

**Understanding the relationship between the  
therapeutic alliance and suicidal experiences in  
people receiving psychotherapy**

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## **Thesis abstract**

The current Master of Philosophy in Clinical Psychology thesis investigates the relationship between the therapeutic alliance in psychotherapy and suicidal experiences. It is presented as an overall introduction, a systematic review (study 1), an empirical study (study 2) and overall discussion. To contextualise the work presented, historical information about the therapeutic alliance, alliance ruptures and resolution, psychotherapy endings, dose of psychotherapy and the importance of the therapeutic alliance for people with suicidal experiences and psychosis, are introduced. Study 1 systematically reviewed the literature to examine the relationship between the therapeutic alliance in psychotherapy and suicidal experiences (pre-, during and post-therapy). Seventeen studies met the inclusion criteria. It remains unclear how much impact suicidal experiences prior to and during psychotherapy may have upon the formation and maintenance of the therapeutic alliance. However, there is stronger evidence to suggest the therapeutic alliance during psychotherapy may be related to a reduction in suicidal experiences. Clinical implications and recommendations for future research are highlighted. Study 2 investigated the relationship between the therapeutic alliance in Cognitive Behavioural Suicide Prevention therapy for psychosis (CBSPP) and suicidal experiences in people with non-affective psychosis and whether dose of therapy impacted on such a relationship. Sixty-four participants with non-affective psychosis and suicidal experiences, who had received CBSPP were included in the study. Suicidal experiences did not impact negatively on the early therapeutic alliance. In fact, clients who had recently attempted suicide perceived a stronger therapeutic alliance. A robust, client perceived, therapeutic alliance was predictive of a decrease in suicidal ideation post-therapy after controlling for depression and hopelessness, which are well-known predictors of suicidal experiences. Dose of psychotherapy (up to 15.50 hours in psychotherapy) amplified the relationship between client viewed therapeutic alliance and suicidal ideation. Clinical implications and future directions for research are considered. To conclude the thesis, overall strengths and limitations, the therapeutic alliance and suicidal experiences in the context of remote psychotherapy during the COVID-19 pandemic and recommendations for future research, are discussed.

## **Declaration**

No portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

### **Contributions**

Study 1 (authors; Charlotte Huggett, Patricia Gooding, Gillian Haddock, Jody Quigley & Daniel Pratt): Led by Charlotte Huggett, all authors contributed to the design of the systematic review. Charlotte Huggett prepared the protocol for registration on PROSPERO, conducted the searches, screened titles, abstracts, and full texts, extracted and analysed the data, quality assessed included studies and prepared the manuscript. Jody Quigley provided independent reviews of the data for inter-rater reliability, along with ongoing advice for the study. Daniel Pratt, Patricia Gooding and Gillian Haddock contributed to the design and management of the study. All authors contributed to multiple critical revisions of the manuscript and have approved the final version of the manuscript.

Study 2 (authors; Charlotte Huggett, Patricia Gooding, Gillian Haddock & Daniel Pratt): Led by Charlotte Huggett, all authors contributed to the design of the study. Charlotte Huggett collated and analysed the data, with input from Patricia Gooding regarding the analysis. All authors contributed to interpreting the findings. Charlotte Huggett led preparation of the manuscript and Daniel Pratt, Patricia Gooding and Gillian Haddock contributed to multiple critically appraised revisions. All authors have approved the final version of the manuscript.

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## **Preface**

The author obtained a BSc (Hons) Psychology in 2013 from Manchester Metropolitan University. Since then, the candidate has worked on a total of four research projects with the University of Manchester across third sector and NHS settings. The first research project was conducted in the third sector and qualitatively explored people's experience of stigma in relation to i. their own mental health problem/problems, and/or ii. caring for someone with a mental health problem. Findings from the first qualitative enquiry were published in *Psychology and Psychotherapy: Theory, Research and Practice*, with the candidate as lead author. The second research project was a pilot randomised controlled trial investigating the acceptability and feasibility of Cognitive Behavioural Suicide Prevention therapy for people with suicidal experiences on a psychiatric NHS inpatient ward. The candidate undertook project coordination responsibilities for the final 12 months of the trial, along with conducting and analysing qualitative interviews to investigate participant's views and experiences of the therapy and staff's experiences of the trial. The third and fourth research projects are interlinked. The third involved overall coordination and management of a phase two randomised controlled trial which is examining the efficacy of Cognitive Behavioural Suicidal Prevention therapy for people with psychosis and the underlying mechanisms which lead to suicidal experiences in this population. The candidate has been integral to the strategic approach and facilitating both recruitment and retention, data management and liaising with trial staff, stakeholders, service user reference group, NHS staff and both university and NHS research departments. For the fourth research project (the MPhil), the candidate has learnt how to conduct and apply their own academic work theoretically, clinically and practically. This includes developing skills in conducting systematic reviews, research design, complex data analysis and writing for publication. Both the systematic review and the empirical study presented in this thesis will shortly be submitted to academic journals for publication.



## Introduction

The therapeutic alliance is the main focus of the present MPhil thesis. Hence, this introductory chapter provides historical information concerning definitions and theoretical explanations of the therapeutic alliance. This chapter then introduces the concept of ruptures in the therapeutic alliance, managing psychotherapy endings and dose of psychotherapy. The importance of the therapeutic alliance for people with suicidal experiences and severe mental health problems is briefly outlined, along with a rationale for using diagnostic terms for mental health problems throughout this thesis. Finally, the overall thesis research question and aims for two studies, namely, a systematic review and empirical study, are introduced.

In broad terms, the therapeutic alliance captures perceptions of the evolving working relationship between a client and therapist in the context of psychological talking therapies (Bordin, 1979; Zilcha-Mano, 2017). The therapeutic alliance is regarded by both therapists and clients as essential to positive outcomes from psychotherapy (Del Re, Flückiger, Horvath, Symonds & Wampold, 2012; Flückiger, Del Re, Wampold & Horvath, 2018; Horvath, Del Re, Flückiger & Symonds, 2011). The therapeutic alliance has been a widely researched phenomenon in the psychotherapy community (Del Re et al., 2012; Flückiger et al., 2018; Horvath et al., 2011). The origins of the importance of the therapeutic alliance can be traced back to the early 1900's, where Freud began to establish foundations for conceptualising the therapeutic alliance in the context of transference and counter-transference. Transference was thought to occur if the client unconsciously projects their feelings and relationships with other people onto the therapist (Freud, 1912). Countertransference occurs when the emotions or reactions of the therapist are influenced by the client. Freud (1913) described the importance of

building rapport through the process of transference and countertransference because it has the capacity to facilitate the client in establishing a functional attachment with both the process of therapy and therapist at the beginning of psychotherapy. Such a rapport was thought to be required in order to lay a foundation for the technical aspects of psychoanalysis to begin (Freud, 1913). Whilst these early considerations of the client-therapist relationship were based on positive transference (i.e., the client projecting positive feelings onto the therapist), later considerations began to shift the focus of the relationship to one that was more authentic (e.g., grounded in 'real-life'; Freud, 1937; Sterba, 1934). Whilst interpreting transference and countertransference, the analyst probes and contextualises the client's perceptions of reality. The goal of this technique was to establish an 'alliance' between the analyst and client in order to combat defence mechanisms (Sterba, 1934).

Other psychoanalytic theorists expanded on previous explanations by considering the client-therapist alliance as a separate entity to transference (Zetzel, 1956; Greenson, 2008). This led to explicit terms being coined, such as, 'therapeutic alliance' (Zetzel, 1956) or 'working alliance' (Greenson, 2008), both of which offer similar explanations of the client-therapist relationship and suggest that the quality of analysis is determined by the strength of the alliance. The client and therapist are thought to both influence the formation of the working alliance, which was posited as a rapport between the client and therapist (Greenson, 2008). Although the impact of therapist communications with the client is acknowledged, emphasis is placed on unbalanced power dynamics, where the therapist is perceived to be the expert (Greenson, 2008). However, controversy remains as to whether the client-therapist alliance is a distinct construct (Gelso & Carter, 1985; Gelso & Mohr, 2001; Hausner, 2000; Levy & Scala, 2012; Meissener, 1992) or a product of

transference (Adler, 1980; Wilson & Weinstein, 1996), with some suggesting that the concept of the alliance is unhelpful as it distorts the original notion of transference (Brenner, 1979; Stein 1981). Nevertheless, and, whilst there have been attempts to conceptualise the role of the therapist in influencing the working alliance, this patriarchal view of the alliance is limited to psychoanalytic psychotherapy.

Conversely, humanistic approaches to the alliance differ from the psychoanalytic approaches in two main ways. For instance, the relationship between the client and the therapist is central to psychotherapy and clients are seen as the experts. Humanistic theorists have strived to identify the required characteristics of therapists which can facilitate functional client-therapist relationships, and which traverse all psychotherapy modalities and professional backgrounds e.g., education, social work, nursing, psychology and psychiatry (Elliott, Bohart, Watson & Murphy, 2018; Farber, Suzuki & Lynch, 2018; Kolden, Wang, Austin, Chang & Klein, 2018). Rogers (1957, 1965) postulated that there are three characteristics that the therapist must exhibit in order to facilitate therapeutic change and build an authentic therapeutic alliance with clients. The first condition is that the therapist should take a genuine or authentic stance, termed ‘congruence’. This involves the therapist being accepting and aware of their own feelings and reactions, and the nature of those feelings and reactions, thus, enabling them to fully be themselves during therapeutic interactions. Second, they should provide unconditional positive regard, which has been defined as the non-judgemental warmth, care and acceptance given to the client by the therapist. Third, they should communicate empathy for the client’s narrative of their experiences, which involves the therapist identifying with a client’s emotions as if they were their own, but without analysing such emotions. A fourth condition

focused on the client and suggested that it would be helpful if the client perceives the therapist as warm, caring, understanding and genuine to affect therapeutic change (Rogers, 1957, 1965). Whilst Rogers contributed to advancements in understanding how the therapeutic alliance promotes change during psychotherapy, there was a lack of scientific evidence evaluating the effectiveness of such a relationship between the therapeutic alliance and therapeutic change.

Contemporary person-centred literature indicates that Roger's constructs of empathy (Elliott et al., 2018), unconditional positive regard (Farber et al., 2018) and genuineness (Kolden et al., 2018) are linked to positive psychotherapy outcomes. However, Kirschenbaum and Jourdan (2005) postulated that person-centred theories have separated into two areas, namely, 'focusing' (Gendlin, 2012) and 'process-experiential' (Elliott & Greenberg, 2007). That said, process experiential therapy does not appear to have deviated substantially from the original person-centred approach as it still involves person-centred principles of providing empathy and developing a therapeutic bond. However, it is also more focussed on collaborating on and supporting the client to complete therapeutic tasks (Elliott & Greenberg, 2007). In contrast, focusing-oriented therapy does appear to differ from the original person-centred approach as it involves directing attention to sensations felt within the body, then learning and accepting such bodily senses (Gendlin, 2012).

Despite several different explanations of the therapeutic alliance, theories commonly refer to the advantages for clients if they collaborate with their therapist and the process of psychotherapy in order to form a healthy attachment or dynamic relationship (Gelso & Mohr, 2001). Various conceptualisations of the alliance were built on and combined to develop new

pan-theoretical frameworks (Bordin, 1979; Luborsky, 1976). Luborsky (1976) proposed two types of alliance which may be observed during psychotherapy. Type 1 refers to the client's perception of the therapist, during the early stages of psychotherapy, as someone who will help and support them. Type 2 comprises the working relationship which develops later on in psychotherapy whereby the client and therapist develop a mutual responsibility to ensure they work together collaboratively on goals in psychotherapy (Luborsky, 1976). Comparably, Bordin (1979) lays emphasis on the concept of working together as indicative of a therapeutic working alliance, which involves working on agreed tasks, goals and developing a bond. One criticism of these theories is that they both assume that therapists are competent in forming such dynamic and healthy relationships with clients and this assumption may not be met by therapists. Nevertheless, it was these developments and recommendations that sparked the production of operational measures to assess and capture the therapeutic alliance.

More recent conceptual developments suggest a broader definition of the alliance may be necessary, building on Bordin's (1979) theory specifically. Ross, Polaschek and Ward (2008) posited that four factors, which include, setting and contextual factors, therapist characteristics, client characteristics, and therapy-related communications, interact with Bordin's (1979) concept of the therapeutic alliance. The addition of setting and contextual factors to this model, provide more insight into how therapeutic factors external to the client or therapist may influence the client-therapist relationship. This model was specifically developed in relation to offender rehabilitation, so on the surface may not be generalisable to other populations. However, the components proposed to influence the therapeutic alliance appear to have relevance for any client receiving psychotherapy and engaged

in a therapeutic relationship with a therapist, whether they are based in the community, in prison/offender units or on an inpatient ward.

In order to improve understandings of the therapeutic alliance, there was a call to identify therapeutic relationship processes which are grounded within therapy-specific tasks (Horvath, 2006). A qualitative analysis of the meaning of the therapeutic alliance found that both clients and therapists perceived the alliance at a micro-level by experiencing interactions within the moment (Krause, Altimir & Horvath, 2011). However, this finding poses a dilemma for current quantitative alliance measures as they capture the accumulation of therapeutic interactions over time, e.g., a specified number of sessions rather than in the moment (Krause et al., 2011). Furthermore, in the qualitative study, clients suggested that the alliance was an essential part of their dedication to working with the therapist to bring about therapeutic change, whereas, therapists viewed the alliance more objectively, seeing it as a tool which was indicative of progression over the course of psychotherapy (Krause et al., 2011). Such findings provide an important insight into how the alliance is viewed by clients and therapists, respectively.

Given the dynamic nature of the therapeutic alliance, ruptures (e.g., poor understanding and breakdown in communication) and rupture repairs may occur between the client and therapist (Safran, Crocker, McMain & Murray, 1990; Safran & Muran, 2006). Alliance ruptures can be understood on a continuum, which ranges from a minor rupture, remaining undetected by the client and therapist, or a major rupture, which may, ultimately escalate and result in premature termination of psychotherapy (Safran et al., 1990). Therapists are required to recognise the occurrence of ruptures and work with the client to repair such ruptures. Studies suggest that alliance ruptures and subsequent repairs are associated with not only positive outcomes and a

stronger therapeutic alliance in psychotherapy (Muran et al., 2009), but greater improvements in mental health problems, compared to no experience of alliance ruptures (Stiles et al., 2004). This may be due to clients learning from interpersonal struggles (Safran et al., 1990; Safran & Muran, 1996, 2000). From a humanistic perspective, positive outcomes related to ruptures may also be due to a genuine dynamic where both the client and therapist respect the perspectives of each other, and attempt to move towards ‘mending’ or evolving the therapeutic relationship, and possibly nurturing that dynamic in ways that had not been seen until the rupture occurred (Adler, Shahar, Dolev & Zilcha-Mano, 2018). However, evidence is limited. For example, a systematic review found that only five studies have empirically tested theoretical models of alliance ruptures and rupture resolutions, and the consequences of such ruptures (Baillargeon, Côté & Douville, 2012). Whilst this review does suggest that more scientific evidence is needed, it is necessary to address an important and undervalued phenomenon which occurs during psychotherapy as part of the dynamic and ever-evolving, nature of the therapeutic alliance.

Relatedly, it is important to consider how therapists and clients approach the end of psychotherapy. For instance, a narrative review suggested that clients with insecure attachment styles may become anxious and distressed about psychotherapy coming to an end (Berry & Danquah, 2016). Feelings of abandonment may also arise due to the loss of the therapeutic relationship for both the client and therapist (McMain, Boritz & Leybman, 2015; Råbu, Binder & Haavind, 2013). Such feelings may be even more prevalent for clients who may have frequently experienced unpredictable and unstable personal relationships (Fitzmaurice, 2012; McMain et al., 2015; Ninan & Biswas, 2014). In addition, the way in which

therapists manage their own emotions may be relevant to discussing the end of psychotherapy (Råbu et al., 2013). Therefore, it has been suggested that preparations for the end of psychotherapy should be made from the first psychotherapy session to manage both client and therapist expectations for the end of psychotherapy (Fitzmaurice, 2012; McMain et al., 2015; Rizvi, 2011). Furthermore, a qualitative study found that using temporary breaks in psychotherapy and reaching a consensus about therapy ending were integral to negotiations about the end of psychotherapy (Råbu et al., 2013).

Although both alliance ruptures and psychotherapy endings are essential concepts to consider when examining the therapeutic alliance, the main focus of this MPhil thesis is the therapeutic alliance, more broadly. The therapeutic alliance is one such psychotherapy process variable. A second psychotherapy process variable, which has also been found to be related to positive outcomes, is the 'dose' of psychotherapy (Goldsmith, Lewis, Dunn & Bentall, 2015; Howard, Kopta, Krause & Orlinsky, 1986; Saxon, Firth & Barkham, 2017). Few studies have focussed their attention on dose of psychotherapy, but the most common measurement of dose is number of sessions. However, a more accurate portrayal of the amount of psychotherapy received may be through recording the total number of minutes of psychotherapy as session lengths may vary between clients and from sessions to session.

The therapeutic alliance may be particularly important for people who are suicidal with serious mental health problems, including those with psychosis, as they have often experienced trauma and issues with interpersonal relationships (Byrne & Morrison, 2010; Varese et al., 2012; Tarrier et al., 2013). Moreover, experience of childhood trauma and psychosis increase the risk of suicidal ideation and suicide attempts in adulthood



(Angelakis, Gillespie & Panagioti, 2019; Fialko et al., 2006; TARRIER, Haddock, Lewis, Drake & Gregg, 2006; Yates et al., 2019). Some clients may find it very difficult to talk about their suicidal experiences due to ingrained beliefs that talking about suicide is unsafe (TARRIER et al., 2013). Therefore, it is essential for the therapist to provide an environment where the client feels safe to trust and develop a therapeutic relationship with the therapist in order to disclose experiences of trauma and suicide (TARRIER et al., 2013). Such therapeutic alliance has been found to be pivotal to positive outcome for people with serious mental health problems, including those with psychosis (Flückiger et al., 2018; Shattock, Berry, Degnan & Edge, 2018). This finding also extends to people with suicidal experiences receiving psychotherapy or engaging with mental health services, although, the evidence-base is much more limited (Dunster-Page, Haddock, Wainwright & Berry, 2017).

It should be noted that diagnostic terms to describe experiences of mental health problems have been used throughout this thesis. However, the use of such diagnostic terms for mental health problems are subject to extensive debate amongst clinicians, academics and service users (Johnstone, 2011; Kinderman, 2014). It has been argued that there is a hierarchy of stigma attached to different mental health-related diagnoses (Huggett et al., 2018) and that the continued use of diagnostic labels in mental health perpetuates stigma (Horn, Johnstone & Brooke, 2007; Howe, Tickle & Brown, 2014; Martinez, Piff, Mendoza-Denton & Hinshaw, 2011) and over-medicalises experiences which have often been a result of trauma (Johnstone, 2011). Despite such drawbacks, diagnostic labels to describe mental health experiences are still widely used as a criterion to determine suitability to receive a specific psychotherapy and eligibility to take part in psychotherapy

research studies (Cooke, 2014; McHugh & Barlow, 2010). Therefore, mental health-related diagnostic labels have been used throughout the current thesis.

The overall objective of this MPhil thesis was to investigate the relationship between the therapeutic alliance and suicidal experiences in people receiving psychotherapy. In order to address the overall objective, two main studies were developed, with one overarching aim for each:

1. The first study, a systematic review, aimed to examine the nature of the relationship between the therapeutic alliance in psychotherapy and suicidal experiences by examining suicidal thoughts and behaviours as: i. predictors of the alliance (i.e., suicidal experiences *pre-therapy* influencing the therapeutic alliance); ii. correlates of the alliance (i.e., suicidal experiences related to the therapeutic alliance *at the same time-point during* psychotherapy); and iii. outcomes due to the therapeutic alliance (i.e., the therapeutic alliance altering suicidal experiences *post-therapy*).
2. The second study, an empirical investigation, aimed to examine the relationship between the therapeutic alliance in Cognitive Behavioural Suicide Prevention therapy for psychosis (Gooding et al., 2020; TARRIER et al., 2013, 2014) and indicators of suicide ideation, plans and attempts in a population who experience non-affective psychosis. This included examining: i. suicidal experiences as predictors of the alliance and outcomes of the alliance; and ii. whether the total number of minutes of psychotherapy amplified the relationship between the alliance-outcome relationship.

The rationale for each aim is provided in the following two chapters.

## Study 1: The relationship between the therapeutic alliance in psychotherapy and suicidal experiences: A systematic review

This paper has been prepared for submission to Clinical Psychology Review.

Tables have been inserted into the main text for ease of reading. Extra contextual information has been provided for the purpose of the thesis.

## **Abstract**

Suicidal experiences, including, deaths, are a major global health concern, and there is a growing evidence-base that psychotherapies can reduce suicidal experiences. There is a wealth of literature which suggests that a robust therapeutic alliance needs to be established to achieve positive outcomes in psychotherapies. Little is known about the alliance in psychotherapy in relation to suicidal experiences. The current narrative review summarises the literature which investigates the relationship between the therapeutic alliance in psychotherapy and a range of suicidal experiences prior to, during and following psychotherapy. Systematic searches of MEDLINE, PsycINFO, Web of Science, EMBASE and British Nursing Index were conducted. The search returned 5,610 studies of which 17 studies were eligible for the present review. Findings failed to demonstrate a clear link between suicidal experiences prior to or during psychotherapy and the subsequent development and maintenance of the therapeutic alliance during psychotherapy. However, a robust therapeutic alliance reported early on in psychotherapy was related to a subsequent reduction in suicidal ideation and attempts. Study heterogeneity, varied sample sizes and inconsistent reporting may limit the generalisability of review findings. Training and supervision of therapists should highlight the importance of developing and maintaining the therapeutic alliance in psychotherapy whilst working with people with suicidal experiences. Examining the reciprocal relationship between the therapeutic alliance in psychotherapy and client's suicidal experiences is important in contributing to understanding the specific components of psychotherapy that may lead to amelioration of suicidal distress.

Keywords: Therapeutic alliance, Suicide, psychotherapy, systematic review

## **Introduction**

Estimates show that in 2018, 14.8 in every 100,000 people in the United States of America (USA; Centres for Disease Control and Prevention, 2020) and 11.2 in every 100,000 people in the United Kingdom (UK; Office for National Statistics, 2019) died by suicide. The risk of death by suicide is higher in people with mental health problems, such as, borderline personality disorder (45.1%), depression (19.7%) and schizophrenia (12.9%), than within the general population (Chesney, Goodwin & Fazel, 2014). Suicidal ideation and suicide plans have also been described as key predictors of suicide attempts and suicide deaths (Bertelsen et al., 2007; O'Connor & Kirtley, 2018). Therefore, suicidal ideation, attempts and deaths by suicide are a major global health concern, and a public health priority.

Suicide prevention strategies include both epidemiological and psychological approaches. Epidemiological studies have identified risk factors for suicidal experiences, such as male gender, fewer years spent in education, history of physical abuse and repeated sexual abuse, unemployment and homelessness (Hawton, Casañas i Comabella, Haw & Saunders, 2013; Nock & Kessler, 2006; Schneider et al., 2011; Windfuhr & Kapur, 2011). Psychological approaches focus on developing effective interventions which ameliorate suicidal experiences. Such treatments should be based upon an evidenced understanding of the psychological mechanisms underlying suicidal thoughts and acts (Tarrier et al., 2013, 2014). Factors which contribute to suicidal thoughts and behaviours have been grouped into four key areas, namely, personality and individual differences (e.g., perfectionism, neuroticism, extroversion, resilience), cognition and emotion regulation, social factors, and negative stressors (O'Connor & Nock, 2014). To enable the delineation of the ways in which these factors are related, four

contemporary theoretical psychological models have been proposed to explain the psychological mechanisms which can trigger and maintain suicidal thoughts and behaviours. The first influential theory is the Cry of Pain (CoP) model (Williams, 1997) which emphasises the role of perceptions of negative stressors, negative cognitions, defeat, entrapment and hopelessness and having access to means. Hopelessness is one of the strongest predictors of suicidal experiences (Littlewood, Gooding, Panagioti & Kyle, 2016; Panagioti, Gooding & Tarrier, 2012; Steeg et al., 2016).

A second influential, contemporary, model of suicide is the Interpersonal Theory of Suicide. This model posits that perceptions of not belonging, being a burden, and habituation to physical pain are central in understanding suicidal ideation and behaviours (Joiner & Silva, 2012; Van Orden et al., 2010).

Third, the Integrated Motivational-Volitional (IMV) model (O'Connor, 2011; O'Connor & Kirtley, 2018) builds upon the interpersonal theory (Joiner & Silva, 2012; Van Orden et al., 2010) and details further factors which act as a catalyst to explain the transition between suicidal ideation and suicidal behaviour. These include access to means, suicide plans, exposure to suicide fatalities (through loved ones and/or the media), impulsivity, physical pain sensitivity, fearlessness about death, mental imagery of suicide death and history of suicide attempts (O'Connor & Kirtley, 2018).

The fourth model, the Schematic Appraisals Model of Suicide (SAMS; Johnson, Gooding & Tarrier, 2008), is derived from the CoP model and is transdiagnostic. The SAMS model posits that negative appraisals of past, present and future situations lead to perceptions of defeat, entrapment and hopelessness and subsequent suicidal experiences, which is supported by

an empirical evidence-base involving people with post-traumatic stress disorder, bipolar disorder, anxiety, depression and non-affective psychoses (Littlewood et al., 2016; Owen, Dempsey, Jones & Gooding, 2018; Taylor, Gooding, Wood & TARRIER, 2011; Taylor et al., 2010). Although these theoretical models have been developed within the last two decades, the development of psychological interventions to ameliorate suicidal experiences grounded in these models is still relatively under-researched.

The National Institute for Health and Care Excellence (NICE, 2013) guidelines in the UK recommend that individuals who are being supported due to self-harm behaviours (including both suicidal and non-suicidal self-harm) should be offered 3 – 12 sessions of a tailored self-harm psychological intervention. Both brief psychological interventions and longer-term face-to-face psychological therapies (e.g., delivered between 10 weeks and 2 years) have been developed. For the purpose of this review, a definition of psychotherapy was based on that of Beutler (2009); the development and integration of factors relating to the client and therapist, client-therapist alliance, and psychotherapeutic techniques that may be part of the processes of beneficial change for people with mental health problems.

Evidence-based brief psychological interventions include, a Volitional Help Sheet (VHS), designed to support individuals to plan and implement specific coping strategies in response to thoughts of self-harm ideation (Armitage et al., 2016; O'Connor et al., 2017). A second example of brief psychotherapy is an Attempted Suicide Short Intervention Programme (ASSIP), which considerably reduced the risk of suicide attempts compared to usual treatment over 24 months (Gysin-Maillart, Schwab, Soravia, Megert & Michel, 2016). The ASSIP intervention involves three weekly face-to-face psychotherapy sessions (1. video recorded narrative interview, 2. video-

playback session and psycho-educative leaflet and 3. formulation sharing and safety strategies discussion) plus a series of personalised letters provided by a person's therapist over a period of 24 months (Gysin-Maillart et al., 2016).

Several other psychological therapies have been adapted to target suicidal thoughts and behaviour in children, teenagers and adults. Such therapies include techniques based on Cognitive Therapy (CT; Berk, Henriques, Warman, Brown & Beck, 2004; Brown et al., 2005), Cognitive Behavioural Therapy (CBT; Asarnow et al., 2011; Davidson et al., 2006; Tarrrier et al., 2014), Dialectical Behavioural Therapy (DBT; Linehan et al., 2006), and Family Therapy based on both CBT and DBT (Asarnow et al., 2017). Tarrrier, Taylor and Gooding (2008) found in a meta-analysis of 25 studies that CBT reduced suicide behaviour, with an effect size of .59. Moreover, there is a growing consensus that CBT approaches to suicide prevention appear to have some success in some high-risk client groups, including psychiatric inpatients (Haddock et al., 2019), people with non-affective psychosis residing in the community (Tarrrier et al., 2014) and male prisoners (Pratt et al., 2015). Furthermore, findings suggest that CBT for people diagnosed with borderline personality disorder has successfully reduced suicidal acts compared to usual treatment (Davidson et al., 2006). Although such reductions in suicidal acts appears promising, there are few studies which have investigated the effectiveness of psychotherapies in ameliorating suicidal experiences, such as suicidal thoughts and acts. Nevertheless, and given the infancy of this research area, these findings have laid an important foundation, which examines the development, feasibility, acceptability and efficacy of psychotherapies which target suicidal thoughts and behaviours (Brown & Jager-Hyman, 2014). Such a foundation paves the way for further development for suicide prevention psychotherapies.



One aspect of psychotherapy, which has gained significant attention, is the therapeutic alliance. In broad terms, the therapeutic alliance captures perceptions of the evolving working relationship between a client and therapist predominantly in psychological talking therapies (Bordin, 1979; Zilcha-Mano, 2017). It is recognised as pivotal to a positive outcome from psychotherapy, as perceived by both therapists and clients (Flückiger et al., 2018). This is a finding which traverses a variety of therapeutic modalities, including Psychodynamic therapy, Interpersonal Therapy and CBT (Flückiger et al., 2018). The importance of the therapeutic alliance extends to a diverse range of mental health problems, including depression, anxiety, eating disorders, personality disorders, non-affective psychosis and substance use (Flückiger et al., 2018).

Despite the abundance of research indicating a relationship between the therapeutic alliance and therapeutic outcomes, there remains controversy over whether the therapeutic alliance is, indeed, a predictor of outcome alone, a development which resulted from expectations of psychotherapy or a facilitator of effective psychotherapy (Horvath, 2006; Zilcha-Mano, 2017). Due to this type of complexity, the relationship between the therapeutic alliance and outcomes in psychotherapy has been subject to extensive debate (Horvath, 2006). The majority of measures of therapeutic alliance are captured at one time-point during psychotherapy. However, this limits insight into the alliance-outcome relationship at other time-points during therapy (Zilcha-Mano, 2017). Further, it has been posited that client ‘trait-like’ and alliance ‘state-like’ components contribute to therapeutic change (Zilcha-Mano, 2017). The model refers to ‘trait-like’ characteristics brought to the alliance by the client, for instance, how clients generally build relationships, their appraisals of themselves and interactions with others, and expectations

of different types of relationships (e.g., with friends, with work colleagues, lovers/sexual relationships, being a parent and/or carer). The state-like components refer to the ‘in-the-moment’ dynamic and therapeutic nature of the alliance, specifically suggesting that the alliance itself is able to facilitate change during psychotherapy (Zilcha-Mano, 2017). That said, a criticism of this model is that the use of the term ‘trait’ implies that the characteristics that clients bring to the therapeutic situation are unable to change, whereas, a fundamental aim of psychotherapy is to bring about change. Furthermore, it appears that this model is yet to be empirically tested. Zilcha-Mano (2017) suggested that given methodological advances, measures of the therapeutic alliance need to be reviewed to examine whether they are sensitive to session by session therapeutic change. Therefore, session-by-session ratings of therapeutic alliance may allow researchers to better understand if the alliance is uniquely related to therapeutic change. Three factors in the development of the therapeutic alliance have been scrutinised, which are breakdowns, or ruptures (Safran et al., 1990), the effect of mental health problems on the development of the alliance, and the effect that the alliance has on positive changes in mental health problems subsequent to psychotherapy (DeRubeis & Feeley, 1990).

The therapeutic alliance has been recognised as non-linear, often fluctuating, during the course of psychotherapy. Events, such as, alliance ruptures (e.g., breakdown in communication and poor understanding) and the resolution of such ruptures may occur between the client and therapist (Safran et al., 1990; Safran & Muran, 2006). It is necessary for the therapist to be able to recognise when ruptures occur and to negotiate with the client ways of resolving such ruptures. It has been posited that alliance ruptures and harmful client-therapist interactions may be risk factors for adverse reactions to

psychotherapy (Parry, Crawford & Duggan, 2016). However, studies have suggested that alliance ruptures and subsequent repairs are associated with not only positive outcomes and a stronger therapeutic alliance in psychotherapy (Muran et al., 2009), but also greater improvements in mental health problems, compared to no experience of alliance ruptures (Stiles et al., 2004). Such improvement in mental health experiences following alliance ruptures may be due to clients learning from interpersonal struggles (Safran et al., 1990; Safran & Muran, 2000). Nevertheless, it is important to monitor and address the occurrence of alliance ruptures and harmful interactions in psychotherapy to ensure the safe delivery of psychotherapy and mitigate against possible adverse reactions to psychotherapy (Parry et al., 2016).

The pathways to perceived helpful psychotherapy may be cyclical or non-linear. There are two possible scenarios. The first example is cyclical in which severe mental health problems that pre-existed prior to the start of psychotherapy leads to the investment in a strong initial client-therapist bond, which then positively feeds into a strengthening of the alliance over time in psychotherapy. Second, and relatedly, perceptions of a positive therapeutic alliance, especially formed initially, may lead to reductions in mental health distress early on in psychotherapy which may in turn positively reinforce an even stronger therapeutic alliance.

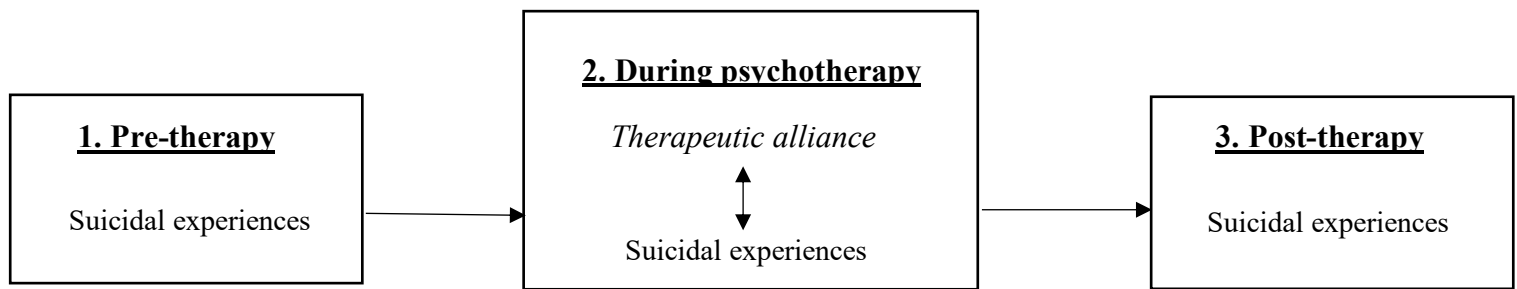
Evidence pertaining to the issue of the staged and/or cyclical nature of the client-therapist alliance largely comes from research involving those experiencing anxiety and/or depression. A reciprocal temporal relationship between the therapeutic alliance and changes in severity of depression and psychological distress (including wellbeing, anxiety, depression, trauma, physical health problems and coping with problems, social interactions, and risk to self and others) have been observed during the delivery of a range of

psychotherapies, including, cognitive-behavioural, psychodynamic and alliance-fostering approaches (Crits-Christoph, Gibbons, Hamilton, Ring-Kurtz & Gallop, 2011; Falkenström, Granström & Holmqvist, 2013). It should be noted that the alliance-fostering therapy was based upon an eclectic combination of principles from existing therapies, such as, cognitive-behavioural, client-centred and motivational (Crits-Christoph et al., 2006).

Conversely, other studies contradict the notion that there is a reciprocal temporal relationship between alliance and depression. For instance, improvement in experiences of depression early on in psychotherapy were related to a good therapeutic alliance, but the alliance was not related to subsequent improvement (DeRubeis & Feeley, 1990; Strunk, Brotman & DeRubeis, 2010). However, these studies focused on only one psychotherapy modality, namely CBT, with an emphasis on individuals experiencing depression. In contrast, in another study, which examined supportive-expressive psychotherapy, a strong therapeutic alliance was associated with less severe symptoms of depression across four time-points (Zilcha-Mano, Dinger, McCarthy and Barber, 2014). However, across the same four time-points, severity of depression was not associated with the perceived strength of the therapeutic alliance at subsequent time-points. It remains unclear how generalisable such findings are to populations experiencing other mental health problems or different types of psychotherapy. One area for which there is relatively scant research is the effect of severe mental health problems and suicidal experiences prior to starting psychotherapy on the client-therapy alliance.

Considering the significance of the therapeutic alliance and therapeutic outcome, very few suicide prevention focussed psychotherapy studies have examined the contribution of the therapeutic alliance upon

suicidal outcome variables. One existing review has broadly explored the relationship between therapeutic alliance and suicidal ideation, self-harm and suicide attempts in people working with mental health services or receiving psychotherapy (Dunster-Page et al., 2017). Findings indicated that a more robust therapeutic alliance was associated with a reduction in suicidal thoughts and instances of self-harm, whereas there were mixed results regarding the relationship with suicide attempts (Dunster-Page et al., 2017). Such inconsistencies could be due to lower frequency of suicide attempts and therefore less power to detect a relationship. The focus of the Dunster-Page et al. (2017) review was quite broad, looking at the alliance in both inpatient and outpatient mental health teams in the USA, individual care coordinators from community mental health teams in the UK and psychotherapy and the relationship between both suicide and self-harm outcomes. Thus far, there is a gap in the evidence-base, whereby the direction of the relationship between the therapeutic alliance established during psychotherapy and suicidal experiences has not yet been investigated using systematic review methods. Hence, the over-arching aims of the current review were to investigate the nature of the relationship between the therapeutic alliance in psychotherapy and suicidal experiences by examining suicidal thoughts and behaviours as 1. predictors of the alliance (i.e., suicidal experiences *pre-therapy* influencing the therapeutic alliance), 2. correlates of the alliance (i.e., suicidal experiences related to the therapeutic alliance *at the same time-point during* psychotherapy) and 3. outcomes due to the therapeutic alliance (i.e., the therapeutic alliance altering suicidal experiences *post-therapy* [see Figure 1.1]).



**Figure 1.1.** A diagram to illustrate the direction of the three types of relationship under investigation between the therapeutic alliance and suicidal experiences.

## Method

The current systematic review was conducted and is reported in line with Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA; Liberati et al., 2009) and was registered on the Prospero Centre for Reviews and Dissemination website (CRD42019138823).

### *Search strategy*

The database search strategy was carried out from 1976 (MEDLINE, Embase, PsychINFO and Web of Science) or date of inception (1987; British Nursing Index) to August 2020. The search was limited to 1976 as this is when the first therapeutic alliance measures were developed (Luborsky, 1976). A restriction on English language was applied. Search terms comprised of phrases relating to suicide, psychotherapy and therapeutic alliance, all separated by the Boolean operator; “AND”. The first search term was “suicid\*” to capture all studies relating to suicidal experiences such as suicidal ideation and attempts. The second set of search terms were those related to psychotherapy; “cognitiv\*” OR “psychotherap\*” OR “psycholog\* therap\*” OR “psychosocial” OR “talking therap\*” OR “counseling” OR

“counselling” OR “talking treatment” OR “psycholog\* intervention\*”. The final set of search terms were related to the therapeutic alliance; “alliance” OR “therap\* relation\*” OR “bond\*” OR “connection” OR “rapport” OR “collaborat\*” OR “therap\* attachment” OR “engage\*” OR “empath\*” OR “withdraw\*” OR “therap\* delivery” OR “therap\* process”. Forwards and backwards citation chaining (Bates, 1989; Booth et al., 2013) was utilised to account for the possibility of potential peer-reviewed articles being missed in the original search. This technique involved using the ‘finding citing articles’ feature on Ovid to identify relevant studies which cited included studies, in addition to examining reference lists for all studies included in the present review. The use of citation chaining is encouraged to ensure the review strategy is comprehensive (Booth et al., 2013; Greyson et al., 2019).

### ***Eligibility criteria***

Studies were deemed eligible for inclusion if they met the following criteria: (1) written in English; (2) quantitative empirical studies; (3) published in a peer-reviewed academic journal; (4) involved individuals of any age, gender, ethnicity and presenting mental health problem who have had suicidal experiences (i.e., suicidal ideation or attempts) in their lifetime or had died by suicide; (5) involved a psychotherapeutic intervention delivered individually or in a group at any point in time; (6) any measure of therapeutic alliance; (7) any measure of suicidal experiences. Such criteria ensured that measures which may not be validated questionnaires, e.g., hospital or other records, were included; (8) reported analyses of the relationship between the therapeutic alliance and at least one type of suicidal experience.

Studies were excluded if they met the following criteria: (1) review articles, clinical practice, position papers, treatment guidelines, grey literature and qualitative only studies; (2) intervention was solely pharmacological therapy (i.e., medicinal treatments), alternative medicinal, or other treatment (i.e., homeopathy, acupuncture, osteopathy, chiropractic, herbal medicines, aromatherapy and prescribed exercise) or self-guided interventions, including, interventions which primarily use technology (i.e., smart-phone application or website where a human therapist is not conducting psychotherapy).

### ***Study selection***

Titles and abstracts were screened by the first author (CH). Full texts of potentially eligible papers were then examined by the first author to confirm eligibility. A random sample of 20% ( $n = 32$ ) of all full texts was screened by a second independent reviewer (JQ) to determine inter-rater reliability. Of the first 10% ( $n = 16$ ) of full texts reviewed, there was initially 75% agreement (Cohen's kappa,  $\kappa = .54$ ). However, discussions between the first and second reviewer resolved discrepancies and agreement improved to 100% ( $\kappa = 1$ ). Of the second 10% of full texts, there was 100% agreement ( $\kappa = 1$ ). Queries regarding whether studies met with the eligibility criteria were resolved by discussion with three experienced clinical and academic psychologists (PG, GH, DP), as were queries about the processes of inter-rater reliability.

### ***Data extraction and analysis***

Data were extracted with reference to a data extraction table, which had been created and piloted by the first author, comprising study



characteristics (e.g., design, sample size in the psychotherapy arm, setting, inclusion and exclusion criteria, psychotherapy type, alliance and suicidal experience outcome measures), participant characteristics, therapist characteristics, modes of psychotherapy delivery (e.g., telephone, face-to-face, group) and data analysis (see appendix A for more specific details of data extracted). For those studies that measured the therapeutic alliance and suicidal experiences but did not analyse the relationship between these two variables, the relevant data or analyses were then requested from the corresponding authors. Such data requests were made in order to address publication and outcome reporting bias (Sterne, Egger, Moher & Boutron, 2017) and “file-drawer” issues (Rosenthal, 1979). Of 22 authors who were contacted, four provided the necessary data analysis. Corresponding authors from all 17 included studies were contacted to request missing data. Common missing data requested included, participant ethnicity, some therapist characteristics and some psychotherapy delivery characteristics.

### ***Quality assessment***

There is no consensus on which quality assessment tool is most suitable for use across a variety of study designs (Katrak, Bialocerkowski, Massy-Westropp, Kumar, & Grimmer, 2004). Included studies in the current review collected data using RCT or cohort designs. However, specific questions pertaining to the quality of randomisation processes were not applicable to the current review question, which focussed on the therapeutic alliance in psychotherapy. Furthermore, the CASP checklist for cohort studies has been specifically recommended for critical appraisals of cohort studies (Rosella et al., 2016). Therefore, each study was quality assessed using an

adapted version of the Critical Appraisal Skills Programme (CASP, 2018) checklist for cohort studies.

The first author (CH) quality assessed all included studies, of which four (24%) were also assessed by an independent second reviewer (JQ) to determine inter-rater reliability. Studies were selected at random based on each study design. There was 95% agreement ( $\kappa = .91$ ) on the CASP ratings for the four selected papers.

## **Results**

Seventeen studies met inclusion criteria and were included in this systematic review, two of which analysed the same data. The results are organised into three main sections. First, the results of the search strategy have been presented. Second, the main characteristics of the 17 studies included in this review have been described. Third, to address the research questions, findings about the relationships between suicidal experiences and client and therapist perspectives of the therapeutic alliance have been detailed and critically evaluated.

### ***Search results***

A summary of study flow from initial database search to inclusion at full text level are presented in Figure 1.2. Notably, 20 studies measured both the therapeutic alliance and suicidal experiences but did not conduct a statistical analysis of the relationship between these variables.

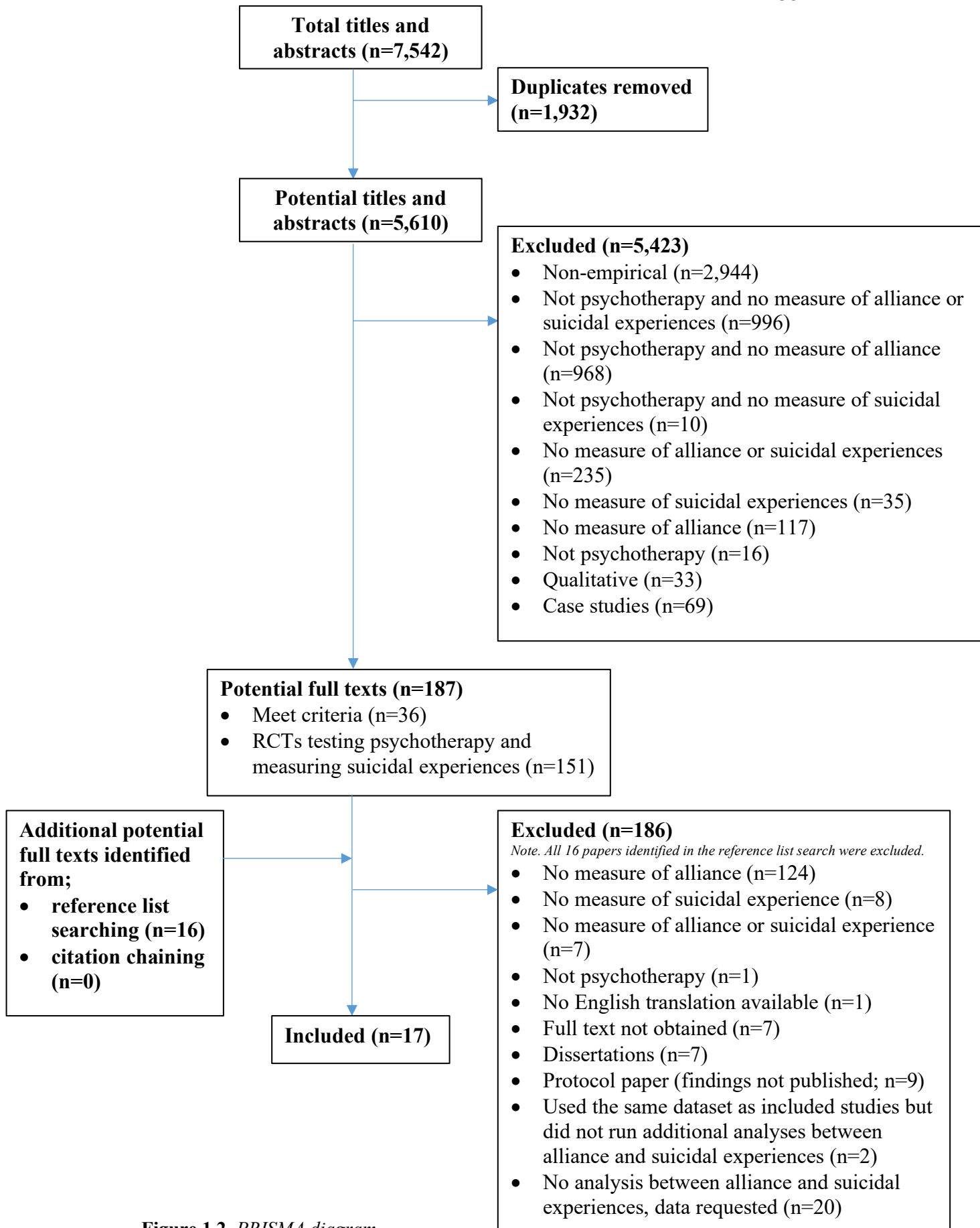


Figure 1.2. PRISMA diagram

### *Study characteristics*

As might be expected, there was considerable heterogeneity across studies with respect to geographical location, study design, settings, sample sizes, participant characteristics, types and delivery mode of psychotherapy offered, characteristics of the therapists, measures of the therapeutic alliance, measures of suicidal experiences, and study quality. Due to this heterogeneity, a meta-analysis examining the relationships between the therapeutic alliance and suicidal experiences was considered inappropriate (Higgins & Green, 2011). Eight out of 17 studies were conducted in the USA, four in Canada and five in Europe.

Study details, such as, design, study setting/recruitment sources, sample sizes, sample population, type of therapy, psychotherapy delivery characteristics, therapist qualifications and supervision, have been collated in Table 1.1. There are, however, several key points to note. For instance, the majority of studies used a cohort/longitudinal or randomised controlled trial (RCT) design (including pilot RCTs) using opportunity sampling from the community, mental health inpatient and outpatient settings, with sample sizes ranging from 4 to 633 and follow-up time periods between 2 weeks to a median of 4.19 years. Participants with different mental health problems were recruited across studies but those with a diagnosis of borderline personality disorder were represented most frequently whereas people with eating disorders, bipolar disorder or non-affective psychosis had the least frequent representation. The mean age of participants ranged from just under 15 to just over 48. Ethnicity was predominantly Caucasian or not reported. Six out of eleven RCTs compared psychotherapy with an active control (e.g., client-centred, nondirective supportive family therapy, psychodynamic, eclectic or cognitive therapy). The experience of the study therapists ranged from 1 to

26 years, were from various mental health professions (e.g., social work, psychology, nursing, psychiatry), and were either in training or had qualifications ranging from Masters to doctoral degrees. The types of psychotherapy offered were also diverse including, for example, cognitive, psychodynamic and eclectic approaches, delivered in one-to-one settings (eight studies), groups (three studies) or a mixture of group and individual work (six studies). The number of psychotherapy sessions ranged from 3 to 339, but most studies offered 15 to 20, weekly, sessions lasting between 60 and 150 minutes.

**Table 1.1.** *Included study characteristics in date order from oldest to most recent, participant age and ethnicity, details of psychotherapy delivery, format and context, and therapist qualifications and supervision.*

Study number and reference	Study characteristics			Participants			Psychotherapy delivery, format and context		Therapists	
	Country	Design	Sample population & study setting	Therapy arm sample size	Mean age	Ethnicity	Psychotherapy type and session length	Length and setting of psychotherapy	N and profession/ qualifications	Supervision
1. Shearin & Linehan (1992)	USA	Cohort/ Longitudinal	People with a diagnosis of BPD and parasuicidal behaviour in the community	4	Not reported	Not reported	<b>Dialectical Behavioural Therapy (DBT):</b> 60-minute individual sessions and 150 minutes group skills per week	Up to 31 sessions over 7 months at an outpatient university research clinic	4 psychology and Nursing graduate students	Supervision provided to ensure adherence to DBT protocol, but no further details reported.
2. Turner (2000)	USA	Two-armed RCT; active control	People with a diagnosis of BPD in the community	<b>Total:</b> 24  <b>DBT:</b> 12  <b>Active control:</b> 12	<b>Total:</b> 22.00	<b>Total:</b> 79.17% Caucasian	<b>DBT:</b> Individual (DBT skills sessions provided in individual sessions) <sup>a</sup>  <b>Active control:</b> Individual Client-Centred Therapy <sup>a</sup>	Up to 84 individual sessions over 12 months at a community mental health outpatient clinic	4 therapists; Background in client centred, psychodynamic and family systems conducted both therapies.  <b>DBT:</b> Trained to conduct DBT  <b>Active control:</b> Trained to work with people diagnosed with BPD	Weekly group supervisions (one for each therapeutic modality). Reviewed therapy audio recordings to monitor treatment fidelity.

3. Goldman & Gregory (2009)	USA	Two-armed RCT; TAU control	Diagnosis of BPD; Clinical settings – non-specific	15	27.40	85.70% Caucasian	<b>Dynamic Deconstructive Psychotherapy:</b> Individual <sup>a</sup>	Up to 52 sessions over 12 months <sup>b</sup>	5 therapists; 1 expert therapist, 4 third year trainee psychiatrists	Weekly group supervision. Biweekly individual supervision was used to review audio recordings to monitor treatment fidelity.
4. Hirsh et al (2012)	Canada	Two-armed RCT; active control	People with a diagnosis of BPD and experience of suicidal behaviour and NSSI Outpatient	<b>Total: 87</b> <b>DBT: 43</b>	<b>Total:</b> 31.41 <b>DBT:</b> 30.56	Not reported	<b>DBT:</b> 60-minute individual sessions, 120-minute skills group and 120 minutes phone coaching	Sessions delivered weekly over 1 year at 2 teaching hospitals <sup>c</sup>	25 therapists <b>DBT: 13 therapists</b> 3 psychiatrists, 4 PhD level psychologists, 5 Master's level clinicians and 1 nurse.	<b>DBT:</b> Weekly group supervision (2 hours)
				<b>Active control:</b> 44	<b>Active Control:</b> 32.25	Not reported	<b>Active control:</b> Individual General Psychiatric Management (includes dynamically informed psychotherapy) <sup>a</sup>		<b>Active control:</b> 12 therapists 8 psychiatrists, 1 PhD level psychologist, 1 Master's level clinician and 2 nurses	<b>Active control:</b> Weekly group supervision (90 minutes)



5. Bryan et al (2012)	USA	Cohort/ Longitudinal	Military Primary Care Clinic	497	37.14	54.10% Caucasian	<b>CBT:</b> 30-minute individual sessions	Up to 8 sessions at a Primary Care Clinic	22 therapists; 8 clinical psychologists (6 trainers and 2 externship trainees), 9 pre- doctoral clinical psychology interns, and 5 social worker interns	Interns were trained under the supervision of clinical psychologists to deliver CBT. No further details on supervision reported.
6. Perry et al (2013)	Canada	Cohort/ Longitudinal	People with diagnoses of anxiety, depression and/or PD Outpatient – Psychiatry	53	30.90	Not reported	<b>Long-term dynamic psychotherapy:</b> individual <sup>a</sup>	Up to 339 sessions over a median of 4.19 years at an outpatient clinic	22 therapists; psychiatrists, psychologists, social workers and advanced practice nurses; 20 were also psychoanalysts	No supervision groups or specific therapy manual used.
7. Tsai et al (2014)	Canada	Cohort/ Longitudinal	People with a diagnosis of depression who were outpatient/in the community	80	47.82	76.10% Caucasian	<b>CBT for depression:</b> 120-minute group sessions	Up to 10 sessions over 10 weeks at an outpatient community mental health service/hospital	2 therapists; 1 clinical psychologist and 1 psychiatrist	Not reported
8. Bedics et al (2015)	USA	Two-armed RCT; active control	People with a diagnosis of BPD and experience of suicidal behaviour and NSSI in the community	<b>Total:</b> 101 <b>DBT:</b> 52	<b>Total:</b> 29.30	<b>Total:</b> 86.50% Caucasian	<b>DBT:</b> 60-minute individual sessions and 150 minutes of group skills and telephone consultations per week	Sessions delivered over 1 year at university outpatient clinic and community practice <sup>c</sup>	37 therapists; <b>DBT:</b> 15 (12 pf whom had a doctoral degree)	<b>DBT:</b> Weekly group supervision.

				<b>Active control: 49</b>			<b>Active control:</b> Community Treatment by Experts (eclectic/psychodynamic therapy) <sup>a</sup>		<b>Active control:</b> 25 (14 of whom had a doctoral degree)	<b>Active control:</b> Not required to attend supervision.
9. Gysin-Maillart et al (2016) <sup>d</sup>	Switzerland	Two-armed RCT; TAU control	People who had recently attempted suicide who are attending a psychiatry outpatient department	60	36.50	Not reported	<b>Attempted Suicide Short Intervention Program (ASSIP):</b> Up to 90-minute individual sessions	3 sessions (4 if necessary) delivered weekly at an outpatient department	4 therapists; 1 psychiatrist and 3 clinical psychologists (2 of whom were experienced in clinical suicide prevention)	Regular supervision to review therapy video recordings to ensure therapy fidelity.
10. Gysin-Maillart et al (2017) <sup>d</sup>	Switzerland	RCT; TAU control	People who had recently attempted suicide who are attending a psychiatry outpatient department	60	36.50	Not reported	<b>ASSIP:</b> Up to 90-minute individual sessions	3 sessions (4 if necessary) delivered weekly at an outpatient department	4 therapists; 1 psychiatrist and 3 clinical psychologists (2 of whom were experienced in clinical suicide prevention)	Regular supervision to review therapy video recordings to ensure therapy fidelity.
11. Plöderl et al (2017)	Austria	Cohort/ Longitudinal	People who had attempted suicide and/or had suicidal ideation and were admitted to an inpatient ward	633	39.19	Not reported	<b>Individual and group Psychotherapeutic Crisis Intervention (eclectic, pan-theoretical and flexible)</b> <sup>a c</sup>	Up to 15 weekly sessions over 3 weeks on the inpatient ward and up to 5 further follow up sessions over 6 months delivered at a clinic or via telephone <sup>e</sup>	7 therapists; psychiatrists, psychotherapists/psychologists	Not reported

12. Rufino & Ellis (2018)	USA	Cohort/ Longitudinal	People with diagnoses related to mood, anxiety and/or PD and suicidal thoughts and admitted to an inpatient ward	434	33.44	91.00% Caucasian	<b>Individual therapy; Psycho-educational and therapeutic groups; Family therapy</b> <sup>a</sup>	Sessions delivered on an inpatient ward <sup>c</sup>	Not reported	Not reported
13. Ibrahim et al (2018)	USA	Two-armed RCT; active control	People with a diagnosis of depression and experience of suicidal thoughts recruited from a mix of clinical and non-clinical settings	<b>Total:</b> 115 <b>Attachment-based family therapy:</b> 60  <b>Active Control:</b> 55	<b>Total:</b> 14.96	<b>Total:</b> 28.70% Caucasian	<b>Attachment-based family therapy:</b> 90 minutes <sup>c</sup> individual and family therapy sessions  <b>Active Control:</b> Family-enhanced nondirective supportive therapy Individual <sup>a</sup> sessions and 4 60-minute parent psychoeducation sessions	16 weekly sessions over 16 weeks delivered at a university research lab/intervention clinic <sup>c</sup>	17 therapists; All at least Master's level	Not reported
14. Haddock et al (2019)	UK	Two-armed RCT; TAU control	People with experiencing of suicidal thoughts and/or behaviours and admitted to an inpatient ward	24	33.88	91.67% Caucasian	<b>Cognitive Behavioural Suicide Prevention therapy:</b> Up to 70-minute individual sessions	20 sessions delivered over 6 months on an inpatient ward and followed up in the community	2 therapists; Both clinical psychologists who meet the British Association of Behavioural and Cognitive Psychotherapists minimum standards for	Weekly supervision

									CBT accreditation	
15. Johnson et al. (2019)	USA	Two-armed RCT; active control	Veterans who had recently attempted suicide and recently discharged from an inpatient ward	<b>Total:</b> 134 <b>Suicide Focussed Assessment Group Therapy:</b> 69  <b>Active control:</b> 65	<b>Total:</b> Not reported <b>Suicide Focussed Assessment Group Therapy:</b> 47.72  <b>Active control:</b> 48.33	70.90% Caucasian	<b>Suicide Focussed Assessment Group Therapy:</b> Group sessions <sup>a</sup>  <b>Active control:</b> Usual Assessment Group therapy Group sessions <sup>a</sup>	<b>Suicide Focussed Assessment Group Therapy:</b> Up to 12 weekly sessions delivered in an outpatient setting  <b>Active control:</b> Up to 12 weekly sessions delivered in an outpatient setting	2 therapists facilitated both group therapies; 1 clinical psychologist and 1 social worker	Observation and spot checks by the Principal Investigator ensured adherence and fidelity to Suicide-Focused Assessment Group Therapy.
16. Ryberg et al. (2019)	Norway	Two-armed RCT; active control	People with ongoing suicidal ideation, intent and behaviour in both inpatient and outpatient settings	<b>Total:</b> 78 <b>Collaborative Assessment and Management of Suicidality (CAMS):</b> 37  <b>Active control:</b> 41	<b>Total:</b> 39.90 <b>CAMS:</b> 38.40  <b>Active control:</b> 33.70	Not reported	<b>CAMS with psychodynamic, cognitive or eclectic psychotherapy:</b> Up to 60-minute individual sessions  <b>Active control:</b> Psychodynamic, cognitive or eclectic psychotherapy up to 45-minute individual sessions	<b>CAMS:</b> A mean of 17.80 therapy sessions were attended weekly, of which, 7.90 were CAMS specific. Therapy sessions were delivered in inpatient and outpatient settings. Number of sessions not pre-determined.  <b>Active control:</b> A mean of 14.6 weekly sessions delivered in inpatient and outpatient settings.	43 therapists; <b>CAMS:</b> 8 psychologists and 1 psychiatrist  <b>Active control:</b> 15 psychologists, 4 residents, 6 psychiatrists and 9	<b>CAMS:</b> Once therapists were adherent to the CAMS procedure, supervision was available by request  <b>Active control:</b> Not reported

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17. Stratton et al (2020)	Canada	Two-armed RCT; Waitlist control	People with diagnosis of BPD; suicidal behaviour and NSSI in an outpatient setting	43	27.29	Not reported	<b>DBT skills:</b> 120-minute group	Number of sessions not pre-determined. 20 weekly sessions delivered at a teaching hospital	psychiatric nurses 5 therapists; 2 PhD, 3 MSW	Weekly group supervision
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<sup>a</sup> Length of sessions not reported; <sup>b</sup> Setting not reported; <sup>c</sup> Number of sessions not reported; <sup>d</sup> Used the same participants <sup>e</sup> Data requests

### *Measures of the therapeutic alliance and suicidal experiences*

The overarching aim of the current review was to examine the relationships between the therapeutic alliance and suicidal thoughts and behaviours prior to starting psychotherapy, during psychotherapy and after psychotherapy cessation. Hence, it is worth considering first, ways in which the therapeutic alliance was measured and second, ways in which suicidal experiences were measured and documented across studies (see Table 1.2).

First, the most frequently used measure of therapeutic alliance was the Working Alliance Inventory (WAI; Horvath & Greenberg, 1989). The WAI was used in nine studies, one of which measured both client and therapist perspectives; seven of which sampled client perspectives only; and one of which sampled independent observer ratings of client-therapist alliance. The remaining eight studies captured the client perspective of the therapeutic alliance by using seven different measures other than the WAI. Further, two studies used two different measures other than the WAI to capture the therapist perspectives of the alliance. The final study used an independent observer rated measure to assess the client and therapist alliance (Perry, Bond & Presniak, 2013). It is important to consider who collects the therapeutic alliance measures from clients. This is because clients may not want to be seen as being critical of the therapist as therapists may respond defensively, which could impact on the quality of intervention delivery and therapeutic outcome (Lingiardi, Holmqvist & Safran, 2016). Of the 17 studies in the current review, 15 measured client perspectives of the therapeutic alliance, with four out of those 15 being administered by independent researchers. Furthermore, two studies used independent observer ratings of psychotherapy session video or audio recordings. Studies ranged from measuring the therapeutic alliance at one time-point, i.e., session 1 (Bryan et al., 2012) or

only at 3 weeks (Ryberg, Diep, Landrø & Fosse, 2019) or 6 months (Turner, 2000), to across 16 to 31 session-by-session ratings using two therapeutic alliance measures (Ibrahim, Jin, Russon, Diamond & Kobak, 2018; Shearin & Linehan, 1992). Fifteen studies provided details of reliability and/or validity for alliance measures. However, there were two studies which did not detail psychometric properties of alliance measures used (Gregory & Goldman, 2009; Turner, 2000).

Second, there was considerable variability in measures of suicidal experiences. The Beck Scale for Suicide Ideation (Beck, Steel, & Ranieri, 1988) was the most commonly used validated, self-report measure of suicidal experiences, whereas several different validated, interview-based measures and non-validated measures were also used. Although some measures have the capacity to measure both suicidal ideation and/or self-harm in addition to suicide attempts, it should be noted that most studies treated such variables as separate during the analysis in relation to the therapeutic alliance. However, one study used a composite measure, the Suicide Probability Scale (SPS; Cull & Gill, 1982), which assessed a combination of suicidal ideation, negative thoughts, hopelessness and hostility (Haddock et al., 2019). Lastly, only one study included a population of adolescents and so used the Suicidal Ideation Questionnaire–Junior to examine suicidal ideation (Ibrahim et al., 2018). Suicidal experiences were measured at a number of time-points, including, prior to taking part in psychotherapy (e.g., measured at baseline or admission to a mental health inpatient ward), during psychotherapy (e.g., measured session-by-session, or early and mid-therapy), towards the end or upon cessation of psychotherapy delivery, and at follow-up time-points. Twelve studies provided details of reliability and/or validity for measures of suicidal experiences. However, two studies did not report psychometric

properties for measures of suicidal experiences (Gregory & Goldman, 2009; Turner, 2000). Furthermore, one study did not clearly define what was meant by 'parasuicide' and it was not clear whether measuring frequency of parasuicide via daily logs was validated (Shearin & Linehan, 1992).



**Table 1.2.** *Details of the therapeutic alliance, suicidal ideation and suicide attempt measures used in included studies.*

Study number and reference	Therapeutic alliance measure			Suicidal experiences measures	
	Client rated	Therapist rated	Observer rated	Suicidal ideation measure	Suicide attempt measure
1. Shearin & Linehan (1992)	Structural Analysis of Social Behaviour INTREX form (Benjamin, 1988) Rated session by session, weekly, sessions 1-31 (Early-Mid therapy)	Structural Analysis of Social Behaviour INTREX form (Benjamin, 1988) Rated session by session, weekly, sessions 1-31 (Early-Mid therapy)	N/A	Measured using a daily diary card	Measured using a daily diary card
2. Turner (2000)	Helping Relationship Questionnaire (Haq; Luborsky, 1984) Rated at 6 months (Mid-therapy)	N/A	N/A	Beck Suicidal Ideation Scale (Beck et al., 1988) Measured at Baseline, 6 and 12 months (Pre-, mid- and end of therapy)	Target Behaviour Ratings – frequency of parasuicide
3. Goldman & Gregory (2009)	N/A	N/A	Working Alliance Inventory Observer Short form (WAI-O-S; Tichenor & Hill, 1989; Tracey & Kokotovic, 1989) Rated at baseline, 3, 6, 9 and 12 months (early, mid and end of therapy)	N/A	The Lifetime Parasuicide Count (Linehan & Comtois, 1996) measured at Baseline, 3, 6, 9 and 12 months (pre-, mid- and end of therapy)

4. Hirsh et al (2012)	Working Alliance Inventory (WAI; Horvath & Greenberg, 1989) Rated at baseline, 4, 8 and 12 months (early, mid and end of therapy)	N/A	N/A	N/A	Suicide Attempt Self-Injury Interview (Linehan, Comtois, Brown, Heard, & Wagner, 2006) measured at Baseline, 4, 8 and 12 months (pre-, mid- and end of therapy)
5. Bryan et al (2012)	The Therapeutic Bond Scale (Celest Health Solutions, 2008) Rated after session 1 (early in therapy)	N/A	N/A	1 item from The Behaviour Health Measure-20 (Kopta & Lowry, 2002) Measured session-by-session	N/A
6. Perry et al (2013)	The Psychosocial Treatment Interview (PTI; Steketee et al., 1997) Measured every 6 months (early, mid and end of therapy)	N/A	Therapeutic Alliance Analogue Scales (Brysk, 1987) Rated 3 sessions around 1 months and 6 months (early in therapy)	Longitudinal Interval Follow-up Evaluation (Keller et al., 1987) Adapted for the Study of Personality (Perry, 1990) measured at Baseline and every 6-12 months (pre-, mid- and end of therapy)	N/A
7. Tsai et al (2014)	WAI (Horvath & Greenberg, 1986, 1989) Rated after sessions 1 and 5 (early and mid-therapy)	N/A	N/A	Number of participants with recurring or current ideation at baseline	Number of participants who had previously attempted suicide at baseline

8. Bedics et al (2015)	California Psychotherapy Alliance Scale (Gaston, 1991)  Rated after session 1 and at 4, 8 and 12 months (early, mid and end of therapy)	California Psychotherapy Alliance Scale (Gaston, 1991)  Rated after session 1 and at 4, 8 and 12 months (early, mid and end of therapy)	N/A	N/A	Suicide Attempt Self-Injury Interview (Linehan, Comtois, Brown, Heard, & Wagner, 2006) measured at Baseline, 4, 8 and 12 months (pre-, mid- and end of therapy)
9. Gysin-Maillart et al (2016) <sup>d</sup>	Penn Haq – German version (Bassler, Potratz & Krauthauser, 1995; Luborsky, 1984) Rated after sessions 1 and 3 (early and end of therapy)	N/A	N/A	Beck Scale for Suicidal Ideation (BSS) German version (Beck & Steer, 1991; Fidy, 2008) measured at Baseline, 6, 12, 18 and 24 months (pre-therapy and follow up time-points)	Demographic question and hospital records
10. Gysin-Maillart et al (2017) <sup>d</sup>	Penn Haq – German version (Bassler, Potratz & Krauthauser, 1995; Luborsky, 1984) Rated after sessions 1 and 3 (early and end of therapy)	N/A	N/A	BSS German version (Beck & Steer, 1991; Fidy, 2008) measured at Baseline, 6 and 12 months (pre-therapy and follow up time-points)	BSS German version (Beck & Steer, 1991; Fidy, 2008) measured at Baseline, 6 and 12 months (pre-therapy and follow up time-points)
11. Plöderl et al (2017)	WAI-Short Revised German Translation (Wilmers, et al., 2008)	N/A	N/A	BSS (Beck & Steer, 1991) measured at intake and discharge from the inpatient	BSS (Beck & Steer, 1991) measured at intake and discharge from the inpatient ward (early and towards the end of therapy)

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	Rated at intake and discharge from the inpatient ward (early and towards the end of therapy)			ward (early and towards the end of therapy)	
12. Rufino & Ellis (2018)	WAI (Horvath & Greenberg, 1989) Rated at admission, every 2 weeks and prior to discharge (early, mid and end of therapy)	N/A	N/A	Columbia Suicide Severity Rating Scale (Posner et al., 2011)  Suicide Cognitions Scale (Bryan et al., 2014; Ellis & Rufino, 2015)	Frequency of prior suicide attempts measured at admission to the inpatient ward (early in therapy)
13. Ibrahim et al (2018)	Therapeutic Alliance Quality Scale (Riemer et al., 2012) Rated session by session on a weekly basis, between sessions 1 and 16 (early, mid and end of therapy)	N/A	N/A	Measured at admission, every 2 weeks and prior to discharge (early, mid and end of therapy) Suicidal Ideation Questionnaire–Junior weekly (Reynolds & Mazza, 1999) measured at baseline (pre-therapy)	Suicide attempt history measured at baseline (pre-therapy)

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14. Haddock et al (2019)	WAI (Horvath & Greenberg, 1989) Rated at sessions 4 and end of therapy (early and end of therapy)	WAI (Horvath & Greenberg, 1989) Rated at sessions 4 and end of therapy (early and end of therapy)	N/A	BSS (Beck, Kovacs & Weissman, 1979) and Suicide Probability Scale (Cull & Gill, 1982) measured at baseline, 6 week and 6 months (pre-therapy, early therapy and end of therapy)	Frequency of suicide attempts collected by a review of clinical records between randomisation and 6 months (start to end of therapy)
15. Johnson et al. (2019)	WAI-S (Hatcher & Gillaspay, 2006) Rated at 1 and 3 months (early and end of therapy)	N/A	N/A	BSS (Beck, Kovacs & Weissman, 1979) measured at baseline, 1 month and 3 months (pre-therapy, early therapy and end of therapy)	Suicide Attempt and Self-Injury Count (Linehan & Comtois, 1999) measured at baseline, 1 month and 3 months (pre-therapy, early therapy and end of therapy)
16. Ryberg et al. (2019)	WAI-S (Hatcher & Gillaspay, 2006) Rated after 3 weeks of therapy (early in therapy)	N/A	N/A	BSS (Beck, Brown & Steer, 1997) measured at baseline, 6 and 12 months (pre-therapy and follow up time-points)	N/A
17. Stratton et al (2020)	Group Session Rating Scale (GSRs; Duncan & Miller, 2007) Rated at baseline, 5, 10, 15 and 20 weeks, and 3 months post-intervention (pre-therapy early, mid, end of therapy, and follow up)	N/A	N/A	N/A	Lifetime Suicide Attempt and Self-Injury Interview (Linehan & Comtois, 1996) measured at baseline, 5, 10, 15 and 20 weeks, and 3 months post-intervention (pre-therapy early, mid, end of therapy, and follow up)

### *Measures of study quality*

Across studies, three scored affirmatively for six of the seven criteria (Gysin-Maillart et al., 2016, Gysin-Maillart, Soravia, Gemperli & Michel, 2017; Hirsh, Quilty, Bagby & McMain, 2012), whereas two only scored one or two, respectively (Rufino & Ellis, 2018; Shearin & Linehan, 1992; see Table 1.3). It was noticeable that those studies which met six out of seven criteria for study quality were most likely to be RCTs, had an outpatient population and used validated measures of alliance and suicidal experiences. Most studies appeared to be of good quality overall, with 11 studies meeting at least four out of seven criteria. The majority of studies either had acceptable retention rates or accounted for attrition in the analysis to mitigate against attrition bias.

Two key study quality criteria to consider when examining the therapeutic alliance are therapist training and fidelity (including supervision) and the safe delivery of psychotherapy. It is essential for therapists to be trained and supervised to develop and maintain a therapeutic alliance with clients who have suicidal experiences in accordance with the psychotherapy manual (e.g., CT [Brown, Wenzel & Rudd, 2011], CBT [Pratt, Gooding, Kelly, Johnson & Tarrier, 2016], DBT [Rizvi, 2011] and psychodynamic therapy [Weinberg, Ronningstam, Goldblatt & Maltzberger, 2011]). Further, the occurrence of ruptures and harmful interactions during psychotherapy have been posited as risk factors for adverse reactions in psychological therapy (Parry et al., 2016). As such, monitoring and assessing adverse events, such as suicide attempts, is vital to the safe delivery of psychotherapy.

A particular barrier to adequately assessing study quality was the lack of consistent reporting across several areas of potential bias. Specifically, a number of studies did not describe therapist training and fidelity,

psychometric properties for measures of therapeutic alliance and suicidal experiences and whether the psychotherapy was safely conducted. Furthermore, issues such as low retention rates for the measure of suicidal ideation, i.e., 32% (Rufino & Ellis, 2018), short or unclear follow-up timeframe (Bryan et al., 2012; Plöderl et al., 2017) and unclear psychotherapy timeframe (Ryberg et al., 2019) were identified. Such reporting, and retention, follow-up and psychotherapy timeframe problems across several studies may interfere with generalisability and transferability of review findings. Therefore, future studies could benefit from improving study quality in the aforementioned areas.

**Table 1.3.** *Quality assessment for included studies*

CASP question	1. Did the trial address a clearly focused issue?	2. Was the exposure accurately measured to minimise bias?	3. Was the outcome accurately measured to minimise bias?	4. Have authors identified all important confounding factors?	5. Was the follow up of subjects complete enough?	6. Can the results be applied to the local population?	7. What are the implications of this study for practice?
Adaption	Does the study examine the relationship between the therapeutic alliance and suicidal experiences?	Does the study systematically train therapists and monitor therapist fidelity?	Were measures of therapeutic alliance and suicidal experiences reliable and valid?	Have authors identified and controlled for at least age and gender as confounding factors?	Were retention rates acceptable or did the authors account for attrition in the analysis?	Can the results be generalised to a similar population as the study population?	Is the psychotherapy safe i.e., were adverse and serious adverse events monitored and assessed?
1. Shearin & Linehan (1992)	Y	UC	UC	N	UC	N	UC
2. Turner (2000)	Y	Y	UC	UC	Y	UC	UC
3. Goldman & Gregory (2009)	Y	Y	UC	UC	Y	N	UC



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4. Hirsh et al. (2012)	Y	Y	Y	Y	Y	Y	UC
5. Bryan et al. (2012)	Y	UC	Y	Y	UC	Y	UC
6. Perry et al. (2013)	Y	N	UC	Y	Y	UC	UC
7. Tsai et al. (2014)	Y	UC	Y	UC	Y	Y	UC
8. Bedics et al. (2015)	Y	Y	Y	UC	Y	Y	UC
9. Gysin-Maillart et al. (2016)	Y	Y	Y	Y	Y	Y	UC
10. Gysin-Maillart et al. (2017)	Y	Y	Y	Y	Y	Y	UC
11. Plöderl et al. (2017)	Y	UC	Y	UC	Y	UC	UC
12. Rufino & Ellis (2018)	Y	UC	Y	N	N	N	UC
13. Ibrahim et al. (2018)	Y	UC	UC	Y	Y	Y	UC

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14. Haddock et al. (2019)	Y	Y	Y	UC	Y	UC	Y
15. Johnson et al. (2019)	Y	UC	Y	UC	Y	Y	UC
16. Ryberg et al. (2019)	Y	Y	Y	Y	Y	UC	UC
17. Stratton et al. (2020)	Y	Y	Y	Y	Y	UC	UC

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## ***The relationship between the therapeutic alliance in psychotherapy and suicidal experiences***

It is important to understand the extent to which 1. suicidal experiences occurring pre-therapy influenced the therapeutic alliance, 2. suicidal experiences are correlated with/related to the therapeutic alliance at the same time-point during psychotherapy and 3. the therapeutic alliance developed during psychotherapy affected suicidal experiences post-therapy or at psychotherapy cessation.

### ***Suicidal experiences pre-therapy as a predictor of the therapeutic alliance***

The following subsection examines suicidal ideation and suicide attempts, both respectively and combined, prior to therapy in relation to predicting the therapeutic alliance during psychotherapy. Suicide attempts pre-therapy are also investigated in relation to change in therapeutic alliance over time.

#### ***Suicidal ideation pre-therapy as a predictor of the therapeutic alliance***

Four studies examined the relationship between self-reported suicidal experiences immediately prior to therapy and the client perception of the therapeutic alliance early on in psychotherapy. All four studies were consistent in their findings. Three studies found that experience of suicidal ideation prior to psychotherapy was not significantly related to ( $r = -.222$ ,  $n = 17$ ,  $p = .195$ ; Haddock et al., 2019), and did not significantly predict ( $\beta = -0.04$ ,  $p = .07$ ,  $SE = 0.03$ ,  $df = 100$ ,  $t = -1.38$  [Ibrahim et al., 2018];  $IRR = .73$  [Johnson et al., 2019]) *client perceptions* of the therapeutic alliance at session 4 or one month into psychotherapy. A fourth study found that for people with and without suicidal ideation prior to therapy, there were no significant

differences between alliance scores at session 1 ( $t = -.422, df = 59, p = .674$ ) and session 5 ( $t = -1.23, df = 50, p = .225$ ) of psychotherapy (Tsai, Ogrodniczuk, Sochting & Mirmiran, 2014). However, this sample was skewed towards people with no experience of suicidal ideation prior to therapy at sessions 1 (80.33%) and 5 (82.70%). A non-significant relationship was also observed between a measure of suicide potential pre-therapy and client therapeutic alliance at session 4 ( $r = -.226, n = 17, p = .192$ ; Haddock et al., 2019). Thus, the current evidence indicated that suicidal ideation prior to therapy did not significantly influence client perceptions of the therapeutic alliance early on in psychotherapy. That said, the Haddock et al. (2019) study was a pilot study examining the acceptability and feasibility of suicide focused CBT, rather than the therapeutic alliance, with a sample size in the psychotherapy arm which was less than 30. Hence, power was necessarily compromised. It should also be noted that Tsai et al. (2014) omitted information about therapist fidelity and Johnson et al. (2019) reported therapist training and adherence procedures for administering the suicide status form but did not report on training or adherence for the group therapy. Furthermore, the focus of the Ibrahim et al. (2018) study was not on suicidal ideation but on parental attachment styles with suicidal ideation being added as one of nine covariates which could have negatively affected power.

Similarly, in the Haddock et al. (2019) study, suicidal ideation prior to therapy was not significantly related to *therapist perceptions* of the therapeutic alliance at session 4 ( $r = .162, n = 22, p = .235$ ; Haddock et al., 2019). Conversely, there was a moderate, significant positive relationship between self-reported suicide potential prior to therapy and the therapist view of the therapeutic alliance at session 4, even though the sample size was small ( $r = .360, n = 22, p = .050$ ; Haddock et al., 2019). Hence, the evidence from

this study suggests that clients with greater self-reported suicide potential, which involved experiences of suicidal thoughts, hopelessness, negative self-evaluations and hostility, were perceived by therapists as forming a *stronger* therapeutic alliance early on in psychotherapy. This is despite a measure of suicidal ideation prior to therapy not relating to therapist views of the therapeutic alliance. A particular strength pertaining to the quality of the data is that measures of psychotherapy fidelity, including, supervision were robust in the study by Haddock et al. (2019) lending reassurance to the findings. However, it is unclear if confounding variables such as depression were controlled for perhaps understandably as this was a pilot feasibility and acceptability study.

#### *Suicide attempts pre-therapy as a predictor of the therapeutic alliance*

Five studies examined the extent to which lifetime suicide attempts influenced the formation and maintenance of the therapeutic alliance from the perspective of the client (Gysin-Maillart et al., 2017; Plöderl et al., 2017; Stratton, Alvarez, Labrish, Barnhart & McMMain, 2020; Tsai et al., 2014) or an observer (Goldman & Gregory, 2009). One study suggested that client perceptions of the therapeutic alliance at session 1, which was held on admission to a mental health in-patient ward, were significantly lower in people who had previously attempted suicide ( $M = 46.70$ ) compared to those who had not attempted suicide ( $M = 48.59$ ,  $W = 54697$ ,  $N = 633$ ,  $p = .02$ , Plöderl et al., 2017). Although, the large sample size explains why the result was significant with only a small difference in mean alliance scores. In a second study, there was a moderate, negative, significant relationship between the number of suicide attempts prior to psychotherapy and therapeutic alliance measured during the first psychotherapy session ( $r = -.34$ ,

$p = .008$ ; Gysin-Maillart et al., 2017), but by the third session, this negative relationship had diminished ( $r = -.13, p = .340$ ). Notably, only 3 or 4 sessions were offered as part of this specific psychotherapy.

However, in two studies, there was a non-significant relationship between number of suicide attempts prior to group psychotherapy and therapeutic alliance. In the first study, the alliance as perceived by the client was measured in session 1 ( $r = -.10$ ; Stratton et al., 2020). In the second study (Tsai et al., 2014) the client alliance was measured in both session 1 and session 5 and there were no significant differences between those who had previously attempted suicide and those who had not done so (session 1,  $t = .439, df = 58, p = .662$ ; session 5,  $t = .388, df = 49, p = .700$ ). That said, the sample was skewed towards people with no previous suicide attempts at both session 1 (85.00%) and session 5 (84.31%). In a third study, frequency of lifetime suicide attempts at baseline had no relationship with the therapeutic alliance after 3 months of psychotherapy ( $r = -.04, p = .925$ ; Goldman & Gregory, 2009). However, the Goldman & Gregory (2009) study was considerably underpowered ( $n = 8$ ) to detect a significant relationship.

In summary, clients who have attempted suicide prior to psychotherapy have varied perceptions of the robustness of the therapeutic alliance at session 1 but are still able to form a good therapeutic alliance with a psychotherapist early on in psychotherapy. Such findings should be considered alongside the robustness of study method and subsequent risk of bias, i.e., the quality of the studies. Two out of five studies did not report how therapist fidelity was assessed and maintained (Plöderl et al., 2017; Tsai et al., 2014). Consequently, there was ambiguity around whether there was consistency in therapists' approach to developing and maintaining the therapeutic alliance and the delivery of psychotherapy in the context of

suicidal experiences. Furthermore, one sample was skewed towards young, female, individuals with a diagnosis of borderline personality disorder, and no details regarding ethnicity were given and so it is unclear if study findings were representative across different ages, gender identities and ethnic groups (Stratton et al., 2020). However, two out of five studies met criteria for 5 (Stratton et al., 2020) and 6 (Gysin-Maillart et al., 2017) out of 7 of the quality assessment categories respectively, which indicates that these studies were of good methodological quality.

*Change in suicidal ideation and behaviour combined as a predictor of change in the therapeutic alliance*

One study measured and analysed suicidal ideation and behaviour as a composite variable (Shearin & Linehan, 1992). A time series approach was taken to analysing the data over a 7-month period of psychotherapy. Experiences of the composite measure of suicide during psychotherapy were significantly associated with client perceptions that the therapists were understanding and warm in the following week's therapy session ( $\chi^2(8) = 29.46, p < .001$   $\chi^2(8) = 25.68, p < .001$ ; Shearin & Linehan, 1992). However, the Shearin & Linehan (1992) study met only one of the quality assessment criteria. Several factors were not addressed, namely, adherence and monitoring of therapist fidelity, the reliability and validity of alliance and suicide measures, controlling for confounding variables, completeness of session-by-session alliance ratings and the assessment and monitoring of adverse events to ensure that the psychotherapy was being delivered safely. Furthermore, only four participants were included in the study. Consequently, the study findings have limited generalisability and should be interpreted with caution.

*Suicide attempts as a predictor of change in the therapeutic alliance over time*

One study implicitly examined the relationship between lifetime frequency of suicide attempts prior to group psychotherapy and whether this was related to change in the client perception of the therapeutic alliance over time (Stratton et al., 2020). Lifetime frequency of suicide attempts did not significantly correlate with change in therapeutic alliance over the course of group psychotherapy ( $r = -.17$ ; Stratton et al., 2020). One possible explanation for this finding was that the study research question did not directly examine the relationship between frequency of suicide attempts and change in therapeutic alliance over time. Such variables were used as two of six other predictors of psychotherapy dropout rate. This suggests that other variables, such as, depression, anger, impulsivity, mindfulness and mental health diagnosis, may have masked a relationship between frequency of suicide attempts and change in group therapeutic alliance. Furthermore, with nine variables in the model and a mean of 1.13 ( $SD = 1.20$ ) lifetime suicide attempts by 42 participants, the study may have been underpowered.

***Suicidal experiences as a correlate of the therapeutic alliance at the same time-point during psychotherapy***

The following subsection examines the cross-sectional relationship between the respective experiences of suicidal ideation and suicide attempts and the therapeutic alliance, measured at the same time-point.

*Suicidal ideation in relation to the therapeutic alliance at the same time-point during psychotherapy*



In the present review, the experience of suicidal ideation measured during psychotherapy was cross-sectionally examined in relation to the therapeutic alliance also during psychotherapy by two studies. From the client's perception of the therapeutic alliance, one study found a small, negative significant relationship between suicidal ideation and therapeutic alliance at session 1 ( $r = -.19$ ,  $N = 633$ ,  $p < .01$ ), which took place on admission to a crisis intervention and suicide prevention in-patient ward (Plöderl et al., 2017). However, the large sample size ( $N = 633$ ) in this study may contextualise this small significant negative relationship, as larger sample sizes are more likely to reveal small effects as statistically significant (Sullivan & Feinn, 2012) and, so, may be less relevant to clinical practice. A second study (Perry et al., 2013), found only trends towards a significant difference between the therapeutic alliance, one month into psychotherapy again in people with and without suicidal ideation at this time-point ( $Z = 1.83$ ,  $p = .07$ ;  $Z = 1.70$ ,  $p = .09$ ). Similarly, in the same study, there were no significant differences in therapist perceptions of the alliance one month into psychotherapy with people with ( $M = 6.93$ ,  $SD = 0.67$ ) and without ( $M = 6.90$ ,  $SD = 0.85$ ) experiences of suicidal ideation (Perry et al., 2013). Likewise, 6 months into psychotherapy, client and therapist views of the therapeutic alliance did not differ dependent on whether the client had or had not experienced suicidal ideation. Thus, the majority of the evidence indicates that experience of suicidal ideation during psychotherapy did not influence client or therapist perceptions of the therapeutic alliance early on or part-way through psychotherapy.

Plöderl et al. (2017) also examined the cross-sectional relationship between the client rated therapeutic alliance and suicidal ideation, both of which were measured towards the end of psychotherapy (i.e., discharge from

the mental health in-patient ward. There was a moderate negative relationship between client perception of the therapeutic alliance and suicidal ideation towards the end of psychotherapy ( $r = -.36$ ,  $N = 633$ ,  $p = .01$ ; Plöderl et al., 2017), which suggests that clients who perceived the therapeutic alliance as stronger towards the end of psychotherapy experienced less severe suicidal thoughts.

In summary, the current literature indicates that client and therapist perceptions of the therapeutic alliance early on, or part-way through psychotherapy, were not related to client experiences of suicidal thoughts. Although, most notably in an inpatient population, towards the end of psychotherapy and final session on inpatient wards, clients who perceived the therapeutic alliance as strong experienced less severe suicidal ideation. However, this finding had a small effect size, which may be qualified by the large sample size (Plöderl et al., 2017). The findings concerning the relationships between suicidal ideation and the therapeutic alliance both sampled during psychotherapy were provided by studies which both met 3 out of 7 study quality categories. This suggests that studies were of acceptable quality but should be considered in the light of several methodological limitations. One study reported that neither a specific psychotherapy manual nor supervision groups were used due to the naturalistic study design (Perry et al., 2013). Comparably, the other study neglected to provide information on therapist fidelity (Plöderl et al., 2017). A stronger approach would have been to ensure a psychotherapy manual was followed, therapist fidelity was assessed and maintained through regular supervision and a validated psychotherapy adherence scale, and such procedures were reported transparently. A further limitation was that there were unclear follow up timeframes in one study (Plöderl et al., 2017), which indicates that data

collected towards the end of psychotherapy could have limited generalisability. Despite such methodological shortcomings, the first study demonstrated that measures of the therapeutic alliance and suicidal experiences were valid and reliable (Plöderl et al., 2017) and the second study had good therapy retention rates at 1 and 6 months into psychotherapy (i.e., 79.25%) for observational ratings of the therapeutic alliance at these time-points (Perry et al., 2013).

*Suicide attempts in relation to the therapeutic alliance at the same time-point during psychotherapy*

In the present review, only one study (Goldman & Gregory, 2009) examined the cross-sectional relationship between suicide attempts and the therapeutic alliance. The average of the observer rated therapeutic alliance had no significant relationship with the total frequency of suicide attempts, both collected over four time-points during psychotherapy ( $r = .08, p = .851$ ; Goldman & Gregory, 2009). However, only eight participants had reported suicide attempts and so the study was significantly underpowered to detect a significant relationship.

*Therapeutic alliance as a predictor of prospective suicidal experiences during and post-therapy*

The subsection below examines the therapeutic alliance during psychotherapy in relation to predicting the respective experiences of suicidal ideation, suicide attempts, changes in suicidal ideation and changes in suicide attempts over time. For clarification, predictors of suicidal experiences at one time-point, e.g., upon psychotherapy cessation, are different to predictors of *changes* in suicidal experiences over time. Arguably, the latter is the more

robust methodology (Schober & Vetter, 2018) as it demonstrates whether or not the therapeutic alliance improves suicidal experiences or that there is temporal precedence.

### *Therapeutic alliance in relation to suicidal ideation post-therapy*

Four studies examined the therapeutic alliance as perceived by the client in relation to suicidal ideation towards the end of psychotherapy or upon psychotherapy cessation and at follow up time-points.

First, there were significant, negative, relationships between the therapeutic alliance measured at session 1 and suicidal ideation at 12 months follow-up ( $t_{57} = -3.02, p = .004$ ; coefficient:  $-.26, R^2 = .18$ ; Gysin-Maillart et al., 2016) and at 24 months follow up ( $t_{57} = -3.11, p = .003$ ; coefficient:  $-.21, R^2 = .30$ ; Gysin-Maillart et al., 2016).

These findings remained when depression and previous suicide attempts were controlled for at 6 and 12 months follow up ( $\beta = -.334, R^2 = .386, p = .004$ ; Gysin-Maillart et al., 2017). However, baseline suicidal ideation was not controlled for and so a reduction in suicidal thoughts cannot be inferred.

A third study analysed the simultaneous impact of the therapeutic alliance and intervention upon suicidal ideation. Both the therapeutic alliance measured mid-way (6 months) through psychotherapy (canonical coefficient =  $.628$ ) and difference between the intervention groups, i.e., DBT and client-centred therapy (canonical coefficient =  $.631$ ) had a similar relationship with lower severity of suicidal ideation upon therapy cessation (canonical coefficient =  $.84$ ; Turner, 2000). Again, baseline suicidal ideation was not controlled for and so a conclusion regarding improvement in suicidal ideation cannot be made.

In contrast, a fourth study indicated that client perception of the therapeutic alliance measured early on in psychotherapy was not significantly correlated to suicidal ideation upon psychotherapy cessation when discharged from the in-patient ward and at 2 weeks and 6 months' post-discharge (Rufino & Ellis, 2018). Statistics were not presented by the authors.

Overall, there is evidence to suggest that a robust therapeutic alliance perceived by the client early on or mid-way through a suicide-focussed psychotherapy may be related to less severe suicidal ideation both at the end of psychotherapy and at follow up time-points, although this finding was not supported by all included studies. Alternative explanations for non-significant findings could involve study quality. For instance, one study (Rufino & Ellis, 2018) adopted a cohort design, whereas, RCTs were used to collect data for the other three studies. Inherently, cohort studies are not as robust as RCTs in minimising bias (Levin, 2006, 2007). Furthermore, although retention rates were high at discharge (96.5%), retention rates were low for 2 weeks (52.1%) and 6 months (32.3%) follow up time-points (Rufino & Ellis, 2018). The authors neglected to examine differences between participants who dropped out of the study and those who completed follow up assessments. Therefore, it is unknown as to whether participants who dropped out perceived the alliance as better or worse than those who completed follow up assessments, which arguably could limit generalisability of the findings due to potential attrition bias. Three studies (Gysin-Maillart et al., 2016; 2017, Turner, 2000) reported the use of a psychotherapy manual and supervision which could have positively, and consistently, influenced therapists' interaction with clients who were suicidal, and thus, the alliance.

*Therapeutic alliance as a predictor of prospective suicidal behaviour (e.g., suicide attempts and self-harm) during and post-therapy*

Two studies examined the relationship between the therapeutic alliance in psychotherapy and suicidal behaviour post-therapy (Turner, 2000). The first study (Goldman & Gregory, 2009) found that the observer rated therapeutic alliance at 3 months did not significantly relate to suicide attempts mid-way (6 months) through psychotherapy ( $r = .36, p = .552$ ). However, data were only available for 5 participants, meaning the study was underpowered to detect a significant relationship. In contrast, the second study (Turner, 2000) found that client perceptions of the therapeutic alliance as being strong, at the mid-way point (6 months) during psychotherapy, was as important as the type of psychotherapy (DBT or client-centred therapy) being delivered, in terms of explaining the impact on suicidal behaviour outcome post-therapy (composite measure of suicide attempts and self-harm; canonical coefficient = .80).

In summary, studies examining client and observer rated therapeutic alliance have contradictory findings as to whether the therapeutic alliance is related to subsequent suicide attempts. Despite some concerns over sample size, data for both studies were collected using RCTs, which traditionally use methods to minimise bias, e.g., blind assessors of suicidal experience outcomes (Levin, 2006, 2007). Furthermore, both studies transparently reported details of therapist training, such as, number, length and method of training sessions in order to deliver a specific therapy manual, along with monitoring therapy adherence through regular supervision and evaluation of session recordings (Goldman & Gregory, 2009; Turner, 2000). Therefore, such rigorous procedures may increase the likelihood that psychotherapy

delivery, including the development of a strong therapeutic alliance, could be reproduced by future studies.

*Therapeutic alliance during psychotherapy in relation to predicting prospective changes in suicidal ideation over time*

Five studies examined to what extent the therapeutic alliance in psychotherapy predicted changes in suicidal ideation over time. All five studies described the method used to calculate rate of change scores. For instance, two studies calculated the difference between baseline and post-intervention or follow-up measures of severity of suicidal ideation (Plöderl et al., 2017; Ryberg et al., 2019). A third study used a simple linear regression model to calculate rate of change in suicidal ideation over a median follow up of 4.94 years, which included 3 years of data collected during psychotherapy and just over 1 year of follow up data (Perry et al., 2013). In the fourth study, changes in suicidal ideation were examined by using a repeated measures mixed linear regression model, where time was entered as both a fixed effect and random effect to predict suicidal ideation measured session by session in a short-term psychotherapy (Bryan et al., 2012). The fifth study used structural equation modelling to perform a path analysis of the relationship between baseline, 1 month and 3-month suicidal ideation scores and therapeutic alliance, psychotherapy sessions attended and group cohesion at 1 month and 3 months follow up time-points (Johnson et al., 2019).

One study provided evidence that observer ratings of a strong therapeutic alliance at 6 months into psychotherapy resulted in reduced suicidal ideation. An observer rating of one component of the therapeutic alliance, namely interactions between the client and therapist (e.g.,

collaborative discussions and establishing a rapport), had a medium, negative, significant relationship with frequency of suicidal ideation over a median duration of 4.19 years ( $r_s = -.45, n = 28, p = .02$ ; Perry et al., 2013). In other words, if client-therapist interactions were rated as strong by observers, there was a greater reduction in suicidal ideation over time. However, such a relationship was not reported for client ( $r_s = -.18, n = 28, p = .38$ ) or therapist ( $r_s = -.24, n = 28, p = .24$ ) perceptions of the therapeutic alliance, respectively.

A second study suggested that a strong therapeutic alliance early on in psychotherapy moderated the relationship between psychotherapy condition and severity of suicidal ideation at follow up time-points (Ryberg et al., 2019). More specifically, interactions between the overall therapeutic alliance and psychotherapy condition were significantly related to reductions in severity of suicidal ideation at 6 months follow up ( $\beta = .38, N = 78, p = .039$ ). Similarly, an interaction between one component of the therapeutic alliance, the client-therapist bond, and psychotherapy condition was significantly related to improvement in suicidal ideation at both 6 month ( $\beta = .1.47, N = 78, p = .003$ ) and 12 month follow up ( $\beta = 1.10, N = 78, p = .029$ ).

In contrast, a third study found that a one unit increase in the strength of the client perception of the therapeutic alliance at 1 month were significantly related to a four percent *increase* in severity of suicidal ideation at the same time-point ( $IRR = 1.04, p = .001$ ; Johnson et al., 2019). However, changes in the therapeutic alliance from 1 month to psychotherapy cessation at 3 months were not related to changes in suicidal ideation severity at the end of psychotherapy.

A fourth study indicated that the client perception of the therapeutic alliance measured early on in psychotherapy did not significantly influence subsequent changes in suicidal ideation across up to 2 to 8 sessions of



psychotherapy ( $B = .045$ ,  $SE = .117$ ,  $p = .702$ ; Bryan et al., 2012), although one may question if such a number of sessions is sufficient when working with suicidal clients. A fifth study also observed no such relationship between client view of the early therapeutic alliance in psychotherapy delivered on a mental health in-patient ward and changes in severity of suicidal ideation over the course of up to 15 sessions of psychotherapy ( $r = .05$ ,  $p = .23$ ; Plöderl et al., 2017).

To summarise, no firm conclusions can be made as to whether the therapeutic alliance in psychotherapy predicts change in suicidal ideation over time. This could be attributed to three methodological issues which could have affected the client-therapist alliance, namely, raters of the alliance (e.g., combination of observers and client ratings in one study versus therapist/client ratings), use of a psychotherapy manual, which was only used by two studies (Bryan et al., 2012; Ryberg et al., 2019), and lack of information about psychotherapy training and fidelity monitoring procedures, which was only reported by one study (Ryberg et al., 2019). Despite such limitations, measures of the therapeutic alliance and suicidal ideation were valid and reliable (Bryan et al., 2012; Johnson et al., 2019; Plöderl et al., 2017; Ryberg et al., 2019).

*Therapeutic alliance during psychotherapy in relation to predicting change in suicidal behaviour (e.g. suicide attempts) over time*

Three studies investigated whether the therapeutic alliance during psychotherapy predicted change in suicidal behaviour over time. Two studies measured the therapeutic alliance and suicide attempts every 4 months over 1 year of psychotherapy, including after the first psychotherapy session (Bedics, Atkins, Harned & Linehan, 2015; Hirsh et al., 2012). The third study

measured therapeutic alliance and suicidal behaviour at weekly therapy sessions over 7 months of psychotherapy (Shearin & Linehan, 1992). In order to examine change in suicidal attempts/behaviour over time, studies conducted hierarchical linear modelling with time (weeks) as a fixed predictor (Bedics et al., 2015), multi-level modelling with time (months) as a fixed predictor (Hirsh et al., 2012) and a time-series analysis (Shearin & Linehan, 1992).

One study examined the therapeutic alliance in two types of psychotherapy, more specifically, one was suicide-focussed and one not exclusively focussed on reducing suicidal thoughts and behaviours (Bedics et al., 2015). For all clients, regardless of psychotherapy received, changes in the therapeutic alliance did not significantly predict changes in frequency of suicide attempts ( $b = -.12$ ,  $SE = .10$ ,  $z = -1.14$ ,  $p = .26$ ). However, there appeared to be a trend towards an interaction, whereby for clients who received a suicide-focussed psychotherapy, there was a significant, negative, relationship between client's perception of their working capacity and frequency of suicide attempts over the course of 12 months of psychotherapy ( $b = -.35$ ,  $SE = .16$ ,  $z = -2.39$ ,  $p < .02$ ; Bedics et al., 2015). This indicates that as perceptions of working capacity increased, subsequent suicide attempts reduced. However, there was no such relationship for clients who received psychotherapy without a focus upon suicide prevention ( $b = .02$ ,  $SE = .13$ ,  $z = .17$ ,  $p = .87$ ). Moreover, no other aspect of the therapeutic alliance was significantly related to suicide attempts, e.g., client commitment, therapist understanding and involvement and agreement on working strategy (Bedics et al., 2015). Additionally, a second study (Hirsh et al., 2012) found that the client view of the therapeutic alliance was not significantly related to frequency of suicide attempts over 1 year of psychotherapy ( $b = -.01$ ,  $SE =$

.01,  $t/\text{chi-square} = 2.92$ ). This result occurred even though suicide attempts significantly reduced over the same time period ( $b = -.05$ ,  $SE = .02$ ,  $t = 10.09$ ,  $p < .05$ ; Hirsh et al., 2012).

When considering therapist perceptions of the therapeutic alliance, irrespective of whether or not psychotherapy was suicide-focussed, overall perception of the therapeutic alliance ( $b = -.31$ ,  $SE = .10$ ,  $z = -3.13$ ,  $p < .005$ ) and each component of the therapeutic alliance (client working capacity, client commitment, working strategy consensus and therapist understanding and involvement) had significant, negative, relationships with suicide attempts over 1 year of psychotherapy (Bedics et al., 2015). Furthermore, such relationships were further scrutinised for therapies with and without a specific focus on suicide prevention, respectively. For therapists who delivered a suicide-focussed psychotherapy, it appeared that the overall therapeutic alliance ( $b = -.34$ ,  $SE = .14$ ,  $z = -2.38$ ,  $p < .02$ ), along with client commitment ( $b = -.28$ ,  $SE = .11$ ,  $z = -2.56$ ,  $p < .02$ ) and client working capacity ( $b = -.26$ ,  $SE = .12$ ,  $z = -2.26$ ,  $p < .03$ ), had a significant, negative, relationship with suicide attempts over 1 year of psychotherapy (Bedics et al., 2015). Therapist's perception of their understanding and involvement was not related to frequency of client suicide attempts for therapists conducting suicide-focussed psychotherapy. However, when therapists provided a psychotherapy which was not specifically focussed on suicide prevention, an increase in therapist perception of their understanding and involvement ( $b = -.43$ ,  $SE = .14$ ,  $z = -3.00$ ,  $p < .003$ ) and overall perception of the alliance ( $b = -.27$ ,  $SE = .14$ ,  $z = -1.93$ ,  $p = .05$ ) significantly predicted a reduction in suicide attempts over 1 year of psychotherapy (Bedics et al., 2015).

Similarly, a third study found that improvements in both client ( $\chi^2(8) = 25.68$ ,  $p < .001$ ) and therapist ( $\chi^2(8) = 17.26$ ,  $p < .05$ ) perceptions of the

therapeutic alliance were associated with a significant reduction in suicidal behaviour over 7 months of psychotherapy (Shearin & Linehan, 1992). However, the definition of suicidal behaviour in this study (Shearin & Linehan, 1992) was not provided.

The current literature tentatively suggests that one component of the client perception of the therapeutic alliance (working capacity) and therapist perceptions of the overall therapeutic alliance predict a reduction in subsequent suicide attempts over the course of psychotherapy. Additionally, the results of one study demonstrate that different components of the therapist rated therapeutic alliance (i.e., therapist understanding and involvement, client commitment and client working capacity) were related to a reduction in suicide attempts when therapists used different therapeutic modalities. Two out of the three of the studies were considered as high quality, with scores of 5 (Bedics et al., 2015) and 6 (Hirsh et al., 2012), respectively. Common, strong features of these studies include the use of RCT designs for data collection. Therapists were trained to adhere to a specific psychotherapy manual and were assessed for psychotherapy adherence with a validated scale, along with regular supervision. Moreover, therapeutic alliance and suicidal experience measures were both reliable and valid. Whereas, the third study, which was deemed poor quality, achieved a score of 1 out of 7 on the quality assessment (Shearin & Linehan, 1992).

## **General discussion**

The aim of the present systematic review was to examine the nature of the relationship between the therapeutic alliance in psychotherapy and suicidal experiences by investigating suicidal ideation and attempts. This was achieved by examining the influence of suicidal experiences pre-therapy upon

the therapeutic alliance, the relationship between suicidal experiences and the therapeutic alliance when both measured at the same time-point during psychotherapy, and also by considering how the therapeutic alliance impacts upon suicidal experiences occurring post-therapy. Overall, included studies were heterogeneous and provided varied evidence for the relationship between the therapeutic alliance and suicidal experiences as predictors, correlates and outcomes. However, it is important to note that due to the largely correlational nature of the findings, lack of control for confounding variables, several small effect sizes, and few studies using path analyses or time series analyses, the direction of causality between the therapeutic alliance in psychotherapy and suicidal experiences in the current review cannot be inferred (Jones & Wang, 2005; Rothman & Greenland, 2005).

The current review provides further evidence on the relationship between the therapeutic alliance and suicidal experiences to support and build upon the findings of a systematic review by Dunster-Page and colleagues (2017). A consistent message is that the therapeutic alliance is related to suicidal ideation. However, the current review identifies several studies which contradict this finding, although, this may be due to methodological flaws. Furthermore, the current review provides a novel summary of the literature which explores the relationship between suicidal ideation and attempts prior to therapy and the therapeutic alliance. Additionally, the current review quality appraises included studies across some similar categories (e.g., confounding variables and retention) to the Dunster-Page et al (2017) review, but also provides a unique appraisal by considering therapist training and fidelity, safety of psychotherapy delivery and the generalisability of each study.

The current review suggests that some clients who experience suicidal ideation at the time of, and prior to, the initial psychotherapy session may experience barriers to forming and maintaining a therapeutic alliance, most noticeably when located on an inpatient ward. Furthermore, previous suicide attempts may influence the formation of the therapeutic alliance during the first session of a psychotherapy designed for people who had recently attempted suicide but may not hinder the development of a therapeutic alliance as psychotherapy progresses. Possible explanations could be that clients may initially have concerns about building trust and how confidentiality is maintained during psychotherapy in the context of suicidal thoughts and acts (Awenat et al., 2018; Blanchard & Farbar, 2020), both of which are integral to developing and maintaining an alliance with a therapist. Furthermore, more severe or frequent suicidal experiences have been found to be related to higher rates of self-stigma in people experiencing a range of mental health problems (Latalova, et al., 2014). Given such self-stigmatising beliefs, clients may be apprehensive about the potential emotional and practical consequences of disclosing suicidal experiences (Awenat et al., 2018; Blanchard & Farbar, 2020). This suggests that therapists need to take particular care in discussing confidentiality limits with clients. Furthermore, therapists should provide reassurance to clients that they need only discuss what they initially feel comfortable with disclosing (Pratt et al., 2016).

In contrast, experiences of suicidal ideation and previous suicide attempts did not seem to influence the formation of the therapeutic alliance early on in some psychotherapies. Similarly, qualitative findings suggested that directly addressing suicidal experiences may not detrimentally influence the development of the therapeutic alliance, but highlighted that sensitive listening, responding at appropriate times and creating a safe space for

therapeutic discussion were the key facilitators of therapeutic alliance formation as perceived by both clients and therapists (Østlie, Stänicke & Haavind, 2018). Therefore, the present review findings are comparable to the wider therapeutic alliance literature which presents mixed findings on the impact of the severity of mental health problems and the strength of therapeutic alliance throughout the course of psychotherapy (Strunk et al., 2010; Zilcha-Mano et al., 2014).

The therapeutic relationship has been identified by both adolescents and adults with suicidal experiences as an important aspect of psychotherapies (Awenat et al., 2017; Paulson & Everall, 2003; Winter et al., 2014). The present review highlights that a robust therapeutic alliance early on in psychotherapy may be related to fewer suicidal thoughts at 6, 12 and 24 months follow up time-points and a reduction in suicidal ideation at 6 and 12 months follow up and over a median of 4.19 years. Furthermore, the alliance mid-way through psychotherapy may be related to fewer suicidal thoughts and fewer suicide attempts at psychotherapy cessation (after 12 months). Additionally, improvements in alliance over the course of psychotherapy may be related to a reduction in suicide attempts over 7 to 12 months (mid-way through to end of psychotherapy). These findings are consistent with the wider alliance-outcome literature, which has found that the strength of the therapeutic alliance is related to positive clinical outcomes upon psychotherapy cessation in Psychodynamic, Interpersonal Therapy and CBT (Flückiger et al., 2018). Conversely, this is not a consistent finding since the early therapeutic alliance measured over the course of some psychotherapies was not related to suicidal ideation or frequency of suicide attempts (Bryan et al., 2012; Goldman & Gregory, 2009; Hirsh et al., 2012; Plöderl et al., 2017; Rufino & Ellis, 2018). Possible explanations have been explored in the

present review and such findings may be attributed to a number of methodological limitations. For instance, and perhaps most importantly, some studies had insufficient power to detect a significant relationship. Other studies used sub-optimal cohort designs, and many were not transparent in assessment of therapist training, fidelity and supervision. This could introduce ambiguity as to how the alliance was developed, maintained and how it is used to facilitate change in psychotherapy may vary between therapeutic approaches, e.g., DBT (Rizvi, 2011) and psychodynamic therapy (Weinberg et al., 2011).

In terms of the therapist perception of the therapeutic alliance, only three studies measured this perspective (Bedics et al., 2015; Haddock et al., 2019; Shearin & Linehan, 1992). One study also included an observational subscale related to indicators of therapist views of the therapeutic alliance (Perry et al., 2013). All four of these studies evaluated psychotherapies which focussed on reducing suicidal experiences. Therapists felt able to form a better therapeutic alliance with those whom had experienced more severe suicide potential prior to psychotherapy. The therapist view of the overall therapeutic alliance was not only related to a subsequent reduction in suicide attempts, but some specific components of the therapeutic alliance appeared to be more strongly related to an amelioration in suicide attempts. For instance, in a suicide-specific psychotherapy, greater emphasis was placed upon service user commitment and service user working capacity, whereas in a psychotherapy not focussed solely on suicidal experiences, therapist understanding, and involvement were highlighted (Bedics et al., 2015). The aforementioned components of the therapeutic alliance may be indicative of different foci across different therapeutic modalities and so may influence



how the therapeutic alliance is perceived by therapists (e.g., DBT [Rizvi, 2011] and psychodynamic therapy [Weinberg et al., 2011]).

### **Strengths, limitations, clinical implications and future directions**

There are three key strengths of the current review. First, the review presents a comprehensive appraisal of the literature examining the relationship between therapeutic alliance in psychotherapy and suicidal experiences. Second, it was inclusive of all individuals who have suicidal experiences and all individual and group psychotherapies, with no restrictions placed on therapeutic alliance and suicidal experience measures. Third, efforts were made to identify any potential papers missed in the systematic search by forwards and backwards citation chaining, which ensured a thorough search was conducted. Furthermore, the authors requested data analyses from peer-reviewed studies, which may help to alleviate publication and outcome reporting biases (Sterne et al., 2017) and subsequent “file-drawer” issues (Rosenthal, 1979). This inclusivity ensured that as much of the available literature as possible was reviewed. Despite such efforts, the authors acknowledge that not all corresponding authors were able to provide analyses between therapeutic alliance and suicidal experiences and grey literature such as dissertations and position papers, were not included. This suggests that there may be literature missing from the review due to publication and outcome reporting biases along with the “file-drawer” issue (Rosenthal, 1979). In order to overcome such issues, there is an opportunity to develop existing studies, including RCTs, which examine the feasibility or effectiveness of psychotherapies and ensure that the therapeutic alliance is both measured and examined in relation to suicidal experiences. It is recommended that the relationship between therapeutic alliance and suicidal

experiences is reported as part of the main outcome paper of psychotherapy trials. Moreover, no studies measured suicide plans. Therefore, the relationship between the therapeutic alliance in psychotherapy and suicidal experiences such as urges, and plans should be an area to investigate further in future research studies.

A variety of populations, psychotherapies, and therapeutic alliance and suicidal experience measures contributed to difficulties in interpreting and synthesising this literature. Additionally, there were a variety of sample sizes across studies, with just under one third of studies involving a small sample size ( $n < 50$ ; Kim, 213) and so possibly being underpowered to detect an effect. Such heterogeneity of studies, along with small sample sizes, poses an issue for generalisability. The search was also restricted to English language papers due to limited resources available to translate other languages to English. Therefore, the aforementioned limitations should be taken into account when considering whether these systematic review findings apply to current practice across different health care systems.

Since people with non-affective psychosis, bipolar disorder and eating disorders were under-represented in the present review, little is known about the relationship between the therapeutic alliance in psychotherapy and suicidal experiences in these populations. The literature has not focussed on the relationship between the therapeutic alliance in psychotherapy and bipolar disorder symptoms (Flückiger et al., 2018). However, there is a well-established evidence-base which has explored the therapeutic alliance with people who have experience of psychosis (Shattock et al., 2018) and eating disorders (Graves et al., 2017), respectively. A recent narrative review posited that a robust therapeutic alliance in psychotherapy perceived by people with non-affective psychosis may be associated with a reduction in distressing

symptoms of psychosis and increased self-esteem (Shattock et al., 2018). Furthermore, a recent meta-analysis of 20 studies found a reciprocal relationship between eating disorder symptoms and the therapeutic alliance (Graves et al., 2017). More specifically, improvement in eating disorder symptoms early or mid-way through psychotherapy predicted a more robust therapeutic alliance and the early/mid alliance predicted subsequent improvement in eating disorder symptoms (Graves et al., 2017). Furthermore, suicidal experiences are prevalent in people with non-affective psychosis (Taylor et al., 2010), bipolar disorder (Owen et al., 2018) and eating disorders (Smith, Zuromski & Dodd, 2018). Therefore, given the lack of representation of people with non-affective psychosis, bipolar disorder and eating disorders in the current review and to address such a gap in the literature, it is recommended that future studies investigate the therapeutic alliance in psychotherapy in relation to suicidal experiences in people with non-affective psychosis, bipolar disorder and eating disorders.

As highlighted by the quality appraisal, which was a key component of this review, an inherent limitation is the lack of reporting on how safe psychotherapies were to deliver. It is important to consider the safety of the therapeutic relationship in psychotherapies for clients with suicidal experiences by assessing psychological distress, self-harm, suicide attempts and hospitalisation to see if there is sufficient evidence to suggest it is related to the psychotherapy. Issues such as harmful client-therapist interactions and unresolved ruptures in the therapeutic alliance, along with therapists not recognising and repairing therapeutic alliance ruptures could be risk factors for adverse reactions to psychotherapy (Parry et al., 2016). This reinforces the notion of the therapeutic alliance as integral to therapeutic outcomes. As per the Good Clinical Practice guidelines (World Health Organisation; WHO,

2002) and UK policy framework for health and social care research (Heath Research Authority; HRA, 2017), a study specific procedure should be developed and implemented to identify, assess and report adverse and serious adverse events in relation to the therapeutic alliance in psychotherapy. Furthermore, the CONSORT (Consolidated Standards of Reporting Trials) statement outlines specific guidance on reporting adverse events in peer-reviewed publications (Ioannidis et al., 2004; Moher et al., 2010). As a whole, the majority of studies did not report on trial deaths, whether that was death by suicide or other causes, even to say that there were no deaths in the trial. Three studies reported whether death by suicide had occurred or not (Gregory & Goldman, 2009; Gysin-Maillart et al., 2016; Perry et al., 2013); although, there was no reported assessment of research or psychotherapy relatedness. Only one study followed WHO, HRA and CONSORT guidelines and provided a comprehensive account of recording adverse events and assessing relatedness to trial procedures and psychotherapy (Haddock et al., 2019). Therefore, it is recommended that researchers define adverse events (AEs), outline the procedure for assessing psychotherapy and therapeutic alliance relatedness and ensure AEs are reported for psychological intervention and control psychological intervention groups, explicitly state if AEs have been identified or not, and identify in the protocol, assess and report specific AEs which could be related to the psychotherapy and/or therapeutic alliance (Duggan, Parry, McMurrin, Davidson & Dennis, 2014). Adherence to such recommendations will ensure transparency and the safety of participants with suicidal experiences in psychotherapy research studies.

There was limited reporting on therapist characteristics in the studies included in the present review. Therefore, research examining influence of therapist factors on the therapeutic alliance and how this in turn impacts on

outcome, is lacking. A meta-synthesis found that facilitators of effective psychotherapy as perceived by both clients and therapists include therapists showing respect, understanding and being non-judgemental (Winter et al., 2014). Such qualities reflect Roger's (1957, 1965) seminal work and the person-centred literature whereby the constructs of empathy (Elliott et al., 2018), unconditional positive regard (Farber et al., 2018) and genuineness (Kolden et al., 2018) have been extensively examined in empirical studies and linked to psychotherapy outcome. However, it is also important to consider how therapist factors such as age, gender identity, ethnicity, experience and qualifications affect appraisals of the alliance from both client and therapist perspectives (Behn, Davanzo & Errazuriz, 2018; Cardemil & Battle, 2003; Chang & Yoon, 2011; Meier, Donmall, Barrowclough, McElduff & Heller, 2005). Since only 3 out of 17 studies included in the present review examined the therapist perception of the therapeutic alliance and the relationship with suicidal experiences prior to psychotherapy, during psychotherapy and following psychotherapy, it is recommended that studies consistently measure and examine both client and therapist perception of the therapeutic alliance. Furthermore, it appears there is a remarkable omission from the literature whereby studies have not examined the influence of therapist characteristics (i.e., age, gender, ethnicity, professional background, length of experience) on the formation and maintenance of the therapeutic alliance in the context of discussing suicidal thoughts and acts in psychotherapy. Therefore, future research should investigate whether therapist characteristics interact with the relationship between therapeutic alliance and suicidal experiences prior to psychotherapy, during psychotherapy and after psychotherapy.

Although there are contradictory findings as to whether suicidal ideation and behaviour prior to psychotherapy influenced the client perception of the therapeutic alliance, it is important for therapists to be mindful of the possibility that suicidal experiences prior to psychotherapy could act as a barrier for clients in building a therapeutic alliance in the first session (Gysin-Maillart et al., 2017; Plöderl et al., 2017). Such difficulties in forming a therapeutic alliance may be due to client concern about building trust, maintenance of confidentiality, the power dynamic and imbalance of control, and both the perceived emotional and practical consequences of discussing suicidal experiences (Awenat et al., 2018; Blanchard & Farbar, 2020; Jobes & Ballard, 2011). Moreover, client perceptions and expectations of relationships may also influence the therapeutic alliance (Zilcha-Mano, 2017). Furthermore, a number of key aspects of client characteristics should also be considered, namely, age, gender identity, sexual orientation, ethnicity, employment status and education. All of these factors may influence motivation to engage in and complete psychotherapy and form meaningful therapeutic relationships (Behn et al., 2018; Chang & Yoon, 2011; Meier et al., 2005; Sharf, Primavera & Diener, 2010; Wintersteen, Mensinger & Diamond, 2005). Therefore, it is imperative that therapists are not only trained in engaging clients and building the therapeutic alliance, but also attune to client perceptions of relationships and concerns about discussing suicidal experiences during psychotherapy. Moreover, since there are cultural differences in both the perception of suicidal experiences (Colucci & Too, 2014) and psychotherapy (Edge & Lemetyinen, 2019) therapists should undergo necessary training to increase cultural competence by learning about and reflecting on cultural and ethnic issues. Most notably, the focus should be on alleviating the potential impact differences in ethnicity, sexual

orientation, gender identity and socioeconomic status between the therapist and client may have on building a therapeutic alliance and therapeutic change (Behn et al., 2018; Cardemil & Battle, 2003; Chang & Yoon, 2011; Vasquez, 2007). There may also be inherent power imbalances in a client-therapist relationship which could influence the therapeutic alliance. Such power imbalances may be amplified when working with clients with suicidal experiences due to expectations imposed by society which suggest that it is the therapists' responsibility to keep clients safe (Jobes & Ballard, 2011). Through both training and supervision, it is recommended that therapists take particular care in discussing confidentiality limits with clients, along with placing emphasis on engagement and fostering trust throughout psychotherapy (Pratt et al., 2016; Rizvi, 2011; Tarrier et al., 2013). More specifically, therapists should work to dispel myths about potential disclosures of suicidal experiences, along with addressing, and/or openly considering any difficulties clients may foresee in relation to developing a therapeutic relationship in the context of suicide, in order to reassure clients and promote a safe environment to discuss suicidal experiences. Furthermore, training and supervision should be used to ensure therapists are aware of potential power imbalance and attempt to create an egalitarian power dynamic by taking an empathetic and collaborative approach, where clients are encouraged to share their story (Elliott & Greenberg, 2007; Jobes & Ballard, 2011; Pratt et al., 2016).

## **Conclusions**

In summary, the current review provides an overview of the relationship between the therapeutic alliance and suicidal experiences as correlates, predictors and outcomes, across a range of therapeutic modalities.

The results highlight that it remains unclear how much impact suicidal experiences prior to and during psychotherapy may have upon the formation and maintenance of the therapeutic alliance. However, there is stronger evidence to suggest the therapeutic alliance during psychotherapy may be related to a reduction in suicidal experiences. The present review highlighted several gaps and inconsistencies in the literature and made several recommendations for clinical practice and future research.

Few psychotherapy and suicidal experience studies have measured the therapeutic alliance, and even fewer have examined the relationship between the therapeutic alliance in psychotherapy and suicidal experiences. Future psychotherapy studies should more consistently examine the relationship between the therapeutic alliance and suicidal experiences (prior to, during and after psychotherapy).



## Study 2: The relationship between therapeutic alliance and suicidal experiences in people with psychosis receiving Cognitive Behavioural Suicide Prevention therapy

This paper has been prepared for submission to Clinical Psychology and Psychotherapy. Tables and figures have been inserted into the main text for ease of reading. Extra contextual information has been provided for the purpose of the thesis.

## **Abstract**

Few studies have examined the relationship between the therapeutic alliance in psychotherapy and suicidal experiences. No studies have examined this relationship with people with non-affective psychosis. The present study investigated the therapeutic alliance in Cognitive Behavioural Suicide Prevention therapy for psychosis and suicidal experiences. Participants with non-affective psychosis and suicidal experiences were recruited from the intervention arm of the Cognitive Approaches to coMbatting Suicidality (CARMS) trial. Self-reported suicidal ideation, suicide plans, suicide attempts, depression and hopelessness were collected from participants at baseline. Suicidal experience measures were collected again post-therapy. Therapeutic alliance ratings were taken from clients and therapists at session 4 of psychotherapy. Dose of psychotherapy was documented in number of minutes of psychotherapy. There were no relationships between suicidal ideation, nor suicide plans, at baseline and the therapeutic alliance. However, clients who had recently attempted suicide prior to psychotherapy viewed the alliance as stronger than those who had not. A strong, client viewed, therapeutic alliance predicted a reduction in suicidal ideation after controlling for depression and hopelessness. Number of minutes spent in psychotherapy amplified the predictive relationship between alliance and a reduction in suicidal ideation. This is the first study to examine the relationship between the therapeutic alliance in psychotherapy and suicidal experiences in people with non-affective psychosis. Clinical implications of the findings suggest that training and supervision for therapists should place emphasis on building and maintaining a strong therapeutic alliance, especially whilst working with clients with suicidal experiences and non-affective psychosis.

## Trial Registration

ClinicalTrials.gov Identifier: NCT03114917

ISRCTN registry: ISRCTN17776666

## Key Practitioner Message

- Therapists and clients could be reassured that despite the stigma surrounding talking about suicide, client's suicidal experiences pose no barrier to developing a robust therapeutic alliance in psychotherapy.
- A strong therapeutic alliance is related to a reduction in suicidal ideation following psychotherapy, over and above general depression and hopelessness.
- The relationship between a robust therapeutic alliance and reduction in suicidal ideation increases with greater dose of psychotherapy, however, only up to a point (i.e., approximately 15.50 hours of psychotherapy).
- Therapists should be provided with training and supervision which emphasises building and maintaining a robust therapeutic alliance, especially with clients with suicidal experiences and non-affective psychosis.

## Keywords

Therapeutic alliance; suicide; psychotherapy; psychosis; dose of psychotherapy

## **Introduction**

Suicide is a major global health concern and is the leading cause of death in people with non-affective psychosis (Bolton, Gooding, Kapur, Barrowclough & Tarrrier, 2007; Saha, Chant, & McGrath, 2007). Suicidal experiences including thoughts, urges, plans, attempts and death are known to be amplified in those with non-affective psychosis (Hawton & van Heeringen, 2009; Zaheer et al., 2018). Between 26% and 37% of people with non-affective psychosis have attempted suicide in their lifetime and many more have thought about and/or planned to take their own life (Bertelsen et al., 2007; Carlborg, Jokinen, Nordstrom, Jonsson & Nordstrom, 2010; Klonsky, Kotov, Bakst, Rabinowitz & Bromet, 2012). Therefore, it is especially important to understand risk factors for suicidal experiences in people with non-affective psychosis in order to prevent suicide. Factors such as male sex, age, current suicidal ideation, previous suicide attempts, substance misuse, depression and mental health hospital admissions have been found to be significant risk factors for death by suicide in people with non-affective psychosis (Bertelsen et al., 2007; Carlborg et al., 2010; Chapman et al., 2015; Hor & Taylor, 2010; Zaheer et al., 2020). Additionally, depression and hopelessness are well-known predictors of suicidal ideation and suicide attempts, including those with non-affective psychosis (Bornheimer, 2016; Johnson et al., 2010; Klonsky et al., 2012; Palmier-Claus, Shryane, Taylor, Lewis & Drake, 2013; Tarrrier et al., 2006). More severe experiences of psychosis have also been associated with more severe suicidal ideation (Fialko et al., 2006; Yates et al., 2019) and suicidal behaviours (Tarrrier et al., 2006; Yates et al., 2019). Both suicidal ideation and plans are known to be associated with immense psychological pain, which can lead to

suicide attempts and greater risk of suicide death (Bertelsen et al., 2007; O'Connor & Kirtley, 2018; TARRIER et al., 2013).

Talking psychotherapies have been used to address suicidal experiences (Asarnow et al., 2011; Brown et al., 2005; Davidson et al., 2006; Gysin-Maillart et al., 2016; Linehan et al., 2006) and symptoms of non-affective psychosis (Bird et al., 2010; Turner, Gaag, Karyotaki & Cuijper, 2014), respectively. Some evidence, which includes a meta-analytic review, has indicated that cognitive-based therapies may be effective in reducing suicidal experiences, including those with non-affective psychosis (Bateman, Hanson, Turkington & Kingdon, 2007; TARRIER et al., 2008). Building on this work and based on recent transdiagnostic psychological models of suicidal experiences (Joiner & Silva, 2012; Johnson et al., 2008; Van Orden et al., 2010; Williams, 1997), some work has been dedicated to addressing both suicidal experiences and non-affective psychosis in a psychotherapeutic context. One suicide-focused psychotherapy is Cognitive Behavioural Suicide Prevention therapy for people with psychosis (CBSPp; TARRIER et al., 2013, 2014). CBSPp therapy is evidence-based and grounded in contemporary theoretical psychological models of pathways to suicidal thoughts and behaviours, specifically, the Cry of Pain model (Williams, 1997) and the Schematic Appraisals Model of Suicide (Johnson et al., 2008). Two pilot randomised controlled trials found that this talking psychotherapy, CBSPp, was feasible to deliver, acceptable, and an effective treatment for people with non-affective psychosis at risk of suicide, in the community (TARRIER et al., 2014) and inpatient ward (Haddock et al., 2019). Therefore, there is a growing evidence-base for talking psychotherapies which are tailored specifically for suicidal experiences in the context of non-affective psychosis.

Two crucial psychotherapy process factors to consider when examining the effects of psychotherapy in people with non-affective psychosis and suicidal experiences are the therapeutic alliance and ‘dose’ of psychotherapy. The therapeutic alliance has been defined as the development of the client-therapist bond, along with collaborative agreement on goals and tasks for psychotherapy (Bordin, 1979). It is widely recognised that such a relationship will have been established by session 4 of weekly, psychotherapy (Goldsmith et al., 2015). Furthermore, a wealth of evidence has indicated that a therapeutic alliance established early on in psychotherapy, including, psychodynamic, interpersonal and cognitive behavioural therapies, is related to positive outcomes for people with a range of mental health problems (Flückiger et al., 2018). For people with psychosis, two recent reviews of the literature showed that if clients and therapists perceived the therapeutic alliance as strong, then this was related to improvements in symptoms of psychosis (Browne et al., 2019; Shattock et al., 2018). However, some studies have failed to find evidence for such a relationship (Browne et al., 2019). Nevertheless, a strong therapeutic alliance, viewed by the client, was related to increased feelings of hope for the future, desire to help-seek and quality of life (Browne et al., 2019).

In relation to the therapeutic alliance in psychotherapy with people who have suicidal experiences, two other factors may be key. First, the effect that suicidal experiences prior to entering psychotherapy has on the development of the client-therapist alliance. This is important to consider as such experiences are often associated with high levels of self-stigma, which could act as a barrier to disclosure and discussions in talking psychotherapy about suicide (Awenat et al., 2018; Blanchard & Farbar, 2020; Latalova et al., 2014). The literature so far remains inconclusive as to whether suicidal

experiences prior to psychotherapy may impact upon the therapeutic alliance during psychotherapy (Huggett, Gooding, Haddock & Pratt, 2020). However, there is some evidence to suggest that a history of suicide attempts may negatively impact on the formation of the therapeutic alliance in the first session, but this impact could be alleviated by the third session of a brief suicide-focussed psychotherapy (Gysin-Maillart et al., 2017). The second factor to consider is the effect that the client-therapist alliance has upon the outcome of reducing suicidal experiences. For example, a stronger therapeutic alliance in psychotherapy could be related to a greater reduction in suicidal thoughts post-therapy (Huggett et al., 2020). Therefore, the therapeutic alliance in psychotherapy may be an essential facilitator of improved outcomes for people with suicidal experiences and psychosis, respectively. That said, there appears to be a major omission in the literature of studies examining the relationship between the therapeutic alliance in psychotherapy and suicidal experiences, i.e., ideation, plans and attempts in people with non-affective psychosis (Huggett et al., 2020).

The effect of dose of psychotherapy on therapeutic outcomes is important. However, there is a dearth of literature on the optimum dose for psychotherapy for mental health problems despite some evidence suggesting that a greater number of sessions is linked with more positive client outcomes (Goldsmith et al., 2015; Howard et al., 1986; Saxon et al., 2017). It is likely this is variable; however, such information may be crucial for planning and delivering of services. Dose of psychotherapy comprises several components, such as, number, duration, quality and/or content of therapy sessions (Howard et al., 1986). Attempts have been made to define an optimum dose of Cognitive Behavioural Therapy (CBT) for people with psychosis and suicidal behaviour, separately. For instance, United Kingdom (UK) clinical guidelines

suggest that people with psychosis should receive a minimum of 16 sessions of CBT (National Institute for Health and Care Excellence [NICE], 2014). It is also recommended that people with suicidal behaviour receive between 3 and 12 sessions of a psychotherapy specifically aimed at reducing suicidal behaviour (NICE, 2013).

Dose of psychotherapy has also been linked to the strength of the therapeutic alliance. More specifically, in CBT for psychosis a strong, client perceived, therapeutic alliance and a higher number of sessions attended were related to improved symptoms of psychosis (Goldsmith et al., 2015). However, if clients perceived the therapeutic alliance as poor, and also attended a higher number of sessions, this was related to increased symptoms of psychosis (Goldsmith et al., 2015). Such findings suggest that assessing the strength of the therapeutic alliance when examining the optimum dose of psychotherapy is critical to preventing potential harm in psychotherapy. A clear limitation of the literature is that no studies have investigated the potential role of 'dose' of psychotherapy within the relationship between the therapeutic alliance in psychotherapy and suicidal experiences (Huggett et al., 2020). Relatedly, another fundamental factor is whether the content or quality of psychotherapy sessions and the therapeutic alliance are related to poorer, or even harmful, outcomes. Therapists and researchers should routinely monitor and assess whether adverse effects and/or harm in psychotherapy has occurred (Parry et al., 2016). Few studies have monitored and assessed the potential adverse effects of psychotherapy and the therapeutic alliance in psychotherapy with people with suicidal experiences and psychosis (Huggett et al., 2020).

Although it is encouraging to see that some studies have focussed on the pertinent issue of the therapeutic alliance in relation to either suicidal



experiences or psychosis, little is known about this relationship during the delivery of a suicide-focussed psychotherapy for people also experiencing non-affective psychosis. The present study was a secondary analysis of data collected from participants with non-affective psychosis who were randomly allocated to the intervention arm of the Cognitive AppRoaches to coMbatting Suicidality (CARMS) two-armed RCT, which compared treatment as usual (TAU) plus CBSPP therapy to TAU alone (Gooding et al., 2020). CBSPP was developed from contemporary models of the pathways to suicidal thoughts and acts (Johnson et al., 2008). CBSPP therapy involves a formulation-based approach, where initial sessions place emphasis on developing a therapeutic relationship with clients. During early sessions and throughout psychotherapy, therapists aim to create a collaborative and trusting environment that enables clients to feel safe to engage in conversations about their suicidal experiences. Suicidal experiences, such as suicidal thoughts and acts, are explored in relation to clients' experiences of psychosis, current problems and life events. Cognitive-behavioural techniques, i.e., attentional control, appraisal restructuring, problem-solving skills training, behavioural techniques and schema-focussed work are then used in collaboration with the client to alter negative perceptions of emotion regulation, social support and interpersonal problem solving, which, in turn, aims to alleviate appraisals of being hopeless, defeated and trapped (Haddock et al., 2019; Gooding et al., 2020; Pratt et al., 2015, 2016; Tarrier et al., 2013, 2014).

The aim of the current study was to investigate the relationship between the therapeutic alliance in CBSPP and indicators of suicide ideation, plans and attempts in a population who experience non-affective psychosis taking part in an RCT. More specifically, three research questions were posed, 1. Is there a relationship between suicidal experiences prior to starting

psychotherapy and the therapeutic alliance? 2. Does the therapeutic alliance predict suicidal experiences measured post-therapy? 3. Does the number of minutes of CBSPP therapy session attendance amplify the relationship between the therapeutic alliance and suicidal experiences post-therapy?

## **Method**

### *Sample size and power calculation*

Power was calculated and sample size estimated for correlation and regression analyses respectively using G\*Power 3.1.

### *Pearson's correlation analyses*

Existing studies reported a median effect size of  $r = .33$  for correlations between alliance and suicidal ideation and/or attempts (Bryan et al., 2012; Goldman & Gregory, 2009; Gysin-Maillart et al., 2016, 2017; Haddock et al., 2019; Ibrahim et al., 2018; Perry et al., 2013; Plöderl et al., 2017; Shearin & Linehan, 1992; Stratton et al., 2020; Turner, 2000). It was estimated that with a medium effect size of  $r = .33$ , statistical power level of .8 and alpha level of  $p = .05$ , a minimum of 69 participants were required to test the hypotheses.

### *Multiple hierarchical linear regression*

Multiple linear regression models which have examined the relationship between alliance and suicidal ideation and/or attempts report a median R squared of .325 (Gysin-Maillart et al., 2016, 2017; Turner, 2000). It was estimated that with a medium effect size of  $f^2 = 0.15$ , statistical power level of .8, alpha level of  $p = .05$  and 4 IVs (therapeutic alliance, suicidal

ideation, hopelessness, depression), a minimum sample size of 85 was required.

### ***Study Design***

In order to examine the relationship between pre-therapy levels of and therapeutic alliance at session 4, suicidal ideation, plans and attempts at baseline were predictors (IVs) and the therapeutic alliance at session 4 was the outcome variable (DV).

To examine the effect of the alliance on suicidal experiences at psychotherapy cessation the therapeutic alliance at session 4 was the predictor variable and suicidal ideation, plans and attempts upon psychotherapy cessation were the outcome variables. Baseline suicidal ideation, hopelessness and depression were control variables. Dose of psychotherapy, as measured by total number of minutes of psychotherapy attended, was a moderator variable.

Session 4 was selected to measure the therapeutic alliance as it is well-established that a therapeutic alliance will have been developed by session 4 of weekly psychotherapy (Goldsmith et al., 2015).

Depression and hopelessness were chosen as control variables as they are well-known, strong, predictors of suicidal ideation and attempts, including for people with non-affective psychosis (Bornheimer, 2016; Johnson et al., 2010; Klonsky et al., 2012; Palmier-Claus et al., 2013; Tarrier et al., 2006).

### ***Participants***

The target sample was 101 people with non-affective psychosis and recent suicidal experiences, who were in the treatment arm of the CARMS

trial (Gooding et al., 2020). Eligibility criteria for the CARMS trial and, therefore, also for the current study were: i. aged 18 or over, ii. English-speaking, iii. capacity to provide informed consent, iv. having suicidal experiences within the previous 3 months, v. meeting diagnostic criteria for an ICD-10 diagnosis relating to non-affective psychosis (F20 – F29) and vi. in contact with NHS, UK, mental health services (e.g., community or inpatient mental health care teams, early intervention teams, crisis teams, home treatment teams). Potential participants were excluded if they had i. dementia, or an organic brain disorder, ii. difficulty completing assessments due to language barriers and iii. were currently taking part in another clinical trial.

### ***Intervention***

Clients were offered up to 24, one-to-one weekly sessions of CBSPP (Gooding et al., 2020; Tarrrier et al., 2013), lasting approximately 50 minutes each.

### ***Therapists***

Therapists who delivered CBSPP therapy were 8 individuals who met the British Association for Behavioural & Cognitive Psychotherapies standards for CBT accreditation and were also a social worker, mental health nurses, or clinical psychologists by professional training. Therapists were aged between 34 – 60 years, and seven therapists self-identified as Caucasian, three as female and four as male. Information about self-reported ethnicity and gender were not available for one therapist. Length of experience post-qualification was an average of 9.90 years (Range = 0.5 – 17 years). Therapists were trained to deliver the CBSPP therapy using a treatment

manual developed by the authors. Adherence to the psychotherapy protocol was maintained through weekly group supervision, monthly individual supervision and regular peer supervision. Group and individual supervision sessions were facilitated by two senior Clinical Psychologists. Therapy fidelity to the CBT approach was monitored through supervision and using session recordings and ratings guided by the Cognitive Therapy Scale for Psychosis (Haddock et al., 2001).

### ***Measures***

*Working Alliance Inventory – Short Revised (WAI-SR; Hatcher & Gillapsy, 2006; Horvath and Greenburg, 1989)*

Both client and therapist versions of the WAI-SR self-report questionnaire were used in the current study. The client and therapist versions comprised of 12 and 10 items, respectively. Each item was rated on a 5-point Likert scale, where 1 (seldom) is the lowest and 5 (always) is the highest. Overall high scores suggest that the client-therapist relationship is strong. Items reflect three components of the alliance, namely, goals (e.g., ‘\_\_\_\_\_ and I collaborate on setting goals for my therapy’), tasks (e.g., ‘what I am doing in therapy gives me new ways of looking at my problem’) and bond (e.g., ‘\_\_\_\_\_ and I respect each other’; Bordin, 1979; Hatcher & Gillapsy, 2006; Horvath and Greenburg, 1989). The client WAI-SR demonstrates excellent internal consistency ( $\alpha = .91$  to  $.92$ ) and good validity ( $r = .74$  to  $.80$ ; Hatcher & Gillapsy, 2006). The therapist WAI-SR also has excellent reliability ( $\alpha = .94$ ) good validity ( $r = .79$ ; Hatcher, Lindqvist & Falkenström, 2020). In the current study, the WAI-SR displayed excellent reliability for both client ( $\alpha = .91$ ) and therapist ( $\alpha = .85$ ) versions of the scale, respectively.

*Adult Suicide Ideation Questionnaire (ASIQ; Reynolds, 1991)*

The ASIQ has 25 self-report items (e.g., 'I thought about killing myself'), rated on a 7-point Likert scale, where 0 (I never had this thought) is the lowest and 6 (almost every day) is the highest possible score. Overall, high scores are indicative of an individual experiencing a higher frequency and severity of suicidal thoughts. The ASIQ demonstrates excellent internal reliability in a population with mental health related diagnoses, who had previously attempted suicide ( $\alpha = .97$ ; Reynolds, 1991). In the current study, the ASIQ demonstrated excellent internal reliability ( $\alpha = .94$ ).

*Self-reported frequency of suicide plans and attempts*

Participants were asked to self-report frequency of suicide plans and suicide attempts over the last 6 months. Specific questions asked included, 'number of episodes when you have had a plan to take your life' and suicide attempts 'number of suicide attempts in the last 6 months'.

*Beck Hopelessness Scale (BHS; Beck, Weissman, Lester & Trexler, 1974)*

The BHS has 20 self-report items (e.g., 'my future seems dark to me'), which are rated either true or false with a score of 1 or 0. Overall, high scores indicate greater hopelessness. The BHS had excellent internal reliability ( $\alpha = .92$  to  $.93$ ) and good validity ( $r = .61$  to  $.70$ ) in a population who had experienced suicidal ideation and suicide attempts (Beck et al., 1974). In the current study, the BHS had excellent internal reliability ( $\alpha = .91$ ).

*Calgary Depression Scale for Schizophrenia (CDSS; Addington, Addington & Schissel, 1990)*

The CDSS is observer rated and consists of 9 categories (e.g., 'depression', 'guilty ideas of reference') which are rated from 0 (absent) to 3 (severe). High overall scores suggest more severe depression. The CDSS demonstrates good internal reliability ( $\alpha = .84$  to  $.89$ ) and discriminant validity (Addington et al., 1990). Inter-rater reliability for the observers in the current study was excellent (Intraclass Correlation Coefficient =  $.93$ ).

### *Dose of psychotherapy*

Although the majority of research has focussed on number of sessions when investigating the dose-outcome relationship in psychotherapy, the current study focused on the number of minutes spent in psychotherapy sessions. Due to the potential variability in session length, examining the total time spent in psychotherapy sessions provides a more accurate representation of contact with the therapist and total duration of psychotherapy, compared to number of sessions. Total number of minutes of psychotherapy sessions were recorded following each session by the therapist and this was totalled for each participant.

### *Missing data*

In accordance with the ASIQ manual, missing ASIQ data were prorated where at least 88% of items were complete (Reynolds, 1991). Missing data from the BHS and client and therapist WAIs were prorated for measures where at least 80% of the items were complete. All participants met missing data criteria for the ASIQ, BHS and WAI. However, if this had not been fulfilled, then the participant would have been excluded from the analysis.

### *Procedure*

Ethical approval was granted by the Greater Manchester South NRES committee (registration number 17/NW/0089).

Potential CARMS trial participants were recruited from four mental health NHS trusts in the North West of England, United Kingdom (UK). They were approached by a member of their care team to provide consent to be contacted. Possible participants were then screened for eligibility, provided with a participant information sheet for at least 24 hours, after which time, informed consent was taken. Participants completed baseline measures of ASIQ, BHS, CDSS and self-reported frequency of suicide plans and attempts over the previous 6 months. Participants also completed the ASIQ and self-reported frequency of suicide plans and attempts upon psychotherapy cessation. Baseline and post-therapy data were collected by research assistants, who were blind to treatment allocation. In accordance with CARMS trial procedures, serious adverse events, e.g., suicide attempts, were monitored and assessed for relatedness to CBSPP and/or therapeutic alliance.

During psychotherapy, therapists and clients completed the WAI-SR around session 4 (mean weeks since starting psychotherapy for therapist WAI-SR = 5.68 [SD = 2.79] and mean weeks since starting psychotherapy for client WAI-SR = 6.00 [SD = 3.15]). Therapists provided clients with a paper copy of the WAI-SR to complete. However, in order to mitigate against possible subsequent demand characteristics (Reese et al., 2013), therapists also provided clients a stamped addressed envelope and reassured them that they would not see their responses. Clients were given the option to seal the questionnaire in an envelope and either post it directly back to the CARMS Trial Manager or give the envelope to the therapist to pass on to the Trial



Manager. Therapists also documented the length of each psychotherapy session in their psychotherapy records.

All data were collected prior to when the UK government passed legislation for a country-wide lockdown due to the COVID-19 pandemic (Coronavirus Act, 2020). This was to ensure homogeneity in both psychotherapy delivery and collection of outcome measures, both of which were both primarily conducted face to face. Furthermore, the content of the psychotherapy sessions, techniques used by the therapist and reliability and validity of outcome measures may have been impacted by the COVID-19 pandemic and subsequent lockdown restrictions. The extent of the impact is not known at present and will be discussed in future outputs from the CARMS trial.

### *Statistical Analysis*

Each variable was examined to assess the normality of the distribution of the data using both a visual test, i.e., p-p plots, and z scores of skewness and kurtosis (i.e., skewness and kurtosis scores were divided by the standard error of skewness and kurtosis; Field, 2018; Kim, 2013). In the event that variables were not normally distributed, bootstrapping at 1000 iterations was used (Field, 2018; Shrout & Bolger, 2002).

Pearson's correlation coefficients were computed to address research questions one and two, which aimed to investigate the relationship between both the client and therapist view of the therapeutic alliance and suicidal experiences (pre- and post-therapy). Significant bivariate correlations were selected for entry into a multiple linear regression analysis. However, to address the high frequency of nil responses, the continuous suicide attempt and suicide plan variables were transformed into dichotomous variables, i.e.,

no suicide attempt/plan vs one or more suicide attempt/plan. These dichotomous variables were analysed using an independent samples t-test to determine whether the alliance was different for those with and without a suicide attempt history in the past 6 months.

A multiple hierarchical linear regression analysis was used to address research question two, which aimed to examine whether the therapeutic alliance predicted suicidal ideation post-therapy whilst controlling for baseline suicidal ideation. Both multicollinearity and standardised residuals were examined to determine whether the assumptions of a multiple regression analysis were met (Field, 2018). Acceptable multicollinearity levels included correlation coefficients below .8 and tolerance levels above .2 (Field, 2018). The hierarchical regression models were conducted with, and without, controlling for depression and hopelessness. Baseline suicidal ideation was entered in block 1 of the model. Depression and hopelessness, when controlled for, were in block 2 of the model. The therapeutic alliance was entered in block 3 (Field, 2018).

The PROCESS tool for IBM SPSS Statistics was used to conduct a moderated linear regression (Hayes, 2012) to address research question three, which aimed to investigate whether the total time spent in psychotherapy sessions moderated the relationship between the therapeutic alliance and suicidal ideation post-therapy, whilst controlling for baseline suicidal ideation. A moderated linear regression model was conducted for the client therapeutic alliance, with and without, controlling for depression and hopelessness. All variables were mean centred prior to entry (Field, 2018). Simple slopes were examined to inspect the interaction effect when total time spent in psychotherapy was low, mean and high (Bauer & Curran, 2005;

Field, 2018). The Johnson-Neyman method was used to define significance regions for the moderation (Bauer & Curran, 2005; Field, 2018).

All statistical analyses were carried out using IBM SPSS Statistics version 25.

## **Results**

### *Sample characteristics*

There were 64 participants, who were eligible for the current study from the larger sample of 101 participants randomly allocated to the intervention arm of the CARMS trial (Gooding et al., 2020) at the time of this study (a sub-sample of the total trial sample). Ninety-one participants gave consent to take part in the secondary analysis study, of which a complete data set was available for 64 participants<sup>1</sup>. Therefore, the final sample comprised 64 participants who provided outcome data prior to the COVID-19 pandemic and subsequent lockdown regulations (Coronavirus Act, 2020). Participants' ages were between 19.61 and 65.62 years ( $M = 36.83$ ,  $SD = 13.92$ ). Just over half of the participants were male ( $n = 35$ ), with one participant who preferred not to disclose their gender identity. The majority of participants were White/Caucasian ( $n = 56$  [88%]). Participants' relationship status comprised of single ( $n = 43$ ), married/living with a partner/engaged ( $n = 12$ ), divorced/separated ( $n = 7$ ) and in a relationship but not cohabiting ( $n = 2$ ). The majority were living alone ( $n = 27$ ), 15 lived with their parents, 10 lived with their spouse/partner, six with friends or carers, and two with other relatives. Upon entry to the trial, four participants lived in either supported

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<sup>1</sup> reasons for missing data ( $n = 27$ ) include, clients did not attend 4 sessions of therapy ( $n = 10$ ), client and therapist WAIs were not completed ( $n = 13$ ) and post-therapy ASIQ was not completed ( $n = 4$ ).

accommodation ( $n = 2$ ) or on an inpatient ward ( $n = 2$ ). ICD-10 diagnoses included schizophrenia ( $n = 50$ ), schizoaffective disorders ( $n = 9$ ) persistent delusional disorders ( $n = 2$ ), unspecified non-organic psychosis or transient psychotic disorders ( $n = 3$ ).

Participants attended between 5 and 24 CBSPP therapy sessions ( $M = 17.55$ ,  $SD = 4.61$ ). During the 6-month psychotherapy window, between 280 and 1380 minutes (i.e., 4.67 – 23.00 hours) were spent in psychotherapy sessions, with an average of 899.27 mins ( $SD = 267.38$ ), i.e., almost 15 hours. Most participants met therapists in their own home throughout psychotherapy ( $n = 36$ ), whereas eight participants were seen at NHS community (e.g., GP clinic), outpatient or inpatient settings for all of their sessions. The remaining participants took part in psychotherapy conducted in a combination of settings (e.g., home and NHS settings;  $n = 20$ ), some of whom also spoke to the therapist by telephone for a proportion, but not all, psychotherapy sessions ( $n = 12$ ). Data on adverse events were monitored routinely throughout the trial and there was no evidence to suggest that the psychotherapy or therapeutic alliance was related to any serious untoward events by clients, such as suicide attempts and hospital admissions.

#### ***Suicidal experiences pre-therapy and early therapeutic alliance (session 4)***

The first research question was to what extent were suicidal experiences, specifically, thoughts, plans and attempts prior to starting psychotherapy related to the therapeutic alliance at session 4 as rated by both the client and the therapist? This was examined in two ways. First, by computing correlation coefficients for the associations between suicidal ideation severity on the ASIQ measure, and self-reported incidences of suicide plans and attempts, with WAI ratings of the alliance by both clients

and therapists. Second, it was also possible to look at differences in perceptions of the therapeutic alliance for those individuals who did and did not make suicide plans or attempts in the past 6 months.

Baseline suicidal ideation was normally distributed. However, self-reported number of suicide attempts and suicide plans were not normally distributed (see Table 2.1 for results of the z-test). Hence, bootstrapping was used in analyses involving plans and attempts.

**Table 2.1.** *Skewness, kurtosis and normality tests for all variables in the study*

	Sample size ( <i>n</i> )	Skewness	SE skewness	Z skewness	Kurtosis	SE kurtosis	Z kurtosis
<i>Pre-therapy/baseline</i>							
Suicidal ideation	64	-.24	.30	-.79	-.91	.59	-1.55
Suicide plans	62	2.90	.30	9.53	8.14	.60	13.59
Suicide attempts	63	7.54	.30	24.95	58.58	.60	98.46
Depression	64	-.19	.30	-.63	-.73	.59	-1.24
Hopelessness	64	-.56	.30	-1.86	-.90	.59	-1.52
<i>During psychotherapy</i>							
Client therapeutic alliance	59	-.07	.31	-.24	-.47	.61	-.77
Therapist therapeutic alliance	60	-.21	.31	-.67	-.05	.61	-.08
Total number of minutes of psychotherapy (mins)	64	-.41	.30	-1.35	-.62	.59	-1.05
<i>Post-therapy</i>							
Suicidal ideation	64	.42	.30	1.39	-.88	.59	-1.49
Suicide plans	61	4.43	.31	14.47	19.95	.60	33.03
Suicide attempts	62	6.19	.30	20.36	41.85	.60	69.87

*Suicidal ideation*

There were no significant correlations between suicidal ideation at baseline and neither the client,  $r(57) = -.115, p = .386$ , nor the therapist,  $r(58) = -.034, p = .794$ , perceptions of the therapeutic alliance. Therefore, the severity of clients' suicidal ideation prior to starting psychotherapy did not relate to the quality of the therapeutic alliance as perceived by both clients and therapists.

*Suicide plans*

There were no significant associations between the number of suicide plans made in the 6 months before the start of psychotherapy and neither the client,  $r(55) = -.11, p = .414$ , nor the therapist,  $r(56) = -.03, p = .842$ , perceptions of the therapeutic alliance. Twenty-two participants reported no suicide plans in the 6 months prior to commencing psychotherapy. There were no significant differences between clients who had not previously made suicide plans ( $M = 46.45, SD = 7.03, \text{Range} = 37 - 60$ ) and those who had one or more suicide plans ( $M = 46.82, SD = 9.02, \text{Range} = 25 - 60$ ),  $t(55) = -.16$ ,

$p = .872$ . Similarly, there were no significant differences in therapist perceptions of the therapeutic alliance with clients who had made no plans ( $M = 37.35$ ,  $SD = 4.98$ , Range = 26 - 46) and those who had made one or more suicide plans prior to starting psychotherapy ( $M = 35.58$ ,  $SD = 5.70$ , Range = 23 - 48),  $t(56) = 1.20$ ,  $p = .198$ .

### *Suicide attempts*

There were no significant correlations between the frequency of suicide attempts over a period of 6 months prior to starting psychotherapy and the client,  $r(56) = .19$ ,  $p = .146$ , or therapist,  $r(57) = .09$ ,  $p = .490$ , rating of the therapeutic alliance. One possible explanation for this non-significant finding could be due to the small sample of clients who reported having attempted suicide ( $n = 19$ ). This is reflective of the rarity of suicide attempts. However, when suicide attempts were examined as a dichotomous variable, the therapeutic alliance was perceived as significantly more robust by clients who had previously attempted suicide ( $M = 50.40$ ,  $SD = 9.19$ , Range = 33 - 60), compared to those who had not attempted suicide in the last six months ( $M = 45.12$ ,  $SD = 6.87$ , Range = 25 - 60),  $t(56) = -2.46$ ,  $p = .041$ . In contrast, therapists did not perceive the therapeutic alliance to be significantly different when working with clients who had attempted suicide ( $M = 37.59$ ,  $SD = 5.43$ , Range = 30 - 48), compared with those who had not done so ( $M = 35.57$ ,  $SD = 5.38$ , Range = 23 - 46),  $t(57) = -1.34$ ,  $p = .187$ .

Overall, the findings suggested that suicidal experiences in the 6 months prior to starting psychotherapy were not related to the therapeutic alliance, as perceived by both clients and therapists. However, if clients had attempted suicide at least once within the 6 months prior to the start of

psychotherapy, then the therapeutic alliance was rated as stronger in comparison to those who had not previously attempted suicide.

### *The Therapeutic Alliance and suicidal experiences post-therapy*

The second research question sought to investigate the relationship between the early therapeutic alliance and suicidal experiences post-therapy. It was hypothesised that the therapeutic alliance would be negatively associated with suicidal experiences (ideation, plans and attempts) measured at psychotherapy cessation, whilst controlling for suicidal experiences at baseline. Furthermore, it was predicted that such a relationship would remain after controlling for factors which have been found to be associated with suicidal experiences, specifically, baseline depression and hopelessness.

#### *Suicidal ideation*

There was a trend towards a significant negative correlation between therapist rating of the therapeutic alliance and severity of suicidal ideation at psychotherapy cessation,  $r(58) = -.22, p = .087$ . Similarly, there was a significant negative correlation between the client rating of the therapeutic alliance and severity of suicidal ideation at psychotherapy cessation,  $r(57) = -.33, p = .01$ . In other words, a more robust therapeutic alliance was associated with less severe suicidal ideation at the end of psychotherapy.

The association between client therapeutic alliance and suicidal ideation at the end of psychotherapy reached significance enabling the multiple hierarchical linear regression model to be run. No multicollinearity was observed between variables, i.e., collinearity tolerance levels were between .533 and .961 in the final model. Furthermore, no variables had strong inter-correlations of .8 or above. Inspection of histograms and p-p plots



suggested the data were normally distributed. A Durbin-Watson value of 1.702 indicated that the data met the assumption of independent errors, and scatterplots of standardised residuals showed that the data met the assumptions of variance and linearity. Descriptive statistics and correlation coefficients for each variable in the regression model can be found in Table 2.2. Client perceptions of the therapeutic alliance were significant predictors of a reduction in severity of suicidal ideation upon psychotherapy cessation,  $\beta = -.28$ ,  $t(54) = -2.51$ ,  $p = .015$  (see Table 2.3), which was in accord with the correlational analysis. Furthermore, in the first model, the early therapeutic alliance rated by the client provided an additional 7.8% explanation for variation in suicidal ideation post-therapy after controlling for baseline suicidal ideation,  $F(2, 56) = 12.50$ ,  $p = .015$ ,  $R^2 = .31$ ,  $R^2_{\text{Adjusted}} = .28$ . This reduced slightly to 6.8% in the second model when baseline depression and hopelessness were controlled for,  $F(4, 54) = 6.81$ ,  $p = .023$ ,  $R^2 = .34$ ,  $R^2_{\text{Adjusted}} = .29$ . Therefore, a strong early therapeutic alliance, perceived by the client, predicted a reduction in suicidal thoughts at the end of psychotherapy whilst accounting for baseline depression and hopelessness.

**Table 2.2.** Means, standard deviations and correlation coefficients for variables in hierarchical linear regression model 2

	M(SD)	Range	N	2	3	4	5
1. Client therapeutic alliance	46.62 (8.14)	25-60	59	-.12	-.33**	-.17	-.18
2. Suicidal ideation (pre-therapy)	77.03 (32.07)	9-129	59	-	.48**	.41**	.61**
3. Suicidal ideation (post-therapy)	57.14 (36.92)	0-137	59		-	.23*	.44**
4. Depression (pre-therapy)	12.29 (4.54)	3-21	59			-	.53**
5. Hopelessness (pre-therapy)	12.80 (5.56)	1-20	59				-

Note.

\*  $p < .05$

\*\*  $p < .01$

**Table 2.3.** Results of the hierarchical linear regression model examining the predictive relationship between the early therapeutic alliance and suicidal ideation post-therapy after controlling for suicidal ideation pre-therapy, depression and hopelessness

Model		<i>B</i> (95% <i>CI</i> )	<i>SE B</i>	$\beta$	<i>p</i>
Model 1†: Outcome of post-therapy suicidal ideation, whilst controlling for baseline suicidal ideation	Step 1				
	Constant	14.53 (-7.79, 36.85)	11.15		.198
	Suicidal ideation (pre-therapy)	.55 (.29, .82)	.13	.48	.001
	Step 2				
	Constant	76.80 (22.73, 130.86)	26.99		.006
	Suicidal ideation (pre-therapy)	.52 (.29, .77)	.13	.45	.001
Client therapeutic alliance	-1.27 (-2.29, -.26)	.51	-.28	.015	
Model 2‡: Outcome of post-therapy suicidal ideation, whilst controlling for baseline suicidal ideation, depression and hopelessness	Step 1				
	Constant	14.53 (-7.79, 36.85)	11.15		.198
	Suicidal ideation (pre-therapy)	.55 (.29, .82)	.13	.48	.001
	Step 2				
	Constant	9.31 (-18.30, 36.92)	13.78		.502
	Suicidal ideation (pre-therapy)	.40 (.06, .73)	.17	.34	.023
	Depression (pre-therapy)	-.35 (-2.59, 1.89)	1.12	-.04	.753
	Hopelessness (pre-therapy)	1.70 (-.40, 3.79)	1.05	.26	.110
	Step 3				
	Constant	70.98 (11.96, 130.00)	29.44		.019
	Suicidal ideation (pre-therapy)	.40 (.07, .72)	.16	.34	.018
	Depression (pre-therapy)	-.58 (-2.74, 1.58)	1.08	-.07	.591
Hopelessness (pre-therapy)	1.49 (-.54, 3.51)	1.01	.22	.148	
Client therapeutic alliance	-1.21 (-2.23, -.18)	.51	-.27	.023	

Note.

† Model 1:  $R^2 = .231$ ,  $p = .001$  for step 1;  $\Delta R^2 = .078$ ,  $p = .015$  for step 2

‡ Model 2:  $R^2 = .231$ ,  $p = .001$  for step 1;  $\Delta R^2 = .037$ ,  $p = .261$  for step 2;  $\Delta R^2 = .068$ ,  $p = .023$  for step 3

*Suicide plans*

There was no significant correlation between therapist rating of the therapeutic alliance and frequency of suicide plans during psychotherapy, which was measured post-therapy,  $r(55) = -.12, p = .383$ . In contrast, there was a significant, negative, correlation between client rating of the early therapeutic alliance and the number of suicide plans reported,  $r(54) = -.32, p = .017$ . A strong therapeutic alliance was associated with less frequent suicide plans subsequently. That said, it should be noted that only 33 of the 64 participants had reported making suicide plans. As with previous analyses, suicide plans were formed into a dichotomous variable. Nonetheless, there were no significant differences in client perceptions of the initial therapeutic alliance between those who made no suicide plans ( $M = 47.35, SD = 7.94, Range = 35 - 60$ ) and clients who had made one or more plans ( $M = 45.70, SD = 8.80, Range = 25 - 60$ ) during the 6 months when psychotherapy had taken place,  $t(54) = .74, p = .434$ . Similarly, there were no significant differences in therapist views of the early therapeutic alliance between clients with ( $M = 35.42, SD = 4.41, Range = 29 - 44$ ) and without suicide plans ( $M = 37.31, SD = 5.70, Range = 23 - 48$ ),  $t(55) = 1.38, p = .179$ .

*Suicide attempts*

There were no significant correlations between number of suicide attempts made during psychotherapy and either client,  $r(55) = .11, p = .213$ , or therapist,  $r(56) = -.18, p = .176$ , ratings of the therapeutic alliance in the early stages of psychotherapy. Furthermore, no significant differences were found between clients who had not attempted suicide ( $M = 46.17, SD = 8.27, Range = 25 - 60$ ) and those who had made one or more suicide attempts ( $M = 48.33, SD = 8.44, Range = 33 - 60$ ), during psychotherapy, in their

perception of the early therapeutic alliance,  $t(55) = -.72, p = .451$ . Likewise, there were no significant differences in therapist perceptions of the therapeutic alliance with clients who had made no suicide attempts ( $M = 36.51, SD = 5.24, Range = 23 - 48$ ) and those who had made one or more suicide attempts ( $M = 35.25, SD = 5.28, Range = 29 - 44$ ) in the 6 months prior to psychotherapy ending,  $t(56) = .63, p = .515$ .

In summary, and even though the therapeutic alliance perceived by both the client or therapist did not appear to relate to suicide attempts and plans at the end of psychotherapy, a therapeutic alliance viewed as strong by the client predicted an improvement in severity of suicidal ideation at the end of psychotherapy. However, there was only a trend towards a significant association for the therapist rated therapeutic alliance.

***The effect of total length of psychotherapy on the relationship between client perceptions of the therapeutic alliance at session 4 and suicidal ideation at psychotherapy cessation***

The third research question investigated whether there would be an interaction effect whereby the negative relationship between the therapeutic alliance and suicidal ideation measured at the end of psychotherapy would be amplified by dose of psychotherapy (total number of minutes of psychotherapy sessions).

There was a significant main effect of client therapeutic alliance on severity of suicidal ideation,  $b = -1.14, t(54) = -2.20, p = .03$ . This showed that as client ratings of the therapeutic alliance increased, severity of suicidal ideation had decreased by the end of psychotherapy. Further, there was a trend towards a significant interaction effect of the moderator, i.e., total number of

minutes of psychotherapy,  $b = .003$ ,  $t(54) = 1.85$ ,  $p = .07$  (see Table 2.4). To investigate the potential interaction effect further, simple slopes analyses were examined for three models (see Figure 2.1). More specifically, the three models applied to when total number of minutes of psychotherapy were short (1 SD below the mean), of mean length and long (1 SD above the mean). The results indicated that when total number of minutes of psychotherapy were short (269.18 mins below the mean), there was a significant negative relationship between client perception of the therapeutic alliance and frequency of suicidal ideation upon psychotherapy cessation,  $b = -2.07$ , 95% CI [-3.40, -.74],  $t = -3.12$ ,  $p = .003$ . Similarly, at the mean value of total number of minutes of psychotherapy (0 mean centred), there was a significant, negative, relationship between client perception of the therapeutic alliance and severity of suicidal ideation upon psychotherapy cessation,  $b = -1.14$ , 95% CI [-2.18, -.11],  $t = -2.20$ ,  $p = .032$ . However, when total number of minutes of psychotherapy were long (269.18 mins above the mean), there was not a significant relationship between client perception of the therapeutic alliance and severity of suicidal ideation upon psychotherapy cessation,  $b = -.21$ , 95% CI [-1.76, 1.34],  $t = -.59$ ,  $p = .560$ . Therefore, the moderation model suggested that the client perception of the therapeutic alliance as strong predicts lower severity of suicidal ideation when total number of minutes of psychotherapy were short or average.

On further examination of the data, and with application of the Johnson-Neyman method to define significance regions, the final point where total number of minutes of psychotherapy significantly influenced the relationship between therapeutic alliance and suicidal ideation was 24.41 mins above the mean total length of psychotherapy sessions (i.e., 923.68 mins). Therefore, as total number of minutes of psychotherapy increased

above 924 minutes (i.e., around 15.50 hours), the strength of the therapeutic alliance, viewed by the client, no longer predicted lower frequency of suicidal ideation.

Moreover, when further covariates, specifically, baseline depression and hopelessness, were added to the model, there was no longer a trend towards significance for the interaction effect of total number of minutes of psychotherapy,  $b = .003$ ,  $t(52) = 1.57$ ,  $p = .123$ .

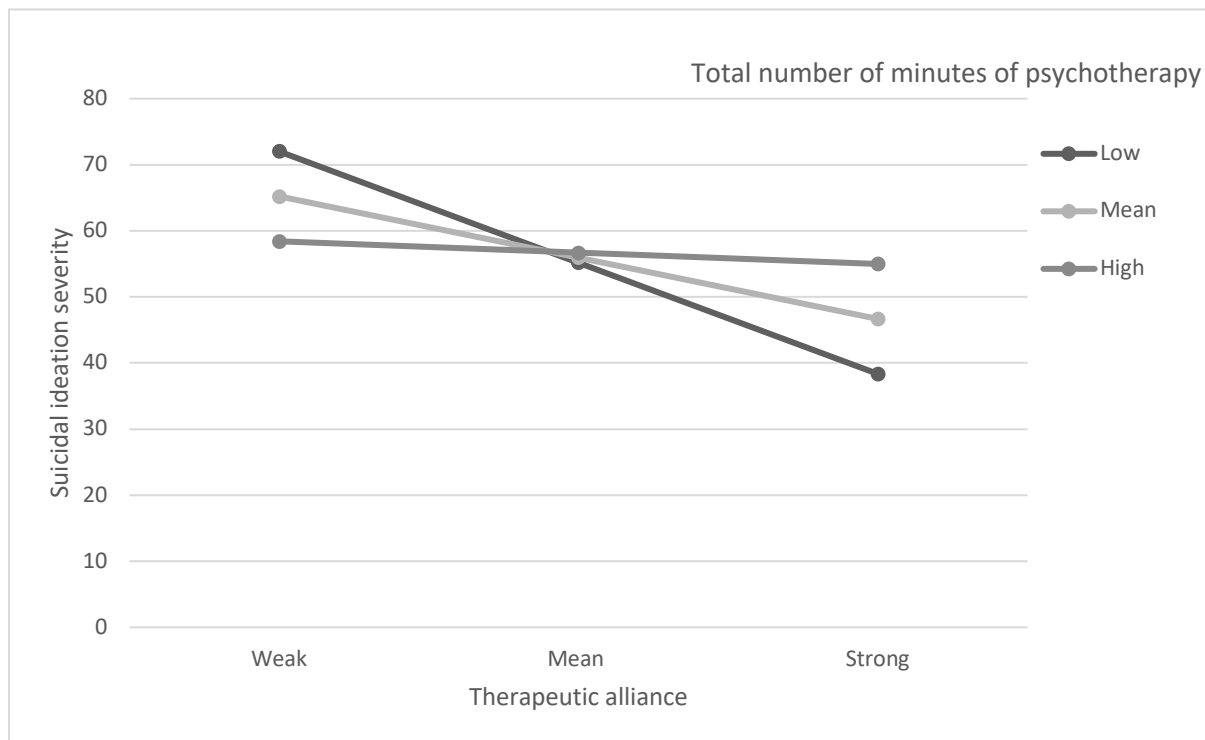
**Table 2.4.** Results of the moderated linear regression model examining the effect of total length of psychotherapy sessions on the relationship between the client therapeutic alliance at session 4 and suicidal ideation post-therapy

Model		<i>b</i> (95% CI)	<i>SE B</i>	<i>t</i>	<i>p</i>
Model 1†: Baseline suicidal ideation controlled for	Constant	16.80 (-5.33, 38.93)	11.04	1.52	.198
	Client therapeutic alliance (centred)	-1.14 (-2.18, -.10)	.52	-2.20	.032
	Total number of minutes of psychotherapy (centred)	.003 (-.03, .03)	.02	.12	.861
	Client therapeutic alliance x Total length of psychotherapy sessions	.003 (-.0003, .007)	.01	1.85	.07
	Suicidal ideation (pre-therapy)	.51 (.24, .78)	.13	3.81	.001
Model 2‡: Baseline suicidal ideation, depression and hopelessness controlled for	Constant	19.41 (-10.92, 47.74)	14.62	1.26	.214
	Client therapeutic alliance (centred)	-1.13 (-2.19, -.07)	.53	-2.13	.038
	Total number of minutes of psychotherapy (centred)	.002 (-.03, .04)	.02	.13	.896
	Client therapeutic alliance x Total length of psychotherapy sessions	.003 (-.0003, .007)	.01	1.57	.123
	Suicidal ideation (pre-therapy)	.45 (.12, .78)	.17	2.71	.009
	Depression (pre-therapy)	-.85 (-3.06, 1.37)	1.10	-.77	.446
	Hopelessness (pre-therapy)	1.05 (-1.06, 3.16)	1.05	1.00	.322

Note.

† Model 1:  $R^2 = .35$ ,  $p = .001$ ;  $\Delta R^2 = .041$ ,  $p = .07$  for interaction

‡ Model 2:  $R^2 = .37$ ,  $p = .001$ ;  $\Delta R^2 = .03$ ,  $p = .123$  for interaction



**Figure 2.1.** Simple slopes equations of the regression of the therapeutic alliance on suicidal ideation at high, mean, and low levels of total number of minutes of psychotherapy. Note. High, mean, and low values of total number of minutes of psychotherapy are defined as plus and minus 1 SD of the mean (-269.18, 0, 269.18). Weak, mean and strong values of the therapeutic alliance are defined as plus and minus 1 SD of the mean (-8.14, 0, 8.14).

## Discussion

The current study addressed a major gap in the literature by examining the relationship between the therapeutic alliance in psychotherapy and suicidal experiences (pre and post-therapy) in a population with non-affective psychosis. Further, it provides one key novel insight into the influence that psychotherapy dosage has upon this relationship.

It was evident that suicidal ideation and plans occurring prior to psychotherapy were not related to either the client or therapist perception of the subsequent therapeutic alliance. However, in some cases, having attempted suicide in the previous 6 months led to a better client perception of the therapeutic alliance. Such evidence shows that suicidal experiences pose no barrier to the formation of the therapeutic alliance in psychotherapy, in

fact, in some cases, such experiences may facilitate a stronger relationship.

This may be understood in two ways.

First, clients who had previously attempted suicide may perceive that CBSPP therapy was helping to address previously unmet needs. The psychotherapy may have provided an opportunity to discuss recent painful experiences and circumstances surrounding the suicide attempt (Awenat et al., 2018; TARRIER et al., 2013; Pratt et al., 2016). Clients may not have wished to share such experiences with their family or friends for fear of being seen as a burden and/or due to the shame and stigma associated with talking about suicidal experiences (Awenat et al., 2018; Blanchard & Farbar, 2020; Latalova et al., 2014).

Second, as suicide attempts were within the 6 months prior to starting psychotherapy, CBSPP may have been perceived as more relevant by clients who had such experiences. Qualitative investigations are needed to better understand what may contribute to a stronger therapeutic alliance early on in psychotherapy in relation to suicidal experiences, including acknowledging stigma in talking about suicidal experiences (Awenat et al., 2018; Blanchard & Farbar, 2020; Latalova et al., 2014). Future research needs to explore the personal experiences and views of the therapeutic alliance held by clients with and without previous suicide attempts and/or draw upon psychotherapy session audio recordings to explore such factors. Nevertheless, the results of the current study may go some way in demonstrating how stigma can be constructively addressed through the therapeutic alliance developed early on in psychotherapy when talking about suicide for both clients and therapists.

In line with the current literature, a strong, client perceived, therapeutic alliance developed early on in CBSPP predicted improvement in suicidal ideation, even after controlling for the influence of depression and



hopelessness. This finding is important because depression and hopelessness are well-known, strong, predictors of suicidal experiences including those with non-affective psychosis (Bornheimer, 2016; Johnson et al., 2010; Klonsky et al., 2012; Tarrrier et al., 2006). Furthermore, suicidal ideation is associated with immense distress and may be a precursor of suicide plans and attempts (Bertelsen et al., 2007; O'Connor & Kirtley, 2018; Tarrrier et al., 2013). Therefore, if a good therapeutic alliance is developed and suicidal ideation reduced, this may in turn, reduce the occurrence of suicide plans and attempts. Additionally, the current study has shown that this finding can be applied to a population with non-affective psychosis, which was a notable gap in the literature (Huggett et al., 2020).

In contrast to the client view of the alliance, the therapist view of the therapeutic alliance was not related to severity of suicidal ideation at the end of therapy. It is possible that the client view of the therapeutic alliance may be more influential for outcomes of suicidal ideation, at the end of therapy, than the therapist perception of the alliance. However, this is the first study to examine such a relationship using therapist views of the alliance. The results of which are both comparable and contrasting to the mixed findings in the wider alliance-outcome literature involving people who experience psychosis (Berry, Gregg, Lobban & Barrowclough, 2016; Shattock et al., 2018). Therefore, future research should focus on investigating therapist perceptions, as well as client views, of the therapeutic alliance in relation to suicidal experiences at the end of therapy.

One key novel insight was gained into the role of dose of psychotherapy in the relationship between the therapeutic alliance and suicidal ideation. There was a trend towards significance in the overall interaction effect. Nonetheless, the dose of psychotherapy amplified the

predictive relationship of a strong therapeutic alliance and a reduction in suicidal thoughts, for clients spending less than 15.50 hours in CBSPP therapy. This somewhat contradicts previous CBTp literature (Goldsmith et al., 2015) which does not suggest a ceiling effect of dose of psychotherapy on the relationship between a strong therapeutic alliance and better outcome. However, the present study provides a preliminary suggestion for how much time clients should optimally spend in CBSPP therapy in order to maximally benefit, a finding of huge importance for service planning. Consequently, the findings also place further emphasis on the significance of developing a good therapeutic alliance from the client's point of view and monitoring the strength of an alliance alongside total number of minutes spent in psychotherapy to prevent the possibility of adverse effects or potential harm in psychotherapy.

The aforementioned findings should be considered in light of four key limitations of the current study. First, the design and statistical analyses were unable to provide evidence for the direction of causality. Future studies could use repeated, session-by-session, measurements of both the therapeutic alliance and suicidal experiences and use either a path analysis or time series analysis whilst controlling for potential confounding variables (e.g., depression, hopelessness) to attempt to provide some evidence for the direction of causality (Jones & Wang, 2005). Furthermore, it should be noted that the regression and moderation analyses in the present study were likely underpowered. Nevertheless, strong findings were produced for the predictive relationship, which were concurrent with the suicide-specific alliance-outcome literature (Huggett et al., 2020). The current study findings were also consistent with the wider alliance-outcome literature, which suggests that such relationship is both transdiagnostic and applicable across

psychotherapy models (Flückiger et al., 2018). In addition, the moderated regression findings provide a novel contribution to the literature that should be replicated in larger samples.

Second, eight therapists delivered CBSPp therapy, which could have introduced variability in alliance development and a potential clustering of client suicidal experience outcomes of those who met with the same therapist. Clustering effects may arise if the therapists vary in their skill-set, enthusiasm, training and adherence to a specific model of therapy (Walters, 2010; Walwyn & Roberts, 2010). That said, therapists in the current study received a robust and standardised training package in the delivery of CBSPp by two senior Clinical Psychologists and regular group, individual and peer supervision to ensure fidelity. Challenges in developing a robust therapeutic alliance were discussed in group supervision. Nevertheless, it should be noted that it is possible to account for clustering effects in the statistical analysis (e.g., multi-level modelling), but it was not appropriate to do so in the current study as there were too few therapists and clients per therapist to provide sufficient power to detect therapist effects (De Jong, Moerbeek & Van Der Leeden, 2010; Walwyn & Roberts, 2010).

Third, there was a lack of diversity in both therapist and client samples thus limiting the applicability of the current findings to ethnic minority communities, for example. Therefore, future studies should ensure that therapists and service user participants from minority groups are pro-actively recruited (Horrell, 2008). Relatedly, it is important to consider how demographic factors such as ethnicity, age and gender of therapists and clients contribute to the development and maintenance of the therapeutic alliance (Behn et al., 2018; Cardemil & Battle, 2003; Chang & Yoon, 2011;

Meier et al., 2005). This is currently an under researched area in people with suicidal experiences (Huggett et al., 2020).

Fourth, there were some missing client and therapist WAI data, which could have introduced bias to the findings. Clients who perceive the therapeutic alliance as poorer are more likely to discontinue therapy (Sharf, Primavera & Diener, 2010; Wnuk et al., 2013) or may not be willing to complete the therapeutic alliance or outcome assessment measures (Samstag, Batchelder, Muran, Safran & Winston, 1998). Consequently, the current findings may be over-representative of clients who were more willing to engage with therapy and had a stronger alliance with the therapist.

To conclude, both therapists and clients could be reassured that client's suicidal experiences pose no barrier to developing a robust therapeutic alliance. In turn, a strong, client viewed, therapeutic alliance is predictive of a reduction in suicidal ideation, which is moderated by total number of minutes spent in psychotherapy. Therefore, therapists must be trained and supervised to place emphasis on building and maintaining a good therapeutic alliance and understand what that means from the client's point of view, especially when working with suicidal clients with experience of non-affective psychosis.

## Discussion

Overall, this thesis aimed to understand the relationship between the therapeutic alliance and suicidal experiences in people receiving psychotherapy. To address this objective, two studies were conducted, namely, a systematic review and an empirical study. For the systematic review (study 1), there were four key findings.

First, suicidal experiences may impact negatively on the client perception of the therapeutic alliance in the first session of psychotherapy. However, this may not apply to subsequent psychotherapy sessions.

Second, a strong therapeutic alliance was related to both fewer suicidal experiences and a reduction in suicidal experiences post-therapy and at follow up time-points. That said, this was not a consistent finding throughout the literature, which may be attributed to the methodological weaknesses of such studies.

Third, few studies ( $n = 37$ ) which involve examining the feasibility, acceptability and efficacy of psychotherapies for people with suicidal experiences measured the therapeutic alliance. Even fewer studies ( $n = 17$ ) examined the relationship between the therapeutic alliance in psychotherapy and suicidal experiences. Future psychotherapy studies should routinely measure both the therapeutic alliance and suicidal experiences, then assess the relationship between these variables.

Fourth, there were several limitations of the current literature. These included, a lack of transparency and detail about the psychotherapy and therapists, a lack of representation of people with non-affective psychosis, and some studies did not demonstrate the reliability of alliance and suicidal experience measures used, meaning that generalisability and replicability of findings may be questionable. Furthermore, very few studies reported

whether adverse events, e.g., suicide attempts, were related to the psychotherapy and/or therapeutic alliance, which means that it was difficult to determine the safety of the psychotherapy and/or therapeutic alliance in these studies.

Such inadequacies were addressed in the empirical paper (study 2), comprising the current thesis, in the following ways; Cognitive Behavioural Suicide Prevention therapy for people with psychosis was described, therapeutic techniques that were used were specified, therapist supervision and therapy fidelity procedures were outlined and therapist characteristics, such as, age, gender identity, ethnicity, qualification and length of experience were summarised. Moreover, the empirical paper addressed a major gap in the literature where people with non-affective psychosis were the main population, and the relatedness of adverse events to the psychotherapy and therapeutic alliance were critically evaluated. Therefore, the empirical paper not only offers a novel contribution to the current evidence-base for the relationship between therapeutic alliance in psychotherapy and suicidal experiences but provides sufficient transparency to replicate the study and give insights into what may influence the quality of the therapeutic alliance.

There were three key findings for the empirical paper (study 2). First, suicidal experiences prior to psychotherapy did not impact on client or therapist views of the therapeutic alliance. In fact, in some cases, suicidal experiences prior to psychotherapy facilitated a view of the therapeutic alliance as strong by clients with non-affective psychosis.

Second, the predictive relationship between therapeutic alliance and reductions in suicidal experiences extended to people with non-affective psychosis. Most notably, the client perceived therapeutic alliance was related to a decrease in suicidal thoughts at the end of psychotherapy, for people with

non-affective psychosis, after controlling for levels of depression and hopelessness prior to psychotherapy.

Third, novel insights are provided whereby the role of dose of psychotherapy strengthened the predictive relationship between a robust therapeutic alliance and a decrease in suicidal ideation for clients who spent fewer than 15.50 hours in CBSPP therapy. This suggests a ceiling effect for a strong therapeutic alliance in reducing suicidal thoughts.

However, one main limitation of the current MPhil thesis to consider, which has not previously been discussed, is that it is based on quantitative findings alone. The present MPhil thesis does not consider the in-depth qualitative views of clients and therapists about the formation and maintenance of the therapeutic alliance and how suicidal experiences may influence the alliance or be impacted by the alliance. Qualitative methods of exploration would provide rich data (Queirós, Faria & Almeida, 2017) and could potentially help to explain some of the quantitative findings in the current MPhil (Bryman, 2006).

This thesis represents findings from therapeutic alliances that were built with suicidal clients in mostly face-to-face therapeutic environments and prior to the COVID-19 pandemic. Whilst it does suggest that the thesis is homogenous in this way, little is known as to how forming and maintaining a therapeutic alliance with suicidal clients may be affected by the COVID-19 pandemic and subsequent lockdown restrictions. There was an abrupt move to remote working and so if clients chose to continue psychotherapy, both therapists and clients had to adapt to remote psychotherapy. Several studies in the broader alliance literature have highlighted that there have been no differences in how the therapeutic alliance was viewed between psychotherapy delivered face-to-face, telephone or online (Mulligan et al.,

2012; Stiles-Shields, Kwasny, Cai & Mohr, 2014; Socala et al., 2012). Such findings are promising for the move to remote working. However, little is understood about how this applies to the therapeutic alliance in the context of working with suicidal clients remotely as it has yet to be empirically examined. Furthermore, for some clients with suicidal experiences who preferred to be seen face-to-face and prematurely discontinued psychotherapy, this may have been an unexpected ending of the therapeutic relationship. Indeed, some clients may view premature endings to psychotherapy as positive as they may feel that the work has been completed, whereas for some clients this could potentially damage their perception of future therapeutic relationships and seeking further psychotherapy (Knox et al., 2011). As perceptions of the therapeutic alliance are related to suicidal experience outcomes, premature termination of psychotherapy may negatively affect suicidal experience outcomes.

Given the findings of the current thesis, there are five key recommendations for future research into the relationship between the therapeutic alliance and suicidal experiences in people receiving psychotherapy. First, future studies should be designed to rate both the therapeutic alliance and suicidal experiences on a session-by-session basis. This will enable researchers to examine fluctuations in both the therapeutic alliance and suicidal experiences and how they relate to each other on a session-by-session basis. If researchers have not planned such session-by-session ratings from the start of the project, they could submit an ethical amendment to use observational therapeutic alliance measures, such as the WAI-O-S (Tichenor & Hill, 1989; Tracey & Kokotovic, 1989) or the Therapeutic Alliance Analogue Scales (Brysk, 1987) to rate psychotherapy session audio recordings.



Second, future work should focus on the potential impact and dynamic interactions between therapist and client characteristics in the formation of the therapeutic alliance in the context of discussing suicidal experiences in psychotherapy. Examples of such therapist and client characteristics could include, age, gender identity, ethnicity, sexual orientation, and socio-economic background. Furthermore, therapist length of experience should be considered. That said, and on the contrary to what might be expected, newly qualified therapists may be more proactive in focussing on building and maintaining a therapeutic alliance and those with more experience may be more complacent.

Third, qualitative methods should be used to explore the experiences of clients and therapists in developing and maintaining a therapeutic alliance in the context of discussing suicide in psychotherapy. A qualitative approach would complement and potentially explain the quantitative findings in this thesis (Bryman, 2006). A related approach would be to examine psychotherapy session audio recordings using qualitative methods to obtain rich information about how the therapeutic alliance is developed and maintained whilst engaging in discussions about suicidal experiences.

Fourth, ruptures in the therapeutic alliance in psychotherapy with suicidal clients and resolutions to such ruptures should be investigated. The wider alliance literature has found that if therapists are able to recognise when ruptures occur and repair or evolve such ruptures, this could lead to better client perceptions of the therapeutic alliance and therapeutic outcomes (Chen, Atzil-Slonim, Bar-Kalifa, Hasson-Ohayon & Refaeli, 2016). If therapists could better understand what may contribute to alliance ruptures and resolutions whilst working with people with suicidal experiences, this could, in turn, improve outcomes for such individuals. Furthermore, this information

could be used to enhance training programmes for therapists, to better equip them for recognising and addressing alliance ruptures within suicide-focused psychotherapy. In turn, this could also reduce the potential for unintentional harm or re-traumatisation in psychotherapy (Knox et al., 2011).

Fifth, and finally, it is recommended that future studies investigate the impact of the COVID-19 pandemic on building and maintaining a therapeutic alliance with suicidal clients. In addition, premature endings to psychotherapy due to the move to remote working during the COVID-19 pandemic should be examined in relation to perceptions of the therapeutic alliance and suicidal experiences. More specifically, have premature endings to psychotherapy affected client perceptions of the therapeutic alliance and future therapeutic or interpersonal relationships? How does this relate to their suicidal experiences?

## Conclusions

The present thesis has both summarised the available evidence-base and provided novel insights into the relationship between the therapeutic alliance and suicidal experiences in people receiving psychotherapy. It is clear from the findings that the therapeutic alliance plays a key role in reducing suicidal experiences, especially at the end of psychotherapy. However, further investigation into the nuances of this predictive relationship is needed to provide further understanding of what may influence change in suicidal experiences throughout psychotherapy.

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## Appendices

### Appendix A

Summary of headings from the data extraction table.

Study title, authors, year, journal, country of study, study design, inclusion and exclusion criteria, sample size in therapy arm, study setting, intervention details, therapeutic alliance measure and when this was collected, suicidal experience (ideation, plans and urges) measure and when this was collected, suicidal experience (attempts) measure and when this was collected, suicide death(s), other relevant measures, sample demographics (age, gender, sexual orientation, ethnicity, presenting mental health problem(s), education status, employment status, other relevant sample demographics), therapist characteristics (number of therapists, age, gender, profession/qualification(s), length of experience, other relevant characteristics), therapy delivery characteristics (maximum number of sessions to be attended, number of sessions attended, cancelled and not attended, length of sessions, setting of therapy, other relevant delivery characteristics), and analysis (summary of influence of predictor, quantitative analysis used, descriptive findings, correlation/regression findings – service user ratings, correlation/regression findings – therapist ratings, correlation/regression findings – observer ratings and any other relevant findings).