IMPROVING THE PSYCHOLOGICAL UNDERTSANDING OF YOUNG PEOPLE'S RISK OF SUICIDE AND ASSOCIATED TREATMENTS

By

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Thesis Overview

This thesis consists of two volumes submitted towards the Doctorate in Clinical Psychology.

Volume one is comprised of three chapters. The first is a meta-analysis of 23 research papers investigating the effectiveness of family-based interventions on young people suicidal ideation and behaviours. The second chapter is an empirical project exploring how seven young people who consume alcohol make sense of their experiences of attempting to end their life. Their interviews were analysed using Interpretative Phenomenological Analysis. Participants identified the role of relationships, alcohol and substances, recovery and the build up to the attempts as being most significant. The third chapter is a press release providing an accessible overview of chapters one and two.

Volume two is comprised of five clinical practice reports. The first presents the case of Maisie[1], a 9-year-old girl who was experiencing anger and behaviour that challenged, formulated from two psychological models. The second is a service evaluation appraising experiences of a child and adolescent mental health service, with a focus on care planning. The third presents a single case experimental design of Sally, a 71-year-old with panic and agoraphobia. The fourth describes a case study of Emily, a 25-year-old woman with a learning disability and support offered to the day centre staff in regard of behaviours that challenge and selective mutism. The fifth is an abstract of an oral presentation of Harry, a 38-year-old male with difficulties related to low self-esteem and emotional instability.

[1] All names have been changed for confidentiality

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CHAPTER 1

LITERATURE REVIEW

THE EFFECTIVENESS OF FAMILY-BASED INTERVENTIONS ON SUICIDALITY FOR YOUNG PEOPLE: A SYSTEMATIC REVIEW AND META-ANALYSIS

Abstract

Background: Suicide is an increasing and global problem. Many services worldwide are attempting to address the rising rates of suicide, especially in young people. Family-based interventions have been used to support young people with a number of mental health difficulties as well as attempted suicide. The present meta-analysis evaluated the effectiveness of family-based interventions in reducing suicidal ideation and behaviours in individuals aged 12-25 years old.

Method: A systematic literature search of PsycINFO, Medline, Web of Science (Core Collection), Cochrane Central Register of Controlled Trials, Scopus and PubMed databases generated 23 eligible studies, which were then rated on a number of quality criteria.

Results: The results of the meta-analysis revealed large effects of family-based interventions in reducing both suicidal ideation (0.55) and behaviours (1.26) in young people. 19 papers were analysed for suicidal ideation and 6 papers were analysed for suicidal behaviours.

Discussion: The results suggest that family-based interventions, both as standalone treatments and in combination with other adapted models such as Cognitive Behaviour Therapy (CBT) and Dialectical Behaviour Therapy (DBT), are effective in reducing suicidal ideation and behaviours. More studies with more robust designs, larger and diverse samples are needed to support the findings of this review. However, results suggest that family interventions should be routinely implemented with suicidal young people.

Introduction

Suicide

Suicide is the third leading cause of death for young people aged 15-19 years old worldwide (World Health Organisation [WHO], 2019). Annually, almost 800,000 people die by suicide (WHO, 2019). However, there is a recognition that the rigor of data on completed suicides and attempts is poor, therefore the actual overall number is likely to be significantly higher than is reported (Samaritans, 2019). It is estimated that for each person who dies by suicide, another 20 people will attempt suicide (WHO, 2019). Non-suicidal self-harm is cited as being a significant predictor of future suicide attempts (Mars et al., 2019). However, Clements et al (2016) found that the number of people attending emergency departments due to self-harm is also consistently underreported. In the UK, the rate of suicide and self-harm in young people is increasing and the suicide rate for young females is at its highest ever (Office of National Statistics, 2018). Therefore, this represents a significant problem which is a leading concern for health services globally.

Suicide is complex and rarely the outcome of a single cause (Turecki & Brent, 2016). Bilsen (2018) identified that some of the most commonly reported risk factors for young people who attempted suicide included mental health difficulties, previous suicide attempts, personality traits, genetic predispositions and family discord. Although the evidence base on suicide risk factors is robust, little is known about factors that can protect or buffer against vulnerability towards suicide. Living in a supportive and healthy family environment has been consistently identified as a strong protective factor for young people (Newman & Blackburn, 2002; Sandler, Miller, Short & Wolchik, 1989; Viner et al, 2012). As such, interventions

targeting self-harm and suicide-related outcomes have focused on working with young people as well as their families.

Family Based Interventions

The National Institute for Health and Care Excellence (NICE, 2019) have described a number of quality statements aimed at the prevention of suicide, including involving friends and family in care. Hawton et al (2015) suggested that therapeutic assessment, mentalisation and dialectical behavioural therapy (DBT) show the most promising effects on reducing youth self-harm. However, they reported that they found no significant impact of home-based family interventions on self-harm in children and adolescents. They reported that future interventions should be adapted for working specifically with this population, for example DBT for adolescents which includes a family component. Robinson et al. (2018) conducted a large-scale systematic review into youth suicide prevention and reported that two out of the three studies in their review testing family-based interventions reported reduced suicidal ideation, one also reported a reduction in suicide attempts.

Family based interventions have been shown to be effective in treating depression, anxiety and developmental disorders among children and young people (Kaslow, Broth & Collins, 2012). Das et al. (2016) also suggested further research was warranted into attachment-based family therapy for adolescent mental health difficulties. WHO propose that interventions should not only target those who attempt suicide, but also their friends and family members. The American Psychological Association (APA, 2011) define the aims of family interventions:

1. Improve outcomes for the person with the disorder or illness by improving family engagement and effectiveness in handling the challenges associated with the problem.

2. Improve the well-being of the caregiver as well to reduce stress and negative outcomes of caregiving

Published reviews

There is limited literature robustly synthesising the evidence base purely for family-based interventions for young people who experience suicidal ideation, may attempt to end their life or self-harm. At present, there are two recent literature reviews which have been conducted focusing on the impact of family-based interventions on self-harm and suicidality (Aggarwal & Patton, 2018; Frey & Hunt, 2018). Frey and Hunt (2018) conducted a non-systematic scoping review of the literature, and furthermore limited the search to two databases and conducted no quality assessment of the retrieved studies. Aggarwal and Patton (2018) focus their review on family interventions to reduce self-harm behaviours among adolescents. Both reviews have limitations, but importantly neither conducted a meta-analysis. Given the absence of meta-analyses, it is therefore not possible to evaluate the combined results from multiple studies in an effort to increase power, improve estimates of the size of the effect or resolve uncertainty where there are discrepancies between studies.

One meta-analysis investigated the efficacy of different therapeutic interventions (some of which included family involvement in therapy) for suicide attempts and self-harm in young people (Ougrin, Tranah, Stahlm Moran & Asarnow, 2015). Within this review the authors did not find enough evidence to support a specific intervention for reducing self-harm. However, the above review suggests that DBT, Cognitive Behavioural Therapy (CBT) and Mentalisation Based Therapy (MBT) that involve a family component may provide some benefit. However, it is unclear from the review by Ougrin et al. (2015) what benefits family intervention could have as a sole intervention for suicide prevention.

Indeed, at present there is no robust meta-analytic synthesis of family interventions used in suicide prevention. Furthermore, results from prior reviews need to be taken with caution as they have a number of limitations. However, as each review has highlighted growing evidence for the importance of including family in the treatment of suicidal young people, there is a clear need for a systematic evaluation of the current evidence base which includes a meta-analytic synthesis of the available data.

Rationale and aims for the current review

The aim of this systematic review was to investigate the effectiveness of family-based therapeutic interventions for suicidal ideation and behaviours (including self-harm) in young people aged 12-25 years old. This wide age bracket was chosen in order to capture as much of the literature as possible for young people. The NHS long term plan (2019) also reports a wish to extend all Child and Adolescent Mental Health Services (CAMHS) to an upper age limit of 25 by 2023/4. There appears to be emerging evidence that involving family members in treatment can improve outcomes for the young person and therefore it is vital to investigate the evidence further using a rigorous meta-analysis methodology.

For the purposes of this review, self-harm was defined as “any act of self-poisoning or self-injury carried out by a person, irrespective of their motivation.” (NICE, 2013, p.6). Suicidal behaviour was defined as “engagement in potentially self-injurious behaviour in which there is at least some intent to die” (Nock et al., 2008, p.2).

Method

Due to the conceptual differences between suicidal ideation and behaviour, as well as the difference in measures used to gather data on ideation and behaviour, for the present review outcomes related to ideation were analysed separately to those investigating suicidal behaviours.

Identifying Primary studies

Search Strategy

A systematic search of the literature was initially conducted in August 2019 of the following electronic databases: PsycINFO, Medline, Web of Science (Core Collection), Cochrane Central Register of Controlled Trials, Scopus and PubMed. Following this systematic search, reference lists of identified papers and current reviews were screened to ensure capture of all relevant published literature. The target dates for literature were 1967-2019 (August).

Search terms used are described in Table 1. Only studies published in the English language have been reviewed. Following the search of the databases, reference lists were also inspected for additional studies in order to minimise the risk of any publications being overlooked.

Table 1. Search Terms

Construct	Search Terms	Method	Limits
Suicide	"Self harm" "Suicid*" "suicidal ideation"	All search terms combined with "OR"	Study design will include randomised controlled trials

Construct	Search Terms	Method	Limits
	"suicidal behaviour" "overdos*" "para-suicid*" "self cut" "self destruct*" "Self injur*" "self mutilation" "self inflicted wound	N.B in the PsycINFO and Medline searches, all free search terms were "exploded"	(RCTs) and quasi-experimental studies (pilot or full studies). English language studies only will be reviewed
Family interventions	"family intervention*" "family based intervention" "family therap*" "systemic family therap*"		
Children and/ or adolescents	"child" "adoles*" "young people" "kid" "youth" "Juvenile" "young adult*" "young person"		

Construct	Search Terms	Method	Limits
	"minor"		
	"teen*"		
	"school age*"		
	"12-25"		

Inclusion and Exclusion Criteria

The inclusion and exclusion criteria are described fully in Table 2. The main inclusion criteria stated that any intervention study targeting suicidal ideation or behaviours, inclusive of self-injury, involving at least one family member as part of the intervention would be included. Studies were restricted to those reported in published peer reviewed journals, Randomised Controlled or quasi-experimental designs. The mean age of participants within these studies was required to be between 12 to 25 years of age.

Primary outcomes included a decrease in suicide attempts and/ or suicidal ideation. This was measured in a number of different ways for example, through the use of various standardised measures, which are discussed in line with their respective papers (see Table 3).

Secondary outcomes included the number of incidents of self-injury or suicidal behaviours/attempts, quality of life measures and family outcome e.g. carer stress and/ or the quality of family relationships.

Table 2: Inclusion criteria for primary studies with rationale described.

Inclusion Criteria	**Rationale**
Participant	
Studies that included interventions which focussed upon participants between the ages of 12 to 25.	The mean age of participants in the study was required to fall between the ages of 12 years old and 0 months and 25 years old and 11 months.
Type of intervention	
Studies that included interventions where at least one family member was an active participant in at least one session of the intervention, with or without the young person.	The review was investigating the effectiveness of family-based interventions; therefore, the decision was made to not exclude to purely 'family therapy' interventions. Therefore, any intervention 'type' that included an active role of at least one family member was included.
In order to mirror the variety and range of literature in this area, interventions were not required to be purely "family therapy" focussed and were permitted to incorporate elements of other therapies and interventions e.g. DBT, CBT, emergency room intervention, MBT, MST, Attachment-based family therapy etc.	There is research exploring the effectiveness of a wide variety of interventions with young people that include the involvement of family members, therefore the review was not limited to studies that self-identified purely as "family therapy". This also reflects the heterogeneous nature of the presenting population, and therefore

Inclusion Criteria	Rationale
	the variety of treatment interventions that are utilised.
The interventions needed to have been conducted face to face, other modalities such as via telephone or computer system were excluded.	To reduce the heterogeneity of the intervention/ treatment in each study.
Outcome data	
The studies are required to report either Means and Standard Deviations, or F- Test statistics, Cohen's d effect size, an r effect size or odd's ratio.	To ensure that provided outcomes can be calculated or data can be transformed into a suitable format to calculate an effect size.
Type of article	
The following article types were not included: meta-analysis, literature reviews, single-case designs, theoretical papers, protocols, papers validating psychometrics, qualitative papers, clinical guidance, studies that did not report an outcome, dissertation/ thesis.	The types of article would not provide the outcome data required to report for this meta-analysis
Control conditions	
Control conditions will include no intervention, treatment as usual (TAU) or waiting list.	This ensured that an effect size could be calculated either by identifying the

Inclusion Criteria	Rationale
	difference in means between or within groups.

Types of Intervention

The review included interventions with some active involvement of at least one family member targeting suicidal ideation or behaviours (including deliberate self-injury). For the purpose of this review, a 'family based' intervention was defined as at least one family member, actively participating in the therapeutic intervention, ranging from a single contact to ongoing engagement in a specific treatment protocol. This may include, but is not limited to, adapted CBT, adapted DBT and other family-based therapeutic interventions such as, attachment-based family therapy, family-based crisis interventions, multi-systemic therapy (MST), systemic family therapy and emergency room family intervention.

Primary Studies

The outcome of the systematic database search is summarised in Figure 1. A total of 1,043 articles were identified across the 6 databases. After the removal of 292 duplicates, a total of 751 papers were screened by study title and abstract, utilising the inclusion and exclusion criteria. Following this screen, 707 papers were excluded for a number of reasons, including: being unrelated to the subject matter, the wrong type of article, describing a case study or a book chapter. The remaining 44 papers were then full-text screened against the inclusion and exclusion criteria, 29 papers were then excluded. Therefore 15 papers remained and met the full inclusions/ exclusion criteria. Following a reference list search of the included articles/papers, a further 8 papers were identified which met the inclusion criteria.

Consequently, 23 final articles were selected for the meta-analysis. Two articles met the criteria for both suicidal ideation and suicidal behaviour outcomes and have therefore been separately analysed, in the suicidal ideation and behaviour section of the results.

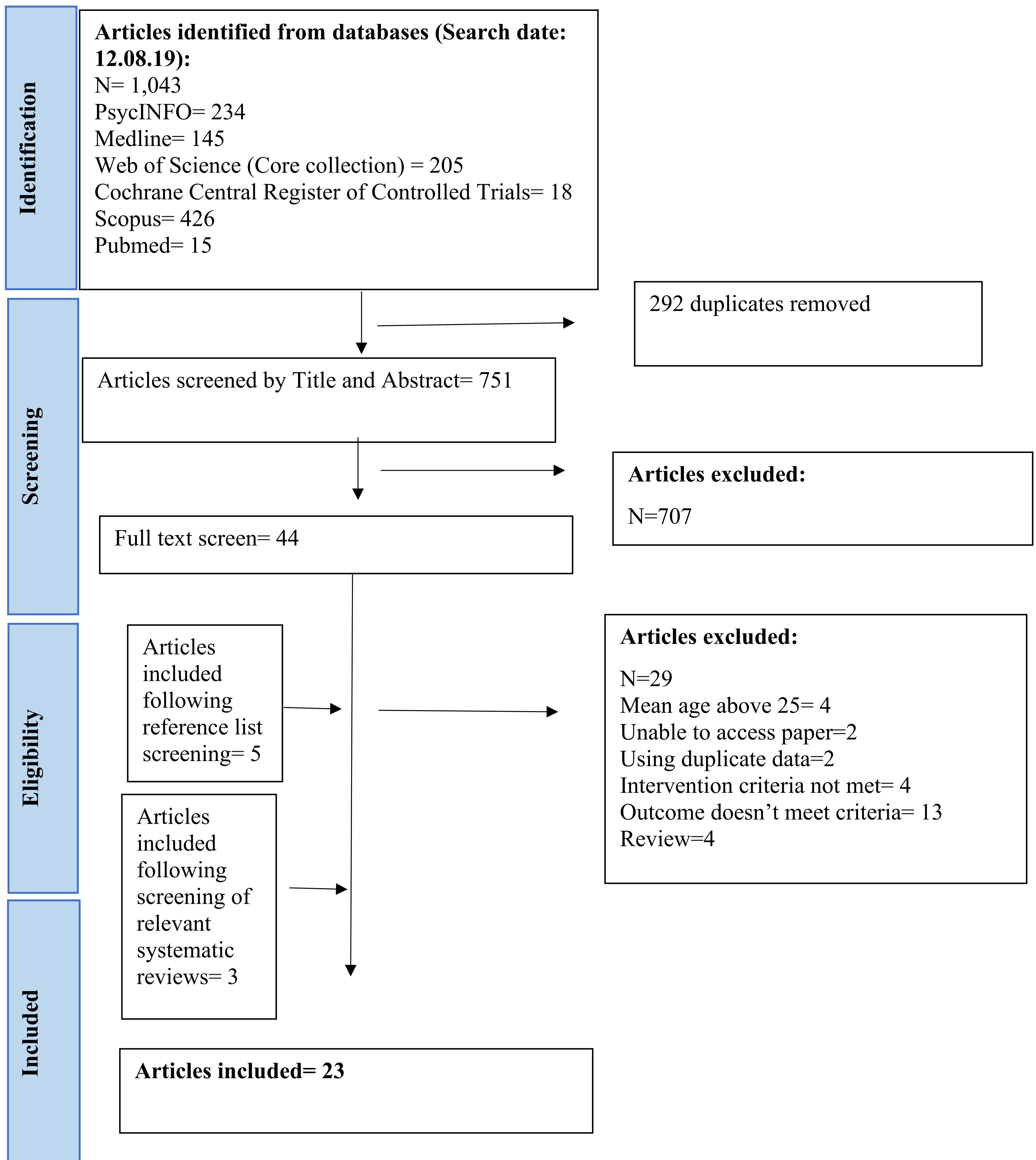

Figure 1: PRISMA flow diagram depicting the results of the systematic search

Table 3: Description of all primary studies identified and included in meta-analysis

Study	Trial Type	Treatment (n)	Control (n)	Age (M)	Population	Control Group	Intervention	Outcome measure
Suicidal Ideation Studies								
Alavi et al (2013)	RCT	15	15	16.1 (12 to 18)	Suicidal Youth	Waitlist	12 sessions of CBT over 3 months. Parents attended first session and family skills training modules[1.]	SSI (Beck et al, 1979)[2.]
Asarnow et al (2011)	RCT	89	92	14.7 (10 to 18)	Suicidal Youth	Other treatment	Family Intervention for suicide Prevention (FSIP)[3.] 1 brief youth and family crisis therapy session.	HASS (Harkavy Friedman and Asnis, 1989)[4.]
Asarnow et al (2015)	Pre and Post	18	17	14.9 (11 to 18)	Suicidal Youth	No Control	Safe Alternatives for Teens & Youths (SAFETY)[5.] 9 to 13 sessions were offered.	HASS (Harkavy Friedman and Asnis, 1989)
Cottrell et al (2018)	RCT	415	417	14.3 (11 to 17)	Self-harming Youth	Other treatment	Self-Harm Intervention: Family Therapy (SHIFT)[6.] 6-8 sessions were offered over a 6 month period. Sessions were approximately 75 minutes in duration.	BSS (Beck & Steer, 1991)[7.]
Courtney & Flament (2015)	Pre and Post	16	15	16.5 (15 to 18)	Suicidal Youth	No Control	Dialectical Behaviour Therapy for Adolescents (DBT-A[8.]). 15 weekly sessions and parents attended additional weekly individual sessions.	SIQ (Reynolds,1988)[9.]
Diamond et al (2002)	RCT	16	16	14.9 (13 to 17)	Participants with depression diagnosis	Waitlist	Attachment Based Family Therapy (ABFT)[10.] 3 to 12 weekly session were attended for a duration of 60-90 minutes.	SIQ (Reynolds,1988)
Diamond et al (2010)	RCT	35	31	15.1 (12 to 17)	Suicidal Youth	Other treatment	ABFT. Up to 10 sessions were attended	SIQ (Reynold, 1988) SSI (Beck AT, Kovacs M, Weissman A, 1979)[11.]
Donaldson et al (2005)	RCT	16	15	15 (12 to 17)	Suicidal Youth	No control	Skills Based Treatment (SBT)[12] and Supportive Relationship Treatment (SRT)[13] were both implemented. Brief contact with parents occurred at the beginning of each session and two additional family sessions	SIQ (Reynolds,1988)

Study	Trial Type	Treatment (n)	Control (n)	Age (M)	Population	Control Group	Intervention	Outcome measure
							were offered at the therapist's discretion.	
Esposito-Smythers et al (2011)	Pseudo-randomised trial	20	20	15 (13 to 17)	Alcohol and drug users, inpatients	Other treatment	Integrated Cognitive Behavioural Therapy (I-CBT)[14] was offered over 24 sessions for adolescents and 12 sessions for parents, lasting for 6 months.	SIQ (Reynolds, 1985)
Goldstein et al (2007)	Pre and Post	5	5	15.8 (14 to 18)	Participants with Bipolar disorder diagnosis	No control	DBT-A; skills training for family units and individual therapy. 36 sessions were offered over a 12 month period. A psychoeducation module was also included.	MSSI (Miller et al., 1986)[15.]
Goldstein et al (2015)	Pseudo-randomised trial	14	6	16 (12 to 18)	Participants with Bipolar disorder diagnosis	Other treatment	DBT-A[16]; 36 sessions were offered over a 12 months period.	SIQ (Reynolds,1988)
Harrington et al (1998)	RCT	74	75	14.4 (10 to 16)	Suicidal Youth	Other treatment	Assessment plus 4 family problem-solving sessions.	SIQ (Reynolds,1988)
Huey et al (2004)	Pseudo-randomised trial	57	56	12.9 (10 to 17)	Suicidal Youth	Hospitalisation	Multisystemic Therapy (MST)[17], contact with MST therapist for 3-6 months.	BSI (Derogatis, 1992)[18]
Lynn et al (2014)	Pseudo-randomised trial	14	14	12.8 (11 to 14)	Homeless Youth	Other treatment	HIV Outreach for Parents and Early Adolescents (HOPE) family program[19.] 8 weekly, 60 minute sessions.	CDI (Finch, Saylor, Edwards, and McIntosh, 1987)[20]
Mehlum et al (2014)	RCT	39	38	15.9 (12 to 18)	Suicidal Youth	Other treatment	DBT-A; 19 weekly individual sessions and multifamily skills training and family therapy sessions.	SIQ-Jr (Reynolds & Mazza, 1999)[21]
Shpigel and Diamond (2012)	Pre and Post	9	9	16 (14 to 18)	Suicidal Youth	No control	ABFT; 12 weekly sessions. All participants were single mother families.	SIQ-Jr (Reynolds & Mazza, 1999)
Spirito et al (2015)	Pseudo-randomised trial	16	8	14.7 (11 to 17)	Participants with depression diagnosis	Other treatment	Parent-Adolescent Cognitive Behavioural Therapy (PA-CBT)[22] on average 13 sessions were attended.	BSS (Beck et al. 1979
Tang et al (2009)	RCT	35	38	15.3 (12 to 18)	Suicidal Youth	Other treatment	Intensive Interpersonal Psychotherapy for Depressed Adolescents with Suicidal Risk	BSS (Beck & Steer, 1991)

Study	Trial Type	Treatment (n)	Control (n)	Age (M)	Population	Control Group	Intervention	Outcome measure
							(ITP-A-IN)[23] , 2 sessions a week for 6 weeks.	
Woodberry and Popenoe (2008)	Pre and Post	14	14	16 (13 to 18)	Participants with Borderline Personality Disorder diagnosis	No control	DBT-A, as well as individual sessions, at least one caregiver committed to attend 15 week skills training.	CBCL (Achenbach,1991)[24]
Suicidal Behaviour Studies								
Asarnow et al (2011)	RCT	89	92	14.7 (10 to 18)	Suicidal Youth	Other treatment	Family Intervention for suicide Prevention (FSIP) 1 brief youth and family crisis therapy session.	HASS (Harkavy Friedman and Asnis, 1989)
Asarnow et al (2017)	RCT	20	22	14.6 (12 to 18)	Suicidal Youth	Other treatment	Safe Alternatives for Teens & Youths (SAFETY). 9-12 sessions.	Number of attempts
Esposito-Smythers et al (2011)	Pseudo-randomised trial	19	17	16 (13 to 17)	Alcohol and drug users, inpatients	Other treatment	Integrated Cognitive Behavioural Therapy (I-CBT) was offered over 24 sessions for adolescents and 12 sessions for parents, lasting for 6 months.	Number of attempts
Pineda & Dadds (2013)	RCT	22	18	15 (12 to 17)	Suicidal Youth	Other treatment	Resourceful Adolescent Parent Programme (RAP-P)[25]. Psychoeducation for parents and adolescents, offered 4 two - hour sessions.	ASQ-R (Pearce & Martin, 1994)[26]
Rossouw & Fonagy (2012)	RCT	40	40	14.7 (12 to 17)	Self-harming youth	Other treatment	Mentalisation Based Therapy (MBT-A/ MBT-F)[27]. A year long, manualised psychodynamic psychotherapy programme, weekly MBT-A and monthly MBT-F sessions were offered.	RTSHI (Vrouva, Fonagy, Fearon, Roussow, 2010)[28]
Wijana et al (2018)	Pre and Post	22	22	14.6 (13 to 19)	Suicidal/self-harming youth	No control	Intensive Contextual Treatment for Self-Harm (ICT)[29]. A mean number of 35 sessions was attended by families, generally twice weekly over 3 months.	DSHI-9 (Gratz, 2001)[30]

[1] Family skills included: behavioural activation, emotion regulation, problem solving, family communication and cognitive restructuring.
[2] Scale for Suicidal Ideation (SSI; Beck et al 1979).
[3] FSIP included; reframing the attempt, family education, safety planning, strengthening family support, developing an understanding of triggers. Structured telephone contacts were offered at 1, 2 and 4 weeks post intervention.

[4] Harkavy Asnis Suicide Scale (HASS; Harkavy Friedman and Asnis, 1989).
[5] SAFETY included: sessions with young person and family members focussed on psychoeducation, identifying family strengths and family support, safety planning and understanding triggers. Cognitive-Behavioural Fit analysis was used.
[6] SHIFT included: Family therapy sessions manualised as outlined in Pote et al (2013).
[7] Beck Scale for Suicide Ideation (BSS; Beck & Steer, 1991).
[8] DBT-A as outlined by Miller et al (2006).
[9] Suicidal Ideas Questionnaire (SIQ; Reynolds,1988).
[10] ABFT included: Reducing blame, bonding, parental education, 'reattachment' and increasing autonomy.
[11] Scale for Suicidal Ideation (SSI; Beck AT, Kovacs M, Weissman A, 1979).
[12] SBT included: skills education and practice.
[13] SRT adapted from SRT Treatment Manual (Brent and Kolko, 1991).
[14] I-CBT included: individual, family, and parent training sessions which involved; problem solving, communication and behavioural contracting skills training.
[15] Modified Scale for Suicidal Ideation (MSSI; Miller et al., 1986).
[16] DBT-A implemented as in Goldstein et al, 2007.
[17] MST was based on the manual in Henggeler et al., 2002. MST is described as a family-centred, home-based intervention. MST aims to empower caregivers with skills and resources, encourages prosocial activities and addresses barriers to effective parenting.
[18] Brief Symptoms Inventory (BSI; Derogatis, 1992).
[19] HOPE family program included: family strengthening, aimed at building communication, parental monitoring and skills.
[20] Child Depression Inventory (CDI; Finch, Saylor, Edwards, and McIntosh, 1987). Three specific questions were taken from this questionnaire to monitor suicidal ideation.
[21] Suicidal Ideation Questionnaire Junior (SIQ-Jr; Reynolds & Mazza, 1999).
[22] PA-CBT, parents and young people had individual sessions as well as joint family sessions. All individual sessions ended with a joint meeting. The CBT component was the same in both sessions.
[23] IPT-A-IN; psychoeducation for the young persona and family on the reduction of suicidal risk, which is achieved by resolution of interpersonal problems.
[24] Child Behaviour Checklist (CBCL; Achenbach,1991). Two specific questions were taken from this questionnaire to monitor suicidal ideation.
[25] RAP-P, information given on strengths, normal development, provision of strategies to manage conflict and increase harmony.
[26] Adolescent Suicide Questionnaire- Revised (ASQ-R; Pearce & Martin, 1994)
[27] MBT-A/F; based in attachment theory, focuses on impulsivity and affect regulation, the aim is to increase patients ability to express their emotions to others. Sessions lasted for 50 minutes.
[28] Risk taking and self-harm inventory (RTSHI; Vrouva, Fonagy, Fearon, Roussow, 2010)
[29] ICT is a manual based, intensive contextual treatment conducted by qualified family therapists. The four targets of ICT are to promote emotion regulation, increase communication and school attendance and devise a management plan.
[30] Deliberate Self harm inventory (DSHI-9; Gratz, 2001)

Data Extraction

All data was extracted from primary studies by the author. Papers which met the predefined selection criteria were obtained in full text. Data was then extracted, and quality ratings were conducted. Quality ratings related to methodology, participants, interventions and outcomes and were ranked as 'high', 'low' or 'unclear risk'.

It was anticipated that treatment study outcomes and results would be reported as a mean or a mean difference, a standard deviation (SD) and sample 'n' size for the treatment and control group. Where SDs for each of these groups was not reported, the pooled SD was substituted. For studies that did not report the mean, SD and 'n', the Student t or F statistic have been transformed into estimates of Cohen's d. For any data that was not reported in the above formats, the effect sizes as calculated within primary studies was considered. However, as effect sizes reported in primary studies are often adjusted for the association with one or more covariates, they tend to emphasise the idiosyncratic nature of that particular sample and therefore, may increase heterogeneity within the meta-analysis.

Where studies have utilised more than one measure of suicidal ideation, their multiple outcomes were combined into a single value using the procedures described by Borenstein et al (2009).

Risk of Bias Assessment

A set of quality criteria were developed in order to evaluate levels of risk of bias within the literature identified (see Table 4). The quality criteria were adapted from existing frameworks including: Downs & Black (1998), The Cochrane Collaboration Risk of Bias Tool (Higgins et al., 2011) and the Risk of Bias Assessment Tool for Nonrandomised Studies (RoBANS) (Kim et al., 2013). The framework assessed risk of bias in seven domains: Selection

Bias, Performance Bias, Treatment Fidelity, Detection Bias, Statistical Bias, Reporting Bias, Generalisability. Each domain was rated as either low, unclear or high risk (Table 5).

Table 4: Descriptions of risk of bias quality framework

Domain	High Risk of Bias	Unclear Risk of Bias	Low Risk of Bias
Selection Bias *What is the study design and the type of control used within the study? If using randomisation, have they described the method of allocation clearly? Has this allowed for the production of comparable groups?*	Within-group studies Participants were not randomisation to either group The characteristics of the target population are systematically different to the study sample There are systematic differences between the intervention and control group prior to experimental manipulation.	Between group/quasi-randomised and randomisation studies where methods of allocation have not been clearly described. The characteristics of the study population are not clearly reported It is unclear if there are differences between the intervention and control group. Participants were pseudo-randomised to either control or intervention group.	Randomised Control Study, where procedures of randomisation have clearly been described and allocation has been concealed. The characteristics of the sample population are clearly outlined and without evidence of bias. There are no systematic differences between the intervention group / control group.
Performance Bias *Are there any systematic differences between groups (in treatment or exposure to other factors) other than that of the intervention?*	There are clear differences between intervention and control conditions other than the intervention that is being compared.	It is unclear if there are any differences between intervention and control condition other than the intervention that is being compared.	There are no clear differences between intervention and control conditions other than the intervention that is being compared.
Has there been any blinding of participants or researchers so that knowledge of intervention does not impact outcomes?	There has been no efforts to put blinding in places	Blinding may be in place but is not clearly described	There is effective blinding to ensure both groups receive a similar amount of attention, ancillary treatment and diagnostic. Family therapy was used as the sole intervention.

Domain	High Risk of Bias	Unclear Risk of Bias	Low Risk of Bias
Treatment Fidelity *How well described was the intervention? Could the intervention be replicated?* *Did the actual treatment correspond to intended treatment?* *Was the treatment part of other treatments also being received?* *Was the fidelity to intervention or treatment model assessed?*	There is no mention of fidelity tests or processes used to ensure fidelity. Family intervention support has been combined with another treatment or has no protocol.	Treatment fidelity undertook but it is not clearly described or evaluated Unclear if family intervention support was part of a multi-treatment package. Unclear if following a protocol or if the training of those delivering the intervention is not reported.	Treatment fidelity is clearly described and there has been adequate adherence to the model used. Treatment was clearly described so that it could be replicated
Detection Bias *Is the study designed to detect the effect that the research question is asking?* *Are there any systematic differences between group outcomes?* *Is there any blinding of outcome assessors?*	There are clear systematic differences between groups in how the outcomes are determined Blinding of outcome assessors is not in place.	Any differences between groups in how the outcomes are determined have not been clearly outlined or described Blinding of outcome assessors may be in place but it has not been clearly described.	There are no systematic differences between groups in how the outcomes are determined Blinding of outcome assessors has been implemented and clearly described
Statistical Bias *Were appropriate statistical methods used to analyse data?* *Was completer analysis or "intent to treat" analysis used?*	Completer analysis was conducted (potentially overestimating the efficacy of the treatment). Not appropriate statistical treatment of data.	Unclear if completer analysis or intention to treat analysis was used Unclear if appropriate statistical treatment of data was utilised. Not clearly outlined or described.	Intention to treat analysis was conducted (takes into account dropouts and any missing data) Appropriate statistical treatment of data clearly outlined and described

Domain	High Risk of Bias	Unclear Risk of Bias	Low Risk of Bias
Reporting Bias *Are all outcomes reported as described in the method section in a sufficient way? Are any exclusions or reasons for attrition explained?*	Not reported full outcome measures that are stated in the method section / reported only a subsample of results / only significant results.	Not all descriptive and / or summary of statistics are presented	Reported all results of measures as outlined in the method
Generalisability *How large is the sample size?* *Is the sample representative of the target population?*	Small sample with or without idiosyncratic feature (<20 per group).	Sufficient sample for generalisation but with some idiosyncratic features (>20 per group)	Sufficient sample for generalisation and representative of target population (>20)

To calculate the quality index as described in Table 5, two points were awarded for any section deemed at low risk of bias, one point was awarded for unclear risk of bias and zero points for high risk of bias. The total score was the observed score divided by the theoretical maximum of 14 points.

Table 5: Table summarising the applied quality criteria. Red indicates high risk of bias, yellow marks an unclear risk of bias and green is a low risk of bias.

Study Name	*Selection Bias*	*Performance Bias*	*Treatment Fidelity*	*Detection Bias*	*Statistical Bias*	*Reporting Bias*	*Generalisability*	*Quality Index*
Suicidal Ideation Studies								
Alavi et al (2013)								64%
Asarnow et al (2011)								86%
Asarnow et al (2015)								50%
Cottrell et al (2018)								86%
Courtney and Flament (2015)								29%
Diamond et al (2002)								71%
Diamond et al (2010)								79%
Donaldson et al (2005)								64%
Esposito-Smythers et al (2011)								64%
Goldstein et al (2007)								21%

Study Name	***Selection Bias***	***Performance Bias***	***Treatment Fidelity***	***Detection Bias***	***Statistical Bias***	***Reporting Bias***	***Generalisability***	***Quality Index***
Goldstein et al (2015)								64%
Harrington et al (1998)								71%
Huey et al (2004)								57%
Lynn et al (2014)								29%
Mehlum et al (2014)								86%
Shpigel and Diamond (2012)								29%
Spirito et al (2015)								50%
Tang et al (2009)								86%
Woodberry and Popenoe (2008)								43%
Suicidal Behaviour Studies								
Asarnow et al (2011)								86%

Study Name	***Selection Bias***	***Performance Bias***	***Treatment Fidelity***	***Detection Bias***	***Statistical Bias***	***Reporting Bias***	***Generalisability***	***Quality Index***
Asarnow et al (2017)								79%
Esposito-Smythers et al (2011)								64%
Pineda and Dadds (2013)								79%
Rossouw and Fonagy (2012)								79%
Wijana et al (2018)								64%

Selection Bias

Overall, selection bias was mixed. Twelve out of the 23 studies were rated as low risk due to clear descriptions of the randomisation of participants. Six studies were rated as high risk due to the use of a within-participants design (Asarnow et al., 2015; Courtney & Flament, 2015; Goldstein et al., 2007; Shpigel & Diamond, 2012; Wijana et al., 2018; Woodberry & Popenoe, 2008). The remaining five studies were rated as unclear risk. There were a number of reasons for this, three papers provided little information about their sampling and randomisation method (Alavi et al., 2013; Huey et al., 2004; Lynn et al., 2014) and some papers utilised a 2:1 randomisation method in favour of the treatment group (Goldstein et al., 2015; Spirito et al., 2015).

Performance Bias

Nineteen out of the 23 total studies were rated as high risk of performance bias. Three studies received a rating of low risk (Diamond et al., 2002; Alavi et al., 2013 & Asarnow et al., 2011) due to the use of a pure family therapy intervention without elements from other models and the control group being placed onto a waiting list with minimal contact from alternative support. The six studies that utilised a within-participants design were again rated as high risk (Asarnow et al., 2015; Courtney & Flament, 2015; Goldstein et al., 2007; Shpigel & Diamond, 2012; Wijana et al., 2018; Woodberry & Popenoe, 2008). Huey et al. (2004) was rated as unclear risk as it was not reported what support was received by the control group. The remaining studies were rated as high risk. Some studies reported that the intervention group was also receiving treatment as usual in addition to the intervention, therefore this may contaminate the study effects as the increased contact time provided may have been the cause of any change rather than the interventions itself. Other studies reported 'enhanced' treatment

as usual or treatment as usual which may have involved a family component, this also may have contaminated the effects, potentially reducing the reported effect of the intervention.

Treatment Fidelity

Two papers (Goldstein et al., 2007; Lynn et al., 2014) were rated as high risk because there was no mention of adherence to a treatment model, supervision of practitioners or fidelity checks. Five papers were rated as unclear risk, some papers described the protocol but did not comment on whether therapists' adherence was evaluated (Alavi et al., 2013; Courtney & Flament, 2015; Huey et al., 2004; Shpigel & Diamond, 2012). Another paper (Harrington et al, 1998) reported session recordings but did not state the reason for this, therefore it is unclear if this was done to monitor adherence or fidelity. The sixteen studies that were rated as low risk described the protocol that was being followed, how this was monitored and commented on supervision of practitioners. An example of the way some papers monitored fidelity to the model was the use of the Cognitive Therapy Rating Scale (CTSR) (Asarnow et al., 2015; Spirito et al., 2015).

Detection Bias

Six papers were rated as low risk for detection bias (Asarnow et al., 2017; Cottrell et al., 2018; Goldstein et al., 2015; Mehlum et al., 2014; Pineda and Dadds, 2013; Tang et al., 2009). Three papers were rated as high risk (Courtney and Flament, 2015; Goldstein et al., 2007; Shpigel and Diamond, 2012) due to no blinding procedure being in place for researchers completing interviews with participants. The rest of the studies were rated as unclear risk due to a lack of information regarding blinding.

Statistical Bias

Sixteen of the papers were rated as low risk due to using 'intent to treat' analysis. The remaining seven papers were rated as unclear risk due to no reported information on whether completer or intent to treat analyses were used (Courtney & Flament, 2015; Diamond et al., 2002; Goldstein et al., 2007; Huey et al., 2004; Lynn et al., 2014; Shpigel & Diamond, 2012; Woodberry & Popenoe, 2008).

Reporting Bias

There were no papers rated as high risk within this domain. Five studies were rated as unclear risk for reporting bias (Asarnow et al., 2017; Huey et al., 2004; Lynn et al., 2014; Spirito et al., 2015) as results and outcomes of measures were not clearly reported, therefore making transforming the data into a comparable format difficult. Another study (Asarnow, 2011) was rated as unclear because the information that the review needed to extract was in a separate online supplement, therefore it was difficult to access this. The remaining eighteen studies were rated as low risk of reporting bias as they reported what they stated they would report in their method section.

Generalisability

Twelve papers were rated as high risk and eleven papers were rated as low risk. The high-risk studies had sample sizes of less than 20 participants and the low risk studies had a total participant number of over 20.

Summary

Overall, the level of quality rating and biases across the primary studies was varied. There were no studies that did not receive a rating of high risk in at least one quality criteria.

The areas of performance bias and generalisability were the two areas rated with the highest number of studies rated as high-risk. This is due to studies having between-participants designs, the lack of control groups where participants did not receive treatment and the small sample sizes of studies. Courtney & Flament (2015), Shpigel & Diamond (2012) and Goldstein et al. (2007) were the lowest rated papers in terms of quality ratings. Tang et al. (2008) and Cottrell et al. (2018) were deemed the highest quality studies in this review. Due to the varying nature of the quality of the primary studies, the results of this meta-analysis should be viewed with caution. This is also further discussed later in this report.

Data Analysis Strategy

The data analysis strategy follows the guidelines for the Centre for Applied Psychology, University of Birmingham and are paraphrased below.

Data that violates analysis assumptions

Borenstein (2009) has shown that, in small samples, Cohen's d may systematically overestimate the absolute value of the standardised mean difference (SMD). As many of the primary studies identified in this review had small samples, this potential bias has been mediated by transforming the Cohen's d value into Hedge's g for all calculation and then back-transforming to Cohen's D for presentation in tables and figures.

Normalisation and variance stabilisation

The primary study effects were plotted onto a Quantile-Quantile (QQ)-chart to ascertain whether the effect sizes reported were approximately normally distributed. As long as this assumption is satisfied, the random effects model was used to calculate variation between studies, the DerSimonian and Laird method (DerSimonian & Laird, 1986) is most commonly used for this. If the QQ-chart suggests that the effects are not normally

distributed, then the restricted maximum likelihood estimator (RMLE) was utilised to calculate the between studies variation.

The Omnibus test

The most common ways of synthesising treatment effects across multiple primary studies are the fixed and random effects models. The fixed effect model assumes that the only source of between studies variation is sampling error (i.e., sample size) and is therefore appropriate where all of the studies are considered to be of equal and excellent methodological standing. Alternatively, the random effects model assumes that the between studies variation will be comprised of true individual differences in treatment efficacy as well as being influenced by many other factors (such as methodological design, uncontrolled individual difference factors and measurement error). As the primary studies in this review have been conducted by several independent research groups, using a variety of methodologies, there is likely to be considerable variation in the measured effects that reflects factors other than individual differences in treatment efficacy, and the random effects model was used as it was deemed more appropriate.

Handling problematic variance

Heterogeneity denotes variation in the meta-analytic synthesis that cannot be attributed to true variation in the individual's response to treatment. Heterogeneity can be the result of a number of differences in the studies, for example: methodological variation, uncontrolled individual differences within the literature or measurement errors. A common measure of heterogeneity is, Higgins I^2; the greater the I^2 value, the greater variation in effect size. For this review, due to the substantial variation in the primary studies methodologies that have been used to calculate the meta-analytic synthesis,

problematic heterogeneity has been defined as a Higgins I^2 value greater than 75% (as suggested by Higgins et al., 2003).

Where this threshold was breached a ‘leave-one-out’ analysis was conducted in order to identify any primary studies that are both influential on the meta-analytic synthesis and are discrepant from the other studies in this literature. Once these studies were identified, they were reviewed to decide whether the study needed to be excluded due to the impact of bias. Further, subgroup analyses were utilised in an attempt to identify and explain the sources or sources of this problematic heterogeneity, and the attenuated estimate of the synthesis will then be reported.

Identifying influential studies

A ‘leave-one-out’ analysis was conducted to ascertain if any primary studies are exerting a disproportionately high influence on the overall meta-analytic effect. The aim of this is to remove each study in turn, if omitting a study results in an effect that lies outside of the 95% confidence interval (CI) for the overall meta-analysis then the study is considered to have a disproportionate influence and is consequently removed from the omnibus test.

The quality effects model

In the random effects model, the sample size of the study from which the effect is derived is deemed to impact on the precision of the effect. The quality effects model (Doi & Thalib, 2008) extends the random effects model by including methodological quality ratings, in addition to the sample size in the estimation of precision. In this review, the quality effects model was calculated using the total score generated from the risk of bias ratings (see Table 4 and 5). The quality effects model can be understood

as the meta-analytic synthesis that would have been obtained, if all primary studies had been of the same methodological quality as the best rated study in the review.

Identifying publication bias and small study effects

Visual and statistical inspection of the funnel plot enabled identification and examination of publication bias and small study effects. The plot demonstrates effects measured against study precision and is used primarily as a visual aid in identifying any systematic heterogeneity.

In the absence of publication bias, studies with high precision will be plotted near the average, and studies with low precision will be distributed symmetrically around the synthesis, creating a roughly funnel-shaped distribution. In the absence of publication bias, a symmetrical inverted funnel shape is witnessed. Deviation from this shape, especially if there is an absence of studies in the region associated with small samples and non-significant effects (bottom left hand side of the plot) may indicate a publication bias.

Where publication bias was identified, a 'trim and fill' procedure (Duval & Tweedle, 2000a; Duval & Tweedle, 2000b) was conducted. This procedure builds upon the assumption that an asymmetrical funnel plot is indicative of publication bias. The trim and fill procedure utilises an iterative procedure to remove the most extreme small studies associated with positive treatment effects. These points are recomputed until the funnel plot is symmetrical around the (corrected) meta analytic synthesis. As well as the new effect, the trimming also aims to reduce the variance of the effect. Original studies are then added back into the analysis with a mirror image study at the opposite side of the funnel plot.

Planned Contrasts

Subgroup analysis was be conducted comparing studies identified as randomised control trials with those of a quasi-experimental design. The 95% confidence interval will be used to for any significant differences detected between sub-groups.

Results

Results are presented below. First the results based upon studies focused on suicidal ideation are presented in detail. This is followed by results of studies focused on suicidal behaviour.

Meta-analytic synthesis; suicidal ideation

Figure 2 illustrates a Quantile- Quantile (QQ) plot showing distribution of primary study effects for suicidal ideation. There is some evidence of non-linearity at the upper extremes of the distribution. This non-linearity is most likely caused by heterogeneity. However, the majority of the primary study effects do fall within the lines of 95% confidence intervals. Therefore, this indicates the use of the random effects model and suggests that the DerSimonian-Laird (which assumes that effects that are considered to be normally distributed in the population) procedure for calculating between studies variation is appropriate.

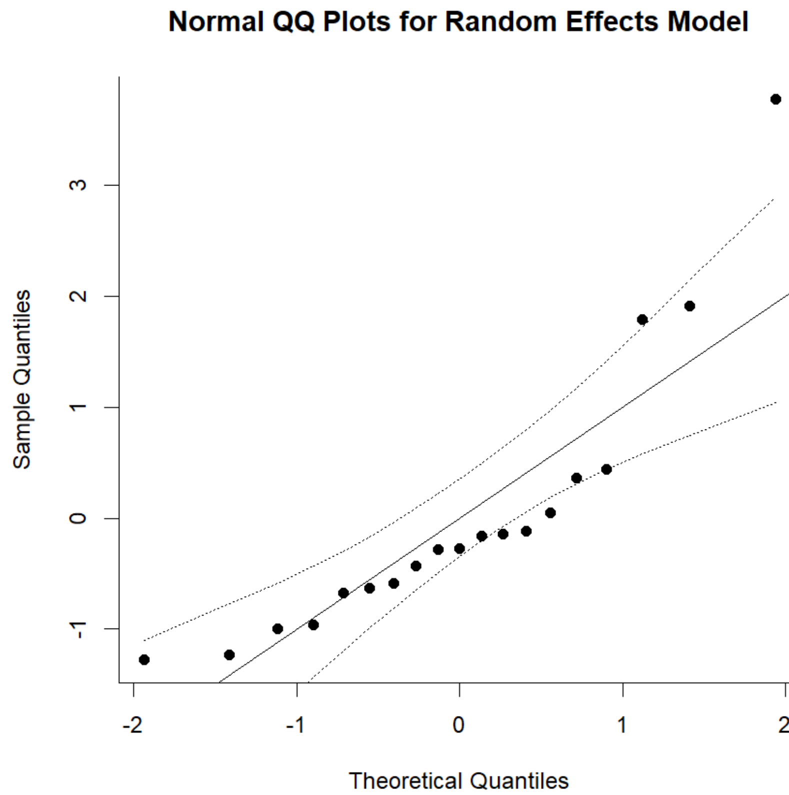

Figure 2. QQ plot showing distribution of primary study effects for suicidal ideation

A total of 19 primary studies, totalling 1,818 participants, investigated differences in young people's suicidal ideation between baseline and end of intervention where young people received a family-based interventions or a control/no intervention condition. Participants were selected from a variety of community, inpatient and emergency department services. Ages for all participants across the 19 primary studies ranged from 12-18 years old (mean= 14.3).

The generic inverse variance method was used to calculate the random effects model which reported a standardised mean difference (SMD) = 1.0549 ($z= 4.46$, $p < 0.0001$) and a 95% confidence interval of 0.5910 to 1.5187. This treatment effect would be categorised as very large. However, an unacceptable level of heterogeneity was identified in the primary

studies (tau^2= 0.9172, Higgins I^2= 93.7% [91.4%; 95.3%]; Q= 283.91, p < 0.0001). This suggests that the estimates of the primary studies are biased by the presence of uncontrolled or confounding factors. Therefore, further analysis is required to identify potential factors that may impact on the consistency of the reported effect across the primary studies.

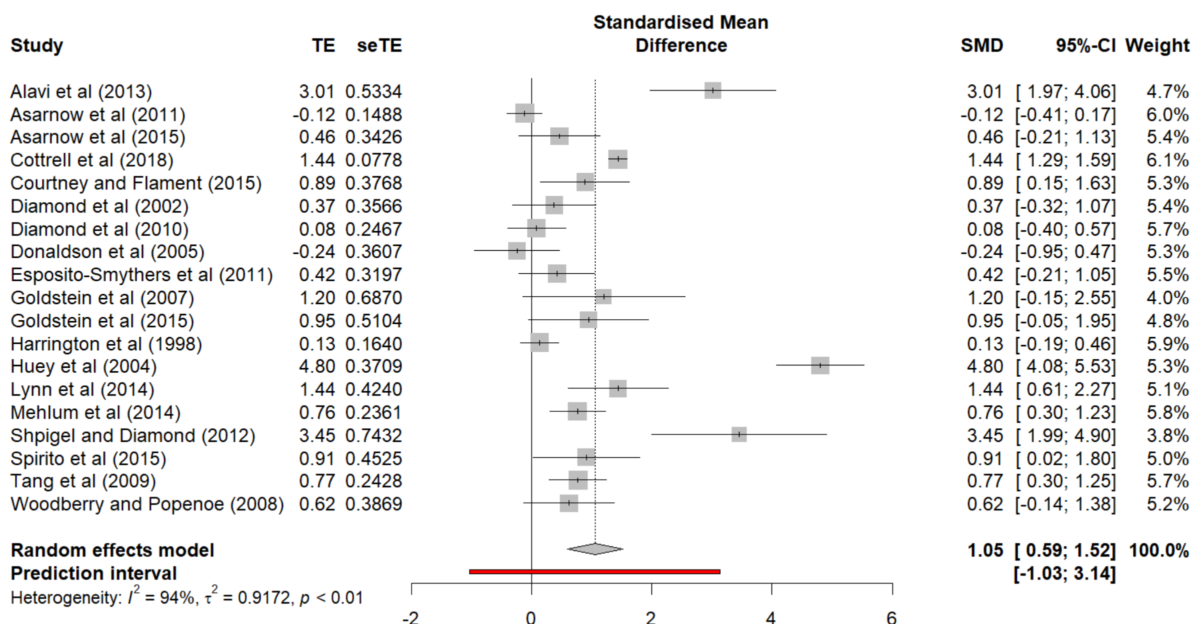

Figure 3. Forest Plot of the Meta Analytic effect of all primary studies

Influential studies

Figure 3 displays mean differences for all primary studies and demonstrates that there are three studies (Alavi et al., 2013; Huey et al., 2004; Shpigel and Diamond, 2012) reporting a substantial effect, outside of what is reported by the rest of the primary studies and an unusually high effect for what may be expected of a psychological intervention. Therefore, the quality ratings for these three studies was reviewed. Two of these studies (Huey et al., 2004; Shpigel and Diamond, 2012) were rated as high risk of bias on six out of seven quality rating criteria and one of the primary studies (Alavi et al., 2013) was rated as high risk of bias on four

out of seven quality rating criteria. Therefore, given the influential nature of these three primary studies alongside their overall quality ratings, the decision was made to remove these from the meta-analytic synthesis for the remaining analysis. Figure 4 below now displays the forest plot with all studies having removed the three influential studies.

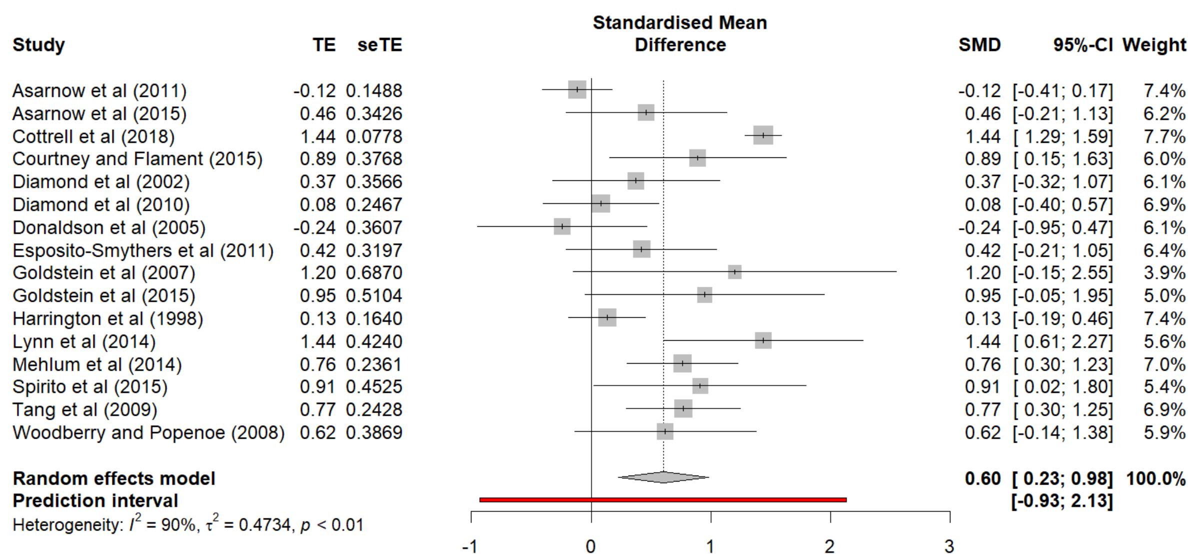

Figure 4. Forest Plot of the Meta Analytic effect of all remaining primary studies following the removal of three influential studies.

Table 6, below, demonstrates the percentage change in overall effect that would be seen by removing each study in turn. Huey et al. (2004) accounts for the highest percentage change in effect. Alavi et al. (2013) and Shpigel & Diamond (2012) also have a notable impact on the effect.

Table 6. Table showing the percentage change in the treatment effect; leave one out analysis.

Study	Percentage Change in effect
Omitting Huey et al (2004)	-23.1644
Omitting Alavi et al (2013)	-9.1785

Study	Percentage Change in effect
Omitting Shpigel and Diamond (2012)	-8.7325
Omitting Cottrell et al (2018)	-1.9772
Omitting Lynn et al (2014)	-1.8152
Omitting Goldstein et al (2007)	-0.1678
Omitting Goldstein et al (2015)	0.6854
Omitting Spirito et al (2015)	0.8832
Omitting Courtney and Flament (2015)	1.0404
Omitting Tang et al (2009)	1.9211
Omitting Mehlum et al (2014)	1.9956
Omitting Woodberry and Popenoe (2008)	2.4402
Omitting Asarnow et al (2015)	3.3782
Omitting Esposito-Smythers et al (2011)	3.6552
Omitting Diamond et al (2002)	3.7873
Omitting Diamond et al (2010)	5.7145
Omitting Harrington et al (1998)	5.7402
Omitting Asarnow et al (2011)	6.8590
Omitting Donaldson et al (2005)	6.9171

As demonstrated in Figure 4, following the removal of the three influential studies, the treatment effect has decreased substantially to SMD= 0.6022 ($z= 3.14$, $p < 0.0017$) and a 95% confidence interval of 0.2260 to 0.9783. The treatment effect remains significant and would now be considered moderate to large. Although there has also been a reduction in the level of heterogeneity ($tau^2= 0.4734$, Higgins $I^2= 89.7\%$ [84.8%; 92.9%] $Q= 144.97$, $p < 0.0001$), this

still suggests that the confounding factors which contribute to the heterogeneous properties of the data need to be further explored.

Impact of methodological quality

A series of sub-group analyses focussed on the quality rating criteria (comparing low, and high risk studies), were conducted to assess the impact of methodological variation upon the level of heterogeneity.

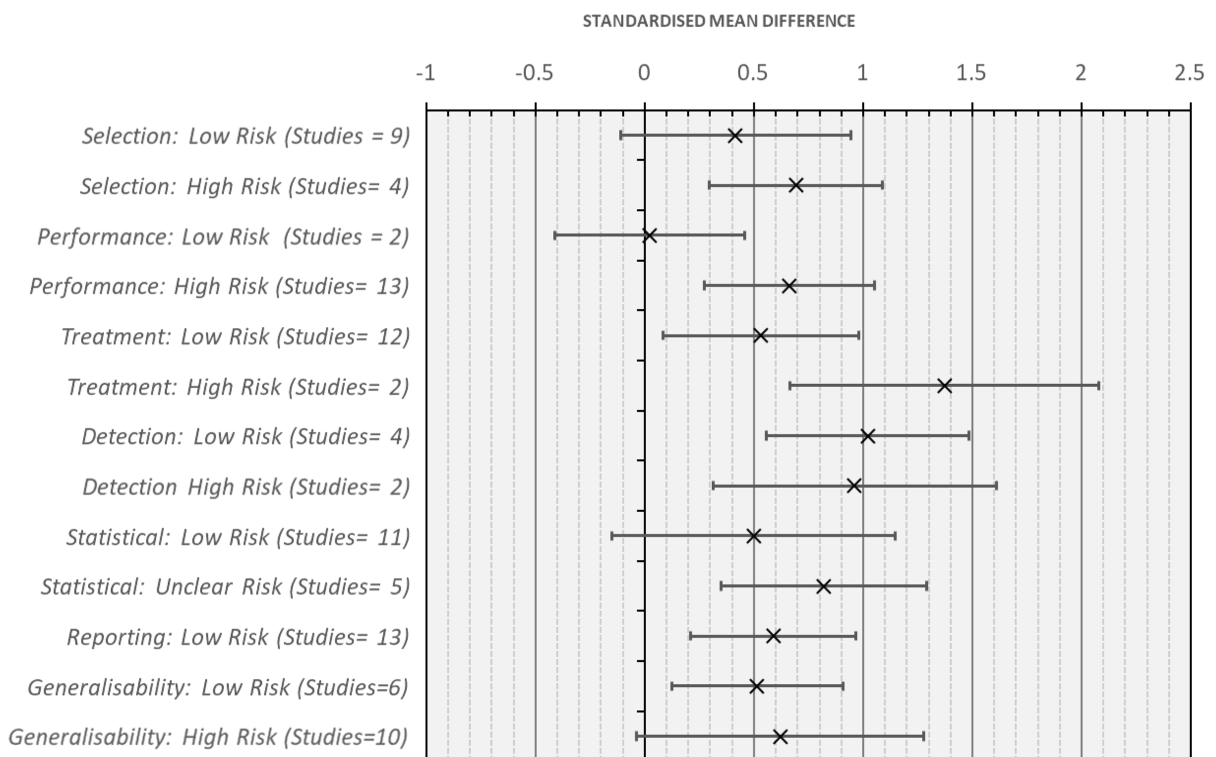

Figure 5. Graph comparing confidence intervals across the quality ratings

Figure 5 shows no significant differences between the studies rated as high, or low risk in each of the quality rating areas. This suggests that any heterogeneity is not due to the methodological quality of the primary studies.

Publication and Small Study bias

Often, in studies with small sample size and therefore reduced power, there is seemingly an increased likelihood of reporting non-significant results which consequently may mean that they are less likely to be published. The presence of publication bias may be observed in the funnel plot below as an absence of studies in the area of the graph associated with null effects in small studies.

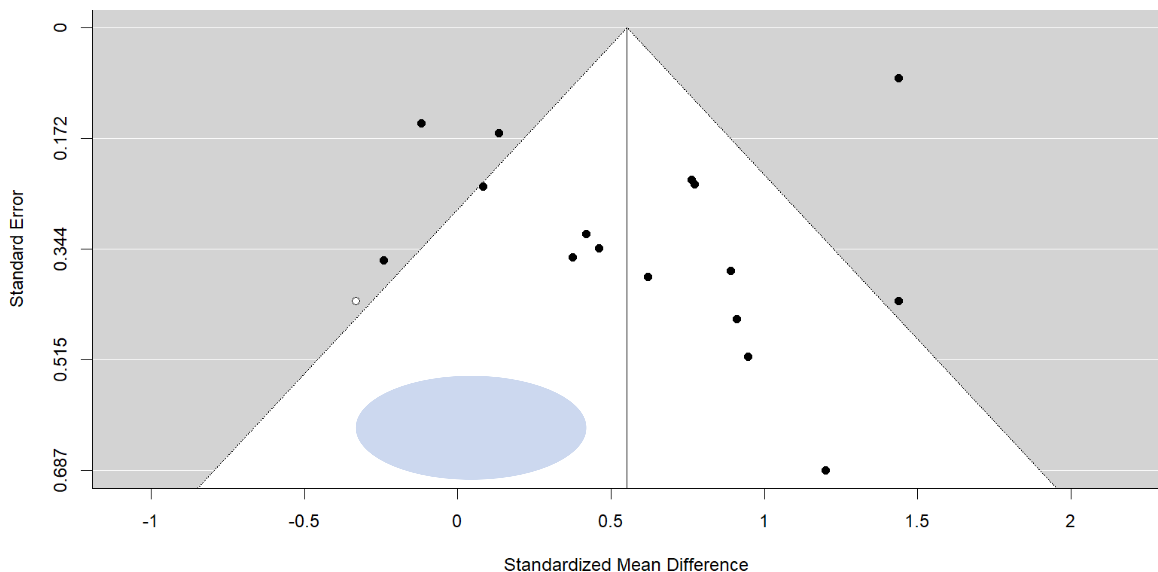

Figure 6. Funnel plot of the primary studies.

Black dots indicate primary studies and white dots are imputed studies from the Trim and Fill procedure. The area in blue is that associated with publication bias (i.e., null effects in small sample sizes).

The aim of the trim and fill method is to correct for, and model, the effect of any publication bias. It uses an iterative procedure, attempting to alter the funnel plot to become symmetrical around the adjusted effect size as the extreme studies become recomputed. The method creates a mirror image of these original studies in the analysis, in theory, correcting the

variance (Duval and Tweedie, 2000a, 2000b). The uncorrected estimate of the effect size is 0.602 (95% CI 0.226, 0.978). The imputed studies are shown as white dots in figure 6. The corrected estimate (i.e., inclusive of the imputed study) is 0.553 (95% CI 0.183, 0.922) and remains statistically significant. The level of heterogeneity has reduce following this procedure;however, is still within an unacceptable level (tau^2= 0.6964, Higgins I2= 89.51% Q= 52.462, $p < .0001$).

The effect of randomisation

A further sub-group analysis was conducted to compare the outcomes of studies identified as 'randomised' to those of 'non-randomised' designs which also included those studies identified as using a 'pseudo- randomised' method. This is presented in Figure 7. Although there is a difference in the overall meta-analytic effect between the two groups; non-randomised studies described a larger effect (0.77) than that of randomised studies (0.41), this difference was not statistically significant (X^2=1.17, p=0.28), see figure 7.

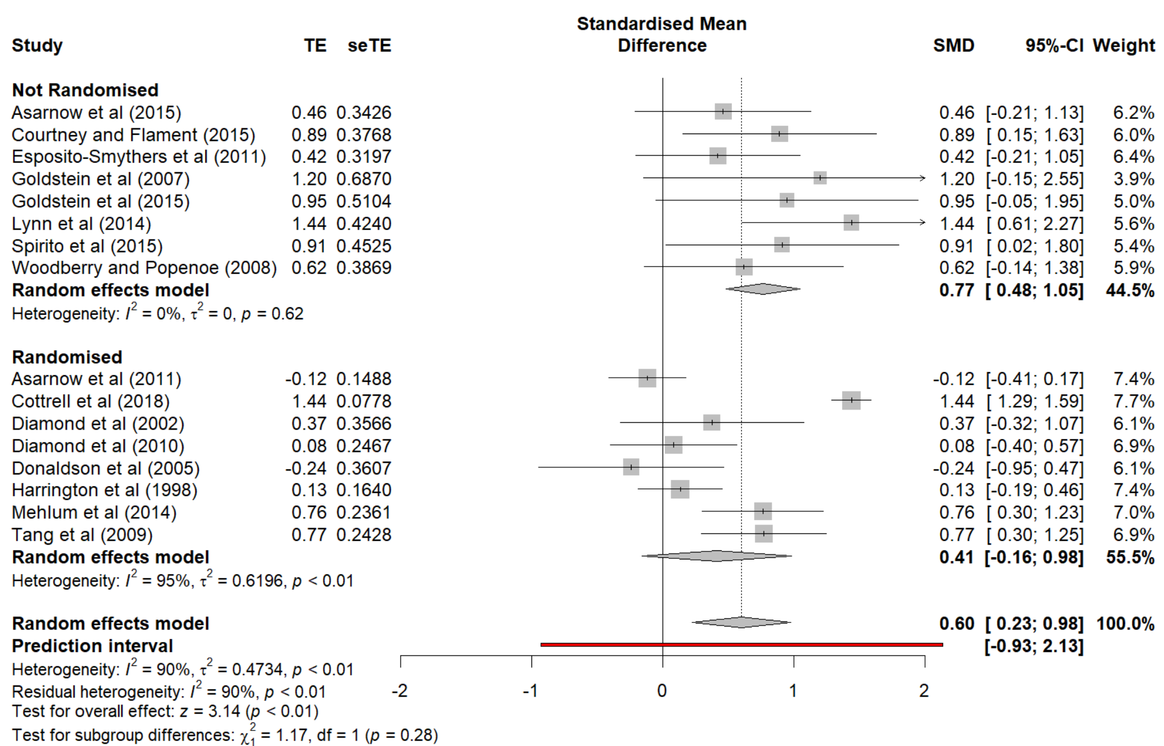

Figure 7. A forest plot of a subgroup analysis comparing randomised to non-randomised primary studies.

Meta-analysis; suicidal behaviours

Figure 8 is a QQ plot showing distribution of primary study effects for suicidal behaviours. The figure indicates that the effects are considered to be normally distributed in the population. Therefore, the use of the random effects model and the DerSimonian-Laird estimate is appropriate.

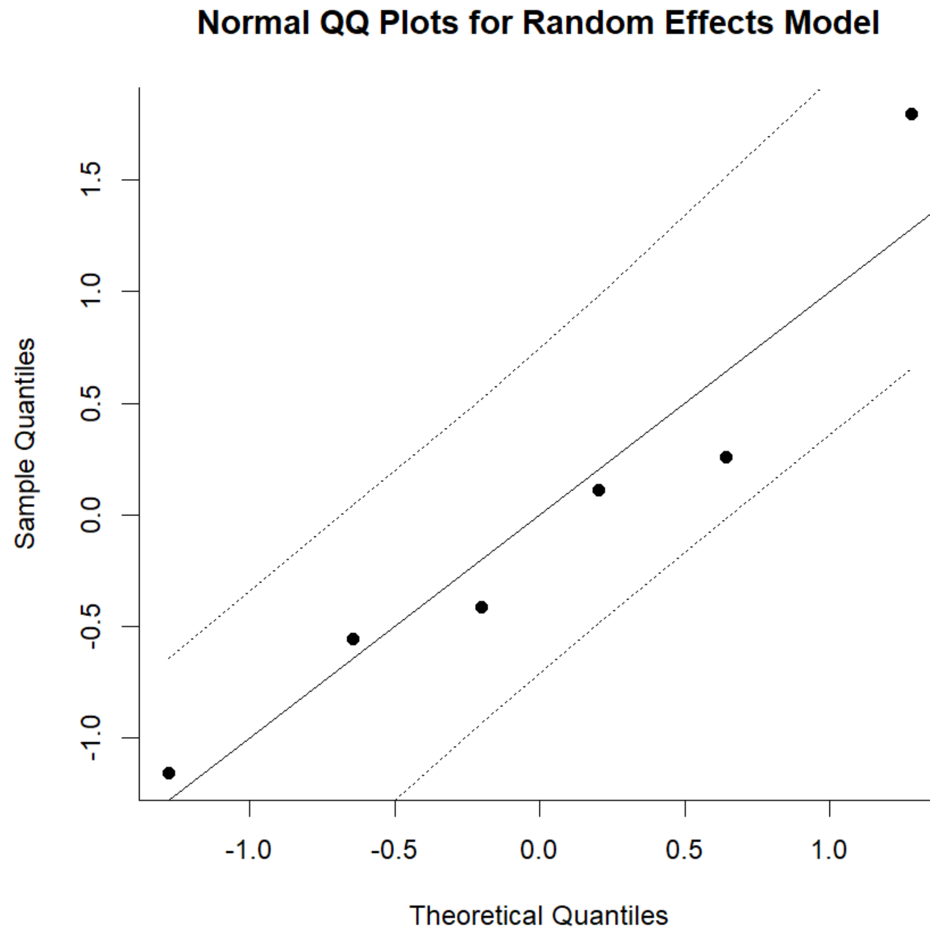

Figure 8. QQ plot showing distribution of primary study effects for suicidal behaviours

A total of six primary studies with 423 participants investigated differences in young people's suicidal behaviours between baseline and end of intervention where young people received a family-based interventions or a control/ no intervention condition. Participants were selected from a variety of community inpatient and emergency department services. Ages for all participants across the 6 primary studies ranged from 12-18 years old (mean= 14.9).

The generic inverse variance method was utilised to calculate the random effects model which indicated SMD=1.2610 (z=2.68, p= 0.0073) and a 95% confidence interval of 0.3404 to 2.1816. The extent of this treatment effect would be deemed very large. An unacceptable level

of heterogeneity was identified within these primary studies (tau^2=1.2250, Higgins I^2= 93.8% [89.1%; 96.5%]; Q= 80.24, p<0.0001). This suggests that the estimates of the primary studies are biased by the presence of uncontrolled or confounding factors. Therefore, further analysis is required to identify potential factors that may impact on the consistency of the reported effect across the primary studies.

The meta-analytic effects of all primary studies for suicidal behaviour are depicted in Figure 8. Results suggest that individuals who received a family-based intervention showed marked reductions in suicidal behaviour compared to those who were in the control groups. However, as demonstrated in Figure 9, there are substantial differences between studies. Due to the small number of studies in this section of the meta-analysis, further analysis is limited when compared to the analyses based on suicidal ideation.

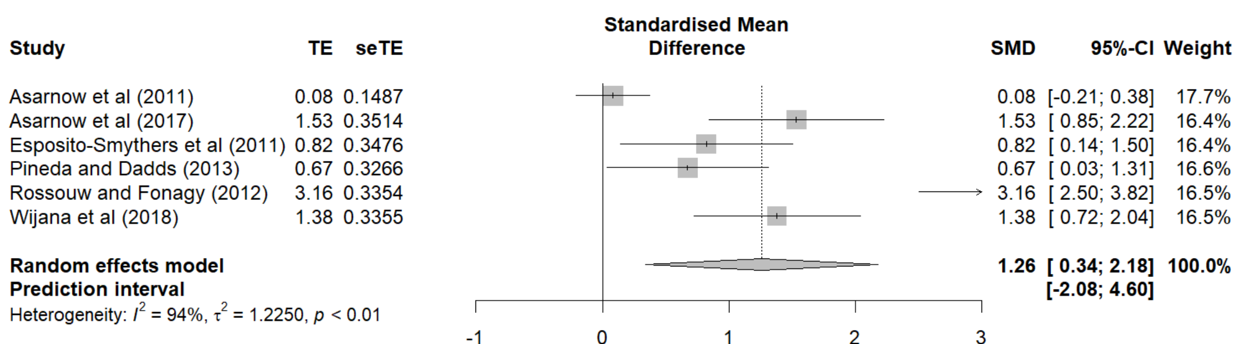

Figure 9. Forest Plot of the Meta Analytic effect of all primary studies for suicidal behaviour

Influential studies

In order to assess the impact of influential studies, a 'leave one out analysis' was conducted, which utilises the random effects model to calculate the analytic effect with each primary study removed in turn, therefore demonstrating the influence that any one study has on

the overall effect. Figure 10 shows a forest plot for this process. It should be noted that the omission of Rossouw and Fonagy (2012) results in a substantial reduction in the synthesis (SMD = 0.86, 95%CI 0.24 – 1.48). However, due to the small number of studies within this section of analysis, it has been deemed inappropriate to remove any of the studies at this stage.

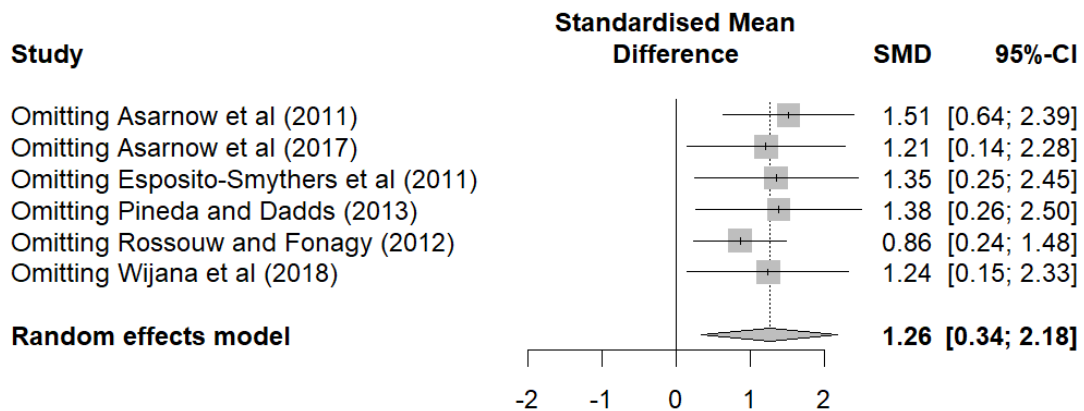

Figure 10. A forest plot showing the leave-one-out analysis for suicidal behaviour

Due to the small number of studies reporting outcomes for suicidal behaviour it was decided that it was not appropriate to calculate the quality effects model, publication bias nor subgroup analyses.

Discussion

Summary of results

This systematic review and meta-analysis investigated the efficacy of family-based interventions in reducing both levels of suicidal ideation and suicidal behaviour among young people aged 12-25 years old. Due to the conceptual differences between suicidal ideation and suicidal behaviours/actions, the meta-analysis was conducted separately for each of the two areas. The findings from both analyses were concordant and demonstrate that family-based interventions are effective when working with suicidal young people.

The results of the meta-analysis for suicidal ideation, which included data from 16 studies, indicates a large effect favouring family-based intervention compared to those in non-intervention groups or those receiving treatment as usual. Due to the level of heterogeneity, the impact of methodological risk of bias was explored; however, there were found to be no significant differences between those studies rated as high and low risk of bias. When publication bias was corrected for, the meta-analytic effect was reduced from 0.6 to 0.55, however, there was no change in the substantive conclusion and the level of heterogeneity remained high. Although Randomised Control Trials (RCTs) reported a lower overall effect than non-RCTs, there was no statistically significant difference between the results reports by randomised control trials when compared with non-randomised control trials. It is likely that the results of RCTs are more able to focus on the effect of the intervention in question, rather than any other uncontrolled for factors, such as influential individuals, which may skew results in smaller studies. This is due to the controlled conditions and larger sample sizes within an

RCT. Ideally, more RCTs should be carried out in this area to enable more confidence in the outcomes.

The result of the meta-analysis for suicidal behaviours, which included data from six studies, indicates a very large effect of family-based interventions. However, due to the small number of studies, further analysis to investigate any potential source of heterogeneity was limited. Therefore, it is difficult to draw any firm conclusions from the data at this stage before further good quality studies are available.

Results compared to existing and related literature

The present findings are consistent with those of previous reviews (Aggarwal & Patton, 2018; Frey & Hunt, 2018; Ougrin et al., 2015), which have found that family interventions can be effective for young people in addressing suicidal ideations and behaviour. This review adds to these findings by contributing a thorough systematic search strategy and a statistical analysis of the literature.

These findings support family-based interventions as being an effective treatment for suicidal ideation and behaviour in young people. This suggests that it is important to involve family in interventions with young people, for a number of reasons. It is likely that the effect of these interventions may be more enduring as more members of the young person's system have been meaningfully involved in treatment. By involving family members in treatment, there is less emphasis on the 'problem' being held by one individual and therefore allows a less problem saturated view of the young person (White & Epston, 1990). This allows space to develop between the individual and their difficulty, so as to no longer see themselves as the 'problem' and also for family to help the individual generate a more strengths focused narrative (Russell & Carey, 2004). Although there may be higher cost implications of working alongside

family members rather than the individual, in the short term, these treatments often provide skills and training to the family members who may also experience difficulties with their own mental health (Stratton, 2016). This helps to increase family understanding and resilience and is therefore linked to better outcomes for young people (MacPhee, Lunkenheimer & Riggs, 2015). It has been reported that half of all mental health problems have been established by the age of 14, increasing to 75 per cent by age 24 (Kessler et al., 2006) however, young people's mental health services only receive a small proportion of the overall budget (Mental Health taskforce to NHS England, 2016). Stratton (2016) stated that family therapy had been found to be equal to or less costly than other therapies up to two years after the end of therapy. If family therapy were to be used as a first line intervention, this may reduce costs in the long run.

The adapted nature of some of the interventions examined by the primary studies demonstrates that family elements can be successfully combined into already established models of therapy and therefore the use of family within multi-component interventions is appropriate and effective.

It should be noted that the effect shown for suicidal behaviour is much higher than would be expected for any other intervention and is quite likely to inflated by the large effect reported by Rossouw and Fonagy (2012) and a small number of studies.

In order to explore and understand further the results of the present review, effect sizes were compared to those reported for routinely offered methods of treatment for individuals experiencing suicidal ideation or self-harm. A comparison of the meta-analytic effect found in this review was conducted with Lithium, CBT and DBT (Table 7). The effect sizes taken from other meta-analyses have been transformed, as described in the methodology section into Cohen's-d figures to allow comparison with this report's effect. The efficacy of family-based

interventions for suicidal ideation is deemed comparable to that of Lithium and CBT and greater than that of DBT. This is a significant finding which advances our knowledge of clinical practice and informs treatment.

Table 7. A table comparing the effect of family-based interventions with CBT, Lithium and DBT.

Treatment	Effect Size	(CI)
Family Based Interventions (SI)	0.553	(0.18, 0.92).
Family Based Interventions (SB)	1.261	(0.34, 2.18)
Lithium (Cipriani, Hawton, Stockton & Geddes, 2013)	0.563	(0.13, 0.98)
CBT (Tarrier, Taylor & Gooding, 2008)	0.59	(0.37, 0.81)
DBT (DeCou, Comtois & Landes, 2019)[1]	0.324	(-0.47, -0.18)
DBT (DeCou, Comtois & Landes, 2019)[2]	0.23	(0.47 to 0.02)

[1] self-directed violence

[2] suicidal ideation

Methodological Issues

Control groups. The majority of studies reported that their control group consisted of 'enhanced treatment as usual' or treatment as usual where part of this treatment may include family intervention. Due to these factors, it is difficult to ascertain whether the difference between groups was purely related to the family-based intervention or other variables in treatment. Therefore, the effects reported may have been over, or under reported due to other confounding factors. It is likely that effects may have been under reported as the control group were still receiving routine care, therefore there may have been improvements within these groups that would not have been seen should they have been a pure control group. Where the intervention

conditions have received this in addition to their usual treatment, intervention effects seen may be also due to an increase in contact time with services as opposed to the intervention itself (Norcross, 2010).

Generalisability. Twelve out of the 23 primary studies comprised of small, homogenous samples generally made up of Caucasian and female participants. Many of the studies were also conducted in the USA, Canada, Australia and the UK. This makes generalisation to other groups problematic, such as those of diverse ethnic backgrounds, cultures, languages and males. The studies were taken from a variety of populations; however, the presence of psychosis was an exclusion criterion for the majority of studies, and therefore it is difficult to draw conclusions about the efficacy of treatment by diagnosis or difficulty. Further research should be conducted with diverse samples and an emphasis should be placed upon the characteristics of the sample in order to understand further the impact on outcomes. Due to these difficulties with generalisation, clinicians would need to think about adaptations in order to meet their client's needs. Further thought should also be given to any barriers that might prevent families from being able to engage in family therapy. This would support families to be given the best chance at being able to benefit from such a potentially successful intervention.

Different measures being used. Across the 19 studies measuring suicidal ideation pre- and post-intervention, there were eight different measures used. These included the Scale for Suicidal Ideation (SSI), Harkavy-Asnis Suicide Scale (HASS), Beck Suicide Scale (BSS), Modified Scale for Suicidal Ideation (MSSI), Brief Symptoms Inventory (BSI), Suicide Ideation Questionnaire (SIQ), Child Depression Inventory (CDI) and the Child Behaviour Checklist (CBCL). At one level the findings would suggest a consistent effect across multiple measures, however, it also illustrates a lack of consistency in measuring this outcome which may contribute to the observed heterogeneity between studies and future research.

Each of these measures asked different questions in order to measure the frequency and intensity of suicidal ideation. Therefore, the convergent validity of the questionnaires should be investigated to ensure that they are measuring the same construct. The MSSI, SSI, HASS, SIQ have been deemed as being valid measures of suicidal ideation in young people. However, three of the measures, the CBCL, BSI and the CDI, are more generalised measures with a very small number of questions specifically asking about suicidal ideation. Therefore, the validity of these measures in capturing purely suicidal ideation can be questioned.

Limitations of the existent literature

Although an agreed upon definition of what was considered a family-based intervention was stated prior to the literature search, there are, of course, differences in the level of intensity and duration of family intervention across the primary studies identified. Due to the limited number of purely systemic family therapy studies in this area, the review was unable to just focus on these studies. Therefore, a broader criterion was set to capture other forms of family-based interventions. Due to this broader criterion and therefore heterogenous nature of the primary studies, more cautious conclusions should be drawn from the data. It is not possible to comment on which factors of the family interaction was beneficial to the young person as each study may have been made up of different family components alongside other models of therapy in some of the studies. Consequently, future research should aim to investigate specific elements involved within family interventions in order to identify the active elements of the treatments and who is most likely to benefit from these interventions. Although some studies measured fidelity to the model, when more than one model is being used or adapted, it is difficult to be certain whether it is the family element or another model that is benefitting the client. Tickle and Rennoldson (2015) report that mechanisms such as 'conceptualising

difficulties in relational terms', identifying unhelpful patterns in relating, impacting on the system and extending the therapeutic alliance are vehicles for change in family therapy.

A further limitation of this meta-analysis is the small number of studies for the suicidal behaviour outcome. This is due to the decision to separate suicidal ideation and suicidal behaviours studies as two conceptually different phenomena. The outcomes for these studies were also different and therefore it would have been inappropriate for them to have been analysed in the same way. Consequently, the outcome effect of the suicidal behaviour studies analysis should be regarded with caution.

An aim of this review was to analyse data for young people aged from 12 years old to an upper age limit of 25. However, in the studies sampled, there were no participants that were aged over 18 years old, something also reported by a previous review of the literature by Frey and Hunt (2018). Therefore, further research focused on this age group needs to be considered in order to establish a more in-depth body of research in this area. This may prove valuable in recognising the efficacy of such interventions across the age range. Given the absence of literature in young people aged over 18, it is not clear whether family-based interventions are only effective for those under the age of 18, or if there are a group of older individuals who are missing out on potentially life-saving interventions.

Clinical Implications and Recommendations for Future Research

The existent literature provides support for the inclusion of families in the active phases of treatment for young people at risk of suicide and indicates that including family components to interventions could lead to a significant reduction in the experiences of both suicidal ideation and suicidal behaviours. Therefore, the inclusion of family members in interventions for young people at risk of suicide should be considered as part of routine service delivery and

recommended more widely. The findings suggest that family components could be added to interventions alongside already established models of treatment such as Cognitive Behavioural Therapy or Dialectical Behavioural Therapy. Findings also suggest that family focused interventions can be delivered as a stand-alone intervention.

The current NICE (2011) guidelines for supporting individuals who self-harm recommends that family should be involved in the care plan of the young person.However they do not suggest the involvement of family in the intervention phase. In the light of the findings of this review, these guidelines could be reviewed to reflect the possibility of including family-based interventions as an effective stand-alone or combined treatment. For example, within eating disorders (NICE, 2017), both family therapy and a combined use of individual and family sessions is advised for young people. This gives clear guidance to clinicians about these treatments.

Further high-quality research exploring the efficacy of these interventions in diverse samples and with males is needed as the majority of the participants of studies within this review are female. Due to the increasing rates of suicide within the male population (Office for National Statistics, 2018), this research is vital in understanding which interventions may be effective in treating suicidal ideation and behaviours for males.

Due to the limitations discussed, more research is needed investigating outcomes for family systemic therapy specifically. This would allow more concrete conclusions to be drawn about the active components of family-based interventions. Traditionally, systemic and family practitioners may have been resistant to manualised treatments due to the potential impact on the flexibility of an intervention. However, Pote et al (2003) suggested that manuals can be adapted and therefore allow more clarity about what the responsible components are for positive

outcomes. As also discussed, further research should focus on achieving more diversity into study samples in order to be able to generalise findings to populations that are more representative of the caseloads that services support.

Whilst the finding of this review demonstrates the potential efficacy of these interventions, clinicians should also take these findings with caution when deciding upon which approach to take with a young person. Indeed, there may be circumstances where family-based interventions are contraindicated, for example, if the young person does not give their consent or the impact of the therapy may be destabilising for the young person or family unit.

Conclusions

The meta-analysis reported supports the effectiveness of family-based interventions to reduce suicidal ideation and suicidal behaviour in young people aged 12 to 25 years old. Findings from the meta-analysis suggest that family intervention effects are comparable to the efficacy of more established and routine treatments such as Lithium and Cognitive Behavioural Therapy. Although the findings are promising, more high-quality research studies, with random allocation designs and control groups is needed. Specifically investigating a particular family intervention and conducting further process measurement in order to ascertain the active process' and effective components involved in the reduction in suicidality could be focused on. For an outcome as devastating and final as suicide, any interventions with positive outcomes should be seriously considered by commissioners and policy makers and researched in order to prevent this growing trend.

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CHAPTER 2

A QUALITATIVE STUDY OF YOUNG PEOPLE'S EXPERIENCES OF SUICIDE ATTEMPTS IN THE CONTEXT OF ALCOHOL CONSUMPTION

Abstract

Introduction: There is robust research showing the association between alcohol consumption and suicidal ideation and attempts. This study aimed to explore how young people make sense of their attempts to end their life in the context of alcohol consumption and use of substances.

Method: Seven young people, aged 16-25 years old, were interviewed about their experiences of attempting to end their life and their alcohol consumption. Interpretative Phenomenological Analysis (IPA) was used to analyse these interviews and develop an understanding of how participants comprehend their own individual experiences.

Results: The analysis identified four superordinate themes and twelve subordinate themes which were deemed to reflect the experiences discussed across the seven interviews. Superordinate themes included: 'The complexity of relationships', 'The double-edged sword of alcohol and substance use', 'The straw that broke the camel's back' and 'Reflecting on the on-going processes of recovery'.

Discussion: The results of this study highlighted the complex and multifaceted functions of the consumption of alcohol, and other drugs, in the experiences of young people attempting suicide. Young people describe a series of inter and intrapersonal factors which impact upon their suicidal ideation and attempts. The suicidal ideation and attempts appear to also be impacted by choice and accessibility of means. It is important that both the assessment of risk of suicide and treatments are individualised, and address each of these factors discussed.

Introduction

Suicide and young people

The Centre for Disease Prevention and Control (CDC) define a suicide attempt as “when someone harms themselves with the intent to end their life, but they do not die as a result of their actions” (Crosby, Ortega & Melason, 2011, p. 21). Suicide is the third leading cause of death in 15 to 19 year olds globally (World Health Organisation [WHO], 2019), behind road injury and HIV. Due to inconsistencies in reporting of suicide and attempted suicide, there are many more people who attempt suicide each year than is reported (WHO, 2014). In the UK, rates of suicide are increasing and the rate for young women is at a record high, although the highest rate among young people is men aged 20-24 (Office of National Statistics, 2018). A prior suicide attempt and previous self-harm are cited as among the most important risk factors for completed suicide in the general population (WHO, 2019). The Samaritan’s suicide report (2019) explains that suicide is complex and often has more than one precipitant, for example; adverse childhood experiences (ACEs), abuse, neglect, academic pressures and mental and physical ill health. Self-harm is also more common among young people and rates of this have also been on the increase, especially among young women (Samaritans, 2019).

Alcohol and substance use in young people

The Institute of Alcohol Studies (IAS, 2013) reported that young people, aged 15 to 24 years old, drink fewer times during the week than most other age groups however, when they do drink, a significant proportion engage in heavy episodic or 'binge' drinking. For females, those aged 16 to 24 years old have the highest proportion of binge drinkers. The links between alcohol, substance use and suicide are well documented (Darvishi, Farhadi, Haghtalab &

Poorolajal, 2015; Litwiller & Brausch, 2013; Mars, 2019; Shlosberg & Shova, 2015). This research tells us that there is a vicious cycle of individuals using alcohol to cope with suicidal ideation or manage other overwhelming feelings, which in turn also can increase this ideation (WHO, 2014). Research reports that alcohol can increase impulsivity, damage relationships and impact on already underlying mental health difficulties (Edwards et al., 2020; Rogers, Moeller, Swan & Clark, 2010). A review into the literature on acute alcohol use and suicidal behaviour in the general population found that up to 69% of those who died by suicide and up to 73% of people who attempted suicide had alcohol in their system (Cherpitel, Borges & Wilcox, 2004).

The association between being under the age of 25, engaging in risky behaviours (such as substance use) and attempted suicide has been well documented (ONS, 2016). However, we do not know how young people understand this link, or whether they see this relationship as important. Rivers (2017) reported in the Journal of Adolescent Health, that we do not fully understand how alcohol use is linked to suicidal ideation. Witt and Lubham (2018) also argue that, the association between substances, alcohol use and suicide is robust. However this population of people, who use alcohol or substance, are frequently excluded from taking part in large randomised control trials or other more qualitative studies. Therefore, their voice is not being heard in a significant proportion of the research in this area.

Following a scoping search of the literature, there appears to be a lack of qualitative research looking at the sense making of young people in relation to substance use and suicide attempts. There is currently no research exploring the experience of young people who are using alcohol or other substances in the lead up to a suicide attempt, or on their understanding of the function of this use. Although there is research that describes the association between alcohol and attempted suicide, it is important to gain a deeper understanding of the psychological processes underpinning mood, alcohol use and attempted suicide.

The views of people with lived experience, including young people, should be at the heart of suicide prevention policy, directing services in how to support these individuals (Samaritans, 2019).

Aims for the present project

The aim of this study is to explore in-depth how young people, aged 16 to 25 years old, understand and experience the use of alcohol in the lead up to their attempted suicide. By gaining an insight into their perspectives, the study will contribute to an improved understanding, and hopefully inform identification, management and intervention of risk of suicide in young people. It will provide information relating to the prevention and intervention in suicide risk as well as informing the potential for extra layers of support for this population. By investigating the psychological processes underlying attempted suicide, this study has potential to inform tailored interventions for young people at risk of suicide.

Method

Design

A qualitative semi structured interview based study of young people aged 16 to 25.

Qualitative Methodology: Interpretative Phenomenological Analysis (IPA)

IPA is a qualitative method of research that investigates how individuals makes sense of important life experiences (Smith, Flowers & Larkin, 2009). IPA is informed by three theoretical ideas: phenomenology, hermeneutics and idiography (Smith, Flowers & Larkin, 2009). Phenomenology refers to the exploration of experience, how to understand an individual's lived experience and what is important to them. Within IPA, the researcher is described as being involved in a double hermeneutic, in attempting to make sense of and explain how the participant is making sense of their own experience. Due to the double hermeneutic in which the researcher inevitably finds themselves, the impact of the researcher's own lived experiences and epistemological position will influence the sense that is made from the participants account. Therefore, this influence is discussed further below. The third influence of IPA is idiography, being concerned with the particular or individual rather than at the group level, making generalisations across populations (Smith, Flowers & Larkin, 2009). IPA studies generally recruit a smaller number of participants due to the in-depth, time intensive analysis (Larkin, Watts & Clifton, 2006). The explicit focus on the 'claims and concerns' of each participant distinguishes IPA from other qualitative forms of analysis.

IPA is therefore an approach which was deemed appropriate to enable a detailed exploration of how young people make sense of their experiences of attempting to end their life in the context of using alcohol and other substances. Other methodologies, such as Thematic

Analysis, identification of common themes across data sets (Braun and Clarke, 2006), and Template Analysis, development of a coding template apriori upon which themes are organised (King, 2012) were considered. IPA was chosen due to its focus on the participants individual and shared personal experiences rather than pre-defined categories or developing an overarching theoretical explanation.

Procedure

A Patient Advisory Group from a local NHS trust was consulted in order to gain the views of young people on the acceptability of the research. Members of this group were within the target age range of the study and all had their own lived experienced of mental health difficulties. The researcher met with the group on two separate occasions. They were consulted regarding the participant information sheet, consent form and debrief sheet. Additionally, the group helped to identify which services might be helpful for young people to know about following their participation in the study. The group also advised that the use of an alcohol and drug measure prior to participant interviews (which was part of the original plan) may be unwise for a number of reasons. They suspected that participants may feel that their alcohol or drug use is minimised or not validated if they compare their use to that of others. Another concern was that of the potential use of the checklist as a way of participants identifying other substances to try. Therefore, following the Patient Advisory Groups feedback the use of an alcohol and drug measure was removed from the research study. The group also contributed in order to co-produce the semi-structured interview questions which were asked to participants. The use of language and wording was discussed so that the questions could be as meaningful as possible, with minimal negative impact on the participant.

An optional Narrative Therapy informed debrief session with a Clinical Psychologist (and Clinical Supervisor) was offered to each participant following their participation in order to provide an opportunity to discuss anything that the interview may have evoked. None of the participants contacted the researcher to arrange this debrief session.

Potential ethical dilemmas such as informed consent, confidentiality, data management, risk assessment and participant distress were considered and measures to address these were put in place. Ethical approval was obtained from the Health Research Authority (HRA). Research Ethics Committee reference: 19/WM/0082. Integrated Research Approval System: 257738 (Appendix 1).

Participant Recruitment

A purposive sampling method was utilised in order to identify a sample of young people who could offer an insight into their experience of attempting to end their life alongside a self-defined 'problematic' use of alcohol.

Participants were recruited from two NHS trusts who provide mental health services to support individuals aged 16 to 25 years old. The researcher attended multi-disciplinary team meetings to speak to team members about the research and requested staff identify any individuals who met the study criteria, give them information about the study and gain consent from the young person for the researcher to contact them directly to discuss their participation in the study (see Appendix 2, 3, 4 for recruitment information). Potential participants were contacted via email or telephone by the researcher to ensure they met the inclusion criteria and answer any questions they had about the research before agreeing a time and date for the interview.

Inclusion and exclusion criteria with their rationale are described in Table 8 below.

Table 8. Inclusion and Exclusion criteria for recruitment of participants

Inclusion Criteria	**Rationale**
Be aged 16-25	In order to obtain informed consent, the minimum age of participants was set at 16 years old. As some CAMHS services are now supporting young people up to the age of 25 years old, this was the upper age limit.
Be under the care of local CAMHS service	This was important in order to ensure that all participants had an up to date risk assessment and a team supporting their needs.
Have a self-defined 'problematic' use of alcohol (and substances)	In order to ensure some homogeneity of participants, all participants were required to have self-defined as having a 'problematic' use of alcohol
Speak fluent English	Due to the interviews conducted for the research project and its small scale and budget, it was not possible to fund the use of interpreters and transcribers for non-English speaking participants.
Exclusion Criteria	
Have made a suicide attempt in the 6-month period prior to taking part in the project	In an attempt to limit the distress caused to the participant during the interview and manage any potential risks posed, having made an attempt to end their life in the 6 months prior to taking part in the study was an exclusion criteria

Sample

Six of the participants identified as female and one participant identified as male. Ages ranged from 16 to 24 years old (mean=20, mode=21) and all reported ethnicity as White British. All participants identified at least one occasion where their alcohol use had been 'problematic' and all spoke about using cannabis, with some also discussing their use of other substances e.g. MDMA, ketamine and cocaine. All participants were under the care of their local Child and Adolescent Mental Health Service (CAMHS). Some participants described on-going experiences of suicidal ideation and more recent experiences of attempting to end their life. Other participants described their mental health as 'stable' and described previous historical attempts. Table 9 below provides brief information about each participant. Whilst transcribing interviews, all identifying names and places were changed or removed to ensure confidentiality. All participants were given a pseudonym.

Table 9. Information about the research participants

Pseudonym	Demographics and other information
1- Annie	Annie currently lives with her parents and one sibling. She reported on-going suicidal ideation and a number of difficult current life experiences and circumstances that were impacting on her mental health. She explained that she is still accessing support from CAMHS and a Psychologist. She described attempting to end her life on more than one occasion and talked about how her use of solvents was closely linked to these attempts. Annie also had used alcohol and cannabis as a coping strategy and would still occasionally drink

Pseudonym	Demographics and other information
	alcohol or smoke cannabis. Annie appeared to become angry as the interview progressed and spoke in detail about her experiences.
2- Liz	Liz currently lives with her boyfriend who attended the interview with her. She reported that she was still accessing support through CAMHS and had previously engaged in Dialectical Behavioural Therapy (DBT), however was due to be discharged from the service and described her mental health as 'stable'. Liz reported attempting to end her life on more than one occasion however appeared uncomfortable at times going into further detail about some of her experiences. Her boyfriend reported at the end of the interview that there were two main life events that impacted on Liz's attempts to end her life; however, she did not wish to discuss these. Liz spoke about her use of alcohol, cannabis and the misuse of prescribed medications.
3- Sarah	Sarah currently lives with her boyfriend. She reported that she is still accessing CAMHS and had previously engaged in DBT. She described that her mental health is currently 'stable' and was open and reflective throughout the interview. Sarah spoke in detail about her use of alcohol, which she now limits, and the impact of this on her mental health. She also described occasionally smoking cannabis. Sarah spoke about previous self-harm and overdose attempts which appeared to increase in severity prior to her being supported by CAMHS.
4- Matt	Matt is the only male participant. He currently lives with his dad and stepmother. Matt was the only participant who described only using

Pseudonym	Demographics and other information
	alcohol problematically on one occasion, as part of a suicide attempt. Matt also described the use of cannabis and its impact on his mental health. Due to the alcohol use and overdose, Matt has patchy memories of trying to end his life. He talked about his negative experiences of services and the impact of this on his mental health.
5- Louise	Louise currently lives with her parents. She reported that she is still using drugs and still has times when she struggles with her mental health and suicidal ideation. She is accessing support from CAMHS and is engaging in DBT as well as having support from a substance misuse service. Louise spoke about a number of attempts to end her life, using a variety of methods. Louise drew strong links to substance and alcohol use, her mental health and suicidality/ self-harm.
6- Holly	Holly lives with her mum and spoke about the importance of her mum's support. She described her experiences of attempting to end her life and use of alcohol. She also described using cannabis on occasion. She spoke a lot about her experiences of services, being given different labels, the use of mental health terminology and her attempts to make sense of this. This all appeared to have an impact on her mental health and identity.
7- Belle	Belle lives with her parents. She explained that she feels her mental health is 'stable' most of the time. Belle spoke in detail about her first attempt to end her life and discussed other attempts and methods that she had thought about. Belle spoke in detail about the impact of drug

Pseudonym	Demographics and other information
	and alcohol use on her mental health. Belle explained that she is currently still using drugs and alcohol. She described the importance of her relationship with family and friends.

Data Collection

Semi- structured interviews were conducted with each participant, ranging from approximately 40 to 75 minutes in length. All interviews were recorded via an encrypted Dictaphone and were later transcribed verbatim by the researcher. Five interviews were conducted at the local mental health team where participants were usually seen by the teams that supported them. The other two interviews were conducted over the telephone at the participants request. The interview format was informed by a topic and question guide (see Appendix 5). The questions covered: young people's experiences of attempting suicide, how things had changed, if at all, since this time and what their experiences of alcohol and substances were and how, if at all, they thought the use of alcohol and substances affected their mental health. Following the interview, participants were offered an optional debrief session and were given a debrief information sheet (see Appendix 6) with information of support services. Participants were given two weeks to withdraw from the study, after this time, if a participant chose to withdraw, it was agreed that their data would remain part of the study but no direct quotes from their interview would be used. None of the participants requested that their data be removed from the study.

Data Analysis

Each transcript was analysed using the IPA process as described by Smith, Flowers & Larkin (2009). The steps followed are explained in Table 10. See Appendices 10-14 for examples of the different analysis steps.

Table 10. Outlining IPA stages of analysis

Stage of analysis	Description
Step 1: Reading and re-reading	Becoming familiar with each transcript by reading through it on a number of occasions. As the researcher transcribed each interview, this was another method of becoming familiar with the data. Any reflections were also noted by the researcher at this stage
Step 2: Initial noting/ coding	This step was the most time consuming and most focused on the detail of the use of language and semantic content. Notes were written on the right-hand side of the printed transcript. These were focused in three areas: descriptive comments (content), linguistic comments (language use) and conceptual comments (interpretative).
Step 3: Developing initial themes	The notes/ codes were reviewed and emerging themes from the data noted on the left-hand side of the transcript. These emerging themes grouped together important notes.

Stage of analysis	Description
Step 4: Searching for connections across themes	This final step looked for connections across all transcripts and thematic structures. A list of all themes generated across participants was printed and cut up so that each theme was on a separate piece of paper. These were then moved around, grouping any related themes together. Superordinate themes were then formed with a series of related, smaller subthemes across the data.

After coding each transcript, potential identified subordinate themes were written on pieces of paper and arranged into possible overarching superordinate themes. Following this, a table of 'emergent themes' was created which comprised of an outline of superordinate and subordinate themes including quotes. A short reflections sections was also added of the researcher's experience of the interview and the analysis process. This process was followed for each participant. The emergent theme tables were then sorted using a similar paper cuttings exercise to identify any recurring, shared or contrasting themes across individual participants and were again sorted into superordinate and subordinate themes.

Reflexivity

Due to the nature of IPA, it is important to be reflexive and aware of any influences of bias for the researcher. In order to ensure that the interpretations made by the researcher about the data are reasonable a number of processes were conducted. Research supervisors and peers from a qualitative analysis group were consulted with to ensure acceptability and validity of interpretations at each stage. The researcher's epistemological stance of 'critical realism', "that

reality exists independent of the observer, but we cannot know that reality with certainty" (Coyle, 2016, p.11), also influenced interpretation of the data.

I am a 28-year-old, White British female and have my own lived experience of mental health difficulties. In addition to being a researcher, I am also a Trainee Clinical Psychologist and have been working as a practitioner, at times with patients similar to those of the recruited participants. I was aware during the interviews that some participants were at less resilient stages of their mental health, therefore this influenced the amount of detail and time spent discussing certain questions that felt triggering or particularly difficult for them. I am conscious that I am the same race as all participants interviewed and am similar in age to some. However, I do not share many of the experiences that were discussed during the interviews. Whilst these factors may have affected my interpretations of their experiences, I have attempted to remain as neutral as possible throughout the entire research process. I have kept a reflective diary after interviews and during the transcription and analysis process in order to understand how my own experiences may have impacted these interpretations.

Results

During the interviews, a number of important and powerful experiences were discussed by all of the participants. These related to interpersonal relationships, using alcohol and substances, harm to self and recovery. The analysis identified four superordinate themes and twelve subordinate themes which demonstrated how participants made sense of their experiences of attempting suicide and their understanding of the role of alcohol consumption in relation to their mental health. This thematic structure is described in Table 11 below.

Table 11. Participant Themes

Superordinate themes	Subordinate themes	Participants that contributed
1. The complexity of relationships	1.1 Keeping safe from others	All
	1.2 Still needing a connection despite the difficulties	All
2. The double-edged sword of alcohol and substances	2.1 Using alcohol/ substances to escape unwanted emotions	All
	2.2 The adverse impact of alcohol/ substances on mental health	All
	2.3 Others encouraging and normalising use	2, 3, 4, 6, 7
	2.4 The changing and unpredictable use	1, 3, 4, 5, 6, 7
3. The straw that broke the camel's back	3.1 A gradual build up	1, 3, 4, 6, 7
	3.2 Being determined to harm the self	1, 2, 3, 5, 7
4. Reflecting on the on-going process of recovery	4.1 Increasing understanding of the self and experiences	3, 4, 5, 6, 7
	4.2 Using alternative coping strategies	All
	4.3 Taking responsibility for recovery	2, 3, 5, 6, 7
	4.4 The emotional difficulty of reflecting	1, 2, 3, 4, 5, 7

Each theme is described in detail below with illustrative verbatim quotes from participants included in order to support these descriptions.

1. The complexity of relationships

This superordinate theme was discussed by all seven participants. Participants described difficult relationships and some experiences of relationships triggering increased difficulties in their mental health. However, they also spoke about the importance of feeling supported and able to talk to others.

1.1 Keeping safe from others

It was apparent from the interviews across all participants that they had experiences of other people being unhelpful, not understanding their mental health or needs and being stigmatising. There were also thoughts reported about not fitting in with others and a need to be independent or not rely on or 'burden' others with their problems. Some participants had experience of others being harmful, for example, being a victim of domestic violence, sexual assault or witnessing parental or gang related conflict. These experiences were then related to the development or perpetuation of mental health difficulties and suicidal ideation. Annie described her experiences of other people being violent towards her:

> *".... got a boyfriend, got into an abusive relationship, he used to beat me, he said he had an attachment disorder, if I would refuse to go he would tell me to kill myself, slit my throat, slit my wrists. So I would go and then get beat up and now it's my little brother beating me up and saying nasty shit"(Annie)*

It appears that having such experiences would consequently impact on individual's willingness to engage with and trust the intentions of others.

Belle also spoke about how other's lack of understanding and stigmatising views were difficult to negotiate when trying to explain her experiences:

> *"....so for me, to come in and try and explain to my parents who thought the people that self-harmed were seeking attention, to try and go and explain that to them, they were really confused they didn't have a clue what was going on, it's quiet funny looking back at it actually, urm you know, they didn't have a scooby what was going on do you know what I mean"(Belle)*

This is an experience echoed by other participants who found that the "ignorance" of others regarding awareness of mental health problems was difficult for them in trying to gain support and help family and friends to understand. Another complication was a described 'mis-match' in understanding *" I mean I still wanted to go (end his life), I think it was more, it was like a, I mean I don't see it as a cry for help but a lot of people do"(Matt).*

Many of the participants spoke about a feeling of not fitting in with others due to experiences of bullying, being excluded and mental health professionals struggling to find explanations for their reported symptoms. This notion of not fitting in then impacted upon their mental health and self-worth.

> *"I hated school, I didn't really get on with anybody urm, I just kind of was by myself and when I was in a group, I would always try and be like urm, the silly one, who always tries to make everyone laugh, just to try and fit in [ok] but it didn't work so I would I would get, the voices in my head would tell me like oh you're worthless and things so I'd feel suicidal at school" (Louise).*

These experiences of individuals not feeling heard, cared for or actively harmed culminate in further feelings of isolation and threat which are known precipitants for mental distress (Zinzow et al., 2009; Beutel et al., 2017).

1.2 Still needing a connection despite the difficulties

Despite the reported difficulty in relating to, and connecting with, others as described in the first subtheme, all participants described the importance and value in feeling supported, understood and heard by family, friends and professionals. This tension between difficulties connecting yet needing connections was evident from their descriptions. They explained how difficult it is to talk to another person about their mental health, especially related to suicide, but also how helpful this can be. Liz talked about how being surrounded by supportive and positive individuals had a beneficial influence on her mental health:

> *"yep…and I'm with happy people…personal support (mumbles), I've got his family, my family, I've got all these people round me and I've got some good friends as well, whereas before, I had some really toxic people"(Liz)*

Louise also described the effect that feeling held in mind by someone can have and how meaningful that interaction can be:

> *"yes it has, like she calls me up every week, like not just to see what drugs I've done you know, but just to see if I am ok, which is really nice, urm, it's like she actually cares, does that make sense, it's like I'm not just another person who's gone to her for help, this is a girl that I am going to check up on every week to make sure she is ok and that's how it feels and it's really nice to have that"(Louise)*

In addition to feeling supported by others, the participants spoke about the importance of being able to talk to people about their feelings and experiences. Sarah explained that when it is difficult to talk to others, it can be helpful for people to ask how you are:

> *"I think we just need to check in on people, you know, if people genuinely sat me down and asked me if I was doing ok, I would have been honest, but nobody asked, you know I am not blaming anyone else or saying that it's their fault but you know small things like that can really make a difference and if not stop, but at least delay something happening" (Sarah)*

Belle also expressed how challenging it can be to reach out:

> *"I think I can, the one thing I can say is, just when someone is feeling like shit, just talk, that's all you need, you need to talk out do you know what I mean and I'd like you to make that very obvious because if I hadn't talk out I wouldn't be here, I wouldn't be alive"(Belle)*

She stressed how important she feels that talking to others is and credited talking as one of the reasons that she is here to today. Another description of the importance of others was explained by Holly. She spoke about the importance of shared experiences and how this enables a deeper understanding and level of communication.

> *"definitely, definitely, my support network now is mainly people who either have experiences of mental ill health themselves [mhm] and I can listen to their stories and they listen to mine and we can both kinda go yeah that's fucked up but I get what vibe you're on, or I have friends that are, everyone is involved in mental health in some way, like I have friends who are student mental health nurses, I have friends who are, I just,*

they're all involved in mental health some way and I think that's very good because it needs to be spoken about urm so there's a lot of ability to be honest".(Holly)

This sentiment was also expressed by Louise and Belle in their interviews, that speaking to people of a similar age with shared experiences is easier at times than talking to others, whether that is professionals or family members.

This theme of the complexities of relationships for these young people was something that was shared across all participants. It appears that difficult life experiences and relationships with others, as well as feelings of not being understood and excluded by others is significant in making sense of their experience of attempting to end their life. Whilst supportive relationships with others, family, friends or services can provide hope and containment in very difficult times and for some individuals they felt that this was vital in them still being alive, at other times these same relationships could be very challenging.

2. The double-edged sword of alcohol and substances

This superordinate theme was discussed by all participants. Individuals spoke about using alcohol and substances to help them to manage their over whelming emotions in response to difficult life events, their mental health and other stressors. They also talked about the impact of this use on their mental health, suicidal ideation and actions. Some participants spoke about the influence of others on their use of alcohol and substances in this theme and how their use may have changed over time.

2.1 Using alcohol and substances to escape unwanted emotions

All participants shared experiences of using alcohol and substance to cope with overwhelming emotions including significant anxiety and low mood. Although, for some the use of alcohol and substances served a different purpose, for example; *"probably both, I used*

to drink and smoke at the same time, it was more the cannabis that made me feel relaxed the alcohol used to make me feel really hyper [laughs]" (Liz).

As the quote illustrates, Liz used alcohol in order to increase her mood and cannabis to calm her down. Sarah spoke about using cannabis to cope with 'feeling risky' or with experiencing suicidal ideation, she compares cannabis to pro re nata (PRN, when necessary) medication as something she uses to combat this:

> *"I find it's (cannabis) kind of a… (long pause) almost like a PRN in the sense of you know, if I find myself feeling a little risky it kind of it just, it lowers my risk, I'm not able to…I can't think if what I want to say sorry…I think it's just kind of the lack of thinking, like I can't think, I can move but it's not, you know it's that kind of, I physically am unable to hurt myself if I wanted to, its more effort"(Sarah)*

Holly also spoke about using alcohol to help down-regulate her system and how it became a coping strategy to aid in managing her 'high energy':

> *"I just noticed the effect, like being a student you drink right so, and then you learn about how alcohol affects you then, and if I calms you down, when you want to be calm you be like oh I'll just have a drink [ok] I realise that's not healthy but at the time I didn't care so [ok]"(Holly)*

Other individuals spoke about how alcohol and substances were both used in response to interpersonal conflict and the difficult emotions triggered as a result of this. Louise talked about using substances due to a loss of her ability to care and this being the trigger to her drug use:

> *"well I was going through a bit of a rough patch, in my life where I found out that my dad wasn't my real dad and stuff [right ok], erm and it just kinda, I didn't really care*

anymore. So I was just like, I'm gunna start taking drugs and its helps and heals the pain by (mumbles) but in the end it doesn't, it doesn't actually help with the pain [right] it just make things worse" (Louise)

Whereas Belle spoke about alcohol as more of an automatic 'go-to' coping strategy after a stressful interaction. This suggests that alcohol had become a learnt way of coping for her at this time:

> ***"****as soon as like that happened with him, I just went out drinking and I got drunk every night it was awful and I was just in such a bad way I just wanted to forget about it urm it made me feel worthless, I made me feel like shit".(Belle)*

Alcohol and other substances, particularly cannabis, were used as coping strategies in response to what participants described as having a 'bad day', interpersonal conflict or overwhelming emotions. For some individuals, different substances served different purposes, and some felt more helpful than others. For example, cannabis being used to reduce anxiety and alcohol in an attempt to improve mood.

2.2 The adverse impact of alcohol and substances on mental health

All participants reflected on the negative consequences of using alcohol and other substances as a way of managing emotions and interpersonal conflict. This subtheme highlights the effect coping in this way had on their suicidal ideation and other comorbid mental health difficulties. Annie explained that, in her experience, substances such as solvents and cannabis had negative effects on both her physical and mental health, whereas alcohol appeared to be less of a problem and potentially seen as helpful:

> *"I didn't eat for pretty much that whole two years, I barely ate, I ended up getting, I've got an eating disorder now, so it's not only that it's probably, its ruined my insides, I*

mean, after I stopped doing solvent abuse, I threw up every day for about 3 months after it, I mean it's just….alcohol, if you monitor it, it can help you, I don't know about weed that much because it sent me paranoid and it messed with my anxiety but solvent abuse, it fucks you up, that's the best way I can say it."

Louise described a somewhat different experience of alcohol use, making clear links between consuming alcohol and an increase in her suicidal ideation and behaviours:

> *"when I drink erm, I get, obviously I get drunk [yeah] and the normal symptoms and that and then urm, if I continue to drink after that, I go insane, like completely insane, well the once I did it, I went in the shower and I started to self-harm with a razor [ok] and my mates were there and they kicked down the door and took me out the shower and then I ran off and tried to jump out of my window to end my life urm, so that was one experience I've had, urm, pretty much all similar on drink I just always feel suicidal… always get memories from the past [ok] and urm it just brings everything up and I just, I can't deal with it so I end up self-harming, I end up trying to take my life or having thoughts of taking my life"(Louise)*

Although not all individuals described such a concrete link between alcohol and suicide, they mostly identified that alcohol did have an impact on how they felt the day after drinking. They spoke about becoming more emotional and less able to function, which in turn may then lead to increased levels of distress. However, Matt reported that he has only used alcohol in a 'problematic' way once, as part of a suicide attempt. Apart from this incident, he did not identify any impact of alcohol on his mental health. However, he did explain that the use of cannabis has a significant affect:

"the last two times I have smoked with him, I've got home and urm become quite psychotic to be fair…overwhelmed with voices, seeing things, urm I just become really restless urm, just cold sweats, yeah just all that and I guess it, especially when I've had a smoke I guess it urr, I dunno it doesn't feel real so it kind of gets me thinking and I mean, it's never got so bad it's led into self-harm but I've thought about it, because of how impulsive it makes me to, I guess it's just the overwhelming-ness of the thoughts in your head going at like 100 miles an hour"(Matt)

Participants described a range of different ways in which alcohol consumption affected their mental and physical health and relationships. All participants suggested that there is an effect that may at the very least contribute to an increase in distress. This distress can then become part of an experience which leads to increased suicidal ideation. Others discussed a direct link between the use of alcohol and substances and an increase in thoughts to end their life.

2.3 Others encouraging and normalising use

Five participants contributed to this subordinate theme. They described experiences of other people introducing them to alcohol or substances or downplaying their use. Belle reported being introduced to using drugs by an ex-boyfriend and that this led to her using a number of different substances. Holly described that "*my dad was addicted to alcohol so I guess that was another, oh this is a coping mechanism not thinking for myself, this isn't healthy (laughs) …yeah drinking, smoking, drugs [ok] anything that would mind alter he did it"*. Sarah also described experiences of family members excessively drinking alcohol and therefore her drinking was minimised and not taken seriously. She reported that society also normalises alcohol use:

"you knows it's, even when my drinking was at its worst it was still seen as, oh she enjoys a glass of wine, people still thought it was this, funny, social, oh she just likes getting drunk, where as in reality it was a way to destroy myself, and I think people see it as something fun and light and it's not"(Sarah)

Liz and Matt spoke about using substances in more of a social context with peers; *"I guess it's just socialising, if he rolls up a spliff or whatever [yeah] and we just end up smoking it" (Matt).* All of these participants appear to associate some of their alcohol or drug use to others and the influence that they have.

2.4 The changing and unpredictable use

Individuals also described how their use of alcohol and substances has changed or is continuing to change in response to reflections of the impact that this has on them and also the unpredictability of the effect of alcohol and substances. Annie and Holly both reflected on being aware of their 'limit' and how alcohol may affect them; *"I don't get obliterated, cuz I don't know whether I'm going to be a happy drunk or an angry drunk, I don't know, but I don't push myself to that limit with alcohol" (Annie).* Sarah and Louise also commented on the unpredictability of the effect of drugs and alcohol:

"it just kinda got me out my head, sometimes, you know I'd get really giggly and I'd watch comedy shows, like have a laugh, (quietly) the other times it would be really bad. There was no, kind of in between, by the end of the night I was either…high with joy or completely just depressed, there was nothing in between." (Sarah)

For some participants this unpredictability seemed to be a deterrent to using alcohol or drugs, however for others the benefits of using appeared to outweigh any potential negative consequences. Matt spoke about how his use of alcohol changed during his suicide attempt,

and that this was unusual for him as he did not see himself as someone who would use alcohol as a coping strategy:

> *"it's never been something that I've gone to when I'm depressed, I've got the self-harming techniques that I grew up with I guess so I guess I dunno drink is just not one of them. Obviously, I had the prosecco when I took my overdose" (Matt)*

This highlights the potential for new uses for alcohol and substances that can be resorted to for individuals in times of crisis.

3. The 'straw that broke the camel's back'

This superordinate theme is a direct quote taken from Sarah's interview when she talks about the gradual build-up of events and final trigger before she attempted to end her life. All participants acknowledged that there were contributing factors in place which led up to their attempt on their life. Although their respective experiences are quite different, some described an impulsive act, whereas other described researching and planning their attempt.

3.1 The gradual build up

Some participants described that other people were involved in the build-up prior to their attempt. Annie explained that: *"people push you to do it, or things push you to do it, do you know what I mean, there's only so far you can stretch an elastic band before it snaps"*. Sarah also described experiencing bullying and a breakdown of a relationship as triggers to her attempt. There was often more than one event, in different areas of their life that may have happened at similar times:

> *"I mean there was a few things that happened at the time, urr, I had a girlfriend, I was doing, well I was over working myself, I was doing about 80 hours at work [oh gosh]*

urr and I was going to college as well (laughs), so yeah, urr, it was just everything coming to an end really, cus I was working so much, I lost my college placement [right] and then I got over tired and I got urr, well I had to had in my notice cus of things that were happening, and my relationship ended so…urr it was just everything kind of coming crashing down" (Matt)

Matt explains how a combination of the end of his relationship, work, college and a lack of sleep all contributed to his experience of attempting to end his life. For others the build-up may not be so clear, especially if their attempt related to a deterioration in their mental health, which may have impacted on their sense making at this time. However, lack of sleep is also something highlighted by Holly as an influence in her alcohol use and therefore her suicide attempt. Holly explained that times when she has self-harmed have generally been linked to periods of 'hypomania' or *"energy swings"*. She described that before a suicide attempt, she had not slept for 6 days and was consuming alcohol to try to help her sleep.

3.2 Being determined to harm the self

Many participants told their stories of being determined to end their life when they made their suicide attempts. They explained that they did not feel as though anything could have been done to prevent them from taking the actions that they did. However, some individuals explained that their attempts were impulsive, this appears to have been facilitated by the consumption of alcohol or substances at times. Others planned and researched the ways in which they would try to end their life, both with and without the use of alcohol or substances. Belle, Annie and Louise all described spending time thinking about methods of harming themselves:

"….then there was other attempts like with the bleach and I was going to take an overdose again, again I was planning to hang myself or I used to plan a lot, falling down the stairs, trying to, which I know sounds really stupid, but you know, you'd really injury yourself more than dying falling down the stairs but, I used to think, if I get the right trip, I can die and I remember I used to google how to break your hand and stuff like that like to try and hurt myself, urm and I used to jump off the bed to try and hurt myself, to try and break an arm or really really harm myself, where I could be in a cast for like 6 weeks you know, I was trying to do stuff like, and urm you know the thought of jumping of a bridge or anything, I'd be petrified because I am petrified of heights so I would never do that and I never thought about doing it either, I think mainly it was taking something that I thought would be the best way" (Belle)

Several other participants spoke of the feeling of inevitability of making an attempt to end their life, *"honestly, I don't think so, I think…it was such a dark place to be in that nothing, or at least it felt like nothing in that moment could have pulled me out, nothing could have stopped it" (Sarah).* This determination to harm the self was described as ruminating about ways in which to do this. Annie talked about how she would find another method to use if her access to her preferred option was reduced. However, Matt did not seem to share this experience and instead described a 'moment of madness' and being in a process of still making sense of what led up to him taking the actions that he did.

4. Reflecting on the on-going process of recovery

This superordinate theme considers the process of recovery and how this was talked about and made sense of by the participants in their interviews. Participants discussed how coping strategies (such as using alcohol/substances) changed alongside a developing understanding of their experiences. This sense-making of their experiences of attempting to end their life appears vital in their ability to reflect and move away from self-harming.

4.1 Increasing understanding of the self and experiences

Participants reported a number of experiences which helped them to increase their understanding of their experiences to end their life and their mental health more generally. Often this increase in understanding was related to support given by mental health services or other professional support. Holly and Belle both identified that the process of receiving a diagnosis that they felt provided a helpful explanation of their experiences was difficult. However, once they received a label that they related to this helped them to make sense of their experiences and provided them with some explanation, although this was a process in itself;

> *"I think it is very representative, I think it is very representative of a lot of people, a lot of young women, to get political urm who have a diagnosis of borderline personality disorder, personally I disagree when the young person is going through puberty, the emerging bit exists for a reason but I think that has a big factor because I was diagnosed with BPD, EUPD whatever you want to call it and then, when I went home and did my research I was like, what the fuck are you on about? This isn't me, what, I don't know what you're on about urm, and then when I got the bipolar diagnosis initially, I was like oh this answers everything oh my god" (Holly)*

Louise also spoke about the influences of educational support in understanding the impact alcohol has on her: *"yes they (local drug and alcohol service)have, that's another reason why*

I've kind of stopped alcohol because they've you know told me about it and I've just realised that alcohol doesn't help at all". She spoke about the links she had been supported to make between her increase in suicidal ideation and actions after she consumes alcohol by a local drug and alcohol misuse service. Other participants talked about engaging in Dialectical Behavioural Therapy (DBT) and how this facilitated their understanding of their experiences. Matt described:

> *"I think that's what DBT has helped me with ur, especially working with (clinician name) urm I guess being in that 1:1 scenario seeing the difference of how its affected me, talking about it, I think before I just got overly anxious and just really kind of annoyed and ended up kind of zoning out and just getting too annoyed to speak about it [mm] but I think now being able to , I mean especially with (clinician name) I was able to speak about like, especially the bad experiences I've had, and it's just like being able to accept how angry I got at the time and how it didn't help"(Matt)*

Increased self-awareness and understanding appears to support individuals in the recovery from suicide attempts and behaviours that may have perpetuated these experiences, such as self-harm and the consumption of alcohol and substances.

4.2 Using alternative coping strategies

All participants discussed the use of alternative coping strategies to self-harm and the use of alcohol or substances as part of their recovery process. These varied from skills that they had learnt from engaging in DBT, to distraction techniques, exercise and self-care: *"I go to the gym a lot, and I go for walks and I talk to people and I don't delve into impulses like before" (Holly).* The strategies described appeared to be effective in reducing harm to self and alcohol or substance use. Other DBT skills discussed were mindfulness and interpersonal effectiveness

strategies. These appeared to help individuals reduce feelings of anxiety and increase their sense of being in control of emotions.

Annie did not talk about any coping strategies learnt from services:

> *"I started smoking cigarettes and vape, urm I started smoking cigarettes when I was like 11, urm and that was like a coping mechanism and then I ended up stopping when I went into year 10, didn't work and then I got a vape and I use my vape now, but apart from that I've got four cats, that I just try and surround myself with them"(Annie)*

These alternative strategies seem to extend the repertoire of options available to these individuals when they are feeling overwhelmed and notice an increase in suicidal ideation.

4.3 Taking responsibility for recovery

Individuals spoke about taking responsibility for their recovery from self-harm and suicide attempts but also from their drug and alcohol use. Belle spoke about the importance of being in the 'right mindset' in order to get better and making sure the support offered is effective. Liz also described that she had a level of agency over her recovery: *"I needed to sort myself out, I don't think there's anything that could have been done I just needed to sort myself out"*.

Holly spoke about being made aware of the idea of taking responsibility for her mental health whilst in hospital and how it took time for her to be able to understand what this meant:

> *"because I remember a nurse in hospital about 3 and a half years ago, she said to me you need to take responsibility and I was like what the fuck are you on about? You've got responsibility over me right now like on a section and all that kind of stuff, you've got responsibility over me I haven't gotta do anything and it wasn't until my last*

depressive episode I was like oh that's what she means, I have to do stuff too, I'm not just a passive person that takes medication and then leaves hospital"(Holly)

This idea of responsibility appears to empower young people in allowing them to make choices about the treatment and support that they receive, but also how they choose to make use of these resources. Not all of the participants spoke about responsibility, for example Annie described in detail how other people were responsible for triggering her self-harm and suicidal ideation. It appeared that she struggled to take responsibility for any role that she may play in the perpetuation of her difficulties and appeared to relate her difficulties to the actions of others. .

4.4 It's difficult to think about/ reflect on

During the interviews, it was clear for the majority of participants that talking about their experiences of attempting to end their life was difficult. There were certain experiences that individuals chose not to talk about and there were times when participants became emotional when reflecting on particular memories. There were also linguistic clues when analysing the transcripts that participants may have been uncomfortable or minimised their experiences, this was done frequently through laughter or long pauses. Liz chose to opt out of sharing certain experiences with the researcher; *"R: and were there many other ways that you tried to end your life apart from overdoses? Liz:…yeah…R: ok Liz: quite a few, but I don't want to talk about it"*. Belle disclosed how difficult it was to think back to a really difficult time in her life, however explained that on reflection, she can see how she has grown from these experiences:

> *"you know as a kid I was such, I'm a bubbly person, but I lost myself for so long in that time, urm (tearful) sorry…looking back at that time, it is, it's really, it's difficult but I'm glad I went through it"(Belle)*

Annie also made it clear how difficult talking about things can be, however she identified that although this is difficult it is also necessary:

> *"….you start talking, you're opening old wounds, you're gunna feel like shit but I mean I've been coming to CAMHS since I was in year 7, I've sort of gotten used to the whole things of talking about it and that's what people need to realise, you can't just hold it in, you've gotta talk"(Annie)*

Though participation in this study was not easy for these young people, they all described hoping to help other people who have similar or shared experiences. They stated that reflecting on difficult times is hard but appears to be an important part of recovery from these experiences.

Although all participants share the experience of attempting to end their life and the use of alcohol and substances, their collective experience is not one and the same. They tell stories of how complex their relationships with others can be and how the use of alcohol and substances at times has helped them to cope but has also led to further negatives experiences. They have shared difficult memories and reflections and have spoken about the influence of this on their recovery. Some participants were, at the time of interview, still struggling with their mental health and others were more settled. Two individuals, with the label of bipolar disorder, described increases in risk in relation to 'mania' and others spoke of overwhelming anxiety and depression. One individual talked about her relationship with voices and how these can also impact on her intentions to end her life.

Discussion

Summary of findings

Using qualitative methods, this research aimed to investigate the experiences of young people who had attempted suicide in the context of alcohol consumption. Seven participants were recruited from two Child and Adolescent Mental Health Service (CAMHS) teams within two respective NHS trusts. The findings, based on Interpretative Phenomenological Analyses of qualitative interviews, have furthered our knowledge and understanding of how young people make sense of their experience of attempting to end their life, as well as the perceived role alcohol consumption played within this. The results strongly support the view that the role of alcohol and other substances in relation to suicidal thoughts and behaviour is complex and influences the young people's experiences in a range of ways. Overall, four superordinate themes were identified: 'the complexity of relationships', 'the double-edged sword of alcohol and substances', 'the straw that broke the camel's back' and 'reflecting on the on-going process of recovery'. The study suggests important clinical implications and reflections on future research which can inform how the assessment and management of young people with suicidal ideation and previous suicide attempts can be advanced.

Findings of the present research suggest that there are a number of factors which may influence a young person's decision to end their life. Although alcohol was the initial focus of the study, many participants also spoke in detail about their use of other substances alongside alcohol. This finding suggests the potential importance of considering multi substance use, as opposed to adopting a narrow single substance focus. Alcohol and other substance use appeared to be significant methods of coping with interpersonal conflict, overwhelming emotions and

other life stressors for these young people. However, their use was also reported by young people to trigger suicidal feelings, ideation and behaviour. All participants had experienced the use of alcohol and cannabis, three participants had also used other substances such as solvents, MDMA, cocaine and ketamine. Not all participants linked both alcohol and drugs to their suicide attempts. Some participants spoke about cannabis as reducing their levels of anxiety, at least in the short term.

Research findings in context

There is limited literature that exists asking young people about their experiences of attempting to end their life. What literature there is appears to highlight the inter and intrapersonal factors which may increase the likelihood of an individual attempting suicide (O'Brien, Nicolopoulos, Almeida, Aguinaldo & Rosen, 2019). This is consistent with the findings from the present study as individuals reported experiences of interpersonal conflict, abuse, previous mental health difficulties and also feelings of not belonging, shame, guilt and a struggle to regulate overwhelming emotions. O'Brien et al (2019) spoke to hospitalised adolescents (aged 13-17) and found that an accumulation of factors led to the suicidal actions of their participants. However, none of the individuals in this study (O'Brien et al., 2019) cited using alcohol or substances, therefore it is likely that these processes may occur slightly differently with the young people interviewed, or that they were not asked about their consumption of alcohol and substances. In contrast to findings by Holliday and Vandermause (2015), the majority of participants did not describe suicide attempts as a way to communicate their distress.

Maple, Frey, McKay, Coker & Grey (2019) interviewed adult survivors of suicide attempts, they reported the difficulties individuals experienced in feeling able to disclose

suicidal thoughts and behaviours and therefore seek support. They found that there were internal factors, such as being able to find the words to explain how they felt, and factors relating to other's responses, such as stigma and judgement. These findings are consistent with reports of the young people within this study, where participants perceived that others can misunderstand or have a lack of understanding and therefore provide stigmatising responses. It also echoes the participants' experiences of struggling to communicate how they feel with others. Although there is a lack of research with young people, these findings suggest that there are likely to be some commonalities between the experiences of young people and adults.

Findings of the present study captured the young people's accounts of how complex relationships with others can be. This reflects the literature on the impact of interpersonal conflicts and family dynamics (Ho Choi et al., 2013; Johnson et al., 2002) and risk of suicide attempts. The interpersonal theory of suicide (Van Orden et al., 2010) posits that suicidal ideation is triggered by two constructs, 'thwarted belonginess' and 'perceived burdensomeness'. However, this theory suggests that the capability to act on these ideas develops through exposure to painful and fearful experiences. Although many of the individuals within this study describe these experiences, they also speak about the need for connection in spite of these experiences which is also spoken about in the literature (Chan, Kirkpatrick & Brasch, 2017; Lakeman & Fitzgerald, 2008). This demonstrates that young people share similar processes to those within older age groups. Although, due to their younger age, it may be that early intervention in these areas could allow young people to follow a different trajectory to that of their older counterparts. This struggle to feel connected to others may have influenced the consumptions of alcohol and drugs for these young people, to enable a way of attempting to manage their distress without connection.

Coping styles and attempted suicide

Research related to coping styles of adolescents who have attempted to end their life suggests that they are more likely to socially withdraw than other groups (Spirito, Overholser &Stark, 1989). Seeking support from adults was also found to be less likely in those who experience suicidal ideation (Benatov et al., 2020). The findings of the present study found that participants were likely to try to cope independently of others due to a lack of trust in others and not wanting to burden those around them.

Non-suicidal self-injury has also been shown to be a coping strategy for suicidal ideation and a way of regulating emotions for young people (Czyz, Glenn, Busby &King, 2019). Some participants in this study also reflected these findings. However, alcohol consumption and drug use appeared to facilitate these functions alongside or instead of self-harm. Czyz, Glenn, Busby & King (2019) also found that those who have attempted suicide were more likely to use coping strategies that are independent of others and unsurprisingly reported that increased use of coping strategies decreased the likelihood of self-harm. Suicidal young people have been found to have lower self-efficacy in their ability to cope with suicidal urges (Cyzy, Horwitz, Arango, Cole-Lewis, Berona & King, 2016). This suggests that these individuals may be more likely to turn to external ways of managing these thoughts such as through the consumption of alcohol.

Alcohol as a coping strategy

It has been reported that 'dysfunctional coping strategies' such as using drugs and alcohol are more likely in individuals who have attempted suicide (Yazihan, Cinar, Canbaz & Ak, 2019). Students with substance use problems and suicidal youths are more likely to use coping strategies that are deemed 'maladaptive' (Gould, Velting, Kleinman, Lucas, Thomas & Cheung, 2004).

A review of the literature demonstrated that those who are younger in age may be more likely to use alcohol and drugs to self-medicate for difficulties related to mood and anxiety (Turner, Mota, Bolton & Sareen, 2018). It was also found that those with anxiety difficulties, self-medication was associated with an increase in other comorbid mental health difficulties and suicidal ideation and attempts (Bolton, Cox, Clara & Sareen, 2006).

The findings of the present study demonstrate the appraisal of the perceived benefits and negative consequences of the use of alcohol and substances for these young people. It seems that the majority of the young people's understanding of the impact of alcohol and substances is in line with the literature. However, there was one participant that did not feel that alcohol or cannabis had a negative impact on her mental health, although she did state that she was less able to function the following day, after heavy drinking. This participant spoke about misusing her prescribed medication, rather than other substances, and that this was one of these ways in which she had attempted to end her life. Some participants described choosing to use alcohol or substance to cope with distress such as anxiety, low mood and hearing voices For some participants they described this as being learnt from family members or previous experiences. The research states that those who struggle to tolerate distress may be more likely to use alcohol in an attempt to cope with this (Khan et al., 2018). However, others reported that this was not a conscious choice and that they used alcohol because it was accessible in their home, or they drank alcohol or used drugs socially with friends. All participants spoke about how their use of alcohol and substances had changed over time, with many identifying that that had chosen to monitor or reduce the amount that they were using due to the repercussions for their mental health.

The findings from this study appear to support the existent literature. However, the functions and processes underlying a young person's alcohol consumption and experience of

this in the context of attempting to end their life appear to be more complex than the literature suggests to date. Therefore, consideration should be given to carefully and thoroughly addressing these multifaceted components in assessing risk and treatment of young people with suicidal ideation and alcohol and other drug use.

Strengths and limitations

There were a variety of experiences discussed by participants, who had been given a range of different diagnoses. Some participants had used a number of different substances alongside alcohol and some had just used cannabis in addition, some had multiple experiences of attempting to end their life and others had just one. This variability can be seen as both a strength and a limitation of the study. Whilst there were many differences between participants, there were still a number of shared experiences and sense-makings across the group, which provide a strength to the results captured. Although initially this project aimed to focus on alcohol in young people's experiences of attempting suicide, all of the participants had also used substances. Therefore, it has been difficult to separate these two experiences when analysing the results. This combined experience of drug and alcohol use still reveals important information about how young people might choose to manage their distress and make sense of this, however, it makes it difficult to focus specifically on alcohol. Despite this difficulty, psychological models of addiction, such as Orford's 'Excessive Appetites' (2001) model, suggest that there a range of activities e.g. the consumption of alcohol and other drugs, that are deemed 'risky' for individuals who are more predisposed to becoming attached to them. He describes that the processes that underlie these 'appetites' are the same for each behaviour or activity. Therefore, separating alcohol and drug use may not be helpful or necessary.

As the present study had a small (n=7) and targeted sample, this enabled the researcher to conduct in-depth analyses of each interview, spending time to understand how each individual had made sense of their own unique experience. This time spent on thorough analysis of data and individual experience, alongside the use of feedback from others and a reflective diary promotes the credibility of the study and it's findings.

The method of analysis, IPA, allowed rich, detailed interviews with the participants which were then analysed thoroughly. This helped provide a detailed sense of each participants experience. It is likely that the results have been influenced by the author's own interpretations of the experiences shared by these young people. In order to balance this, themes were discussed as part of a peer IPA support group and also with my supervisor in order to check these interpretations. Due to time restrictions, it was not possible to send a summary of the data to participants for this to be checked by them in order for them to confirm how representative this felt.

Clinical implications

This project has identified a number of potential areas that may support services in assessing young people's risk of attempting to end their life and young people in both the recovery from and prevention of attempting to end their life. These areas are outlined below.

Increased systemic working. Given the reported challenges of the young people interviewed in dealing with interpersonal relationships, a possible recommendation is to increase family systemic working within CAMHS settings. These interventions would help family members to understand their young person's experience but also how to best support them. This type of working could also be offered to peers and friends of the young person. As suggested by individuals in this study, they may feel more comfortable to turn to friends, peers

and those they deem as having a shared or similar experience to them (Coggan, Patterson & Fill, 1997). This increase of familial understanding would promote increased resilience within the family system, which has also been linked with improved outcomes for young people (MacPhee, Lunkenheimer & Riggs, 2015). The Department of Health (DoH, 2015) and Health Education England (HEE, 2018) acknowledge the importance of supporting the family, as a whole, in improving young people's mental health. National Institute for Health and Care Excellence (NICE) guidelines (2011) also suggest the use of family therapy for young people with identified alcohol use difficulties.

Understand the functions of alcohol and substance consumption. As explained in the results, the functions and process' relating to alcohol consumption and suicide attempts are complex. Practitioners should aim to not only identify whether or not a young person is drinking alcohol, but also aim to understand the function of this use. This would enable a more holistic and individualised overview of their risk suicide and intervention needs.

More accessible education and support related to impact of drugs and alcohol. One participant reported the benefit of receiving support from a service specifically for her drug and alcohol use, explaining that understanding the effects these can have on her have allowed her to begin to think about reducing her use. Another stated that although the help she received within CAMHS was helpful, she felt left on her own to manage her alcohol use. She was signposted to local services; however, was not supported to access this service.

Facilitate the development of alternative strategies Participants spoke positively about their experiences of DBT and the coping strategies that they had learnt through engaging in this therapy. They felt that this had enabled them to reduce self-harming episode and also the use of alcohol and substances. The final superordinate theme highlights this on-going process of

recovery and development of self-awareness, increased understanding and alternative coping strategies. Chi et al. (2013) found that increased self-awareness was a major factor in recovery from suicide attempts. This is something discussed by the participants of this study, gaining an understanding of their triggers and needs. The research (Wilson et al, 1995) also supports the participant's reports that being encouraged to develop and use other coping strategies is important with this population.

Providing hope and building self-worth. Some participants spoke about their determination to harm themselves and end their life, as if it was almost inevitable that they would attempt suicide at some point in time. Supporting patients to build their self-worth and helping instil hope that these thoughts will pass and that their circumstances can be different may provide an opportunity to mitigate some of the risk posed to the self at these times (Berglund, Astrom & Lindgren, 2016). Findings from the present study describe the build-up and determination to harm the self, seemingly without considering that there may be other options or ways out of their distress. Berglund, Astrom & Lindgren (2016) found that difficulties in holding onto hope when life became difficult and the need for others to provide this hope for them at times. This can be linked with the young people's experiences of being intent on ending their life and attempting multiple methods in order to be successful in this.

Future Research

Although this is a small-scale study, it is one of the first to explore young people's experiences of attempted suicide alongside alcohol and substance use. The results have broadened our understanding of how young people make sense of these experiences. Further research needs to sample a more diverse population, focusing on those from black and minority ethnic groups and males. Due to the high numbers of completed suicides within young males,

this may be a priority for researchers. It has been reported that among young men of Black African and Caribbean origin the suicide rate is higher than that of their White peers (Bhui & McKenzie, 2008). This would enable a more thorough and evidence-based understanding of young people's sense making.

More research into the functions of the consumption of alcohol and substances may also develop interventions supporting people who experience suicidal ideation alongside the consumption of alcohol and other drugs.

Conclusion

The young people that took part in this study reported complex and multifaceted experiences of attempting to end their life and their subsequent recovery from this. Their accounts suggested that the use of alcohol and other drugs played an important role, yet the ways in which this occurred varied across participants and seems more complex than the literature has illustrated to date. Participants described use of alcohol and other substances as a way to escape unwanted and overwhelming emotions such as low mood and anxiety, deal with interpersonal conflict and traumatic memories, and manage comorbid mental health experiences such as voices and mania. However, this style of coping in turn may contribute to an increase in suicidal ideation and actions. The findings from this study, although preliminary and in need of further investigation, inform a greater understanding of the many functions of alcohol consumption and their relationship to suicidal ideation and behaviour in young people. Results can also inform how these processes can be explored by services in order to gain a more comprehensive risk assessment. This understanding should also be used to tailor interventions for those attempting suicide.

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CHAPTER 3

PRESS RELEASE

Families need to be involved in suicide prevention

Suicide is a global problem and many services world-wide are attempting to address the rising rates of suicide, especially in young people. There have been a number of high-profile celebrities who have ended their life in the past few years which has raised the awareness of mental health and suicide within the general public. Although this appears to be more spoken about and there is more information than ever in the public domain, suicide figures are still increasing. In order to prevent the current increase in young people ending their lives, it is vital that effective treatments are found in order to offer the right support reduce suicide rates.

Suicide is complex, often has many contributing factors and has a devastating impact on family and friends. A researcher at the University of Birmingham, School of Psychology has investigated the effects of involving family in psychological interventions for suicidal young people. The existing literature was reviewed and analysed to determine how effective family-based interventions are in treating suicidal thoughts and behaviours. Family-based interventions were classified as any intervention where one member of family was involved in treatment. The findings suggested that family-based interventions as a standalone treatment or in conjunction with another adapted commonly used treatment model of therapy are effective

Family interventions are not currently in the good practice guidelines (NICE) for individuals who self-harm. However, this review has shown that family-based interventions have a comparable effect to Cognitive Behavioural Therapy, which is recommended in the NICE guidelines, as well as other psychological and psychopharmaceutical treatments. Family-based interventions have been used to support young people with a number of mental health difficulties and as well as attempted suicide.

Six databases were systematically searched, and the review identified 23 studies from the existing literature. The effects of different interventions, with family components, were analysed and were shown to reduce suicidal thoughts and behaviours. Previous self-harm is one of the major risk factors for a completed suicide attempt, therefore being able to reduce thoughts and behaviours is a significantly positive outcome.

By involving family members in interventions, it enables an increased understanding for the support system around the young person and gives them skills to help the young person to manage their distress.

The Mental Health taskforce to NHS England, 2016 reported that: “half of all mental health problems have been established by the age of 14, rising to 75 per cent by age 24”. However young people’s mental health services only receive a small proportion of the overall budget. The hope is that research and reviews such as this one help to encourage commissioners of services to fund more family-based interventions in young people’s services and further the quality research.

If you are experiencing any suicidal thoughts or are trying to support someone who is, you can get in contact with: The Samaritans at any time by calling 116 123, https://www.samaritans.org/, or emailing jo@samaritans.org .

"There's only so far you can stretch an elastic band before it snaps": young people's experience of alcohol, drugs and suicide.

A researcher at the University of Birmingham spoke to seven young people, aged 16-25 from two local NHS trusts, about their experiences of attempting to end their life. In the current climate, where there have been many high-profile suicides over the past few years, a number of these being linked to alcohol or substance use, this seems to be on the agenda for many organisations and the general public. The aim of this study was to hear directly from young people to capture their understanding of their own experiences of attempting suicide.

Some reported that using alcohol and substances can help them to manage their mental health difficulties. However, others now avoid the use of drugs such as cannabis, MDMA and other 'party drugs' due to the impact this has on their mental health. They explained that alcohol can feel more controllable than the use of other substances and is seen as more socially acceptable;however, this also had greatly affected their mental health. The majority of young people felt that cannabis can be helpful for their mental health at times of anxiety.

The study found that young people talked about 4 main themes in relation to their suicide attempts. They spoke about the impact of other people, this impact has been harmful, often triggering distress and difficulties with their mental health. However, they also spoke about still needing help and support from others, to feel cared for and connected but also to be able to communicate with others about how they are feeling. One young person reported *"just talk, that's all you need, you need to talk out do you know what I mean and I'd like you to make that very obvious because if I hadn't talk out I wouldn't be here, I wouldn't be alive"*. They also discussed the impact of alcohol and substance on their mental health, often as something

that was used to cope initially. Some reflected on the increase in suicidality following the use of alcohol and substances and how impulsive this can make them. Others spoke about how the consumption, especially of alcohol, is normalised in society and even when speaking to friends and family about drinking this was minimised. Being introduced to alcohol and drugs by friends, family members and partners was also discussed.

The on-going journey of recovery was another thing spoken about and how learning alternative coping strategies and becoming more self-aware of their own needs was highlighted as important in this journey. A lack of hope and determination to harm themselves or end their life was also identified by some of the participants.

Researchers have suggested that if you notice a young person does not seem themselves, is drinking more than usual or is using substances, especially in response to difficult life events that you ask them if they are ok. These young people highlighted how important speaking to someone who is not judgemental, and understanding can be.

If you are experiencing any suicidal thoughts or are trying to support someone who is, you can get in contact with: The Samaritans at any time by calling 116 123, https://www.samaritans.org/, or emailing jo@samaritans.org .

AppendixAppendix 1: Health Research Authority letter of approval

Ms Rebecca Guest
Trainee Clinical Psychologist
Birmingham and Solihull Mental Health Foundation Trust
University of Birmingham
School of Psychology
52 Pritchatts Road
B15 2TT

Email: hra.approval@nhs.net
Research-permissions@wales.nhs.uk

17 April 2019

Dear Ms Guest

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

Study title:	**A qualitative exploration of young people's experiences of attempted suicide and alcohol use.**
IRAS project ID:	**257738**
Protocol number:	**RG_18-262**
REC reference:	**19/WM/0082**
Sponsor	**University of Birmingham**

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 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 **257738**. Please quote this on all correspondence.

Yours sincerely,

Natalie Wilson
Approvals Specialist

Email: nrescommittee.westmidlands-solihull@nhs.net

Copy to: *Dr Birgit Whitman, University of Birmingham, Sponsor contact*

List of Documents

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

Document	*Version*	*Date*
Copies of advertisement materials for research participants [Recruitment poster]	3	24 January 2019
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Insurance Letter]		07 February 2019
GP/consultant information sheets or letters [Recruiter Information sheet]	2	11 January 2019
HRA Schedule of Events	1	09 April 2019
HRA Statement of Activities	1	09 April 2019
Interview schedules or topic guides for participants [Interview Questions]	2	24 January 2019
Interview schedules or topic guides for participants [Interview topic guide]	2	11 January 2019
IRAS Application Form [IRAS_Form_15022019]		15 February 2019
IRAS Checklist XML [Checklist_12042019]		12 April 2019
IRAS Checklist XML [Checklist_08042019]		08 April 2019
Letter from sponsor [Letter from sponsor]		07 February 2019
Other [Protocol with Track changes]	2	01 April 2019
Other [Public and Products Liability Letter]	1	07 February 2019
Other [Generic Insurance Letter]	1	07 February 2019
Other [Liability Insurance Letter]	1	07 February 2019
Other [University CI agreement]	1	23 November 2018
Participant consent form [Patient Consent for with Track Changes]	5	01 April 2019
Participant consent form [Patient Consent Form]	5	01 April 2019
Participant consent form [Consent for researcher contact form]	4	11 January 2019
Participant information sheet (PIS) [Patient Information Sheet with Track Changes]	5	01 April 2019
Participant information sheet (PIS) [Patient Information Sheet]	5	01 April 2019
Participant information sheet (PIS) [GDPR additional information sheet]	1	11 January 2019
Participant information sheet (PIS) [Debrief information sheet]	2	11 January 2019
Research protocol or project proposal [Research protocol]	2	01 April 2019
Summary CV for Chief Investigator (CI) [CI CV]		30 November 2018
Summary CV for supervisor (student research) [Academic Supervisor CV]		12 December 2018
Summary CV for supervisor (student research) [Academic Supervisor CV]		12 December 2018
Summary CV for supervisor (student research) [Clinical Supervisor CV]		17 December 2018

Information to support study set up

The below provides all parties with information to support the arranging and confirming of capacity and capability with participating NHS organisations in England and Wales. This is intended to be an accurate reflection of the study at the time of issue of this letter.

Types of participating NHS organisation	Expectations related to confirmation of capacity and capability	Agreement to be used	Funding arrangements	Oversight expectations	HR Good Practice Resource Pack expectations
Activities and procedures ads detailed in the protocol and study documents will take place at participating NHS organisations.	Research activities should not commence at participating NHS organisations in England or Wales prior to their formal confirmation of capacity and capability to deliver the study.	A statement of activities has been submitted and the sponsor is not requesting and does not expect any other site agreement to be used.	Sponsor is not providing funding to participating NHS organisations.	A local collaborator is expected at participating NHS organisations.	Where arrangements are not already in place, research staff not employed by the NHS host organisation undertaking any of the research activities listed in the research application would be expected to obtain a Letter of Access based on standard DBS checks and occupational health clearance.

Other information to aid study set-up and delivery

This details any other information that may be helpful to sponsors and participating NHS organisations in England and Wales in study set-up.
The applicant has indicated that they do not intend to apply for inclusion on the NIHR CRN Portfolio.

Appendix 2: Recruiter Information sheet

Study Title: *A Qualitative Exploration of Young People's Experiences of Attempted Suicide and Alcohol Use*

Researchers: Rebecca Guest, Trainee Clinical Psychologist. Supervised by Professor Alex Copello, Dr Maria Michail and Dr Abigail Gallivan.

This research project is a an exploratory study, investigating the experiences of young people within mental health services who have attempted suicide, in order to gain an understanding into the psychological processes which underlie the relationship between low mood, alcohol use and attempted suicide.

Inclusion Criteria:
Be aged 16- 25 years
Be a patient of Birmingham and Solihull Mental Health Foundation Trust or Forward Thinking Birmingham
Have an allocated Core worker or Care Coordinator
Have an up to date risk assessment
Have at least one suicide attempt in the three years prior to recruitment
Have been using alcohol at the time of their suicide attempt
Be able to speak English
Exclusion Criteria:
Have attempted suicide in the 6 months prior to taking part in the study

What do I need to do?

If you are aware of any patients who fit the above criteria, please speak to them about the study and give them a Patient Information Sheet.

If the patient is then happy for the researcher to contact them, please send the Consent to Contact Form to

Will this increase the patient's risk?

There is research to suggest that talking about suicide does not increase suicidality and that taking part in research can be beneficial for the participant's mental health (Dazzi et al, 2014).

Participants will all be offered an optional 'Narrative- informed' debrief session with Dr Abigail Gallivan (Clinical Psychologist) following their participation.

Version: 2, 11.01.2019
IRAS ID: 257738

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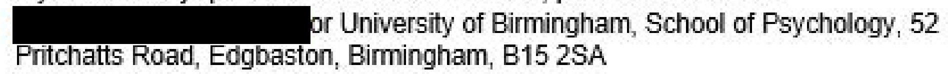
If you have any questions about this research, please contact me:



or University of Birmingham, School of Psychology, 52 Pritchatts Road, Edgbaston, Birmingham, B15 2SA

Version: 2, 11.01.2019
IRAS ID: 257738

Appendix 3: Recruitment Poster

Discussing experiences of alcohol use and attempts to end your life

Could you help us understand if there are any links between alcohol use and attempted suicide?

We are looking for participants to take part in some research

- **Aged 16-25**
- **History of attempted suicide in the last three years**
- **Currently involved with Mental Health services**
- **Would say that you have had 'problematic use ' of alcohol**

As a thank you for taking part in this study, we will offer every participant a £10 voucher

This would involve:

- **A meeting to discuss the research (approx. 60 mins)**
- **A recorded interview (60-90 mins)**
- **An optional debrief session with a Clinical Psychologist**

If you would like to find out more:

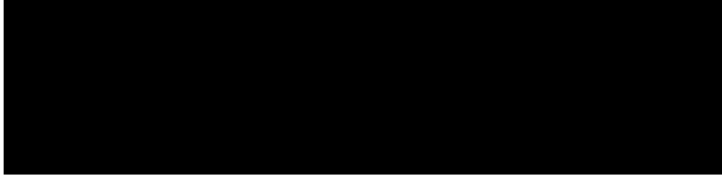
Rebecca Guest

Trainee Clinical Psychologist

University of Birmingham

Appendix 4: Consent for researcher contact form

Version: 4, 11.01.2019
IRAS ID: 257738



CONSENT FOR RESEARCHER CONTACT

The *'A Qualitative Exploration of Young People's Experiences of Attempted Suicide and Alcohol Use'* study has been explained to me by my care coordinator and I have been given the Participant Information Sheet. I agree to the researcher contacting me to discuss the study in more detail.

Please provide the information below, including your signature and today's date.

Patients full name:____

Signature: ______________________________________ Date: ____________________

Patients contact details:

Email Address: ____

____

Home telephone number: ________________________________

Mobile number (if available): ______________________________

This form will be sent to the researcher so that s/he can contact you to arrange to visit you to discuss your possible involvement in the Study. If you decide not to take part in the study, this form will be destroyed and no-one else will see it.

Thank you for your interest

Care team member details:

Name: ____

Email Address: ____

Signature: ______________________________ Date: ____________________

Once signed, please send to Rebecca Guest as soon as possible:

Appendix 5: Interview questions guide

Interview Questions:

1. Can you tell me briefly about your experience of attempting to end your life?
   Prompts: what was happening at this time? How did you understand what was happening for you at this time? What sense did you make of this?

2. What factors do you think had an effect on what happened at that time?
   Prompts: was there anything that you think might have contributed to the event? Is there anything that anyone else thinks might have contributed to the event?

3. How do you think your mental health has changed (improved/ declined) since the event?
   Prompts: why do you think this is? Do you have any other coping strategies? What was your support network like before/ now? Isolation? Physical Health?

4. How do you manage any suicidal thoughts now?
   Prompts: is this different to how you used to manage them? Why do you think this is? Are these strategies helpful?

5. What was your experience of using alcohol at this time?
   Prompts: were you using any other substances at this time? Legal/ illegal/ prescribed? How do you think this might be linked with the event? (build up/ pattern of use). When did you start using alcohol?

6. How has your consumption of alcohol changed at all since this event?
   Prompts: do you still use any other substances at all? How do you think that alcohol use has impacted on your life?

7. Thinking about the event now, do you think that there is anything that could have been done to prevent you from taking those actions?
   Prompts: What services have you used now or in the past (NHS/ Youth services/ Voluntary sector)?

8. Is there anything else you think is important for me to know about your experiences of attempting to end your life?

Appendix 6: Debrief Information Sheet

UNIVERSITY OF BIRMINGHAM

Debrief Information Sheet

Study Title: *A Qualitative Exploration of Young People's Experiences of Attempted Suicide and Alcohol Use*

Researchers: Rebecca Guest, Trainee Clinical Psychologist. Supervised by Professor Alex Copello, Dr Maria Michail and Dr Abigail Gallivan.

Thank you for taking part in this study, I hope that it had been helpful to you in some way.

Due to the experiences discussed, this may have understandably been difficult and possibly could have triggered some distressing thoughts. If you feel that you need to speak to someone after today you can contact:

- Your Care Coordinator
- Dr Abigail Gallivan, Clinical Psychologist. She is offering everyone who takes part in this study the opportunity to meet with her to discuss your experience of participating and any difficult thoughts this may bring up for you.
- Samaritans https://www.samaritans.org 116 123
- Papyrus https://www.papyrus-uk.org/ 0800 068 41 41
- The crisis team for your trust (0300 300 0099 t:)

Following your participation, you have two weeks to contact me if you change your mind about consenting for your data to be used during the research report. If you have any questions about this please contact me on the information below.

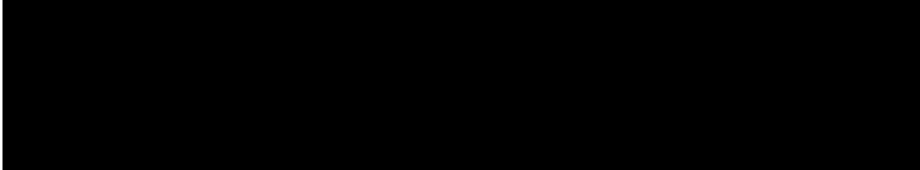
Rebecca Guest

Email:

Postal Address:
School of Psychology,
University of Birmingham,
52 Pritchatts Road,
B15 2SA

Version: 2, 11.01.2019
IRAS ID: 257738

Appendix 7: Participant Information Sheet



UNIVERSITY OF BIRMINGHAM

Participant Information Sheet

Study Title: *A Qualitative Exploration of Young People's Experiences of Attempted Suicide and Alcohol Use*

Researchers: Rebecca Guest, Trainee Clinical Psychologist. Supervised by Professor Alex Copello, Dr Maria Michail and Dr Abigail Gallivan

You are being asked to take part in a research project being completed as part of a Doctorate in Clinical Psychology at the University of Birmingham. Before you decide whether or not to take part, it is important that you read the following information which will help you to understand why the research is being done and what taking part will involve. Please feel free to ask any questions you may have about the information you read.

What's the purpose of the study?

This research project hopes to interview young people (aged 16-25) who have had personal experiences of attempting suicide alongside the use of substances or alcohol.

This is to help us to get an understanding of the psychological processes which might lead up to an individual attempting to take their own life and how the use of alcohol may or may not impact on this.

What would taking part involve?

If you agree to take part in the study, you will be given a consent form to sign. Once you have given your consent, you will be asked to complete a questionnaire about which substances you may or may not have use in the past two years.

You will then be asked to arrange a time that is convenient for you to attend an interview of around 60 minutes. In this interview, we are interested to hear about your experience(s) of attempting to take your own life alongside the use of substance or alcohol, the build up to this and your reflections following this.

What are the possible benefits of taking part?

The research tells us that talking about our experiences can be beneficial to our mental health. Taking part in this research may give you some space to think reflectively about your experiences. You will be helping to inform our understanding of what can be an exceptionally difficult time for individuals, as well as potentially helping to guide interventions and future risk management procedures. You will be given the opportunity to have an optional one off “Narrative therapy-informed” debrief session with a Clinical Psychologist following your participation. Narrative therapy seeks to be a respectful, non-blaming approach and centres people as the experts in their own lives. It views problems as separate from people and assumes people have many skills, competencies, beliefs, values, commitments and abilities that will assist them to reduce the influence of problems in their lives (Dulwich Centre).

What are the possible disadvantages or risks of taking part?

The topic which we will be discussing during the interview can be understandably upsetting for people, if this were to happen during the interview, you will be given a break or the opportunity to terminate the interview. You can also choose to withdraw at any time without giving a reason. You will be given debrief information and the option to attend an individual debrief session with a Clinical Psychologist.

What will happen if I do not wish to take part?

If you do not wish to take part in the study, this will not impact on your on-going care in anyway. If you do choose to participate and then wish to withdraw at a later date, you can withdraw all of your data up to two weeks following your participation, without giving a reason.

What will happen to my data?

The University of Birmingham is the sponsor for this study based in the United Kingdom. We will be using information from you in order to undertake this study and will act as the data controller for this study. This means that we are responsible for looking after your information and using it properly. The University of Birmingham will securely keep identifiable information about you for 10 years after the completion of the study.

Your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the study, we will keep the information about you that we have already obtained. To safeguard your rights, we will use the minimum personally-identifiable information possible.

The University of Birmingham will keep your name and contact details (email address) confidential and will not pass this information to any other organisation. The University of Birmingham will use this information as needed, to contact you about the research study, and make sure that relevant information about the study is recorded for your care, and to oversee the quality of the study. My Supervisors from The University of Birmingham may look at your research records to check the accuracy of the research study. The University of Birmingham will only receive information without any identifying information. The people who analyse the information will not be able to identify you and will not be able to find out your name, or contact details.

Your consent form will be locked in a secure filing cabinet and kept in accordance with data protection principles, for 10 years. The interview will be recorded on an encrypted Dictaphone, this data will then be transcribed verbatim and anonymised. The audio file will then be deleted.

You can choose to remove your data for up to two weeks following your interview, after this time you data will not be able to be removed due to the data analysis process. However, at your request the researcher can remove any direct quotes from the report.

All personal data and research data will be stored separately and only approved members of the research team will have access to that data. All information and data will be kept confidential. However within the report write up, some direct quotes from your interview may be used, at your request these direct quotes can be removed.

Confidentiality

In line with confidentiality principles everything discussed will be kept confidential, unless the researcher becomes worried about your own safety or the safety of anyone

else, at which point they will share this information with your Care Coordinator and the Research Supervisors.

What happens to the results?

The research study is due to be completed by September 2020. It is expected that the results will be published in a peer-reviewed journal of which you will receive a copy if you wish. As it can take time for research papers to get published, we can circulate a report containing the results to you, should you wish. There will be no personally identifiable information published within the report.

Further information

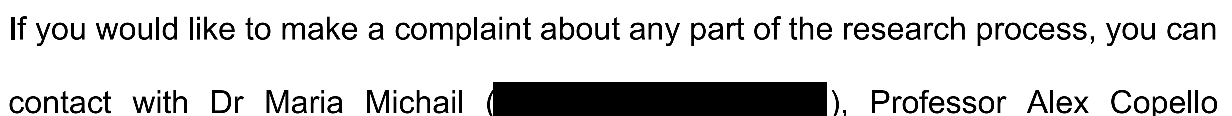
Thank you for taking the time to read this information and I hope that you will consider taking part in this research project.

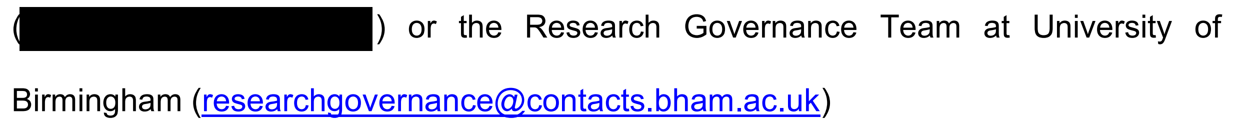
If you have any questions about what you have read, please contact:

Rebecca Guest

Email:

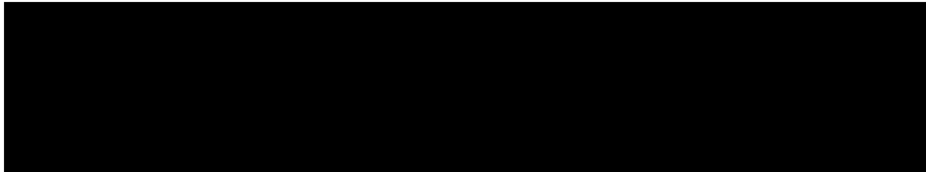
Postal Address: School of Psychology, University of Birmingham, 52 Pritchatts Road, B15 2SA

If you would like to make a complaint about any part of the research process, you can contact with Dr Maria Michail (), Professor Alex Copello



(████████) or the Research Governance Team at University of Birmingham (researchgovernance@contacts.bham.ac.uk)

Appendix 8: GDPR information sheet



UNIVERSITY OF BIRMINGHAM

Data Protection Essentials

Study Title: *A Qualitative Exploration of Young People's Experiences of Attempted Suicide and Alcohol Use*

Researchers: Rebecca Guest, Trainee Clinical Psychologist. Supervised by Professor Alex Copello, Dr Maria Michail and Dr Abigail Gallivan

In order to carry out the research project described in your participant information sheet, we will need to collect information about you, and some of this information will be your personal data. Under data protection law, we have to provide you with very specific information about what we do with your data and about your rights. We have set out below the key information you need to know about how we will use your personal data.

More information on how the University processes personal data can be found on the University's website on the page called 'Data Protection - How the University Uses Your Data' (https://www.birmingham.ac.uk/privacy/index.aspx).

Who is the Data Controller?

The University of Birmingham, Edgbaston, Birmingham B15 2TT is the data controller for the personal data that we process in relation to you.

What data are we processing and for what purpose will we use it?

We will collect and process your personal data to conduct the research project, as explained in the Participant Information Sheet.

What is our legal basis for processing your data?

The legal justification we have under data protection law for processing your personal data is that it is necessary for our research, which is a task we carry out in the public interest. These data will not be used to make decisions about you.

Who will my personal data be shared with?

We will not share your data with any third party. Relevant sections of the data collected during the study may be looked at by individuals from the research team, representatives of the sponsor, from regulatory authorities or from the NHS Trust, where this is relevant to your taking part in this research. In exceptional circumstances, some information may also be made available to the NHS team responsible for your

care but only if the researcher became worried about any disclosed risks to yourself or others

Sometimes, external organisations assist us with processing your information, for example, in providing IT support. These organisations act on our behalf in accordance with our instructions and do not process your data for any purpose over and above what we have asked them to do. We make sure we have appropriate contracts in place with them to protect and safeguard your data. If your personal data are transferred outside the European Union (for example, if one of our partners is based outside the EU or we use a cloud-based app with servers based outside the EU), we make sure that appropriate safeguards are in place to ensure the confidentiality and security of your personal data.

How will my personal data be kept secure?

The University takes great care to ensure that personal data is handled, stored and disposed of confidentially and securely. Our staff receive regular data protection training, and the University has put in place organisational and technical measures so that personal data is processed in accordance with the data protection principles set out in data protection law.

The University has an Information Security Management System based on ISO27001 with a range of controls covering the protection of personal information. Annual security awareness training is mandatory for staff and the University is accredited under the NHS Information Governance Toolkit, the Payment Card Industry Data Security Standard and is in the process of gaining Cyber Essentials Plus for defined services.

In relation to this project, The University of Birmingham will keep your name and contact details (email address) confidential and will not pass this information to any other organisation. The University of Birmingham will use this information as needed, to contact you about the research study, and make sure that relevant information about the study is recorded for your care, and to oversee the quality of the study. My Supervisors from The University of Birmingham may look at your research records to check the accuracy of the research study. The University of Birmingham will only receive information without any identifying information. The people who analyse the information will not be able to identify you and will not be able to find out your name, or contact details.

Your consent form will be locked in a secure filing cabinet and kept in accordance with data protection principles, for 10 years. The interview will be recorded on an encrypted Dictaphone, this data will then be transcribed verbatim and anonymised. The audio file will then be deleted.

You can choose to remove your data for up to two weeks following your interview, after this time you data will not be able to be removed due to the data analysis process. However, at your request the researcher can remove any direct quotes from the report. All personal data and research data will be stored separately and only approved members of the research team will have access to that data. All information and data will be kept confidential. However within the report write up, some direct quotes from your interview may be used, at your request these direct quotes can be removed.

How long will my personal data be kept?

Your data will be retained for 10 years. If you withdraw from the project, we will keep the information we have already obtained but, to safeguard your rights, we will use the minimum personally-identifiable information possible.

Your rights in relation to your data

You may have the following rights in respect of your personal data:

- The right to access to your data (often referred to as a Subject Access Request).
- The right to rectification of inaccuracies in your data.
- The right to erasure of your data (in certain circumstances).
- The right to restrict processing of your data (in certain circumstances).
- The right to object to the processing of your data (in certain circumstances).
- The right to ask for your personal data to be transferred electronically to a third party.
- If the research is being done on the legal basis of your consent (see above), the right to withdraw consent.

However, your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the project, we will keep the information we have already obtained but, to safeguard your rights, we will use the minimum personally-identifiable information possible.

If you would like more information on your rights, would like to exercise any right or have any queries relating to our processing of your personal data, please contact:

The Information Compliance Manager, Legal Services, The University of Birmingham, Edgbaston, Birmingham B15 2TT

Email: dataprotection@contacts.bham.ac.uk Telephone: +44 (0)121 414 3916

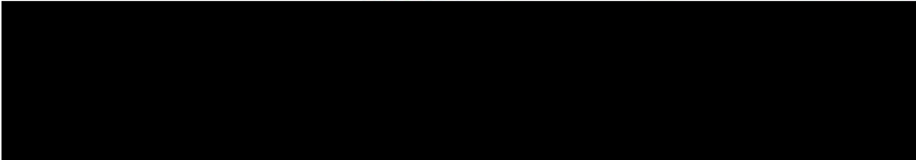
If you wish to make a complaint about how your data is being or has been processed, please contact our Data Protection Officer.

Mrs Carolyn Pike, OBE, The Data Protection Officer, Legal Services, The University of Birmingham, Edgbaston, Birmingham B15 2TT

Email: dataprotection@contacts.bham.ac.uk Telephone: +44 (0)121 414 3916

You also have a right to complain to the Information Commissioner's Office (ICO) about the way in which we process your personal data. You can make a complaint using the ICO’s website.

Appendix 9: Consent form:



UNIVERSITY OF BIRMINGHAM

Participant Consent Form

IRAS ID: 257738

Participant Identification Number for this trial: Site ID:

CONSENT FORM

Study Title: *A Qualitative Exploration of Young People's Experiences of Attempted Suicide and Alcohol Use*

Researchers: Rebecca Guest, Trainee Clinical Psychologist. Supervised by Professor Alex Copello, Dr Maria Michail and Dr Abigail Gallivan.

Please initial box

1. I confirm that I have read the information sheet dated 12.12.2018 (version 3) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐
2. I understand that my participation is voluntary and that I am free to withdraw up to two weeks after completing the interview, without giving any reason, without my medical care or legal rights being affected. ☐
3. I understand that relevant sections of my medical notes and data collected during the study may be looked at by individuals from the research team, representatives of the sponsor, from regulatory authorities or from the NHS Trust, where this is relevant to my taking part in this research. I give permission for these individuals to have direct access to my records ☐

☐

4. In exceptional circumstances, some information may also be made available to the NHS team responsible for my care but only if the researcher become worried about any disclosed risks to myself or others.

5. I accept that, in the unlikely event of loss of my capacity, the research team will retain my personal data already collected and will continue to use this data for the sole purposes for which consent was sought.

6. I agree to take part in the study; *A Qualitative Exploration of Young People's Experiences of Attempted Suicide and Alcohol Use*.

_____________________ _____________________ _____________________

Name of Participant Date Signature

_____________________ _____________________ _____________________

Name of Researcher Date Signature

Appendix 10: Example coded transcript

BS001- Annie

1 Researcher (R): Ok so that should be recording, I'm just going to leave that there ok?

2 BS001: ok

3 R: so, Annie can you just tell me briefly urm about your kind of experience of trying to attempt to
4 end your life?

5 BS001: yeah, urrr, I've done it a couple of times, urm, one where I tried to overdose using tablets,
6 and there was one where I ended up inhaling solvents to try and end my life because of, I saw on the
7 deodorant can it said solvent abuse can kill instantly...and I tried that, I tried it about five times and
8 ended up getting really badly addicted to it, urrm, because I got addicted to that, I ended up trying
9 to smoke weed, I didn't do any hard class drugs but I used to steal my mom's and dad's alcohol
10 around the house because I read that you can get alcohol poisoning, I though if I was doing all them
11 things at once (laughs) that it would kill me. But it didn't.

12 R: ok...and what was happening at those times?

13 BS001: I just felt really shit in myself, urrm, I've never had a stable school life, urrrm and I used to get
14 really badly bullied and then there was a lot of stuff going on at home. Urrm you could say family life
15 is a little bit toxic at times. Arguments, it doesn't stay between two people, the whole family has to
16 get involved and then it turns into this massive thing and that was my escape. But when they found
17 out that I was doing solvent abuse, because I done it for about two years before they realised, erm,
18 when they found out I was doing it they went mad at me which made me do it even more and it was
19 just...shit.

20 R: yeah...and thinking about that now, how do you kid of understand what was happening at that
21 time and how that links with the attempts?...

22 BS001: well, the whole reason why I done it was because I wanted to die, and I look back on it and,
23 it sort of upsets me...because , you know, to me it feels like I've failed in that, in solvent abuse, it's a
24 legal high and it can kill you instantly. I was, you the massive rightguard deodorant cans? I was
25 having 8 of them a day, like one after the other, and looking back on it, it just, it makes me sad but it
26 also makes me feel sort of angry that I was, you know, caning 8 of them cans a day, one after the
27 other, not stopping until its all gone, everyday for about two years and it didn't kill me. Its made me
28 feel, it made me feel absolutely shit...I mean I done it about a month ago because everything got so
29 bad. Im still here, and I'm sort of relieved but at the same time it upsets me.

30 R: Do you mind telling me when those attempts were?

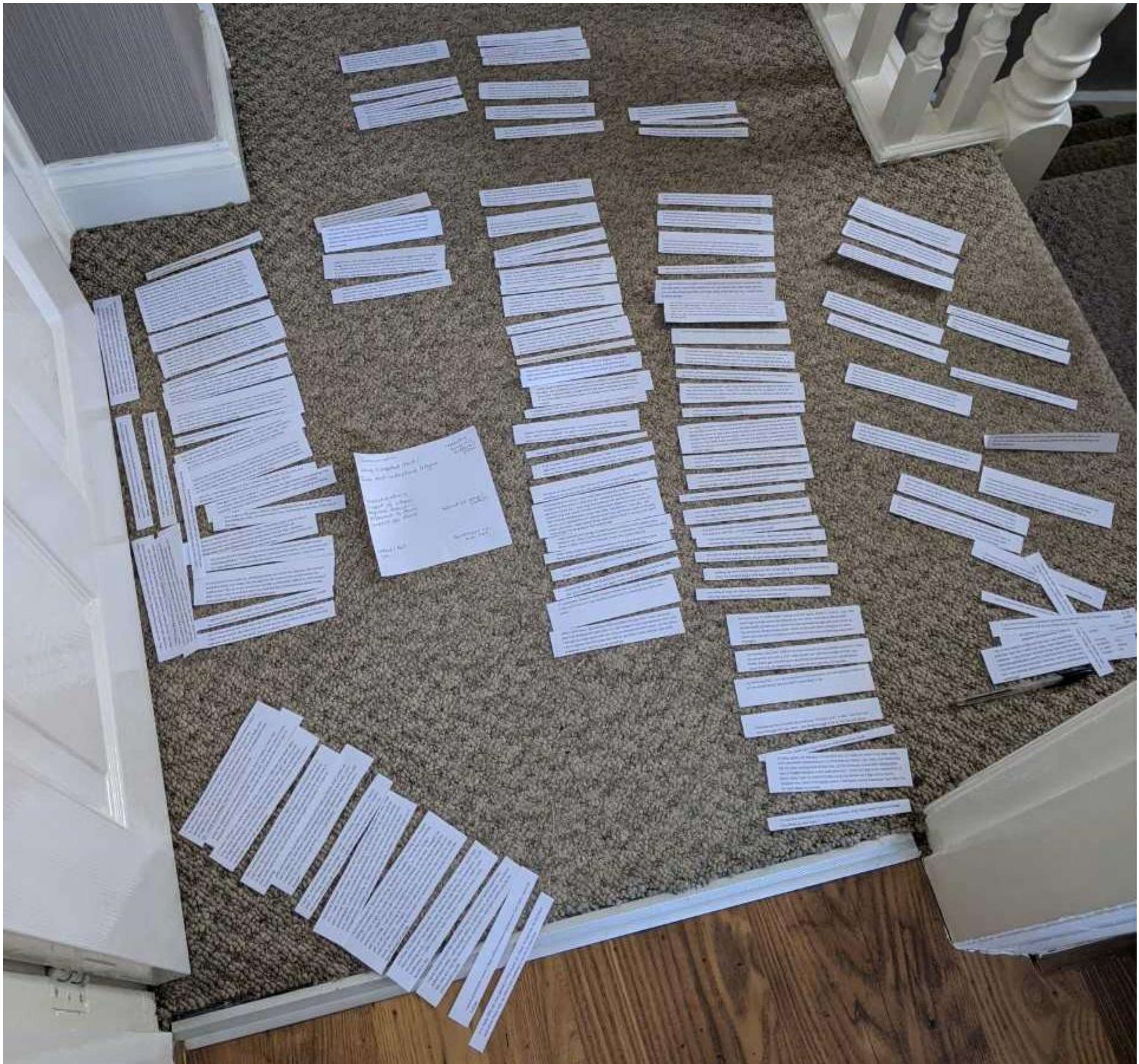
31 BS001: urrrm, I think, the first time I done it was about 2 years ago, maybe. When I was in the start
32 of year 8 and then, I refused to go to school the whole way in year 9 so I was getting high every day
33 all day that whole year of year 9 and then I stopped in year 10, I didn't do it for the whole year of
34 year 10. Bit I mean every day I wanted to do it, its that, you're addicted to it, you crave it, craving to
35 do it...

36 R: when you say craving to do it do you mean using the solvents or attempting to take your life?

37 BS001: Both, I mean every day I wake up and I don't want to be here, but its, its hard cus in my
38 experience, I've tried so many different things and I'm still here and...it doesn't make me reluctant to
39 do it but I don't want to do it and then just end up in hospital again and you know my whole family
40 like, oh she's tried to kill herself again because I want them to think that I'm getting better not
41 worse.

Appendix 11: Example emerging themes

Appendix 12: Example paper sorting exercise



Appendix 13: Example thematic structure

Superordinate Theme	Subordinate Theme
Complexity of relating to others	Others as harmful Others don't understand or listen I am different to others Others can be helpful
Consequences of attempting	Addiction Mixed feelings- failure and relief Learning to talk/ finding the voice/ articulating
Desperately trying to find ways to cope? -Emotion regulation	Using alcohol and changing its use Impact on mental health Alternative ways of coping Self-harm??
Urgency of wanting to die	The build up Acting on the thoughts Thinking about the future- uncertainty

Appendix 14: Example paper sorting exercise for overall themes