (**B-CAP; Bird et al., 2020)	18-item self-report questionnaire that assesses frequency of paranoid thoughts in the previous two weeks and is the only measure implemented to assess adolescent paranoia. The BCAP was used to determine study eligibility and assess baseline paranoia. Total scores are calculated by summing scores on all items; higher scores indicate elevated paranoia.	The B-CAP has been validated in adolescents and has excellent reliability across a wide range of paranoia severity (Bird et al., 2020). The scale had a high level of internal consistency in our sample, as determined by Cronbach's alpha of 0.888. Mean score in general adolescent samples is 12.5 (Bird et al., 2018).
Self-concept	**The Adapted Brief Core Schema Scale (**BCSS; Fowler et al., 2006)	The BCSS is a 24-item self-report questionnaire comprising four subscales measuring positive and negative beliefs about self and others (positive-self [PS]; positive-others [PO]; negative-self [NS]; negative-others [NO]). Each scale comprises six statements, rated YES/NO. Strength of endorsed (YES) beliefs is rated from 1 (slightly) to 4 (totally). Total subscale scores are calculated by summing items for each subscale.	The BCSS has been adapted and approved for use with adolescents, displaying good internal reliability for this age group (Fowler et al., 2006; Gin et al., 2021; Noone et al., 2015). The internal consistency in our sample ranged from low to high, as determined by Cronbach's alpha, and was 0.736, 0.533, 0.689, and 0.796 for the positive self, negative self, positive other, negative other subscales respectively.
Negative Self-Concept	**Sense of Self-Youth Scale** (SOS-Y; Kirkham et al., in prep)	A new measure was used to evaluate negative self-cognitions. The SoS is a 20-item self-report questionnaire measuring negative self-beliefs with four subscales: not good enough, bad, broken, an outcast. The SOS is the only measure of negative self-cognitions designed with adolescents with paranoia.	The SOS has excellent psychometric properties and is highly correlated with measures of self-schema and self-esteem in general samples of adolescents and young adults (Kirkham et al., in prep). The internal consistency in our sample was acceptable, as determined by Cronbach's alpha, and was 0.896, 0.792, 0.840, 0.816 for the good enough, bad, broken, and outcast scales respectively.
Positive Self-Concept	**The Positive Thoughts Scale** (Freeman et al., 2023)	This 24-item self-report questionnaire assesses positive cognitions about the self. Total scores are calculated by summing all items, with higher scores indicating greater endorsement of positive self-beliefs.	The scale has excellent psychometric properties in adults but has not yet been examined in adolescents. The scale had a high level of internal consistency in our sample, as determined by Cronbach's alpha of 0.906.
Affect	**Revised Children's Anxiety and Depression Scale**	The 11-item version of the RCADS is a short, validated screening tool for assessing anxiety and depressive	The scale had a low level of internal consistency in our

	(RCADS-11; (Radez et al., 2021)	symptomology in adolescents. Total scores are calculated by totalling participants' responses to all items.	sample, as determined by Cronbach's alpha of 0665.
Intervention Outcomes (T1, T2, T3, T4)			
Construct	**Measure**	**Details**	**Psychometric Properties**
State Paranoia	**State Paranoia Visual Analogue Scales (VAS)** *"I feel threatened or that I may be harmed"* *"I feel completely safe"*	The anchors for the paranoia VAS assessed the two key factors of paranoia. Responses on all VAS ranged from 0-100 with higher scores indicating increased endorsement of the cognition.	Visual analogue scales are a valid measure of paranoia in compassionate imagery intervention studies, correlated with interviewer assessments of paranoia in adults and are used due to their sensitivity to change (Brown et al., 2020; Freeman et al., 2014).
Negative self-cognitions	**Negative Self VAS** *"I am less than others"* *"I am outcast from others"*	The anchors for the negative self-cognition VAS assessed two key factors (inferior, outcast) from the questionnaire assessing negative self-cognitions in adolescents with paranoia (Kirkham et al., in prep). Responses on all VAS ranged from 0-100 with higher scores indicating increased endorsement of the cognition.	
Positive self-cognitions	**Positive Self VAS** *"I can relax and have fun"* *"I can achieve things"* *"I can keep going"* *"I am worth* something*"*	The anchors for the positive self-cognition VAS were relevant to the target of the intervention and the Positive Thoughts Scale). Responses on all VAS ranged from 0-100 with higher scores indicating increased endorsement of the cognition.	
Affect	**Affect VAS** *'Please mark on the line below how anxious you feel right now'* *'Please mark on the line below how sad you feel right now'*	Responses range from 0-100 with higher scores indicating increased anxiety or sadness.	

Statistical Analyses

Data were checked, cleaned and managed in IBM SPSS v29.02 (IBM Corp., 2023). Using the Intention-to-Treat principle, the dataset for one adolescent who withdrew following the first image generation (T2) was included in analyses of baseline outcomes. Additionally, four datapoints (one each for BCSS, RCADS, T2 VAS "less than others", T3 VAS "outcast") were missing, reducing our sample size for some analyses. Descriptive statistics and normality distributions (where appropriate) were computed for demographics, baseline and intervention

outcome data. Groups were compared on demographics characteristics, and baseline (T1) outcome measures using *t*-tests and non-parametrics.

Data for some paranoia, positive and negative-self VAS violated normality assumptions due to wide data distributions and floor and ceiling ratings by some adolescents. Following consultation with a statistician, data transformation was not appropriate and would remove key data (i.e. threat/safety scores of 0/100). As ANOVAs are robust to violation of assumptions, all planned mixed-method ANOVAs were conducted.

Primary Analysis; Paranoia Threat Cognitions

We ran one 2x4 mixed-model ANOVA to examine our primary hypothesis. Group (IG versus CG) and time (T1, T2, T3, T4) were the independent variables (IVs); the dependent variable (DV) was the intervention outcome measure of state paranoia threat cognitions (one VAS).

Secondary Analysis; Paranoia Safety Cognitions

We ran one 2x4 mixed-model ANOVA to examine our secondary hypothesis. Group (IG versus CG) and time (T1, T2, T3, T4) were the independent variables (IVs); the dependent variable (DV) was the intervention outcome measure of state paranoia safety cognitions (one VAS).

Exploratory Analyses

Self-Cognitions & Affect. We ran eight exploratory 2x4 mixed-model ANOVAs. Group (IG versus CG) and time (T1, T2, T3, T4) were the independent variables (IVs); the dependent variables (DVs) were the intervention outcome measures of negative self-cognitions (two VAS), positive self-cognitions (four VAS) and affect (two VAS).

We adopted a *p* significance value of 0.05 for the primary and secondary analyses, and 0.006 for the exploratory analyses to Bonferroni correct for multiple comparisons.

Where ANOVA interaction effects were significant, we ran post-hoc ANCOVAs simple main effects tests with baseline (T1) Visual Analogue Scale scores entered as the co-variate. Simple main effects were Bonferroni-corrected comparisons.

Preliminary Mediation Analysis

Linear regression analyses were conducted to test associations between group (IV) and state paranoia cognitions (DV), and group and self-cognitions (positive and negative) and affect (anxiety and mood) (mediators). Self-cognitions that were identified as having a relationship with group were explored as mediator variables in mediation analyses with bootstrapping (5000 samples, using Jamovi 2.5; The Jamovi Project, 2024). Four simple mediation analyses were conducted; group (IG versus CG) was entered as the predictor, state paranoia threat cognitions were entered as the DVs, and four self-cognitions related to group explored as the mediators.

We adopted a p significance value of 0.001 for the separate mediation analyses to Bonferroni correct for multiple correlational and mediation analyses.

Post-hoc Analyses

The ANOVA analyses were repeated with a data subset, removing those who rated their baseline state paranoia cognition “I feel threatened” as 0. Partial eta squared effect sizes (small=0.01, medium=0.06, large=0.14) were calculated to assess the magnitude of the effects observed in the ANOVAs.

Results

Demographic and Baseline Characteristics

Demographic information and scores on baseline outcome measures are displayed in **Table 11**. Participants were 15 to 17 years (*M*=17), predominantly female (78.8%), white (84.8%) and participating online (57.6%). Neurodiversity (30.3%) and ongoing adversity (69.7%) were prevalent. Adolescents were most commonly diagnosed with anxiety (24.2%) or anxiety and depression (24.2%). There were no statistically significant differences between groups on demographic characteristics, intervention setting, paranoia, negative or positive self-beliefs, schemas or measures of affect nor adversity at baseline.

Primary Outcome

Effect of Group on Adolescents' State Paranoia Threat Cognitions

There was a significant main effect of time on mean paranoia threat cognition scores (Greenhouse-Geisser $F(2.30,69.18)= 14.38$, $p<0.001$, $\eta_p^2=0.32$). There was also a significant main effect of group ($F(1,30)= 6.94$, $p=0.013$) on "I feel threatened" cognitions. However, there was no significant interaction between group and time on paranoia cognitions "I feel threatened" (Greenhouse-Geisser $F(2.31,69.18)= 0.73$, $p=0.504$, $\eta_p^2=0.02$). State paranoia threat cognitions were not significantly different between IG and CG across time, although paranoia reduced for both (see Table 10). Therefore, we rejected our primary hypothesis.

Table 10

Descriptive Statistics for Primary Outcomes

Paranoia	Cognition	*Intervention M[SD]*	*Adjusted Means M[SE]*	*Control M[SD]*	*Adjusted Means M[SE]*
	T1 "I feel threatened"	22.76[20.45]		40.68[34.74]	
	T2 "I feel threatened"	8.41[9.48]		26.52[26.43]	
	T3 "I feel threatened"	6.31[7.48]		22.88[25.84]	
	T4 "I feel threatened"	7.33[8.71]		31.51[30.77]	
	T1 "I feel completely safe"	57.43[28.29]		49.70[35.69]	
	T2 "I feel completely safe"	75.28[20.05]		63.85[30.81]	
	T3 "I feel completely safe"	76.31[18.87]		57.74[32.91]	
	T4 "I feel completely safe"	73.42[19.94]		54.42[36.11]	
Negative-Self					
	T1 "I am less than others"	53.70[26.90]		65.76[23.83]	
	T2 "I am less than others"	28.85[20.44]		54.08[30.20]	
	T3 "I am less than others"	25.19[16.60]		50.18[28.63]	
	T4 "I am less than others"	26.13[14.90]		47.33[28.52]	
	T1 "I am outcast"	48.46[23.78]		53.69[26.56]	
	T2 "I am outcast"	34.25[22.94]		48.21[28.43]	
	T3 "I am outcast"	31.18[16.89]		44.44[30.36]	
	T4 "I am outcast"	29.95[17.70]		44.40[29.98]	
Positive-Self					
	T1 "I can relax/have fun"	40.52[18.14]		39.05[18.38]	
	T2 "I can relax/have fun"	54.88[22.29]		42.83[22.23]	
	T3 "I can relax/have fun"	55.28[26.67]		36.30[24.73]	
	T4 "I can relax/have fun"	57.62[23.20]		40.86[27.69]	
	T1 "I can achieve things"	40.65[19.46]		26.81[18.58]	
	T2 "I can achieve things"	52.92[19.13]		29.95[24.85]	
	T3 "I can achieve things"	56.94[21.80]		32.83[24.73]	
	T4 "I can achieve things"	54.36[24.93]		30.66[25.184]	
	T1 "I can keep going"	56.66[25.60]	//	48.82[27.34]	//
	T2 "I can keep going"	67.38[23.00]	64.46[3.80]	42.14[26.25]	45.06[3.80]
	T3 "I can keep going"	68.43[22.83]	65.39[4.05]	43.12[28.73]	46.16[4.05]
	T4 "I can keep going"	68.09[22.117]	64.95[3.71]	42.16[28.91]	45.30[3.71]
	T1 "I am worth something"	35.81[23.01]	//	30.27[25.04]	//
	T2 "I am worth something"	58.19[22.89]	56.18[4.67]	32.78[27.53]	34.80[4.67]
	T3 "I am worth something"	54.23[21.53]	51.92[3.50]	33.44[26.79]	35.75[3.50]
	T4 "I am worth something"	53.93[20.94]	51.64[3.86]	32.88[28.52]	35.18[3.86]
Affect					
	T1 "I am sad"	40.22[22.15]		43.88[28.58]	
	T2 "I am sad"	26.26[22.76]		39.95[28.86]	
	T3 "I am sad"	25.03[22.02]		37.49[31.17]	
	T4 "I am sad"	21.98[24.34]		35.14[30.57]	
	T1 "I am anxious"	55.52[29.56]		54.35[29.57]	
	T2 "I am anxious"	33.86[26.26]		39.02[24.68]	
	T3 "I am anxious"	31.26[26.40]		37.10[27.11]	
	T4 "I am anxious"	27.66[24.21]		37.22[27.35]	

Table 11

Demographic and Baseline Characteristics (N = 33)

Variable (n)		Overall (N=33)	Intervention Group (n=17)	Control Group (n=16)	Group Differences
Setting					
In person		14	7	7	
Online		19	10	9	$X^2(1,N=33)=0.00$, $p=1.0$
Sex					
Female		26	13	13	$X^2(1,N=33)=0.00$, $p=1.0$
Male		7	4	3	
Gender Identity					
Female		23	11	12	
Male		6	3	3	//
Other		4	3	1	
Ethnicity					
White	British	26	15	13	
	Other	1			
	Irish	1			
Other	Chinese	2	2	3	Fischer's exact test,$p=0.66$
	Asian	1			
	Mixed - Heritage	2			
Age					
15		5	*M* = 16	**M** = 17	
16		9			$U=87,p=0.81$
17		19			
Diagnosis or Primary Presenting Problem					
Anorexia		1	0	1	
Anxiety		8	5	3	
Anxiety and Anorexia		1	1	0	
Anxiety and Depression		8	5	3	
Anxiety, Depression, Hallucinations		1	0	1	
Anxiety, Depression, OCD		1	0	1	
Anxiety, Depression, PTSD		2	2	0	//
Depression		1	1	0	
Depression, ARFID		1	1	0	
Emotional dysregulation		1	0	1	
Insomnia		1	1	0	
Low Mood		1	0	1	
OCD		1	0	1	
OCD, Anorexia		1	0	1	
PTSD		4	1	3	
Neurodiversity					
Yes	Dx	7	2	5	

	Traits	3	2	1	Fischer's exact test,p=0.47
No		23	13	10	
Adversity Ongoing					
Yes	Peer Difficulties	19	10	9	
	Bullying	1	1	0	Fischer's exact test,p=0.47
	Cyberbullying	1	1	0	
	Multiple	2	1	1	
No		10	4	6	

Baseline Outcome *M[SD]* score	**Overall**	**Intervention Group**	**Control Group**	**Group Differences**
BCAP	50.55[15.70]	46.24[11.28]	55.13[18.62]	t(24.41)=-1.65,p=0.56
BCSS				
Positive-self	6.63[3.68]	7[3.41]	6.25[4.01]	U=114.50,p=0.0.43
Negative-self	10.47[4.02]	10.44[4.26]	10.50[3.92]	U=123.50,p=0.66
Positive-other	7.72[4.36]	8.25[4.64]	7.19[4.14]	U=90,p=0.10
Negative-other	12.50[4.00]	11.25[3.94]	13.75[3.77]	U=114.50,p=0.62
SOS Total	44.22[12.05]	43.06[2.58]	45.38[3.45]	t(30)=-0.54,p=0.30
Not Good Enough	18.97[6.58]	17.75[5.89]	20.19[7.18]	
Bad	4.18 [3.50]	3.76 [3.07]	4.63[3.96]	
Broken	10.85[4.04]	11.88[3.44]	9.75[4.45]	
Outcast	10.15[3.26]	9.57 [2.28]	10.81[4.04]	
Positive Thoughts	39.24[13.92]	43.35[13.57]	34.88[13.33]	t(31)=1.81,p=0.08
RCADS	23.22[4.24]	22.94[4.66]	23.52[3.85]	t(30)=-0.39,p=0.70

Secondary Outcome

Effect of Group on Adolescents' State Paranoia Safety Cognitions

There was a significant main effect of time on mean paranoia safety cognition scores (Greenhouse-Geisser F(2.145,64.363)= 10.044, p<0.001, η_p^2=0.251). There was no significant main effect of group (F(1,30)= 2.291, p=0.141, η_p^2=0.071) on safety cognitions. There was also no significant interaction between group and time on paranoia safety cognitions (Greenhouse-Geisser F(2.145,64.363)= 1.555, p=0.218, η_p^2=0.049). State paranoia safety cognitions were not significantly different between IG and CG across time, although paranoia safety cognitions increased for both groups (see Table 10). Therefore, we rejected our secondary hypothesis.

Exploratory Analyses

(i): Effect of Group on Adolescents' Negative Self-cognitions

There was a significant effect of time on both negative self-cognitions (Greenhouse-Geisser $F(1.58,45.75)= 17.21$, $p<0.001$, $\eta_p^2=0.37$, $F(2.39,69.17)= 8.47$, $p<0.001$, $\eta_p^2=0.23$). There was a significant effect of group ($F(1,29)= 7.81$, $p=0.009$, $\eta_p^2=0.21$) on "I am less than others" only. However, there was no significant interaction between group and time on negative-self cognitions "I am less than others" and "I am outcast" (Greenhouse-Geisser $F(1.58,45.75)= 1.41$, $p=0.253$, $\eta_p^2=0.05$, $F(2.39,69.17)= 0.976$, $p=0.394$, $\eta_p^2=0.03$ respectively). Contrary to our hypotheses, negative-self cognitions were not significantly different between IG and CG group across time, although negative-self cognitions reduced in both groups from T1 to T4 (see Table 10).

(ii): Effect of Group on Adolescents' Positive Self-cognitions

Means, adjusted means, standard deviations and standard errors are presented in Table 10. For positive self-cognitions "I am worth something", there were significant main effects of group ($F(1,30)= 5.04$, $p<0.032$, $\eta_p^2=0.14$) and time (Greenhouse-Geisser $F(2.27,68.03)= 9.25$, $p<0.001$, $\eta_p^2=0.24$) and a significant main effect for group only on positive self-cognitions "I can keep going" ($F(1,30)= 6.19$, $p<0.019$, $\eta_p^2=0.17$; Greenhouse-Geisser $F(2.44,73.23)= 0.47$, $p=0.662$, $\eta_p^2=0.02$).There were significant interactions between group and time on the positive self-cognitions "I can keep going" (Greenhouse-Geisser $F(2.44,73.23)= 5.39$, $p=0.004$, $\eta_p^2=0.152$) and "I am worth something" (Greenhouse-Geisser $F(2.27,68.03)= 5.44$, $p=0.005$, $\eta_p^2=0.154$).

The post-hoc simple main effects ANCOVA examined differences between T2, T3, T4 with T1 (baseline) entered as a covariate. The analysis of simple main effects for group was performed with statistical significance receiving a Bonferroni adjustment and being accepted at

the $p<0.016$ level. The simple main effects ANCOVA found the effect of group was significant at timepoint T2 ($F(1,29)= 12.89$, $p=0.001$, $\eta_p^2=0.31$), T3 ($F(1,29)= 11.12$, $p=0.002$, $\eta_p^2=0.27$) and T4 ($F(1,29)= 13.90$, $p<0.001$, $\eta_p^2=0.324$) for positive self-cognitions "I can keep going". The difference in adjusted mean VAS scores for "I can keep going" was significantly higher in the IG versus the CG at T2 (*MD*=19.40, 95%CI[8.35,30.46], $p=0.001$), T3 (*MD*=19.23, 95%CI[7.43,31.02], $p=0.002$), T4 (*MD*=19.65, 95%CI[8.87,30.43], $p<0.001$) (see Figure 9).

The simple main effects ANCOVA found the effect of group was significant at timepoint T2 ($F(1,29)= 10.43$, $p=0.003$, $\eta_p^2=0.27$), T3 ($F(1,29)= 10.61$, $p=0.003$, $\eta_p^2=0.27$) and T4 ($F(1,29)= 9.04$, $p<0.005$, $\eta_p^2=0.24$) for positive self-cognitions "I am worth something". The difference in adjusted mean VAS scores for "I am worth something" was significantly higher in the IG versus the CG at T2 (*MD*=21.38, 95%CI[7.84,34.92], $p=0.003$), T3 (*MD*=16.18, 95%CI[6.02,26.34], $p=0.003$), T4 (*MD*=16.46, 95%CI[5.26,27.66], $p=0.005$) (see Figure 9).

There was a significant effect of time on the cognitions "I can relax and have fun" ($F(3,90)= 3.85$, $p=0.012$) and of time and group on "I can achieve things" ($F(3,90)= 5.28$, $p=0.002$, $\eta_p^2=0.15$, $F(1,30)= 8.95$, $p=0.006$, $\eta_p^2=0.23$), but no significant interaction effects between group and time for these cognitions ($F(3,90)= 3.062$, $p=0.036$, $\eta_p^2=0.09$; $F(3,90)= 1.36$, $p=0.263$, $\eta_p^2=0.04$) on correcting for multiple comparison procedures.

(iii): Effect of Group on Adolescents' Affect

There was a significant effect of time on both affect cognitions (Greenhouse-Geisser $F(1.46,43.81)= 28.23$, $p<0.001$, $\eta_p^2=0.49$, $F(2.33,69.88)= 9.24$, $p<0.001$, $\eta_p^2=0.24$). No significant main effect of group ($F(1,30)= 0.296$, $p=0.590$, $\eta_p^2=0.01$, $F(1,30)= 1.50$, $p=0.231$, $\eta_p^2=0.05$), nor interaction effects of group and time were found for affect outcomes "I am sad" and "I am anxious"

(Greenhouse-Geisser $F(2.33,69.88)= 1.53$, $p=0.222$, $\eta_p^2=0.05$, $F(1.46,43.81)= 1.29$, $p=0.278$, $\eta_p^2=0.04$; see Table 10).

Mediation of Adolescents' Paranoia by Self-cognitions & Affect

Linear Regressions. There were significant relationships between group and the paranoia cognition "I feel threatened" (T2, T3, T4), negative-self cognition "I am less than others" (T2, T3, T4) and positive-self cognitions "I can have fun" (T3), "I can achieve things", "I can keep going", "I am worth something" (T2, T3, T4) (see Appendix O).

Multiple Linear Regressions/Mediation Analyses. Negative and positive self-cognitions that were significantly related to group allocation at the intervention mid-point (T2) were examined as mediator variables of subsequent T4 paranoia outcomes ("I feel threatened") using four exploratory mediation analyses. Contrary to our hypotheses, it was found that T2 negative ("I am less than others") and positive self-cognitions ("I can achieve things", "I can keep going", "I am worth something") did not mediate the relationship between group and child T4 paranoia (see Table 12).

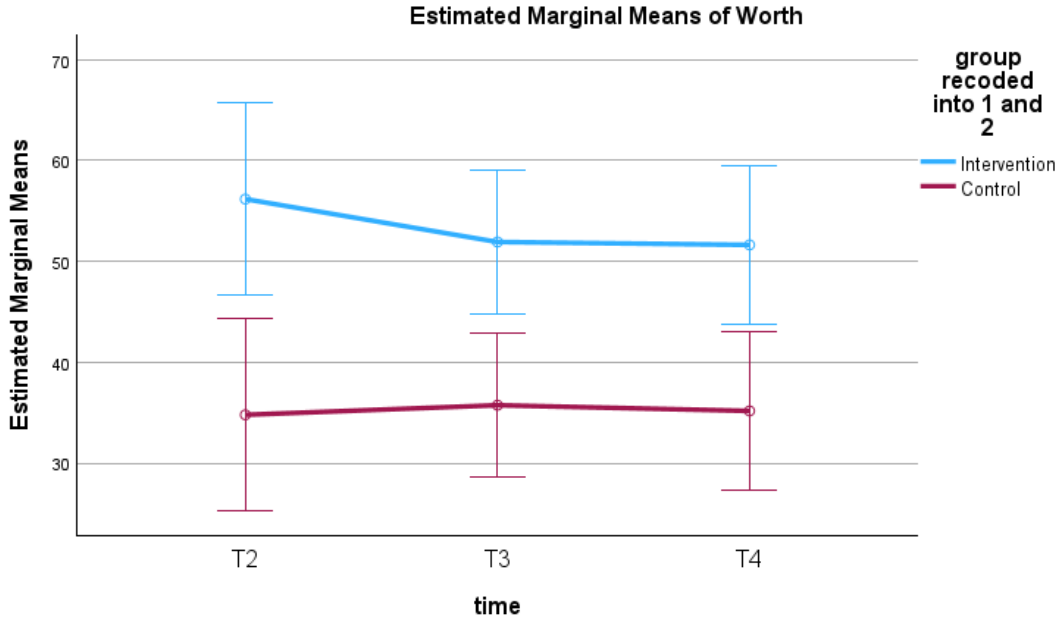
There was no significant relationship between group and affect (see Appendix O) and thus it was not explored in the mediation analysis.

Post-Hoc Analyses: Extreme Ratings Removed

Differences in outcomes for a data subset, excluding adolescents who rated their baseline threat as 0, were examined. Different outcomes were seen only for the effects of time on cognition "I can relax and have fun", which was no longer significant.

Figure 9

Positive Self-Cognitions Across Time Controlling for Baseline



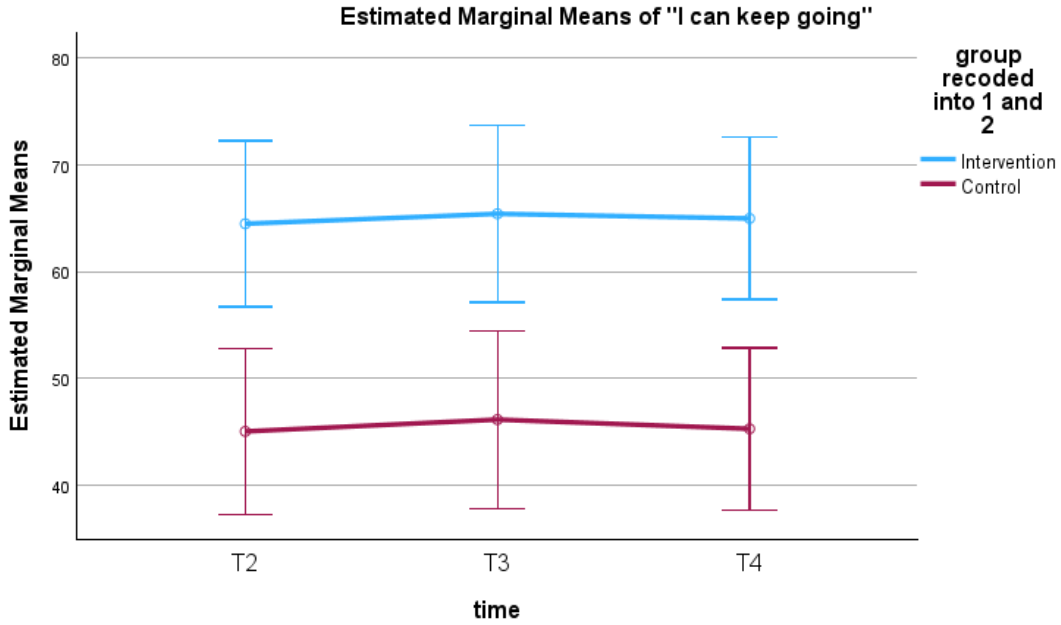


Table 12

Exploratory Mediation Analyses

Outcome: T4 Paranoia Cognition "I feel threatened"	**Mediator**			
	T2 "I am less than others"	**T2 "I can achieve something"**	**T2 "I can keep going"**	**T2 "I am worth something"**
Total Effect (CI, P-value)	26.29 (10.54-42.3), *p*=0.001	24.19(8.55-40.20), *p*=0.002	24.19(9.19-39.8), *p*=0.002	24.19(9.13-40.1), *p*=0.002
Direct Effect (CI, P-value)	18.35 (4.54-34.5), *p*=0.02	22.08(7.50-41.79), *p*=0.013	17.34(3.87-35.3), *p*=0.03	21.68(6.67-40.2), *p*=0.01
Indirect Effect (CI, P-value)	7.94 (-0.50-19.7), *p*=0.133	2.11(-11.29-9.32), *p*=0.674	6.85(-2.56-17.5), *p*=0.17	2.51(-8.54-11.6), *p*=0.60
Percentage mediation (indirect effect)	30.2%	8.71%	14.2%	10.4%

Discussion

In this study we tested the effects of a compassion-focused imagery intervention on self-cognitions and paranoia cognitions in adolescents attending CAMHS. There were reductions in state paranoia in both IG and CG, and group differences were small and not statistically significant from one another overall. Thus, we rejected our primary and secondary hypotheses that the intervention would reduce paranoia threat and safety cognitions. In line with our predictions, when compared to a neutral imagery control group, the compassionate-image intervention group had a significant increase in specific, positive self-cognitions. Large effects of the IG were found on cognitions about self-worth and perceived ability to 'keep going', but no differences between groups were found for negative self-cognitions, other positive self-cognitions examined nor affect. Thus, we partially accepted our exploratory hypotheses that the intervention would improve self-cognitions and affect. Notably, standard deviations for group mean scores on intervention outcome measures were large and IG and CG mean scores were overlapping. Mediation analyses suggested that changes in paranoia, as measured by feelings of threat, were not mediated by changes in adolescents' negative or positive thoughts about themselves, or by affect, although mediation analyses were not sufficiently powered. Overall, we did not have sufficient evidence that changes in adolescents' paranoid thinking and negative thoughts about themselves changed significantly more in the intervention than the control group from pre- to post-intervention, despite greater improvements in selected positive self-cognitions for the intervention group.

Our findings were partially consistent with previous research using compassion-focused interventions for paranoia. The compassion-focused imagery intervention induced positive-self cognitions with large effects, similar to experimental studies in adults with paranoia (e.g. Brown et al., 2020). However, the non-significant effects on paranoid thoughts were not in line with outcomes in adult samples (Forkert et al., 2022; Brown et al., 2022). It may be that simply being

with a compassionate therapist and engaged in a task is helpful for reductions in paranoia in young people, leading to small and non-significant differences between groups. Additionally, the wide distribution of raw scores for negative self-cognitions and paranoia in both groups led to overlapping scores between groups across time, which may have also contributed to non-significant group differences, particularly given the small sample size.

Our sample supported previous research findings that adolescents with paranoia present with a range of co-morbid difficulties (Bird et al., 2018), with most scoring above the clinical cut-off for anxiety and depressive disorders. A high proportion were female and experiencing ongoing adversity (bullying and peer difficulties), in line with previous qualitative findings that paranoia is linked to threat of physical and emotional harm in young females (Bird et al., 2022). High levels of perceived adversity and worry about harm reflect the research on developmental factors that are salient during adolescence and may contribute to the development of paranoia, for example, sensitivity to peer rejection (Sebastian et al., 2010) Contrary to previous studies that excluded neurodivergent adolescents (Bird et al., 2017), a high proportion of our sample had traits or diagnoses of autism and/or ADHD. Therefore, it is possible that cognitive inflexibility associated with neurodiversity (Lei et al., 2022) for our sample, may have impacted adolescents' ability to generalise changes in positive thoughts about themselves to their broader self-concept, and thus feelings of paranoia.

To the authors' knowledge, this study is the first to develop a compassion-focused intervention for adolescents in CAMHS who report paranoia. It adds to experimental research examining the role of self-cognitions in adolescent paranoia, of which there is an overall paucity (1 study; Parker & Kingston, 2021). Although research in this area is in its infancy, we aimed to develop an intervention with high clinical utility. The intervention script was designed to be easily adaptable and to allow for a breadth of needs, including flexible delivery online or in person,

centred upon individuals' preferences. It was also shaped by input from young people and service-users with and without paranoia, increasing the acceptability of the intervention.

Limitations

There were some methodological limitations, however. Flexible methods of delivery meant that adolescents could attend the testing session digitally in the comfort of their bedroom, which may have impacted adolescents' endorsement of feelings of safety and threat at baseline, potentially diluting any apparent intervention effects. This was demonstrated by a portion of individuals' extreme rating on the paranoia VAS as null "threat" and 100% "safety". Secondly, the ITT principle was used for analyses of baseline outcomes; however, two participants were excluded, reducing our power slightly to detect small intervention effects statistically. Participants were randomised evenly and there were no differences between groups on baseline outcome variables including neurodiversity and adversity. Nonetheless, previous literature has outlined a significant role of adversity in maintaining paranoia (e.g. Bird et al., 2018), and as it was coded categorically, our analytical design did not allow us to control for this potential moderating variable in an ANCOVA. Further, the study scope and design did not allow for blinding of the therapist delivering the intervention (JM), and subsequently obtaining outcomes and analysing the data. This may have introduced threats to validity by means of experimenter effects on adolescents' ratings, although we attempted to mitigate such effects through standardising the intervention scripts as much as possible. Finally, internal consistency of two baseline outcome measures were low and future research is required to understand their validity in this population.

Implications

Overall, our findings suggest that this brief compassion-focused imagery intervention can be flexibly delivered to adolescents in CAMHS reporting paranoia to improve their positive views about themselves. We do not have sufficient evidence to suggest that the intervention is beneficial

for paranoia or negative self-cognitions. Further research could examine longer term effects of this intervention on self-cognitions and paranoia and the pathways through which self-cognitions impact paranoid cognitions in adolescents. It is recommended that future research considers the role of adversity and neurodiversity in paranoid thinking in adolescents. Future research should also consider the utility of VAS to capture nuanced changes in cognition, particularly for diverse samples such as ours. It is clear that "many people have a few paranoid thoughts, and a few people have many paranoid thoughts" (Freeman, 2016) and that this is also true for CAMHS settings. Evidence-based conceptualisations of adolescent paranoia now need further attention to support young people adequately and compassionately.

Ethical Approval

Local NHS Trust sponsorship and UK Health Research Authority (HRA) Research Ethics Committee (REC) and HRA approval were obtained (ethical approval IRAS ID 326269, REC reference: 23/NI/0133, November 10th 2023) (Appendix P). All participants were required to provide an informed consent or assent and parental consent prior to taking part in the study.

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Executive Summary*

What was this study?

We know that lots of young people struggle with mistrust. We wanted to learn more about adolescents' confidence and beliefs about themselves and understand why some adolescents feel mistrustful of others. This study aimed to examine whether using imagination to create a compassionate image in adolescents' minds helped them to feel better about themselves, and through this, reduce their feelings of mistrust. This research also aimed to help mental health services improve therapies for adolescents who feel worried about trusting others. All adolescents were reimbursed for their time and were referred to the study by someone they were working with in CAMHS They could also contact the researcher themselves.

Who participated in the study?

The people who participated in the study were 34 adolescents who were getting support from Child and Adolescent Mental Health services (CAMHS) in the U.K. for any type of difficulty. They volunteered to take part and provided informed assent/consent. All adolescents who took part had difficulties with trusting others and felt mistrusting to at least a moderate degree as measured by the Bird Checklist of Adolescent Paranoia (Bird et al., 2020). Lots of adolescents who took part identified as neurodiverse and lots of participants had previous or ongoing adverse experiences (e.g. bullying).

What treatments or interventions did the participants take/receive?

Participants were randomly placed into one of two groups. Adolescents in the intervention group completed a compassionate-image exercise and adolescents in the control group completed a neutral imagery exercise. In the compassionate-image exercise participants developed a compassionate (kind, warm, supportive, wise) figure using their imagination and imagined the figure supporting them in a difficult past, and future, scenario. In the neutral imagery exercise participants developed an image of an emotionless weatherperson and imagined the weather person telling them about the weather in the past and future.

*Executive summary (structured according to HRA guidance and requirements: https://www.hra.nhs.uk/approvals-amendments/managing-your-approval/ending-your-project/)

What problems (negative reactions) did the participants have?

We asked participants for feedback at the end of their time with the researcher. Everyone could use their imagination to complete the exercise and almost everyone enjoyed it!

What happened during the study?

During the study participants met with the researcher at CAMHS, at their home, or online. They completed five questionnaires with the researcher about their demographics (for example, their gender), their positive and negative views about themselves, their mood and we checked that they did have problems with mistrust before the appointment. When participants completed the questionnaires, they practiced using imagination first, and then rated their (current) feelings of mistrust and their positive and negative thoughts about themselves. Then they imagined either the compassionate image (figure) or the neutral weatherperson. Participants practiced this twice more and each time they imagined the image they rated their feelings of mistrust and thoughts about themselves. All adolescents had an opportunity to do a relaxation exercise at the end of the meeting with the researcher.

What were the results of the study?

The results of the study were that participants in both groups had reduced feelings of threat after practicing imagining the compassionate figure and the neutral weatherperson. Negative thoughts about being inferior or outcast also reduced in both groups over the time of practicing the imagery task. Importantly participants in the group that practiced the compassionate-image exercise improved their self-confidence and their positive beliefs about themselves more than the people who imagined the weatherperson, suggesting that the treatment we developed helps to boost positive thoughts about the self.

How has this study helped patients and researchers?

This study has enabled researchers to begin to develop treatments that will help adolescents in CAMHS to feel safer, more confidence and to have less difficulties with mistrust. We hope that we can continue to develop these treatments so that we can further support adolescents in CAMHS.

This study also helped the researchers to understand the role that positive and negative thoughts about the self can play in how mistrusting someone feels. We now think that positive and negative thoughts about the self-have separate roles in how mistrusting someone feels. We need to do more information to establish the impact of positive and negative thoughts about the self on mistrust in adolescents.

Details of any further research plans:

Because our initial results are so exciting, we are going to keep going! We are going to look for more volunteers to participate in our research study so that we can see if the results are even better when we try the compassionate-image exercise out with more adolescents.

Where can I learn more about this study?

You can get more detailed information about the study from the primary researcher, Jessica McGovern via email or phone:

Jessica.McGovern@oxfordhealth.nhs.uk

Mobile: 07919293760

Connecting Reflecting Narrative

When I reflect on the processes leading me to develop the research projects that I became immersed in through this doctorate, it is unsurprising that I was drawn to conduct research on *early* attempts at psychological intervention.

SRL

Beginning with my SRL, my initial ideas for the research were fitting my long-term aspiration to work in EI service development in Ireland. I was initially drawn to complete a large review on various EI service models that could be implemented in countries with reduced provision of mental health service funding. Redeveloping my review topic, alongside my excellent supervisor Louise, taught me the importance of designing research in line with gaps in our knowledge as a profession, rather than for the purpose of satisfying my own interests. Upon realising that my second topic and seemingly comprehensive search strategy was over-inclusive, and my research questions too broad, I was required to substantially narrow the focus of the topic and re-do the title and abstract screening to produce a clinically meaningful review. Through screening 8000 papers at title and abstract level, I came to understand the importance of clear and detailed abstracts over and above inviting ones, mirroring my reflections on the importance of choosing required, over inviting, research investigations. The scope of my other two projects left limited focus for the review, pushing me to produce output efficiently, to drop perfectionistic standards, and to synthesise the key findings for practical use within services with limited time. This process taught me the value of clear intention, and satisfaction over perfection, when conducting and disseminating clinical research. This will be an important lesson to carry with me as a professional in highly demanding NHS contexts.

SIP

Moving to my SIP, this was perhaps where I could most enjoy the process of conducting clinical research. During the 1st year research fair, I was curious about the project as it offered an opportunity to revisit my love for ACT, that I explored in-depth for my MSc research thesis. The initial project suggested by the service did not lend itself to the small scope of a SIP. The predicament that I therefore had to overcome was learning to balance the service's needs with reducing the project scope to ensure its suitability as a SIP. Despite attempts, my tendency to set high expectations, and my genuine interest in exploring potential avenues to improve the experience of adolescents, for whom other treatment options had been exhausted, I ultimately conducted a larger SIP than intended. With space from the research process, it's clear that amidst earlier years of the doctorate, I indulged in my interests to create exciting research (to me at least) and had not learnt the importance of maintaining my own wellbeing and the need to realistically meet course standards. Although I failed to learn to set realistic expectations through this project, the indulgence in a breadth of qualitative data, helped me to learn to embody and represent our service-user's perspectives, and how therapeutic having one's voice heard can be for adolescents who so often have been told they *don't fit* service pathways. I hope that by adapting the group with, and for adolescents, I have represented the voice that often the issue lies within the service processes, not its users.

TDRP

Lastly, but most importantly, I again became immersed in the idiosyncrasies of early psychosis and was reminded of the importance of sometimes just being *human* as a therapist. Through this work I realised the power of simply sitting with a caring person. This research undoubtedly brought about the most challenges of all three projects. It was a steep learning curve and hard balancing act to maintain aggressive recruitment of thirty-four adolescents from a 'hard to reach' group, offer the intervention flexibly, sometimes driving two hours to the edge of the

Thames Valley to meet the participants, whilst managing the admin of recruitment through NHS CAMHS, and maintain enough energy to deliver the intervention with the most care and compassion possible. The processes involved in overcoming and submitting this piece of work taught me an invaluable skill to manage multiple heavy and spinning plates and to sit with uncertainty, with encouragement from lovely Louise and Jo, when the plates were spinning out of control. My limits of sitting with uncertainty were tested by the seven-month process of receiving ethical approval from Oxford Health, which was out of my control and significantly delayed recruitment. I am proud of my ability to conduct myself in a professional and compassionate manner amongst this challenge. I am most grateful however, for the adolescents and families I have met, their ability to put aside their difficulties with mistrust and trust in me enough to engage with new research to better our knowledge about how to help others. With this I recognised that sitting with those in need can often help us researchers to keep going as much as it does our participants to get better treatment.

Through the personal development that is inherent to completion of this doctoral course, I have come to understand the inability to remove the person from the psychologist. In fact, I have come to value using the self to make sense of complex, emotional, and often turbulent, professional, and clinical contexts. Grounding oneself through simply being *just human* has enabled me to deal with the most difficult clinical and research hurdles amidst the course. In this way, given my personal, long-standing interest in early intervention for severe and enduring mental health difficulties, it is not surprising that I returned to my human curiosity about this topic as a developing professional on the course, both through choosing a specialist placement in EIP services, and through all three of my research projects. I was always drawn to help young people at-risk of enduring mental health problems to engage with support. I am grateful to have been able to explore these topics through my research.

Acknowledgements

Firstly, I would like to thank everyone who, without their help, this research would not have been possible. I want to thank each of my research supervisors, Louise, Jo, Fin, Becky, and Felicity. Thank you especially Louise, for dedicating much of your personal time to helping me get across the finish line. I would like to thank each of the assistant psychologists, trainees, NHS, and course staff members who assisted recruitment, especially Dr Alice Farrington, Natalie Maine and Jasmine Stringer. Most importantly, I am so grateful to the amazing adolescents and caregivers who put their trust in me and participated in my PPI or research.

Thank to you to my placement supervisors, who supported me through my three years of research. Thank you especially to Sarah, who showed me so much understanding and helped me to take the pressure off myself. And to my course tutor Matt, thank you for really looking after me, from the first month of training, all the way through to the thesis deadline. You helped me to recognise my strengths, supported me with where I struggled, and kept my head above water.

My fellow psych heads, thank you all for wading with me through this. Ruby, Ruxi, El and Evie, thank you for helping me to find my feet in Oxford. Jord and Els, for reminding me good enough is enough and it will get done because it has to. And thanks to Dan, for holding my hand through the whole process, from my application drafting, to the move to Oxford, to raving the stress away.

To my best friends, Ais, Amy, Amanda, Nic and Zo. Thank you for being the strong, ambitious, funny women you are, for supporting my dream of being a psychologist since the Kingswood park days, and for inspiring me to keep going through being queens in your own right.

And of course, thank you to my partner Sush. For having in faith in me when I didn't have a scrap left in myself, for being my very own real life compassionate companion, and for being the best thing about the last 3 years.

Thank you to sissy, my literal backbone through the toughest moments of the last three years. I am forever indebted to you for all of the delicious meals, but most of all, for making me cry with laughter in the depths of submission week (and for helping me to figure out Cohen's Kappa!!).

Lastly, thank you to my family. Thank you to Drew, for reminding me that I'm a grafter and that I'm well able for it all. Thank you most of all to my Mam and Dad who have given me everything I needed to get here and for supporting me in every way you could since the beginning.

Appendices

Appendix A: Author Guidelines for the Journal of Child and Adolescent Mental Health

Appendix B: SRL Search Terms

Appendix C: SIP Intervention Inclusion Criteria

Appendix D: SIP Semi-Structured Interview Schedule

Appendix E: Group Session Rating Scale

Appendix F: Framework for Thematic Analysis

Appendix G: GSRS Group Alliance Scores Pre- and Post-Recommendations (Table 8)

Appendix H: Semi-Structured Interview Schedule for SIP Phase 2

Appendix I: SIP Implementation of Recommendations Log

Appendix J: *Mentimeter* Example

Appendix K: TDRP Intervention Scripts

Appendix L: TDRP Demographic and Baseline Outcome Measures

Appendix M: TDRP Intervention Outcome Measures

Appendix O: Linear Regression Analyses

Appendix P: Ethical Approval TDRP

Appendix Q: Journal Guidelines for SIP

Appendix R: Additional Sections of TDRP for Journal

Appendix A - Author Guidelines for the Journal of Child and Adolescent Mental Health

Author Guidelines

Why submit to *Child and Adolescent Mental Health*?

- An international journal with a growing reputation for publishing work of clinical relevance to multidisciplinary practitioners in child and adolescent mental health
- Ranked in ISI: 67/129 (Pediatrics); 121/156 (Psychiatry); 100/143 (Psychiatry (Social Science)); 89/131 (Psychology, Clinical).
- 7,319 institutions with access to current content, and a further 6,696 institutions in the developing world
- High international readership - accessed by institutions globally, including North America (34%), Europe (34%) and Asia-Pacific (11%)
- Excellent service provided by editorial and production offices
- Opportunities to communicate your research directly to practitioners
- Every manuscript is assigned to one of the Joint Editors as decision-making editor; rejection rate is around 82%
- Acceptance to Early View publication averages 5 weeks
- Simple and efficient online submission – visit http://mc.manuscriptcentral.com/camh_journal
- Early View – articles appear online before the paper version is published. Click here to see the articles currently available
- Authors receive access to their article once published as well as a 25% discount on virtually all Wiley books
- All articles published in CAMH are eligible for Panel A: Psychology, Psychiatry and Neuroscience in the Research Excellence Framework (REF)

1. Contributions from any discipline that further clinical knowledge of the mental life and behaviour of children are welcomed. Papers need to clearly draw out the clinical implications for mental health practitioners. Papers are published in English. As an international journal, submissions are welcomed from any country. Contributions should be of a standard that merits presentation before an international readership. Papers may assume any of the following forms: Original Articles; Review Articles; Innovations in Practice; Narrative Matters; Debate Articles.

CAMH considers the fact that services are looking at treating young adults up until the age of 25, with the evidence that brains continue to develop until the age of 25, as well as the fact that a lot of issues that affect young adults and students are also relevant and topical to older adolescents. CAMH offers a discretionary approach and will take into consideration papers that extend into young adulthood, if they are pertinent developmentally to the younger population and contribute further to a developmental perspective across adolescence and early adult years.

Authors are asked to remember that CAMH is an international journal and therefore clarification should be provided for any references that are made in submitted papers to the practice within the authors' own country. This is to ensure that the meaning is clearly

understandable for our diverse readership. Authors should make their papers as broadly applicable as possible for a global audience.

Original Articles: Original Articles make an original contribution to empirical knowledge, to the theoretical understanding of the subject, or to the development of clinical research and practice.

Review Articles: These papers offer a critical perspective on a key body of current research relevant to child and adolescent mental health. The journal requires the pre-registration of review protocols on any publicly accessible platform (e.g. The International Prospective Register of Systematic Reviews, or PROSPERO).

Short Research Articles: Short Research Articles should consist of original research of any design that presents succinct findings with topical, clinical or policy relevance. For example, preliminary novel findings from pilot studies, important extensions of a previous study, and topical surveys.

Letters to the Editor: These are short articles that offer readers the opportunity to respond to articles published in CAMH. Letters must only discuss issues directly relevant to the content of the original article such as to add context, correction, offer a different interpretation, or extend the findings.

Innovations in Practice: These papers report on any new and innovative development that could have a major impact on evidence-based practice, intervention and service models.

Narrative Matters: These papers describe important topics and issues relevant to those working in child and adolescent mental health but considered from within the context and framework of the Humanities and Social Sciences.

Debate Articles: These papers express opposing points of view or opinions, highlighting current evidence-based issues, or discuss differences in clinical practice.

Technology Matters: These papers provide updates on emerging mental health technologies and how they are being used with and by children and young people.

2. Submission of a paper to *Child and Adolescent Mental Health* will be held to imply that it represents an original submission, not previously published; that it is not being considered for publication elsewhere; and that if accepted for publication it will not be published elsewhere without the consent of the Editors.

3. Manuscripts should be submitted online. For detailed instructions please go to: http://mc.manuscriptcentral.com/camh_journal and *check for existing account* if you have submitted to or reviewed for the journal before, or have forgotten your details. If you are new to the journal *create a new account.* Help with submitting online can be obtained from the Editorial Office at ACAMH (email: publications@acamh.org)

4. Authors' professional and ethical responsibilities

Disclosure of interest form
All authors will be asked to download and sign a full Disclosure of Interests form and acknowledge this and sources of funding in the manuscript.

Ethics
Authors are reminded that the *Journal* adheres to the ethics of scientific publication as detailed in the *Ethical principles of psychologists and code of conduct* (American Psychological Association, 2010). These principles also imply that the piecemeal, or fragmented publication of small amounts of data from the same study is not acceptable. The Journal also generally conforms to the Uniform Requirements for Manuscripts of the International Committee of Medical Journal Editors (ICJME) and is also a member and subscribes to the principles of the Committee on Publication Ethics (COPE).

Informed consent and ethics approval
Authors must ensure that all research meets these ethical guidelines and affirm that the research has received permission from a stated Research Ethics Committee (REC) or Institutional Review Board (IRB), including adherence to the legal requirements of the study county. Within the Methods section, authors should indicate that 'informed consent' has been appropriately obtained and state the name of the REC, IRB or other body that provided ethical approval. When submitting a manuscript, the manuscript page number where these statements appear should be given.

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CAMH will consider for review articles previously available as preprints. Authors may also post the submitted version of a manuscript to a preprint server at any time. Authors are requested to update any pre-publication versions with a link to the final published article. Please find the Wiley preprint policy here.

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Recommended guidelines and standards
The Journal requires authors to conform to CONSORT 2010 (see CONSORT Statement) in relation to the reporting of randomised controlled clinical trials; also recommended is the Extensions of the CONSORT Statement with regard to cluster randomised controlled trials). In particular, authors must include in their paper a flow chart illustrating the progress of subjects through the trial (CONSORT diagram) and the CONSORT checklist. The flow diagram should appear in the main paper, the checklist in the online Appendix. Trial registry name, registration identification number, and the URL for the registry should also be included at the end of the methods section of the Abstract and again in the Methods section of the main text, and in the online manuscript submission. Trials must be registered in one of the ICJME-recognised trial registries:

Australian New Zealand Clinical Trials Registry
Clinical Trials

Netherlands Trial Register
ISRCTN Registry
UMIN Clinical Trials Registry

Manuscripts reporting systematic reviews or meta-analyses will only be considered if they conform to the PRISMA Statement. We ask authors to include within their review article a flow diagram that illustrates the selection and elimination process for the articles included in their review or meta-analysis, as well as a completed PRISMA Checklist. The journal requires the pre-registration of review protocols on any publicly accessible platform (e.g. The International Prospective Register of Systematic Reviews, or PROSPERO).

The Equator Network is recommended as a resource on the above and other reporting guidelines for which the editors will expect studies of all methodologies to follow. Of particular note are the guidelines on qualitative work http://www.equator-network.org/reporting-guidelines/evolving-guidelines-for-publication-of-qualitative-research-studies-in-psychology-and-related-fields and on quasi-experimental http://www.equator-network.org/reporting-guidelines/the-quality-of-mixed-methods-studies-in-health-services-research and mixed method designs http://www.equator-network-or/reporting-guidelines/guidelines-for-conducting-and-reporting-mixed-research-in-the-field-of-counseling-and-beyond

CrossCheck
An initiative started by *CrossRef* to help its members actively engage in efforts to prevent scholarly and professional plagiarism. The journal to which you are submitting your manuscript employs a plagiarism detection system. By submitting your manuscripts to this journal you accept that your manuscript may be screened for plagiarism against previously published works.

5. Manuscripts should be double spaced and conform to the house style of *CAMH*. The title page of the manuscript should include the title, name(s) and address(es) of author(s), an abbreviated title (running head) of up to 80 characters, a correspondence address for the paper, and any ethical information relevant to the study (name of the authority, data and reference number for approval) or a statement explaining why their study did not require ethical approval.

Summary: Authors should include a structured Abstract not exceeding 250 words under the sub-headings: Background; Method; Results; Conclusions.

Key Practitioner Message: Below the Abstract, please provide 1-2 bullet points answering each of the following questions:

- **What is known?** - What is the relevant background knowledge base to your study? This may also include areas of uncertainty or ignorance.
- **What is new?** - What does your study tell us that we didn't already know or is novel regarding its design?
- **What is significant for clinical practice?** - Based on your findings, what should practitioners do differently or, if your study is of a preliminary nature, why should more research be devoted to this particular study?

Keywords: Please provide 4-6 keywords use MeSH Browser for suggestions

6. Papers submitted should be concise and written in English in a readily understandable style, avoiding sexist and racist language. Articles should adhere to journal guidelines and include a word count of their paper; occasionally, longer article may be accepted after negotiation with the Editors.

7. Authors who do not have English as a first language may choose to have their manuscript professionally edited prior to submission; a list of independent suppliers of editing services can be found at http://authorservices.wiley.com/bauthor/english_language.asp. All services are paid for and arranged by the author, and use of one of these services does not guarantee acceptance or preference for publication.

8. Headings: Original articles should be set out in the conventional format: Methods, Results, Discussion and Conclusion. Descriptions of techniques and methods should only be given in detail when they are unfamiliar. There should be no more than three (clearly marked) levels of subheadings used in the text.

9. All manuscripts should have an Acknowledgement section at the end of the main text, before the References. This should include statements on the following:

Study funding: Please provide information on any external or grant funding of the work (or for any of the authors); where there is no external funding, please state this explicitly.

Contributorships: Please state any elements of authorship for which particular authors are responsible, where contributorships differ between author group. (All authors must share responsibility for the final version of the work submitted and published; if the study include original data, at least one author must confirm that they had full access to all the data in the study and take responsibility for the integrity of the data in the study and the accuracy of the data analysis). Contributions from others outside the author group should also be acknowledged (e.g. study assistance or statistical advice) and collaborators and study participants may also be thanked).

Conflicts of interest: The journal requires that all authors disclose any potential sources of conflict of interest. Any interest or relationship, financial or otherwise that might be perceived as influencing an author's objectivity is considered a potential source of conflict of interest. These must be disclosed when directly relevant or directly related to the work that the authors describe in their manuscript. Potential sources of conflict of interest include, but are not limited to: patent or stock ownership, membership of a company board of directors, membership of an advisory board or committee for a company, and consultancy for or receipt of speaker's fees from a company, in the past 5 years. The existence of a conflict of interest does not preclude publication. If the authors have no conflict of interest to declare, they must also state this at submission. It is the responsibility of the corresponding author to review this policy with all authors and collectively to disclose with the submission ALL pertinent commercial and other relationships.

10. For referencing, *CAMH* follows a slightly adapted version of APA Style http:www.apastyle.org/. References in running text should be quoted showing author(s) and date. For up to three authors, all surnames should be given on first citation; for subsequent citations or where there are more than three authors, 'et al.' should be used. A full reference list should be given at the end of the article, in alphabetical order.

References to journal articles should include the authors' surnames and initials, the year of publication, the full title of the paper, the full name of the journal, the volume number, and inclusive page numbers. Titles of journals must not be abbreviated. References to chapters in books should include authors' surnames and initials, year of publication, full chapter title, editors' initials and surnames, full book title, page numbers, place of publication and publisher.

11. Tables: These should be kept to a minimum and not duplicate what is in the text; they should be clearly set out and numbered and should appear at the end of the main text, with their intended position clearly indicated in the manuscript.

12. Figures: Any figures, charts or diagrams should be originated in a drawing package and saved within the Word file or as an EPS or TIFF file.
See http://authorservices.wiley.com/bauthor/illustration.asp for further guidelines on preparing and submitting artwork. Titles or captions should be clear and easy to read. These should appear at the end of the main text.

13. Footnotes should be avoided, but end notes may be used on a limited basis.

Data Sharing and Supporting Information

CAMH encourages authors to share the data and other artefacts supporting the results in the paper by archiving them by uploading it upon submission or in an appropriate public repository. Examples of possible supporting material include intervention manuals, statistical analysis syntax, and experimental materials and qualitative transcripts.

1. If uploading with your manuscript please call the file 'supporting information' and reference it in the manuscript.
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Original Articles

Original Articles make an original contribution to empirical knowledge, to the theoretical understanding of the subject, or to the development of clinical research and practice. Adult data is not usually accepted for publication unless it bears directly on developmental issues in childhood and adolescence.

Your Original Article should be no more than 5,000 words including tables, figures and references.

Review Articles

Research Articles offer our readers a critical perspective on a key body of current research relevant to child and adolescent mental health and maintain high standards of scientific practice by conforming to systematic guidelines as set out in the **PRISMA statement**. These articles should aim to inform readers of any important or controversial issues/findings, as well as the relevant conceptual and theoretical models, and provide them with sufficient information to evaluate the principal arguments involved. All review articles should also make clear the relevancy of the research covered, and any findings, for clinical practice.

Your Review Article should be no more than 6,000 words excluding tables, figures and references and no more than 8,000 including tables, figures and references.

Short Research Articles

Short Research Articles should consist of original research of any design that presents succinct findings with topical, clinical or policy relevance. For example, preliminary novel findings from pilot studies, important extensions of a previous study, and topical surveys. Short Research Articles will be peer reviewed and authors might be asked to revise and edit their article to acceptable standards for publication. Short Research Articles should follow standard guidelines, such as STROBE for observational studies, CONSORT extension for pilot trials etc.

Your Short Research Article should be 1500 words, excluding references, tables and graphs/figures. Your article should be structured, including the subheadings Introduction/Methods/Results/Discussion. There is a maximum of 1 table and 1 graph/figure. Please do not include more than 12 references.

Narrative Matters: The Medical Humanities in CAMH

These articles are both submissions and directly commissioned papers. They will be peer-reviewed. The articles should be on a humanities topic relevant to those working in child and adolescent mental health. The topics can include but are not restricted to: aspects of child mental health service history; representations of abnormal mental states or mental illness in

children and teenagers in film, literature or drama; depictions of child mental health clinicians within popular culture; ethical dilemmas in the speciality. Interest and originality are valued. If in doubt, please contact the section editor: Gordonbates@virginmedia.com

The essays should be between 1500 and 2000 words and written for an audience of child mental health professionals. For publishing reasons, there is an upper limit of 8 references for the article. Additional references may be given in the text if necessary.

Letters to the Editor

Letters to the Editor are short articles that offer readers the opportunity to respond to articles published in CAMH. Letters must only discuss issues directly relevant to the content of the original article such as to add context, correction, offer a different interpretation, or extend the findings. Letters will be evaluated for relevance to the index paper, scientific merit, and importance.

Letters should be submitted not later than 2 weeks after publication of the print issue of the Journal containing the paper of interest. Please note - all papers are published on Early View as soon as they are accepted. The letters should avoid personal attacks and unscholarly communication.

Letters will not be peer reviewed. However, the section Editor will review the letters and might consult another Editor before acceptance or rejection.

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Innovations in Practice promote knowledge of new and interesting developments that have an impact on evidence-based practice, intervention and service models. These might have arisen through the application of careful, systematic planning, a response to a particular need, through the continuing evolution of an existing practice or service, or because of changes in circumstances and/or technologies. Submissions should set out the aims and details of the innovation including any relevant mental health, service, social and cultural contextual factors, and give a close, critical analysis of the innovation and its potential significance for the practice of child and adolescent mental health.

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Technology Matters provides updates on emerging mental health technologies and how they are being used with and by children and young people. We aim to cover established technologies such as computer-assisted psychological interventions as well as more novel technologies (e.g. mobile apps, therapeutic games, virtual reality). We will present the evidence base for their use, showcase how they can complement other interventions and are being used in practice and address wider cross-cutting issues (such as technology accreditation, regulation, cost etc.) relevant to practitioners and service funders.

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Preparing a Manuscript for Submission to a Medical Journal

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1. General Principles

The text of articles reporting original research is usually divided into Introduction, Methods, Results, and Discussion sections. This so-called “IMRAD” structure is not an arbitrary publication format but a reflection of the process of scientific discovery. Articles often need subheadings within these sections to further organize their content. Other types of articles, such as meta-analyses, may require different formats, while case reports, narrative reviews, and editorials may have less structured or unstructured formats.

Electronic formats have created opportunities for adding details or sections, layering information, cross-linking, or extracting portions of articles in electronic versions. Supplementary electronic-only material should be submitted and sent for peer review simultaneously with the primary manuscript.

2. Reporting Guidelines

Reporting guidelines have been developed for different study designs; examples include CONSORT for randomized trials, STROBE for observational studies, PRISMA for systematic reviews and meta-analyses, and STARD for studies of diagnostic accuracy. Journals are encouraged to ask authors to follow these guidelines because they help authors describe the study in enough detail for it to be evaluated by editors, reviewers, readers, and other researchers evaluating the medical literature. Authors are encouraged to refer to the SAGER guidelines for reporting of sex and gender information in study design, data analyses, results, and interpretation of findings. Authors of review manuscripts are encouraged to describe the methods used for locating, selecting, extracting, and synthesizing data; this is mandatory for systematic reviews. Good sources for reporting guidelines are the EQUATOR Network and the NLM's Research Reporting Guidelines and Initiatives.

3. Manuscript Sections

The following are general requirements for reporting within sections of all study designs and manuscript formats.

a. Title Page

General information about an article and its authors is presented on a manuscript title page and usually includes the article title, author information, any disclaimers, sources of support, word count, and sometimes the number of tables and figures.

Article title. The title provides a distilled description of the complete article and should include information that, along with the abstract, will make electronic retrieval of the article sensitive and specific. Reporting

guidelines recommend and some journals require that information about the study design be a part of the title (particularly important for randomized trials and systematic reviews and meta-analyses). Some journals require a short title, usually no more than 40 characters (including letters and spaces) on the title page or as a separate entry in an electronic submission system. Electronic submission systems may restrict the number of characters in the title.

Author information. Each author's highest academic degrees should be listed, although some journals do not publish these. The name of the department(s) and institution(s) or organizations where the work should be attributed should be specified. Most electronic submission systems require that authors provide full contact information, including land mail and e-mail addresses, but the title page should list the corresponding author's telephone number and e-mail address. ICMJE encourages the listing of authors' Open Researcher and Contributor Identification (ORCID).

Disclaimers. An example of a disclaimer is an author's statement that the views expressed in the submitted article are his or her own and not an official position of the institution or funder.

Source(s) of support. These include grants, equipment, drugs, and/or other support that facilitated conduct of the work described in the article or the writing of the article itself. Inappropriate attribution of funding sources and affiliations are misleading and should be avoided.

Word count. A word count for the paper's text, excluding its abstract, acknowledgments, tables, figure legends, and references, allows editors and reviewers to assess whether the information contained in the paper warrants the paper's length, and whether the submitted manuscript fits within the journal's formats and word limits. A separate word count for the abstract is useful for the same reason.

Number of figures and tables. Some submission systems require specification of the number of figures and tables before uploading the relevant files. These numbers allow editorial staff and reviewers to confirm that all figures and tables were actually included with the manuscript and, because tables and figures occupy space, to assess if the information provided by the figures and tables warrants the paper's length and if the manuscript fits within the journal's space limits.

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b. Abstract

Original research, systematic reviews, and meta-analyses require structured abstracts. The abstract should provide the context or background for the study and should state the study's purpose, basic procedures (selection of study participants, settings, measurements, analytical methods), main findings (giving specific effect sizes and their statistical and clinical significance, if possible), and principal conclusions. It should emphasize new and important aspects of the study or observations, note important limitations, and not overinterpret findings. Clinical trial abstracts should include items that the CONSORT group has identified as essential. Funding sources should be listed separately after the abstract to facilitate proper display and indexing for search retrieval by MEDLINE. The funding statement should include only direct support of the work described. General institutional support for an author's time on the work should be distinguished from direct overall funding of the work. An appropriate funding statement might be: "This study was funded by ABC; Dr. F's time on the work was supported by XYZ."

Because abstracts are the only substantive portion of the article indexed in many electronic databases, and the only portion many readers read, authors need to ensure that they accurately reflect the content of the article. Unfortunately, information in abstracts often differs from that in the text. Authors and editors

should work in the process of revision and review to ensure that information is consistent in both places. The format required for structured abstracts differs from journal to journal, and some journals use more than one format; authors need to prepare their abstracts in the format specified by the journal they have chosen.

The ICMJE recommends that journals publish the clinical trial registration number at the end of the abstract. The ICMJE also recommends that, when a registration number is available, authors list that number the first time they use a trial acronym to refer to the trial they are reporting or to other trials that they mention in the manuscript. If the data have been deposited in a public repository and/or are being used in a secondary analysis, authors should state at the end of the abstract the unique, persistent data set identifier, repository name and number.

c. Introduction

Provide a context or background for the study (that is, the nature of the problem and its significance). State the specific purpose or research objective of, or hypothesis tested by, the study or observation. Cite only directly pertinent references, and do not include data or conclusions from the work being reported.

d. Methods

The guiding principle of the Methods section should be clarity about how and why a study was done in a particular way. The Methods section should aim to be sufficiently detailed such that others with access to the data would be able to reproduce the results. In general, the section should include only information that was available at the time the plan or protocol for the study was being written; all information obtained during the study belongs in the Results section. If an organization was paid or otherwise contracted to help conduct the research (examples include data collection and management), then this should be detailed in the methods.

The Methods section should include a statement indicating that the research was approved by an independent local, regional or national review body (e.g., ethics committee, institutional review board). If doubt exists whether the research was conducted in accordance with the Helsinki Declaration, the authors must explain the rationale for their approach and demonstrate that the local, regional or national review body explicitly approved the doubtful aspects of the study. (See section II.E.)

Authors who used AI technology to conduct the study should describe its use in the methods section in sufficient detail to enable replication of the approach. including the tool used, version, and prompts where applicable.

i. Selection and Description of Participants

Clearly describe the selection of observational or experimental participants (healthy individuals or patients, including controls), including eligibility and exclusion criteria and a description of the source population. Because the relevance of such variables as age, sex, or ethnicity is not always known at the time of study design, researchers should aim for inclusion of representative populations into all study types and at a minimum provide descriptive data for these and other relevant demographic variables. Comment on how representative the study sample is of the larger population of interest.

Ensure correct use of the terms sex (when reporting biological factors) and gender (identity, psychosocial or cultural factors), and, unless inappropriate, report the sex and/or gender of study participants, the sex of animals or cells, and describe the methods used to determine sex and gender. If the study was done involving an exclusive population, for example in only one sex, authors should justify why. Authors should define how they determined race or ethnicity and justify their relevance. In the case where race or ethnicity was not collected, explain why it was not collected. Race and ethnicity are social and not biological constructs; authors should interpret results associated with race and ethnicity in that context. Authors should use neutral, precise, and respectful language to describe study participants and avoid the use of terminology that might stigmatize participants.

ii. Data Collection and Measurements

Specify the study's main and secondary objectives–usually identified as primary and secondary outcomes. Identify methods, equipment (give the manufacturer's name and address in parentheses), and procedures in sufficient detail to allow others to reproduce the results. Give references to established methods, including statistical methods (see below); provide references and brief descriptions for methods that have been published but are not well-known; describe new or substantially modified methods, give the reasons for using them, and evaluate their limitations. Identify precisely all drugs and chemicals used, including generic name(s), dose(s), and route(s) of administration. Identify appropriate scientific names and gene names.

iii. Statistics

Describe statistical methods with enough detail to enable a knowledgeable reader with access to the original data to judge its appropriateness for the study and to verify the reported results. When possible, quantify findings and present them with appropriate indicators of measurement error or uncertainty (such as confidence intervals). Avoid relying solely on statistical hypothesis testing, such as *P* values, which fail to convey important information about effect size and precision of estimates. References for the design of the study and statistical methods should be to standard works when possible (with pages stated). Define statistical terms, abbreviations, and most symbols. Specify the statistical software package(s) and versions used. Distinguish prespecified from exploratory analyses, including subgroup analyses.

e. Results

Present your results in logical sequence in the text, tables, and figures, giving the main or most important findings first. Do not repeat all the data in the tables or figures in the text; emphasize or summarize only the most important observations. Provide data on all primary and secondary outcomes identified in the Methods Section. Extra or supplementary materials and technical details can be placed in an appendix where they will be accessible but will not interrupt the flow of the text, or they can be published solely in the electronic version of the journal.

Give numeric results not only as derivatives (for example, percentages) but also as the absolute numbers from which the derivatives were calculated. Restrict tables and figures to those needed to explain the argument of the paper and to assess supporting data. Use graphs as an alternative to tables with many entries; do not duplicate data in graphs and tables. Avoid nontechnical uses of technical terms in statistics, such as “random” (which implies a randomizing device), “normal,” “significant,” “correlations,” and “sample.”

Separate reporting of data by demographic variables, such as age and sex, facilitate pooling of data for subgroups across studies and should be routine, unless there are compelling reasons not to stratify reporting, which should be explained.

f. Discussion

It is useful to begin the discussion by briefly summarizing the main findings, and explore possible mechanisms or explanations for these findings. Emphasize the new and important aspects of your study and put your findings in the context of the totality of the relevant evidence. State the limitations of your study, and explore the implications of your findings for future research and for clinical practice or policy. Discuss the influence or association of variables, such as sex and/or gender, on your findings, where appropriate, and the limitations of the data. Do not repeat in detail data or other information given in other parts of the manuscript, such as in the Introduction or the Results section.

Link the conclusions with the goals of the study but avoid unqualified statements and conclusions not adequately supported by the data. In particular, distinguish between clinical and statistical significance, and avoid making statements on economic benefits and costs unless the manuscript includes the appropriate economic data and analyses. Avoid claiming priority or alluding to work that has not been completed. State new hypotheses when warranted, but label them clearly.

g. References

i. General Considerations

Authors should provide direct references to original research sources whenever possible. References should be made to published articles rather than to abstracts whenever possible. References should not be used by authors, editors, or peer reviewers to promote self-interests. Authors should avoid citing articles in predatory or pseudo-journals. When preprints are cited, the citation should clearly indicate that the reference is a preprint (also see Section III.D.3). Although references to review articles can be an efficient way to guide readers to a body of literature, review articles do not always reflect original work accurately. On the other hand, extensive lists of references to original work on a topic can use excessive space. Fewer references to key original papers often serve as well as more exhaustive lists, particularly since references can now be added to the electronic version of published papers, and since electronic literature searching allows readers to retrieve published literature efficiently.

References to papers accepted but not yet published should be designated as “in press” or “forthcoming.” Information from manuscripts submitted but not accepted should be cited in the text as “unpublished observations” with written permission from the source.

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References should be numbered consecutively in the order in which they are first mentioned in the text. Identify references in text, tables, and legends by Arabic numerals in parentheses.

References cited only in tables or figure legends should be numbered in accordance with the sequence established by the first identification in the text of the particular table or figure. The titles of journals should be abbreviated according to the style used for MEDLINE (www.ncbi.nlm.nih.gov/nlmcatalog/journals). Journals vary on whether they ask authors to cite electronic references within parentheses in the text or in numbered references following the text. Authors should consult with the journal to which they plan to submit their work.

ii. Style and Format

References should follow the standards summarized in the NLM’s Sample References webpage and detailed in the NLM’s *Citing Medicine, 2nd edition*. These resources are regularly updated as new media develop, and currently include guidance for print documents; unpublished material; audio and visual media; material on CD-ROM, DVD, or disk; and material on the Internet.

h. Tables

Tables capture information concisely and display it efficiently; they also provide information at any desired level of detail and precision. Including data in tables rather than text frequently makes it possible to reduce the length of the text.

Prepare tables according to the specific journal's requirements; to avoid errors it is best if tables can be directly imported into the journal's publication software. Number tables consecutively in the order of their first citation in the text and supply a title for each. Titles in tables should be short but self-explanatory, containing information that allows readers to understand the table's content without having to go back to the text. Be sure that each table is cited in the text.

Give each column a short or an abbreviated heading. Authors should place explanatory matter in footnotes, not in the heading. Explain all nonstandard abbreviations in footnotes, and use symbols to explain information if needed. Symbols may vary from journal to journal (alphabet letter or such symbols as *, †, ‡, §), so check each journal's instructions for authors for required practice. Identify statistical measures of variations, such as standard deviation and standard error of the mean.

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i. Illustrations (Figures)

Digital images of manuscript illustrations should be submitted in a suitable format for print publication. Most submission systems have detailed instructions on the quality of images and check them after manuscript upload. For print submissions, figures should be either professionally drawn and photographed, or submitted as photographic-quality digital prints.

For radiological and other clinical and diagnostic images, as well as pictures of pathology specimens or photomicrographs, send high-resolution photographic image files. Before-and-after images should be taken with the same intensity, direction, and color of light. Since blots are used as primary evidence in many scientific articles, editors may require deposition of the original photographs of blots on the journal's website.

Although some journals redraw figures, many do not. Letters, numbers, and symbols on figures should therefore be clear and consistent throughout, and large enough to remain legible when the figure is reduced for publication. Figures should be made as self-explanatory as possible, since many will be used directly in slide presentations. Titles and detailed explanations belong in the legends—not on the illustrations themselves.

Photomicrographs should have internal scale markers. Symbols, arrows, or letters used in photomicrographs should contrast with the background. Explain the internal scale and identify the method of staining in photomicrographs.

Figures should be numbered consecutively according to the order in which they have been cited in the text. If a figure has been published previously, acknowledge the original source and submit written permission from the copyright holder to reproduce it. Permission is required irrespective of authorship or publisher except for documents in the public domain.

In the manuscript, legends for illustrations should be on a separate page, with Arabic numerals corresponding to the illustrations. When symbols, arrows, numbers, or letters are used to identify parts of the illustrations, identify and explain each one clearly in the legend.

j. Units of Measurement

Measurements of length, height, weight, and volume should be reported in metric units (meter, kilogram, or liter) or their decimal multiples.

Temperatures should be in degrees Celsius. Blood pressures should be in millimeters of mercury, unless other units are specifically required by the journal.

Journals vary in the units they use for reporting hematologic, clinical chemistry, and other measurements. Authors must consult the Information for Authors of the particular journal and should report laboratory information in both local and International System of Units (SI).

Editors may request that authors add alternative or non-SI units, since SI units are not universally used. Drug concentrations may be reported in either SI or mass units, but the alternative should be provided in parentheses where appropriate.

k. Abbreviations and Symbols

Use only standard abbreviations; use of nonstandard abbreviations can be confusing to readers. Avoid abbreviations in the title of the manuscript. The spelled-out abbreviation followed by the abbreviation in parentheses should be used on first mention unless the abbreviation is a standard unit of measurement.

Appendix B - SRL Search Terms

Example from PSYCHINFO

PsycINFO 1806 to present

1	**exp Self Concept/**	**89142**
2	**exp Self-Compassion/**	**2405**
3	**Self-esteem.mp.**	**59458**
4	**Self esteem.mp.**	**59458**
5	**Self-confidence.mp.**	**10543**
6	**Self-kindness.mp.**	**296**
7	**Self-warmth.mp.**	**19**
8	**Self-soothing.mp.**	**341**
9	**Self-criticism.mp.**	**2230**
10	**Self-perception.mp.**	**28492**
11	**Self-stigma.mp.**	**1791**
12	**self-worth.mp.**	**5213**
13	**self-efficacy.mp.**	**63151**
14	**self-belief.mp.**	**313**
15	**self-belief*.mp.**	**1092**
16	**Self schema*.mp.**	**1220**
17	**Self- schema*.mp.**	**1220**
18	**Self-compassion scale*.mp.**	**2165**
19	**Self-compassion score*.mp.**	**65**
20	**Self-esteem scale*.mp.**	**16648**
21	**Self-esteem score*.mp.**	**700**
22	**Self-concept scale.mp.**	**3397**
23	**self-regard.mp.**	**713**
24	**self-judgement.mp.**	**61**

25 self-image.mp. 6653

26 RANDOMIZED CONTROLLED TRIAL/ 1051

27 PRAGMATIC CLINICAL TRIAL/ 0

28 26 or 27 1051

29 Randomized Controlled Trial.ab,ti. 24705

30 (randomi#ed or randomi#ation).ab,ti. 111921

31 (RCT or (random* adj3 (administ* or allocat* or assign* or class* or cluster* or control* or determine* or divide* or distribut* or expose* or fashion or number* or place* or recruit* or subsitut* or treat*))).ab. 121081

32 at random.ab. 3106

33 placebo.ab. 43804

34 trial.ti. 39576

35 28 or 29 or 30 or 32 or 33 or 34 149817

36 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 213169

37 child*.ab,ti. 788875

38 preadolesc*.ab,ti. 4172

39 adolescen*.ab,ti. 276553

40 young.ab,ti. 238832

41 youth*.ab,ti. 122534

42 young person.ab,ti. 1679

43 young people.ab,ti. 36086

44 (young adj survivor*).ab,ti. 121

45 (young adj offender*).ab,ti. 1462

46 (young adj minorit*).ab,ti. 79

47 40 or 41 or 42 or 43 or 44 or 45 or 46 337907

48 Teen*.ab,ti. 24834

49 Boy*.ab,ti. 84212

50 Girl*.ab,ti. 83186

51 Students/ or Student*.ab,ti. 597704

52 Minor*.ab,ti. 95757

53 (Kid* or juvenil*).ab,ti. 41324

54 paediatric*.ab,ti. 6118

55 pediatric*.ab,ti. 39011

56 pubescen*.ab,ti. 518

57 37 or 38 or 39 or 47 or 48 or 49 or 50 or 51 or 52 or 53 or 54 or 55 or 56 1690836

58 35 and 36 and 57 2534

59 limit 58 to (human and (180 school age <age 6 to 12 yrs> or 200 adolescence <age 13 to 17 yrs> or "300 adulthood <age 18 yrs and older>") and "0110 peer-reviewed journal" and journal article and yr="1992 -Current") 1962

60 exp HIV/ or hiv.mp. 65629

61 exp Physical Treatment Methods/ or exp Physical Activity/ or exp Physical Therapy/ or physical intervention.mp. or exp Exercise/ 346381

62 60 or 61 402746

63 59 not 62 1568

Appendix C - SIP Intervention Inclusion Criteria

The DNA-v Group Inclusion and Exclusion Criteria

(decided by the service and for marker information)

A child or young person that is under a current spell of treatment from xxxxx xxxx CAMHS team and meets the following criteria:

Inclusion:

- Participants aged 13-17 years old.
- Young people with chronic and/or mixed mental health presentations, who haven't responded to first line interventions or their formulation indicates that the core processes that DNA-v addresses are the maintenance factors for their difficulties.
- If DNA-v is offered as a second line psychological intervention for OCD or Trauma, additional individual interventions would be offered outside of the group environment. This is because there are specific elements of the experiential avoidance that could not be addressed in a generic group due to their individuality.

Exclusion:

- Where attending a group would increase any aspect of their risk to self or others and who may struggle in a group context.
- Young people who require an individual approach to understanding their difficulties (e.g. trauma work).

Appendix D - SIP Semi-Structured Interview Schedule

Post-Group Interview Schedule

MODIFIED CLIENT CHANGE INTERVIEW PROTOCOL

Instructions

Interview Strategy: This interview works best as a relatively unstructured empathic exploration of the client's experience of therapy. Think of yourself as primarily trying to help the client tell you the story of his or her therapy. It is best if you adopt an attitude of curiosity about the topics raised in the interview, using the suggested open-ended questions plus empathic understanding responses to help the client elaborate on his/her experiences. Thus, for each question, start out in a relatively unstructured manner and only impose structure as needed. For each question, a number of alternative wordings have been suggested, but keep in mind that these may not be needed.

Ask client to provide as many details as possible

Use the "anything else" probe (e.g., "Are there any other changes that you have noticed?"):

Inquire in a non-demanding way until the client runs out of things to say

The interview covers

- The client's assessment of change since therapy began
- Attributions about change
- Worsening and unfulfilled wants
- Helpful aspect of therapy - and unhelpful ones
- Their perception of measures

1. What changes, if any, have you noticed in yourself since therapy started?

- For example, are you *doing, feeling, or thinking* differently from the way you did before?
- What *specific ideas*, if any, have you got from therapy so far, including ideas about yourself or other people?
- Have any changes been brought to your attention by other people?

Note them here - then insert in the change list - then rate them.

2. **Worsening** Has anything changed for the worse for you since therapy started?

3. **Wants** Is there anything that you wanted to change that hasn't since therapy started?

4. **Attributions** In general, what do you think has caused these various changes you described? In other words, what do you think might have brought them about? (Including things both outside of therapy and in therapy)

RESOURCES

5. What personal strengths do you think have helped you make use of therapy to deal with your problems? (What you're good at, personal qualities)

6. What things in your current life situation have helped you make use of therapy to deal with your problems? (family, job, relationship, living arrangements)

LIMITATIONS

7. What things about you do you think have made it harder for you to use therapy to deal with your problems? (things about you as a person)

8. What things in your life situation have made it harder for you to use therapy to deal with your problems? (family, job, relationship, living arrangements)

9. **Helpful Aspects** Can you sum up what has been helpful about your therapy so far? Please give examples. (For example, general aspects or specific events)

PROBLEM ASPECTS

10. What kinds of things about the therapy have been hindering, unhelpful, negative or disappointing for you? (For example, general aspects. specific events)

11. Were there things in the therapy which were difficult or painful but still OK or perhaps helpful? What were they?

12. Has anything been missing from your treatment? (What would make/have made your therapy more effective or helpful?)

13. Suggestions Do you have any suggestions for us, regarding the research or the therapy? Do you have anything else that you want to tell me?

IMPACT OF PARENT/CARER PARTICIPATION

14. Were your parents/ carers able to support you at home to implement the ideas you learnt in the group?

15. Has anything changed about your relationship with each other, if so what?

THE MEASURES

16. **Avoidance and Fusion Questionnaire for Youth (AFQ-Y)** In general, do you think you relate to unwanted thoughts and feeling differently than you did before therapy?

Hint for interviewer:

- Change in experiential avoidance (i.e. efforts to avoid unwanted thoughts and feelings)
- Change in Cognitive fusion (i.e. being so caught up in our thoughts that we aren't aware we are thinking).

If they have, how has their meaning changed? (Sometimes clients change how they use the scales; did that happen for you?)

17. **Child and Adolescent Mindfulness Measure (CAMM)** In general, do you think your opinion has changed with regards to whether you can choose how you respond to situations/ events/ experiences?

18. **Valued Living Questionnaire (VLQ)** In general, do you think you have made changes towards acting more in accordance with your values?

19. Were any of these measures difficult for you to complete? Can you tell me why?

20. Any other comments you would like to make?

THANK YOU FOR YOUR TIME

CHANGE LIST

Change	Change was 1-expected 3-neither 5-surprised by	Without therapy: 1-unlikely 3-neither 5-likely	Importance: 1-not at all 2-slightly 3-moderately 4-very 5-extremely
1.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
2.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
3.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
4.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
5.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
6.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
7.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
8.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

Appendix E - Group Session Rating Scale

Group Session Rating Scale (Duncan & Miller 2007)

Name: _____ Age (Yrs): _____

ID#: _____ Sex: M/F

Session #: _____ Date: _____

Please rate today's group by placing a hash mark on the line nearest to the description that best fits your experience.

I did not feel heard, understood, respected, and/or accepted by the leader and/or the group.	**Relationship**	I felt heard, understood, respected, and accepted by the leader and the group.
	I----------I	
We did *not* work on or talk about what I wanted to work on and talk about.	**Goals and Topics**	We worked on and talked about what I wanted to work on and talk about.
	I----------I	
The leader and/or the group's approach is not a good fit for me.	**Approach or Method**	The leader and group's approach is a good fit for me.
	I----------I	
There was something missing in group today—I was not engaged.	**Overall**	Overall, today's group was right for me—I felt engaged.
	I----------I	

International Center for Clinical Excellence

Source: www.centerforclinicalexcellence.com

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Appendix F - Framework for Thematic Analysis

Thematic Analysis Steps (Braun & Clark, 2022; Terry et al., 2017)

Phase	Process
1. Familiarizing yourself with your data	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis.
5. Defining and naming themes	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6. Producing the report	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

Appendix G - Group Alliance Scores Pre- and Post-Recommendations

Table 8

Session-by-session Mean Total Group Alliance Scores from Pre- and Post-Recommendations

Pre recommendations													
Session no.	**n**	**S1**	**S2**	**S3**	**S4**	**S5**	**S6**	**S7**	**S8**	**S9**	**S10**	**S11**	**Total *M* [SD]**
DNA-v-G1	**9**	25.4	28.5	29.6	31.6	29.2	32.8	27.3	33.2	34.2	34.5	/	30.63
DNA-v-G 2	**10**	24.3	27.2	24.2	21.4	25.7	23.7	24.1	16.6	22	38.5	/	24.77
Mean	**19**	24.85	27.85	26.9	26.5	27.45	28.25	25.7	24.9	28.12	36.5	/	27.7
Post recommendations													
Session no.	**n**	**S1**	**S2**	**S3**	**S4**	**S5**	**S6**	**S7**	**S8**	**S9**	**S10**	**S11**	**Total *M* [SD]**
DNA-v-G3	**9**	29.7	23.42	29.51	32.01	31.3	31.26	33.52	33.63	31.87	36.7	33.06	31.45

Note S[X]; group session X, *M*; mean average total Group Session Rating Scale (GSRS) score, *SD*; standard deviation, DNA-v-G1; cycle of DNA-v group from Oct 21' to January 22', DNA-v-G2; cycle of DNA-v group from May 22' to September 22', DNA-v-G3; cycle of DNA-v group from December 22' to February 23'.

Appendix H - Semi-Structured Interview Schedule for SIP Phase 2

Semi-Structured Interview Schedule for Expert-by-Experience Interviews

Meeting with Expert by Experience/ Participant from the Group

Introduction

- Who am I?
    - Researcher gave name, role and why they are interested in this area

- Purpose of the meeting
    - Can you tell me what you know about why we are meeting today and then I will fill in the gaps?
    - Researcher read from information sheet:

      <u>What is this research about?</u>

      We have run DNA-V Groups over the past few years and have heard from young people that they find the groups helpful and think we should keep on running them. This research is about us getting a more detailed understanding of why young people sometimes find it difficult to engage in the groups or find it difficult to speak up and share their thoughts with the group (even if they would find this helpful). I hope to develop a new tool or something that we can add to the group (or take away from the group) that will help young people to engage more easily and quickly. I would like to develop this tool with 2 or more young people who have already attended the group – like you!
- Structure of the meeting
    - Researcher explained the structure including practical aspects of consent (confirm consent to go ahead with the meeting), confidentiality (where the information goes), demographic details (details about you), further elaboration on the *Client Change Interview,* presentation of the ideas for tools and getting feedback on each and breaks. (**explain why typing**)

- Confidentiality
    - All the information you provide will be recorded and anonymously stored on a password-protected file saved on an Oxford Health NHS Foundation Trust database (computer) or device (iPad). Once your information has been put on this document then any paper copies/recordings will be destroyed so that your answers stay private.

      The results of the research may also be written about in research journals or used in presentations but your data will be completely anonymous and no one will know that it was you who gave the information.

Consent

- Confirm consent to participate

  You should make your own choice about whether you want to take part. You have been chosen to take part because you have already completed the DNA-v group and you have given Claire permission for me to contact you about my study. However, it is not compulsory and whether you take part or not will not affect your care from the Getting More Help Team. If you agree to take part you can choose to answer any questions that you don't want to, and you can choose to stop the meeting at any time.

    - Are you happy to go ahead with the meeting?
    - Would you like a guardian/caregiver to be present? Or are you happy to complete it by yourself (should you wish for them to join at any time please do let me know, that is no problem)?
    - Are you happy for me to voice record this meeting for the purpose of note-taking, with the agreement that only I will have access to the recording and it will be deleted once it has been transcribed?
    - How might I know if you do not want to answer something?

About the Participant

- Can I confirm that you attended the DNA-v group in the Summer of 2022? Did a caregiver also attend this group?
    - x
- How would you describe your gender identity?
    -
- How would you describe your ethnicity?
    -
- Do you attend school? What year are you in?
    -
- Can you please remind me how old you are?
- Have you done any therapy before the group started?
    -

Request to Expand on Items from the *Modified Client Change Interview*:

3. Wants Is there anything that you wanted to change that hasn't since therapy started?

4. Attributions In general, what do you think has caused these various changes you described? In other words, what do you think might have brought them about? (Including things both outside of therapy and in therapy)

9. Helpful Aspects Can you sum up what has been helpful about your therapy so far? Please give examples. (For example, general aspects or specific events)

10. What kinds of things about the therapy have been hindering, unhelpful, negative or disappointing for you? (For example, general aspects. specific events)

11. Were there things in the therapy which were difficult or painful but still OK or perhaps helpful? What were they?

12. Has anything been missing from your treatment? (What would make/have made your therapy more effective or helpful?)

13. Suggestions Do you have any suggestions for us, regarding the research or the therapy? Do you have anything else that you want to tell me?

Introducing the Improvement Tools

Researcher read the following:

- Based on my understanding of why young people may find it difficult to engage within the group and cannot always engage with the material, I have come up with some ideas for how to improve the group.
- I am going to tell you about each idea in turn and then I am going to ask you for your thoughts on the improvement.
- At the end of this I will ask you about any ideas that you have that I have not mentioned.

We have thought about having a peer facilitator, someone like you who has done the group before helping to lead the group?

1. How might this help young people like you to engage within the DNA-v groups?

2. Are there ways in which this would not be helpful?

3. Would you make any changes to this tool? What kinds of changes would you make?

We have thought about providing more opportunities for young people to apply the group material to their own experiences or to experiences that happen to lots of young people. This could involve: more case studies, using a partner to discuss how the material might apply to you, hearing a peer facilitator discuss their experiences.

1. How might this help young people like you to engage within the DNA-v groups?

2. Are there ways in which this would not be helpful?

3. Would you make any changes to this tool? What kinds of changes would you make?

One of the young people came up with the following idea:

Giving space for everyone to anonymously contribute their thoughts, feelings and experiences about each of the topics (by going around the circle and asking for contributions on paper/iPad).

1. How might this help young people like you to engage within the DNA-v groups?

2. Are there ways in which this would not be helpful?

3. Would you make any changes to this tool? What kinds of changes would you make?

We have thought about trying to create stronger connections between group members to encourage young people to share their experiences more willingly, openly and honestly. This could include: an additional ice-breaker session, more time to discuss items in pairs, making space for people to share more about themselves, etc.

1. How might this help young people like you to engage within the DNA-v groups?

2. Are there ways in which this would not be helpful?

3. Would you make any changes to this tool? What kinds of changes would you make?

We have thought about trying to help young people to feel more motivated or willing to trying out the group material from the beginning. We thought about doing this by creating a video of a young person sharing the ways in which they found the group helpful, making changes to the group booklet so they people understand how they can best get involved from the start. Do you have any other ideas?

4. How might this help young people like you to engage within the DNA-v groups?

5. Are there ways in which this would not be helpful?

6. Would you make any changes to this tool? What kinds of changes would you make? yeah its good to be prepared

Interest in Co-Participation in the Improvement

If we decide to use something such as a peer facilitator, an introductory video, an ice-breaker session would you be interested in being involved with the delivery of this?

Debrief

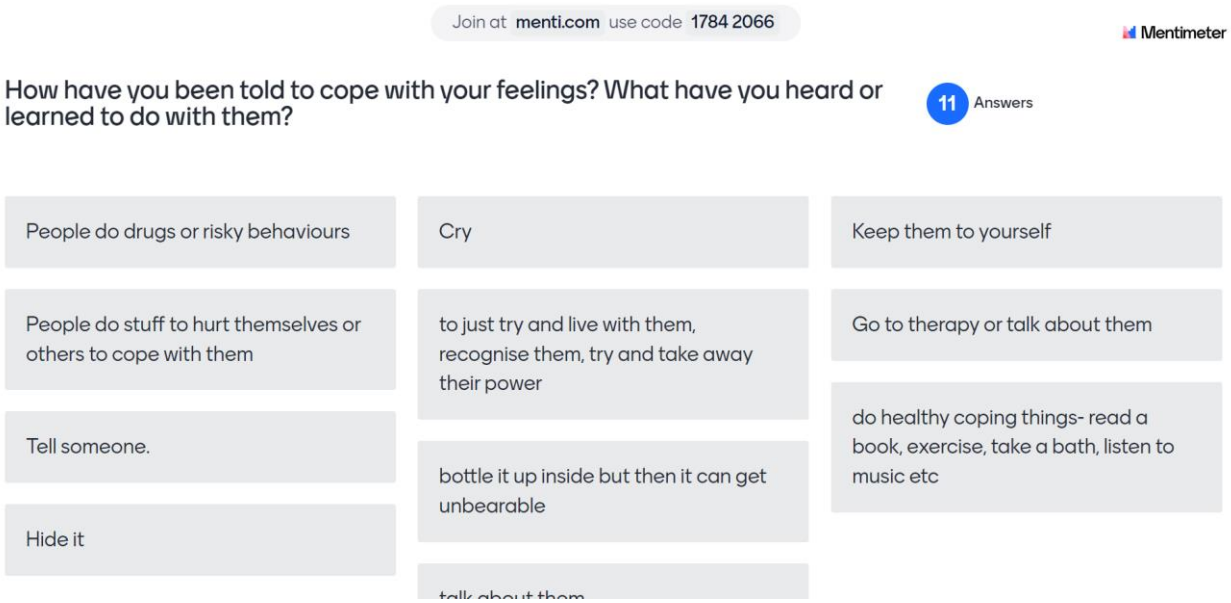
- Researcher thanked EBE for their time and informed them about how they would receive their £20 voucher.

Appendix I - SIP Implementation of Recommendations Log

Session no.	**Pre-Group**	**S1** (ice-breaker)	**S2**	**S3**	**S4**	**S5**	**S6**	**S7**	**S8**	**S9**	**S10**	**S11**
Ice-breaker	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pre-group Video	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mentimeter (s)	N/A	Y (1)	Y (1)	Y (3)	N (0)	Y (1)	Y (1)	Y (2)	Y (8)	Y (1)	Y (1)	N (0)
Case study content	N/A	N	Y	Y	Y	N	Y	Y	Y	Y	Y	N
Peer Facilitator												

Appendix J – Mentimeter Example

Example of *Mentimeter* digital survey used to elicit anonymous contribution within the DNA-v group delivered in Phase 3:



Appendix K - TDRP Intervention Script

Active Script Draft 3

31.08.23

1. Introduction [up to 12 mins]

[Introduce myself and allow young person to introduce themselves. Thank them for participating]. We are going to meet for about 1 hour. First, we are going to complete some questionnaires together. Some people do them quite quick, others take longer. We will spend the rest of the time using imagination to create an image in your mind. We are going create an image 4 times. I'll ask you to fill in some very quick scales each time we create the image. I will help you with the questionnaire and scales, creating the image, and with anything you need today. We are going to work together! You do not need to answer any questions that you don't want to, you can stop the study at any time, or we can take a break if you need to. Do you have any questions about today?

I need to tell you about confidentiality before we begin. [Prompt young person by asking them if they know what the rules of confidentiality are]. This meeting today is confidential. That means everything that is said today is kept private and only myself and my two supervisors (can call these managers for younger children) who are helping me to do this research will know the information you tell me. However, there are times when I might need to break this rule. If you tell me something that makes me worry that you, or anyone else is not safe, then I may need to tell other people such as your care team at CAMHS, your GP, your parents. But I will always try my best to speak with you about this first. Do you have any questions or worries about this?

2. Complete Baseline Measures [20-30 mins]

I am just going to check two things on my laptop. [Check the young person's ID# and that you have their BCAP questionnaire. Provide them with their ID# again]. Now we are going to complete the questionnaires I told you about. There are 5, some are shorter and some longer. I will help you if you have any questions. [Complete demographics, trauma questionnaire, BCSS, SOS, SOS-E, positive thoughts scale, RCADs. Help the young person with any queries they have].

3. Discuss 'scenarios' for Imaging [2 mins]

[Review the BCAP.] Before doing the study today you filled in a questionnaire. You answered 'a couple of times'/'few times a week'/'every day'/'all the time' to question __, __, __. Can you tell me a time when one of these things happened in the last day?... Thank you. Can you tell me a

time when one of these things might happen in the future? [Obtain two scenarios and note them. Keep this contained].

A. Potential Scenarios to Use:

From BCAP

- People at school are trying to make me feel unwanted
- I'm sure people are gossiping about me on social media
- I am being pushed out of conversations on purpose
- My friends or partner are ignoring my messages to upset me
- I think people are lying to me on purpose
- I'm sure people are seeking revenge on me

➔ *If none endorsed on BCAP:*

Some young people feel some of these things too:

- Everyone is looking at them when they put their hand up in class
- No one wants to speak with them when they are waiting at the bus stop after school
- They have no one that wants to sit with them at lunch

4. T1 VAS Scales **[1 min max]**

Now we are going to fill in some very quick scales. [complete T1 VAS scales with young people]. Please ask me if you need help or have any questions.

➔ **Check the output of the randomisation programme.**

5. Psychoeducation (the power of imagination for the intervention group only) **[2 mins]**

Thank you for filling in the questionnaires. [Prompt to see if the young person needs a break]. Now we are going to move on to using our imaginations. [If you have set a physical agenda with the young person to structure the session, tick off the relevant items on the agenda].

[Now introduce Key Points worksheet]. We know that our imagination can take us places in our mind or mind's eye without it happening in real life. We can imagine walking through a peaceful, relaxing field or forest, passing a school test, or being in our favourite place with our favourite people. But imagery does not only involve ***seeing*** *things in our mind's eye, but it can also involve other senses too, sound, taste, smell, touch.*

Many people find that using imagination actually helps to boost their confidence and unlock their potential. England's best footballers imagine scoring goals over and over before they play a match and famous tennis players imagine playing their winning shots before Wimbledon. This all happens in their mind, without them actually kicking or hitting a ball. It is in their mind's eye, ear and sometimes skin and even nose!

When we read, listen to an audio book or podcast we use our imaginations.. When we read Harry Potter for example, we can imagine what the scar on Harry's head looks like, what his voice sounds like when he speaks to snakes, the smell and taste of the treats he eats on the train to Hogwarts. It can almost seem like a real experience can't it. Another day-to-day example is when we use our imaginations to picture our friend's holiday that they told us about. Another example is when we watch a TikTok video and we can imagine the rest of the story/video when the TikTok ends…

Researchers have found out that creating images in our mind wakes up the same parts of the brain that real-life events do – they are very powerful. If we are hungry for example and imagine something tasty our mouth will start to water. So, imagination can really impact how we feel.

6. Practising Imagery – Imagine a Lemon [3-4 mins]

Let's try to practise using your imagination now for a few moments. We are going to imagine eating fruit. [If they are at home ask; Is the space that you are in quiet, without distractions? Give the young person time to make sure the space is suitable.] Take a deep breath and if you feel comfortable to, close your eyes. If you do not want to close your eyes you can fix them on a point in front of you.

I would like you to imagine now that you are standing in your kitchen or the kitchen of someone you know... in front of you is a plate..... Now imagine that on the plate sits half a round, fresh, juicy lemon..... in your mind, hold the lemon in one hand, feeling its weight and smooth skin..... Notice the pale-yellow colour of the pulp, the whiteness of the inner peel, and see whether you have cut through a seed or two……. Notice where a drop or two of juice has dripped onto the plate..... Now imagine lifting this lemon wedge to your mouth, smelling the sharp fresh scent..... Now bite into the sour, juicy pulp…..when you are ready you can focus your attention back to the room you are in now.

Next, we are going to use the power of your imagination to create a compassionate helper/coach/ companion/sidekick that will help you to develop a compassionate way of thinking. I am going to help you to do that.

7. Picking Qualities for the Compassionate Companion – Values Cards [10-20 mins]

[Introduce worksheet here]. You are going to create an image of someone or something that is kind, compassionate and supportive and has your wellbeing and best interests at heart. [Direct the young person to look at the worksheet]. It can be a person, an animal, an angel, something in nature (a tree, a mountain), a piece of clothing, a cartoon, a toy, whatever you would like it to be. But it MUST have a thinking brain or a mind and it MUST be compassionate. Think about the sorting hat in Harry Potter, for example. It is not someone you know, it is superhuman. It will not tell you off, be mean, nor forever tell you what you have done wrong or that you are not enough. It will be like a helpful teacher. [Take out values cards].

This is our compassionate companion. Most people do not know what the word compassionate means, so let's talk it through. To be compassionate the companion that we create must have these things. [Show them the relevant values cards for warm, kind, supportive, wise (know and understand their needs). Take time to go through the cards and discuss compassionate characteristics].

Let's think about what kind of support you would like and that would be good for you at the moment. What other qualities would you like your compassionate companion to have?

[Prompt young person to choose from remaining cards or to add their own characteristics]. Let's write what your compassionate companion is like in the box shall we? [Offer to write it for the young person if they are resistant to writing it].

What would you like to call the image? You can choose compassionate companion, kindness crusader, cheerleader, coach, supportive friend, superhero, anything you like. What's important is finding the wording that is helpful for you. [Prompt young person to fill in the name on the worksheet or do it for them if they are resistant].

Let's complete the rest of the sheet. What would the companion/chosen name look like? If they spoke, what would their tone of voice be like? Would they smell of something comforting? Can they give you a hug? [Prompt the young person to complete the worksheet or help them to do it].

The most important thing to remember is that the compassionate companion/chosen name has your best interests at heart and is something that cares for and supports you.... They are just for you. How would they show this?

Some people develop very detailed mental images of their companion that seem like a cartoon or a photograph. Other people only develop an image that is not very clear. It does not matter which type of image you develop. It matters what qualities your companion/chosen name has, how they coach you and how you feel when they are around.

Compassionate Companion Worksheet [Complete the below].

Compassionate Companion

NAME: _____

My companion has these <u>qualities:</u>

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

Tone of voice:



Smell:

Appearance:

8. **SCRIPT 1 (imagining the figure)** **[8 mins]**

Now we are going to use imagination to create an image of a compassionate companion in your mind's eye. I am going to ask you to lower or close your eyes. There will be pauses when I am speaking and guiding you to create this image, but you don't need to open your eyes when I stop speaking and you don't need to answer me.

Let's start. Once you are comfortable in your chair, gently bring your attention to your breathing, starting to become aware of it. Notice the sensation of breathing air slowly in….and out… (repeat) …Lower your eyes to a point infront of you, and if you feel comfortable to, close your eyes.

Imagine sitting with someone or something that is always supportive of you… your compassionate companion, your [INSERT CHOSEN NAME]…

Spend some time thinking about what the image looks like…

Imagine this image wants the best in life for you… your wellbeing is the most important thing to them… you are important to them.

They know how difficult life is, and has been for you…and they possess the exact qualities you need at this very moment…they always know exactly what you need…[INSERT INDIVIDUALISED LIST OF QUALITIES]… You might notice that they that are trying to encourage you and cheer you on… sometimes they just stand with you in difficult situations. They help you to keep going. You can feel and be any way you want when you are with them, they will not judge you…they know you are a good person.

Think about where you would like them to be in the space. Maybe they are standing infront of you or next to you…maybe they are giving you a hug…

If your image has a face, imagine what that face looks like...maybe it's [INSERT INDIVIDUALISED ASPECTS OF APPEARANCE]…

If your image has a voice think about what that voice sounds like...maybe it's [INSERT CHOSEN VOICE CHARACTERISTICS]…Think about what the image says to you. Maybe it tells you that it cares and wants to support you...

Allow a smile on your face as you feel their warmth, kindness, support and wisdom…you may feel comforted and strengthened by their support…They promise to help you with any problems you have and building your confidence.

Spend some time sitting with them…allow yourself to feel the care and support they give to you….maybe they want you to know or hear something….

When you're ready say goodbye to your [CHOSEN NAME] for the moment…gently bring your focus to the chair that you are sitting on and the room you are in. If your eyes were closed, you can open them…that is the end.

Measures **(1 minute)**

Well done, I can see you were really trying to focus on the exercise. Now we are going to fill in some very quick scales. [complete VAS scales with young people]. Please ask me if you need help or have any questions.

Problem-Solving **[4 mins]**

How did you find it creating an image of someone or something that was warm, kind, supportive and wise? How did you feel knowing that they wanted the best for you, and they were there for you only? Did you find any parts tricky that you would like some help with?

9. SCRIPT 2 (imaging the scenario and the figure) **[8 mins]**

Now I am going to ask you to imagine the compassionate companion again, this time in a situation that may happen in a normal day. Earlier you told me something that happened to you yesterday. You told me [insert example provided earlier]. I want you to imagine that you are back in that situation right now. Can you see it in your mind's eye? Let's take your compassionate companion with you this time.

Again, we are going to use imagination to create an image of a compassionate companion. I am going to ask you to lower or close your eyes and there will be pauses when I am speaking, but you don't need to open your eyes when I stop speaking or answer me.

Let's start. Gently bring your attention to your breathing, starting to become aware of it. Notice the sensation of breathing air slowly in….and out… (repeat) …Lower your eyes to a point infront of you, and if you feel comfortable to, close your eyes.

Imagine that you are back in [INSERT SITUATION]…. But now, you are sitting with someone or something that is always supportive of you… your compassionate companion, your [INSERT CHOSEN NAME]…

Spend some time thinking about what the image looks like…

Imagine this image wants the best in life for you… your wellbeing is the most important thing to them… you are important to them. They are with you in [INSERT SITUATION].

They know how difficult life is, and has been for you…and they possess the exact qualities you need at this very moment…they always know exactly what you need…[INSERT

INDIVIDUALISED LIST OF QUALITIES]… You might notice that they that are trying to encourage you and cheer you on, sometimes they just stand with you in difficult situations. They help you to keep going [INSERT SITUATION]. You can feel and be any way you want when you are with them, they will not judge you…they know you are a good person.

Think about where you would like them to be in the space/[INSERT SITUATION].. Maybe they are standing infront of you or next to you…maybe they are giving you a hug…

If your image has a face, imagine what that face looks like...maybe it's [INSERT INDIVIDUALISED ASPECTS OF APPEARANCE]…

If your image has a voice think about what that voice sounds like...maybe it's [INSERT CHOSEN VOICE CHARACTERISTICS]…Think about what the image says to you. Maybe it tells you that it cares and wants to support you...

Allow a smile on your face as you feel their warmth, kindness, support and wisdom…you may feel comforted and strengthened by their support…They promise to help you with any problems you have and with building your confidence.

Spend some time sitting with them…allow yourself to feel the care and support they give to you….maybe they want you to know or hear something….

When you're ready say goodbye to your [CHOSEN NAME] for the moment…gently bring your focus to the chair that you are sitting on and the room you are in. If your eyes were closed, you can open them…that is the end.

Measures **(1 minute)**

Well done for trying to use the image in a real-life scenario. Again, we are going to fill in some very quick scales. [complete VAS scales with young people]. Please ask me if you need help or have any questions.

Problem-Solving **[4 mins]**

How did you find it creating an image of someone or something that was warm, kind, supportive and wise? How did you feel knowing that they wanted the best for you and they were there for you only? Did you find any parts tricky that you would like some help with?

10. SCRIPT 3 (imagining the same or a different scenario and the figure) [8 mins]

Now I am going to ask you to imagine the compassionate companion again, this time again, in a situation that may happen in a normal day. Earlier you told me something that might happen in the future. You told me [insert example provided earlier]. I want you to imagine

that you are in that situation right now. Can you see it in your mind's eye? Now let's ask your compassionate companion to come along!

Again, we are going to use imagination to create an image of a compassionate companion. I am going to ask you to lower or close your eyes and there will be pauses when I am speaking but remember you don't need to open your eyes or answer me.

Let's start. Gently bring your attention to your breathing, starting to become aware of it. Notice the sensation of breathing air slowly in….and out… (repeat) …Lower your eyes to a point in front of you, and if you feel comfortable to, close your eyes.

Imagine that you are in [INSERT SITUATION]... But now, you are sitting with someone or something that is always supportive of you… your compassionate companion, your [INSERT CHOSEN NAME]…

Spend some time thinking about what the image looks like…

Imagine this image wants the best in life for you… your wellbeing is the most important thing to them… you are important to them. They are with you in [INSERT SITUATION].

They know how difficult life is, and has been for you…and they possess the exact qualities you need at this very moment…they always know exactly what you need…[INSERT INDIVIDUALISED LIST OF QUALITIES]… You might notice that they that are trying to encourage you and cheer you on, sometimes they just stand with you in difficult situations. They help you to keep going in [INSERT SITUATION]. You can feel and be any way you want when you are with them, they will not judge you…they know you are a good person.

Think about where you would like them to be in the space/[INSERT SITUATION].. Maybe they are standing in front of you or next to you…maybe they are giving you a hug…

If your image has a face, imagine what that face looks like...maybe it's [INSERT INDIVIDUALISED ASPECTS OF APPEARANCE]…

If your image has a voice think about what that voice sounds like...maybe it's [INSERT CHOSEN VOICE CHARACTERISTICS]…Think about what the image says to you. Maybe it tells you that it cares and wants to support you...

Allow a smile on your face as you feel their warmth, kindness, support and wisdom…you may feel comforted and strengthened by their support…They promise to help you with any problems you have and with building your confidence.

Spend some time sitting with them…allow yourself to feel the care and support they give to you….maybe they want you to know or hear something….

When you're ready say goodbye to your [CHOSEN NAME] for the moment…gently bring your focus to the chair that you are sitting on and the room you are in. If your eyes were closed, you can open them…that is the end.

Measures **(1 minute)**

Again, we are going to fill in some very quick scales. [complete VAS scales with young people]. Please ask me if you need help or have any questions.

11. Relaxation Exercise **[2 mins]**

Well done. You worked really hard to create those images in your mind. Now that we have finished creating the images, we are going to do a quick relaxation exercise together. You may have done this one before and it will take 2 minutes. Ready?! [Start timer]. Close your eyes if you feel comfortable to or fix them on a point in front of you. Place your hand on your tummy… If you breathe deeply enough you should notice it rising and falling with each inhalation and exhalation, each breath in, and out...Breathe in slowly through your nose for 4 seconds…Hold the air in your lungs for 4 seconds… Breathe out slowly through your mouth for 6 seconds… and again Breathe in slowly through your nose for 4 seconds…Hold the air in your lungs for 4 seconds… Breathe out slowly through your mouth for 6 seconds. [Continue for the rest of the 2 minutes].

Feedback & Debrief **[5 mins]**

Wow! You did really really well to pay attention for so long. We have now finished what we needed to do. 5 more minutes and you can go! First, I want to ask you how you found it creating the images. It might feel tricky for you to tell me how you really feel so you can answer my question here [point to Qualtrics question about imaging]. You can also tell me if you would prefer that, and I will note it down.

What did you think about creating this image in your mind? Could you imagine the compassionate companion?

…

What is something that you can easily imagine when you close your eyes? On a scale of 1 to 10, 10 being as clear as the _____ that you can see when you shut your eyes, how clear were the images you imagined today?

…

They were my final questions, thank you for answering them.

Here is some information about how you can get some extra support if you wish to [provide debrief form]. If you chose to hear back from us about the results of the study, we will contact you about this in the future. Or if you have given consent to be contacted about the longer part

of the study you may hear from us in a few months about this. [Offer to take them to their parent if parent has come to the appointment and say goodbye].

➔ *FOLLOW UP ON RISK/SAFEGUARDING IF NECESSARY NOW**

Appendix L - Demographic and Baseline Outcome Measures

DEMOGRAPHICS QUESTIONNAIRE

What is your age? _____

What is your gender (assigned at birth)? _____

What is your gender identity? _____

What is your ethnicity?

- White – British
- White – Irish
- White – any other white background
- Black/Black British – Caribbean
- Black/Black British – African
- Black/Black British – any other black background
- Mixed – White and Black Caribbean
- Mixed – White and Black African
- Mixed – White and Asian
- Any other mixed background
- Asian/British Asian – Indian
- Asian/British Asian – Pakistani
- Asian/British Asian – Bangladeshi
- Asian/British Asian – any other Asian background
- Chinese
- Other (please state): _____

Have you ever experienced mental health difficulties (for example, problems like constant worry, feeling low, obsessive-compulsive disorder, hearing voices that others cannot hear)?

- Yes
- No

If you said yes, what mental health difficulties have you experienced?

_____

Do you have any diagnoses of mental health difficulties?

- Yes
- No

If you said yes, what diagnoses (labels) do you have?

- Prefer not to say
- Anxiety
- Depression (low mood)
- Psychosis
- Bipolar disorder
- Post-traumatic stress disorder
- Personality Disorder
- Obsessive Compulsive Disorder
- Anorexia
- Bulimia
- Substance use disorder / addiction
- Specific phobia
- Other: _____

Are you are having any of these problems (during the last two weeks only)?

Please circle your answer YES or NO.

1. Bullying (in person)	YES	NO
2. Cyber-bullying (bullying online, through your mobile phone or other devices, through social media apps like Instagram, Snapchat, Whatsapp, Facebook, DISCORD, TikTok, so on)	YES	NO
3. Difficulties with other people your age	YES	NO

The Bird Checklist of Adolescent Paranoia (B-CAP)

This form is about worries you may have about other people. Please circle how often you have had each thought over the ***last 2 weeks***.

Statements	Never	Once	Couple of times	Few Times a week	Every day	All the time
People at school are trying to make me feel unwanted	0	1	2	3	4	5
I'm sure people are gossiping about me on social media	0	1	2	3	4	5
I am being pushed out of conversations on purpose	0	1	2	3	4	5
My friends or partner are ignoring my messages to upset me	0	1	2	3	4	5
People are trying to embarrass me in class on purpose	0	1	2	3	4	5
People are making sly comments to upset me	0	1	2	3	4	5
I think people are lying to me on purpose	0	1	2	3	4	5
People say things under their breath to wind me up	0	1	2	3	4	5
Nasty tricks are being played on me	0	1	2	3	4	5
People are trying to confuse me on purpose	0	1	2	3	4	5
Groups of people are planning against me	0	1	2	3	4	5
People are collecting my information or photos to use against me	0	1	2	3	4	5
I'm sure people are seeking revenge on me	0	1	2	3	4	5
I feel like I am being followed or stalked	0	1	2	3	4	5
I am scared of what strangers will do to me	0	1	2	3	4	5
People will try to kidnap me	0	1	2	3	4	5
I could be attacked at any time	0	1	2	3	4	5
I feel unsafe around people everywhere I go	0	1	2	3	4	5

The (adapted) Brief Core Schema Scale (BCSS)

What I think about myself and other people

Here is a list of things people can think about themselves and other people. For each one, put a circle around "yes" if you think it is true and "no" if you think it is not true. If you think it is true, then put a circle round a number to show how much you think it is true. Don't spend too long on any question. It is OK to put the first thing that comes into your mind. There are no right or wrong answers.

ME/ MYSELF			Believe it slightly	Believe it moderately	Believe it very much	I believe it totally
I am respected	NO	YES →	1	2	3	4
I am valuable	NO	YES →	1	2	3	4
I am talented	NO	YES →	1	2	3	4
I am successful	NO	YES →	1	2	3	4
I am unloved	NO	YES →	1	2	3	4
I am worthless	NO	YES →	1	2	3	4
I am weak	NO	YES →	1	2	3	4
I am vulnerable	NO	YES →	1	2	3	4
I am bad	NO	YES →	1	2	3	4
I am a failure	NO	YES →	1	2	3	4
I am good	NO	YES →	1	2	3	4
I am interesting	NO	YES →	1	2	3	4
OTHER PEOPLE						
Other people are hostile or unfriendly	NO	YES→	1	2	3	4
Other people are unkind	NO	YES →	1	2	3	4
Other people are unforgiving	NO	YES →	1	2	3	4

Other people are bad	NO	YES →	1	2	3	4
Other people are devious or liars	NO	YES →	1	2	3	4
Other people are nasty	NO	YES →	1	2	3	4
Other people are fair	NO	YES →	1	2	3	4
Other people are good	NO	YES →	1	2	3	4
Other people are trustworthy	NO	YES →	1	2	3	4
Other people are accepting	NO	YES →	1	2	3	4
Other people are supportive	NO	YES →	1	2	3	4
Other people are truthful	NO	YES →	1	2	3	4

Sense of Self - Youth Scale (SoS)

Thoughts About Myself:

Please read each word below and rate how much you *believe this is true*.

Try to rate based on how you think about yourself *most of the time*.

Statements:	How much I believe this is true				
I believe that I am...	Not at all	Slightly	Some-what	Very much	Totally
1. Less than others	0	1	2	3	4
2. A failure	0	1	2	3	4
3. Pathetic	0	1	2	3	4
4. Ugly	0	1	2	3	4
5. Inadequate	0	1	2	3	4
6. Undesirable	0	1	2	3	4
7. Useless	0	1	2	3	4
8. Worthless	0	1	2	3	4
9. A villain	0	1	2	3	4
10. Bad	0	1	2	3	4
11. Dangerous	0	1	2	3	4
12. Toxic	0	1	2	3	4
13. Wounded	0	1	2	3	4
14. Damaged	0	1	2	3	4
15. Hurt	0	1	2	3	4
16. Broken	0	1	2	3	4
17. Too different to others	0	1	2	3	4
18. Singled out	0	1	2	3	4
19. The odd one out	0	1	2	3	4
20. An outcast	0	1	2	3	4

Please note: First 8-items correspond to the 'Not good enough' subscale, next 4-items correspond to 'Bad' subscale, next 4-items 'Broken' subscale, and final 4-items 'Outcast'.

Positive Thoughts

This questionnaire lists beliefs that people can hold about themselves. Please indicate how strongly you hold each of the following beliefs by circling a number 0 (Do not believe it) – 4 (Believe it totally).

Try to judge the beliefs on how you have viewed yourself over the past week.

	Do not believe it	Believe it slightly	Believe it moderately	Believe it very much	Believe it totally
I can make a difference	0	1	2	3	4
I am useful	0	1	2	3	4
I have a purpose	0	1	2	3	4
I can achieve things	0	1	2	3	4
I can do things well	0	1	2	3	4
I can succeed	0	1	2	3	4
I am worthwhile	0	1	2	3	4
I am strong	0	1	2	3	4
I can keep going	0	1	2	3	4
I can succeed in challenging situations	0	1	2	3	4
I can cope with anything	0	1	2	3	4
I rise to the challenge	0	1	2	3	4
I don't give up	0	1	2	3	4
I will be okay	0	1	2	3	4
I can do things as well as anyone else	0	1	2	3	4
I can enjoy things	0	1	2	3	4
I can relax	0	1	2	3	4
I can switch off	0	1	2	3	4
I can have fun	0	1	2	3	4
I can do fun things	0	1	2	3	4
I am reliable	0	1	2	3	4
I am thoughtful	0	1	2	3	4
I am a good person	0	1	2	3	4
I am helpful	0	1	2	3	4

Brief 11-item version of the RCADS for Adolescents

(adolescent-report)

Please put a circle around the word that shows how often each of these things happens to you. There are no right or wrong answers.

1. I have trouble going to school in the mornings because I feel nervous or afraid	Never	Sometimes	Often	Always
2. I have no energy for things	Never	Sometimes	Often	Always
3. I worry when I go to bed at night	Never	Sometimes	Often	Always
4. I worry about what is going to happen	Never	Sometimes	Often	Always
5. Nothing is much fun anymore	Never	Sometimes	Often	Always
6. All of a sudden I feel really scared for no reason at all	Never	Sometimes	Often	Always
7. I feel worthless	Never	Sometimes	Often	Always
8. I feel sad or empty	Never	Sometimes	Often	Always
9. When I have a problem, my heart beats really fast	Never	Sometimes	Often	Always
10. I am tired a lot	Never	Sometimes	Often	Always
11. I worry I might look foolish	Never	Sometimes	Often	Always

Appendix M - Intervention Outcome Measures

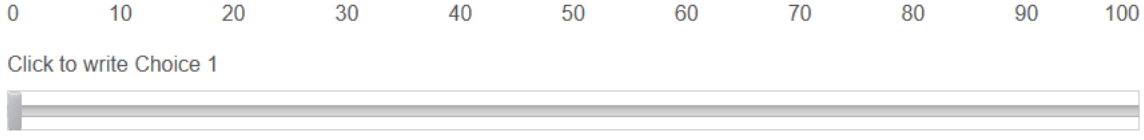
Please mark on the line below how much you agree with the statements:



Please mark on the line below how sad you feel right now, 0 is not sad and 100 is completely sad.



Please mark on the line below how anxious or worried you feel right now, 0 is not anxious/worried and 100 is completely anxious/worried.



Appendix O - Linear Regression Analyses

Linear Regressions with Group as the Independent/Predictor Variable

Dependent Variable	B	SE B	β	*t*-value	*p*-value
T2 Paranoia VAS: "I feel threatened"	18.01	6.80	0.43	2.65	0.01*
T3 Paranoia VAS: "I feel threatened"	16.57	6.73	0.41	2.46	0.02*
T4 Paranoia VAS: "I feel threatened"	24.19	8.00	0.48	3.03	0.01*
T2 Paranoia VAS: "I feel completely safe"	-11.13	8.91	-0.22	-1.25	0.22
T3 Paranoia VAS: "I feel completely safe"	-18.57	9.48	-0.34	-1.96	0.06
T4 Paranoia VAS: "I feel completely safe"	-18.99	10.31	-0.32	-1.84	0.08
T2 Negative-self VAS: "I am less than others"	24.55	8.95	0.45	2.74	0.01*
T3 Negative-self VAS: "I am less than others"	22.39	8.48	0.43	2.64	0.01*
T4 Negative-self VAS: "I am less than others"	18.57	8.56	0.38	2.25	0.03*
T2 Negative-self VAS: "I am outcast from others"	13.01	8.90	0.25	1.46	0.15
T3 Negative-self VAS: "I am outcast from others"	13.26	8.91	0.27	1.49	0.147

T4 Negative-self VAS: "I am outcast from others"	13.34	8.70	0.27	1.53	0.136
T2 Positive-self VAS: "I can relax/have fun"	-13.53	7.78	-0.30	1.74	0.09
T3 Positive-self VAS: "I can relax/have fun"	-18.98	9.09	-0.36	-2.09	0.045*
T4 Positive-self VAS: "I can relax/have fun"	-16.77	9.03	-0.32	-1.86	0.07
T2 Positive-self VAS: "I can achieve things"	-22.21	7.64	-0.46	-2.91	0.01*
T3 Positive-self VAS: "I can achieve things"	-24.11	8.24	-0.47	-2.93	0.01*
T4 Positive-self VAS: "I can achieve things"	-23.70	8.86	-0.44	-2.68	0.01*
T2 Positive-self VAS: "I can keep going"	-24.24	8.52	-0.46	-2.85	0.01*
T3 Positive-self VAS: "I can keep going"	-25.31	9.17	-0.45	-2.76	0.01*
T4 Positive-self VAS: "I can keep going"	-25.93	9.08	-0.46	-2.86	0.01*
T2 Positive-self VAS: "I am worth something"	-23.17	8.98	-0.42	-2.58	0.02*
T3 Positive-self VAS: "I am worth something"	-20.80	8.59	-0.40	-2.42	0.02*
T4 Positive-self VAS: "I am worth something"	-21.05	8.84	-0.40	-2.38	0.02*
T2 anxiety	4.79	8.74	0.10	0.55	0.59
T3 anxiety	5.84	9.46	0.11	0.62	0.54
T4 anxiety	13.15	9.77	0.24	1.37	0.19

T2 sadness	10.53	9.48	0.20	1.11	0.28
T3 sadness	12.46	9.54	0.23	1.31	0.20
T4 sadness	9.57	9.13	0.19	1.05	0.30

***Statistically significant**

Appendix P – Ethical Approval for TDRP

Ymchwil Iechyd a Gofal Cymru
Health and Care Research Wales

NHS
Health Research Authority

Miss Jessica McGovern
Trainee Clinical Psychologist
Oxford Health Foundation Trust
Oxford Institute of Clinical Psychology Training & Research
Isis Education Centre, Warneford Hospital
Headington, Oxford
OX3 7JX

Email: approvals@hra.nhs.uk

10 November 2023

Dear Miss McGovern

HRA and Health and Care Research Wales (HCRW) Approval Letter

Study title:	**Self-Cognitions in Adolescent Paranoia: a Causal-Interventionist Test with Young People Attending CAMHS.**
IRAS project ID:	**326269**
Protocol number:	**not applicable**
REC reference:	**23/NI/0133**
Sponsor	**Oxford Health NHS Foundation Trust**

I am pleased to confirm that **HRA and Health and Care Research Wales (HCRW) Approval** has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications received. You should not expect to receive anything further relating to this application.

Please now work with participating NHS organisations to confirm capacity and capability, in line with the instructions provided in the "Information to support study set up" section towards the end of this letter.

How should I work with participating NHS/HSC organisations in Northern Ireland and Scotland?
HRA and HCRW Approval does not apply to NHS/HSC organisations within Northern Ireland and Scotland.

If you indicated in your IRAS form that you do have participating organisations in either of these devolved administrations, the final document set and the study wide governance report

(including this letter) have been sent to the coordinating centre of each participating nation. The relevant national coordinating function/s will contact you as appropriate.

Please see IRAS Help for information on working with NHS/HSC organisations in Northern Ireland and Scotland.

How should I work with participating non-NHS organisations?
HRA and HCRW Approval does not apply to non-NHS organisations. You should work with your non-NHS organisations to obtain local agreement in accordance with their procedures.

What are my notification responsibilities during the study?

The standard conditions document "*After Ethical Review – guidance for sponsors and investigators*", issued with your REC favourable opinion, gives detailed guidance on reporting expectations for studies, including:

- Registration of research
- Notifying amendments
- Notifying the end of the study

The HRA website also provides guidance on these topics, and is updated in the light of changes in reporting expectations or procedures.

Who should I contact for further information?
Please do not hesitate to contact me for assistance with this application. My contact details are below.

Your IRAS project ID is **326269**. Please quote this on all correspondence.

Yours sincerely,
Deanna Herron

Approvals Specialist

Email: approvals@hra.nhs.uk

Copy to: *Ms Natalia Jastrzebska, Research & Development, Oxford Health NHS Foundation Trust*

List of Documents

The final document set assessed and approved by HRA and HCRW Approval is listed below.

Document	*Version*	*Date*
Confirmation of any other Regulatory Approvals (e.g. CAG) and all correspondence [Information Governance Approval]	v 1.2	29 August 2023
Confirmation of any other Regulatory Approvals (e.g. CAG) and all correspondence [Uni project approval]	v 1.0	13 June 2022
Contract/Study Agreement template [PIC agreement draft]	v 1.0	08 August 2023
Copies of materials calling attention of potential participants to the research [Study advert]	v 1.2	08 August 2023
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Sponsorship approval]	v 1.0	04 September 2023
IRAS Application Form [IRAS_Form_08092023]		08 September 2023
Letter from funder [Corporate risk assessment]	v 1.0	16 May 2023
Letter from sponsor [Study registration form with OHFT R&D]	v 1.1	31 August 2023
Non-validated questionnaire [Demographic questionnaires and visual analogue scales]	v 1.1	15 October 2023
Other [Control group script]	v1.0	15 October 2023
Other [Distress protocol]	v1.0	15 October 2023
Other [Response to provisional opinion]	v1.0	17 October 2023
Other [Draft Intervention Script (under PPI review)]	v 1.2	31 August 2023
Other [Drafted Intervention Supplementary Materials]	v 1.2	31 August 2023
Other [Drafted Intervention Supplementary Materials]	v 1.2	31 August 2023
Participant consent form [Assent form for u16s]	v1.3	15 October 2023
Participant consent form [Assent form for u16s tracked changes]	v1.3	15 October 2023
Participant consent form [Consent form for 16+]	v1.3	15 October 2023
Participant consent form [Consent form for 16+ tracked changes]	v1.3	15 October 2023
Participant consent form [Parent consent form]	v1.2	15 October 2023
Participant consent form [Parent consent form tracked changes]	v 1.2	15 October 2023
Participant information sheet (PIS) [PIS for parents]	v1.3	15 October 2023
Participant information sheet (PIS) [PIS for parents with changes tracked]	v1.3	15 October 2023
Participant information sheet (PIS) [PIS +16 years]	v 1.2	15 October 2023
Participant information sheet (PIS) [PIS +16 years tracked changes]	v 1.2	15 October 2023
Participant information sheet (PIS) [PIS u16 years]	v1.3	15 October 2023
Participant information sheet (PIS) [PIS U16 years tracked changes]	v1.3	15 October 2023
Participant information sheet (PIS) [Debrief information sheet]	v1.3	15 October 2023
Participant information sheet (PIS) [Debrief information sheet tracked changes]	v 1.2	15 October 2023
Referee's report or other scientific critique report [Uni project approval]	v 1.0	09 June 2022
Research protocol or project proposal [Protocol v 1.3]	v 1.3	31 July 2023
Summary CV for Chief Investigator (CI) [Chief Investigator CV]	v 1.0	13 February 2023
Summary CV for student [Chief Investigator CV]	v 1.0	13 February 2023
Summary CV for student [FW CV]	v 1.0	28 April 2023
Summary CV for supervisor (student research) [JA (supervisor) CV]	v 1.0	16 May 2023
Summary CV for supervisor (student research) [LJ (supervisor) CV]	v1.0	15 May 2023

Summary, synopsis or diagram (flowchart) of protocol in non technical language [Data flowchart]	v 1.1	08 August 2023
Validated questionnaire [Validates questionnaires and outcome measures]	v 1.0	08 August 2023

HSC Business Services Organisation

INVESTORS IN PEOPLE®
We invest in people Silver

Health and Social Care Research Ethics Committee A (HSC REC A)

Please note: This is the favourable opinion of the REC only and does not allow you to start your study at NHS sites in England until you receive HRA Approval

25 October 2023

Miss Jessica McGovern
Trainee Clinical Psychologist
Oxford Health Foundation Trust
Oxford Institute of Clinical Psychology Training & Research
Isis Education Centre, Warneford Hospital
Headington, Oxford
OX3 7JX

Dear Miss McGovern

Study title:	**Self-Cognitions in Adolescent Paranoia: a Causal-Interventionist Test with Young People Attending CAMHS.**
REC reference:	**23/NI/0133**
Protocol number:	**not applicable**
IRAS project ID:	**326269**

Thank you for your letter received on 17 October 2023, responding to the Research Ethics Committee's (REC) request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Good practice principles and responsibilities

The UK Policy Framework for Health and Social Care Research sets out principles of good practice in the management and conduct of health and social care research. It also outlines the responsibilities of individuals and organisations, including those related to the four elements of research transparency:

1. registering research studies
2. reporting results
3. informing participants
4. sharing study data and tissue

Conditions of the favourable opinion

The REC favourable opinion is subject to the following conditions being met prior to the start of the study.

Confirmation of Capacity and Capability (in England, Northern Ireland and Wales) or NHS management permission (in Scotland) should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements. Each NHS organisation must confirm through the signing of agreements and/or other documents that it has given permission for the research to proceed (except where explicitly specified otherwise).

Guidance on applying for HRA and HCRW Approval (England and Wales)/ NHS permission for research is available in the Integrated Research Application System.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of management permissions from host organisations

Registration of Clinical Trials

All research should be registered in a publicly accessible database and we expect all researchers, research sponsors and others to meet this fundamental best practice standard.

It is a condition of the REC favourable opinion that **all clinical trials are registered** on a publicly accessible database within six weeks of recruiting the first research participant. For this purpose, 'clinical trials' are defined as:

- clinical trial of an investigational medicinal product
- clinical investigation or other study of a medical device
- combined trial of an investigational medicinal product and an investigational medical device
- other clinical trial to study a novel intervention or randomised clinical trial to compare interventions in clinical practice.

Failure to register a clinical trial is a breach of these approval conditions, unless a deferral has been agreed by the HRA (for more information on registration and requesting a deferral see: Research registration and research project identifiers).

If you have not already included registration details in your IRAS application form you should notify the REC of the registration details as soon as possible.

Publication of Your Research Summary

We will publish your research summary for the above study on the research summaries section of our website, together with your contact details, no earlier than three months from the date of this favourable opinion letter.

Should you wish to provide a substitute contact point, make a request to defer, or require further information, please visit: https://www.hra.nhs.uk/planning-and-improving-research/application-summaries/research-summaries/

N.B. If your study is related to COVID-19 we will aim to publish your research summary within 3 days rather than three months.

During this public health emergency, it is vital that everyone can promptly identify all relevant research related to COVID-19 that is taking place globally. If you haven't already done so, please register your study on a public registry as soon as possible and provide the REC with the registration detail, which will be posted alongside other information relating to your project. We are also asking sponsors not to request deferral of publication of research summary for any projects relating to COVID-19. In addition, to facilitate finding and extracting studies related to COVID-19 from public databases, please enter the WHO official acronym for the coronavirus disease (COVID-19) in the full title of your study. Approved COVID-19 studies can be found at: https://www.hra.nhs.uk/covid-19-research/approved-covid-19-research/

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

After ethical review: Reporting requirements

The attached document "After ethical review – guidance for researchers" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study, including early termination of the study
- Final report
- Reporting results

The latest guidance on these topics can be found at https://www.hra.nhs.uk/approvals-amendments/managing-your-approval/.

Ethical review of research sites

NHS/HSC sites

The favourable opinion applies to all NHS/HSC sites taking part in the study, subject to confirmation of Capacity and Capability (in England, Northern Ireland and Wales) or management permission (in Scotland) being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Non-NHS/HSC sites

I am pleased to confirm that the favourable opinion applies to any non-NHS/HSC sites listed in the application, subject to site management permission being obtained prior to the start of the study at the site.

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	*Version*	*Date*
Confirmation of any other Regulatory Approvals (e.g. CAG) and all correspondence [Information Governance Approval]	v 1.2	29 August 2023
Confirmation of any other Regulatory Approvals (e.g. CAG) and all correspondence [Uni project approval]	v 1.0	13 June 2022
Copies of materials calling attention of potential participants to the research [Study advert]	v 1.2	08 August 2023
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Sponsorship approval]	v 1.0	04 September 2023
IRAS Application Form [IRAS_Form_08092023]		08 September 2023
Letter from funder [Corporate risk assessment]	v 1.0	16 May 2023
Letter from sponsor [Study registration form with OHFT R&D]	v 1.1	31 August 2023
Non-validated questionnaire [Demographic questionnaires and visual analogue scales]	v 1.1	15 October 2023
Other [Draft Intervention Script (under PPI review)]	v 1.2	31 August 2023
Other [Drafted Intervention Supplementary Materials]	v 1.2	31 August 2023
Other [Drafted Intervention Supplementary Materials]	v 1.2	31 August 2023
Other [Control group script]	v1.0	15 October 2023
Other [Distress protocol]	v1.0	15 October 2023
Other [HRA initial assessment letter]	v1.0	15 October 2023
Other [Response to provisional opinion]	v1.0	17 October 2023
Participant consent form [Assent form for u16s]	v1.3	15 October 2023
Participant consent form [Assent form for u16s tracked changes]	v1.3	15 October 2023
Participant consent form [Consent form for 16+]	v1.3	15 October 2023
Participant consent form [Consent form for 16+ tracked changes]	v1.3	15 October 2023
Participant consent form [Parent consent form]	v1.2	15 October 2023
Participant consent form [Parent consent form tracked changes]	v 1.2	15 October 2023
Participant information sheet (PIS) [PIS for parents]	v1.3	15 October 2023
Participant information sheet (PIS) [PIS for parents with changes tracked]	v1.3	15 October 2023
Participant information sheet (PIS) [PIS +16 years]	v 1.2	15 October 2023
Participant information sheet (PIS) [PIS +16 years tracked changes]	v 1.2	15 October 2023
Participant information sheet (PIS) [PIS u16 years]	v1.3	15 October 2023
Participant information sheet (PIS) [PIS U16 years tracked changes]	v1.3	15 October 2023
Participant information sheet (PIS) [Debrief information sheet]	v1.3	15 October 2023
Participant information sheet (PIS) [Debrief information sheet tracked changes]	v 1.2	15 October 2023
Referee's report or other scientific critique report [Uni project approval]	v 1.0	09 June 2022
Research protocol or project proposal [Protocol v 1.3]	v 1.3	31 July 2023
Summary CV for Chief Investigator (CI) [Chief Investigator CV]	v 1.0	13 February 2023
Summary CV for student [Chief Investigator CV]	v 1.0	13 February 2023
Summary CV for student [FW CV]	v 1.0	28 April 2023
Summary CV for supervisor (student research) [JA (supervisor) CV]	v 1.0	16 May 2023
Summary CV for supervisor (student research) [LJ (supervisor) CV]	v1.0	15 May 2023
Summary, synopsis or diagram (flowchart) of protocol in non technical language [Data flowchart]	v 1.1	08 August 2023
Validated questionnaire [Validates questionnaires and outcome measures]	v 1.0	08 August 2023

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

User Feedback

The Health Research Authority is continually striving to provide a high quality service to all applicants and sponsors. You are invited to give your view of the service you have received and the application procedure. If you wish to make your views known please use the feedback form available on the HRA website: http://www.hra.nhs.uk/about-the-hra/governance/quality-assurance/

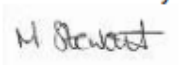
HRA Learning

We are pleased to welcome researchers and research staff to our HRA Learning Events and online learning opportunities– see details at: https://www.hra.nhs.uk/planning-and-improving-research/learning/

IRAS project ID: 326269 Please quote this number on all correspondence

With the Committee's best wishes for the success of this project.

Yours sincerely



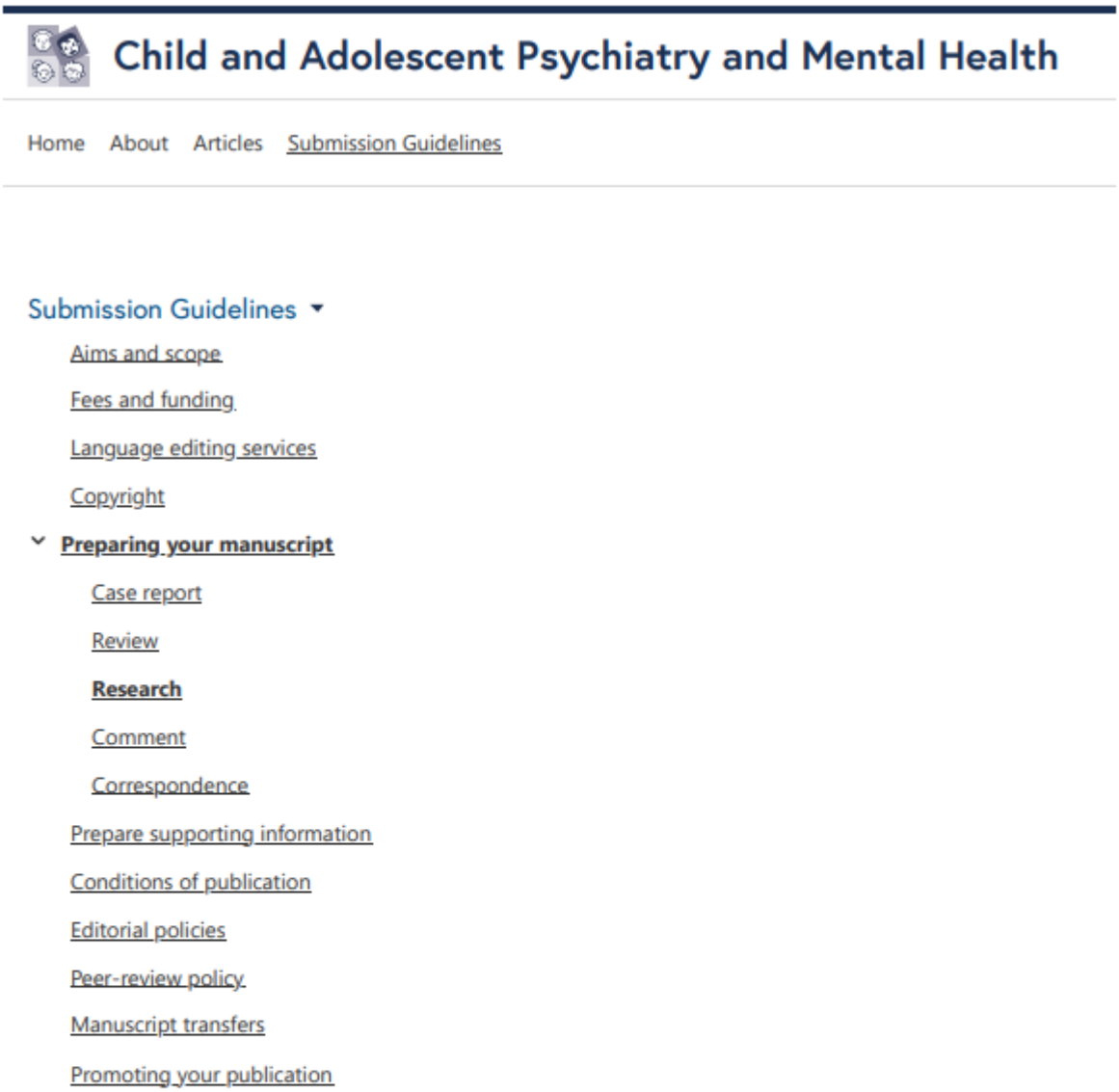
pp. Melissa Stewart
Dr Alastair Walker
Chair

Email: RECA@hscni.net

Enclosures: "After ethical review – guidance for researchers"

Copy to: Ms Natalia Jastrzebska, Research & Development, Oxford Health NHS Foundation Trust
Lead Nation England: approvals@hra.nhs.uk

Appendix Q - Journal Guidelines for SIP



Child and Adolescent Psychiatry and Mental Health

Home About Articles Submission Guidelines

Submission Guidelines

- Aims and scope
- Fees and funding
- Language editing services
- Copyright
- **Preparing your manuscript**
  - Case report
  - Review
  - **Research**
  - Comment
  - Correspondence
- Prepare supporting information
- Conditions of publication
- Editorial policies
- Peer-review policy
- Manuscript transfers
- Promoting your publication

Research

Criteria

Research articles should report on original primary research.

CAPMH strongly encourages that all datasets on which the conclusions of the paper rely should be available to readers. We encourage authors to ensure that their datasets are either deposited in publicly available repositories (where available and

appropriate) or presented in the main manuscript or additional supporting files whenever possible. Please see Springer Nature's information on recommended repositories.

Authors who need help depositing and curating data may wish to consider uploading their data to Springer Nature's Research Data Support or contacting our Research Data Support Helpdesk. Springer Nature's Research Data Support provides data deposition and curation to help authors follow good practice in sharing and archiving of research data, and can be accessed via an online form. The services provide secure and private submission of data files, which are curated and managed by the Springer Nature Research Data team for public release, in agreement with the submitting author. These services are provided in partnership with figshare. Checks are carried out as part of a submission screening process to ensure that researchers who should use a specific community-endorsed repository are advised of the best option for sharing and archiving their data. Use of Research Data Support is optional and does not imply or guarantee that a manuscript will be accepted.

Preparing your manuscript

The information below details the section headings that you should include in your manuscript and what information should be within each section.

Please note that your manuscript must include a 'Declarations' section including all of the subheadings (please see below for more information).

Title page

The title page should:

- present a title that includes, if appropriate, the study design e.g.:
  - "A versus B in the treatment of C: a randomized controlled trial", "X is a risk factor for Y: a case control study", "What is the impact of factor X on subject Y: A systematic review"
  - or for non-clinical or non-research studies a description of what the article reports
- list the full names and institutional addresses for all authors

- if a collaboration group should be listed as an author, please list the Group name as an author. If you would like the names of the individual members of the Group to be searchable through their individual PubMed records, please include this information in the "Acknowledgements" section in accordance with the instructions below
- Large Language Models (LLMs), such as ChatGPT, do not currently satisfy our authorship criteria. Notably an attribution of authorship carries with it accountability for the work, which cannot be effectively applied to LLMs. Use of an LLM should be properly documented in the Methods section (and if a Methods section is not available, in a suitable alternative part) of the manuscript.

- indicate the corresponding author

Abstract

The Abstract should not exceed 350 words. Please minimize the use of abbreviations and do not cite references in the abstract. Reports of randomized controlled trials should follow the CONSORT extension for abstracts. The abstract must include the following separate sections:

- **Background:** the context and purpose of the study
- **Methods:** how the study was performed and statistical tests used
- **Results:** the main findings
- **Conclusions:** brief summary and potential implications
- **Trial registration:** If your article reports the results of a health care intervention on human participants, it must be registered in an appropriate registry and the registration number and date of registration should be stated in this section. If it was not registered prospectively (before enrollment of the first participant), you should include the words 'retrospectively registered'. See our editorial policies for more information on trial registration

Keywords

Three to ten keywords representing the main content of the article.

Background

The Background section should explain the background to the study, its aims, a summary of the existing literature and why this study was necessary or its contribution to the field.

Methods

The methods section should include:

- the aim, design and setting of the study
- the characteristics of participants or description of materials
- a clear description of all processes, interventions and comparisons. Generic drug names should generally be used. When proprietary brands are used in research, include the brand names in parentheses
- the type of statistical analysis used, including a power calculation if appropriate

Results

This should include the findings of the study including, if appropriate, results of statistical analysis which must be included either in the text or as tables and figures.

Discussion

This section should discuss the implications of the findings in context of existing research and highlight limitations of the study.

Conclusions

This should state clearly the main conclusions and provide an explanation of the importance and relevance of the study reported.

List of abbreviations

If abbreviations are used in the text they should be defined in the text at first use, and a list of abbreviations should be provided.

Declarations

All manuscripts must contain the following sections under the heading 'Declarations':

- Ethics approval and consent to participate
- Consent for publication
- Availability of data and materials
- Competing interests
- Funding
- Authors' contributions
- Acknowledgements
- Authors' information (optional)

Please see below for details on the information to be included in these sections.

If any of the sections are not relevant to your manuscript, please include the heading and write 'Not applicable' for that section.

Ethics approval and consent to participate

Manuscripts reporting studies involving human participants, human data or human tissue must:

- include a statement on ethics approval and consent (even where the need for approval was waived)
- include the name of the ethics committee that approved the study and the committee's reference number if appropriate

Studies involving animals must include a statement on ethics approval and for experimental studies involving client-owned animals, authors must also include a

statement on informed consent from the client or owner.

See our editorial policies for more information.

If your manuscript does not report on or involve the use of any animal or human data or tissue, please state "Not applicable" in this section.

Consent for publication

If your manuscript contains any individual person's data in any form (including any individual details, images or videos), consent for publication must be obtained from that person, or in the case of children, their parent or legal guardian. All presentations of case reports must have consent for publication.

You can use your institutional consent form or our consent form if you prefer. You should not send the form to us on submission, but we may request to see a copy at any stage (including after publication).

See our editorial policies for more information on consent for publication.

If your manuscript does not contain data from any individual person, please state "Not applicable" in this section.

Availability of data and materials

All manuscripts must include an 'Availability of data and materials' statement. Data availability statements should include information on where data supporting the results reported in the article can be found including, where applicable, hyperlinks to publicly archived datasets analysed or generated during the study. By data we mean the minimal dataset that would be necessary to interpret, replicate and build upon the findings reported in the article. We recognise it is not always possible to share research data publicly, for instance when individual privacy could be compromised, and in such instances data availability should still be stated in the manuscript along with any conditions for access.

Authors are also encouraged to preserve search strings on searchRxiv https://searchrxiv.org/, an archive to support researchers to report, store and share

their searches consistently and to enable them to review and re-use existing searches. searchRxiv enables researchers to obtain a digital object identifier (DOI) for their search, allowing it to be cited.

Data availability statements can take one of the following forms (or a combination of more than one if required for multiple datasets):

- The datasets generated and/or analysed during the current study are available in the [NAME] repository, [PERSISTENT WEB LINK TO DATASETS]
- The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.
- All data generated or analysed during this study are included in this published article [and its supplementary information files].
- The datasets generated and/or analysed during the current study are not publicly available due [REASON WHY DATA ARE NOT PUBLIC] but are available from the corresponding author on reasonable request.
- Data sharing is not applicable to this article as no datasets were generated or analysed during the current study.
- The data that support the findings of this study are available from [third party name] but restrictions apply to the availability of these data, which were used under license for the current study, and so are not publicly available. Data are however available from the authors upon reasonable request and with permission of [third party name].
- Not applicable. If your manuscript does not contain any data, please state 'Not applicable' in this section.

More examples of template data availability statements, which include examples of openly available and restricted access datasets, are available here.

BioMed Central strongly encourages the citation of any publicly available data on which the conclusions of the paper rely in the manuscript. Data citations should include a persistent identifier (such as a DOI) and should ideally be included in the reference list. Citations of datasets, when they appear in the reference list, should include the minimum information recommended by DataCite and follow journal style. Dataset identifiers including DOIs should be expressed as full URLs. For example:

Hao Z, AghaKouchak A, Nakhjiri N, Farahmand A. Global integrated drought monitoring and prediction system (GIDMaPS) data sets. figshare. 2014. http://dx.doi.org/10.6084/m9.figshare.853801

With the corresponding text in the Availability of data and materials statement:

The datasets generated during and/or analysed during the current study are available in the [NAME] repository, [PERSISTENT WEB LINK TO DATASETS].[Reference number]

If you wish to co-submit a data note describing your data to be published in *BMC Research Notes*, you can do so by visiting our submission portal. Data notes support open data and help authors to comply with funder policies on data sharing. Co-published data notes will be linked to the research article the data support (example).

Competing interests

All financial and non-financial competing interests must be declared in this section.

See our editorial policies for a full explanation of competing interests. If you are unsure whether you or any of your co-authors have a competing interest please contact the editorial office.

Please use the authors initials to refer to each authors' competing interests in this section.

If you do not have any competing interests, please state "The authors declare that they have no competing interests" in this section.

Funding

All sources of funding for the research reported should be declared. The role of the funding body in the design of the study and collection, analysis, and interpretation of data and in writing the manuscript should be declared.

Authors' contributions

The individual contributions of authors to the manuscript should be specified in this section. Guidance and criteria for authorship can be found in our editorial policies.

Please use initials to refer to each author's contribution in this section, for example: "FC analyzed and interpreted the patient data regarding the hematological disease and the transplant. RH performed the histological examination of the kidney, and was a major contributor in writing the manuscript. All authors read and approved the final manuscript."

Acknowledgements

Please acknowledge anyone who contributed towards the article who does not meet the criteria for authorship including anyone who provided professional writing services or materials.

Authors should obtain permission to acknowledge from all those mentioned in the Acknowledgements section.

See our editorial policies for a full explanation of acknowledgements and authorship criteria.

If you do not have anyone to acknowledge, please write "Not applicable" in this section.

Group authorship (for manuscripts involving a collaboration group): if you would like the names of the individual members of a collaboration Group to be searchable through their individual PubMed records, please ensure that the title of the collaboration Group is included on the title page and in the submission system and also include collaborating author names as the last paragraph of the "Acknowledgements" section. Please add authors in the format First Name, Middle initial(s) (optional), Last Name. You can add institution or country information for each author if you wish, but this should be consistent across all authors.

Please note that individual names may not be present in the PubMed record at the time a published article is initially included in PubMed as it takes PubMed additional time to code this information.

Authors' information

This section is optional.

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Footnotes

Footnotes can be used to give additional information, which may include the citation of a reference included in the reference list. They should not consist solely of a reference citation, and they should never include the bibliographic details of a reference. They should also not contain any figures or tables.

Footnotes to the text are numbered consecutively; those to tables should be indicated by superscript lower-case letters (or asterisks for significance values and other statistical data). Footnotes to the title or the authors of the article are not given reference symbols.

Always use footnotes instead of endnotes.

References

Examples of the Vancouver reference style are shown below.

See our editorial policies for author guidance on good citation practice

Web links and URLs: All web links and URLs, including links to the authors' own websites, should be given a reference number and included in the reference list rather than within the text of the manuscript. They should be provided in full, including both the title of the site and the URL, as well as the date the site was accessed, in the following format: The Mouse Tumor Biology Database.

Appendix R – Additional Sections of the TDRP Paper for Journal

Acknowledgements

The authors thank the adolescents, caregivers, and staff at the participating CAMHS. The authors thank the young people and families for their input in developing the compassion-focused imagery intervention and the final set of outcome measures.

JM was supported by funding for professional clinical psychology training by Oxford Health NHS Foundation Trust. FW is funded by a Welcome Trust Clinical Doctoral Fellowship (102176/B/13/Z). The authors have declared that they have no competing or potential conflicts of interest.

Correspondence

Jessica McGovern, Oxford Institute of Clinical Psychology Training and Research, Medical Sciences Division, University of Oxford, Oxford, UK;

Email: jessica.mcgovern@gtc.ox.ac.uk.