# The Therapeutic Relationship in Cognitive Behaviour Therapy for Anxiety Disorders

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**Abstract**

In cognitive behaviour therapy (CBT) for anxiety disorders, it is theorised that a warm, collaborative, and genuine therapeutic relationship is a critical component of effective treatment. In 2018, the American Psychological Association Task Force for evidence-based relationships reviewed the broader psychotherapy literature and identified specific relationship elements to be "demonstrably effective" in treatment. Critically, it was declared that these relationship elements were effective irrespective of theoretical orientation (Norcross & Lambert, 2018). However, the growing recognition that the relationship may operate uniquely across different treatment contexts has raised concerns regarding the applicability of these conclusions to CBT for anxiety disorders.

The overarching aim of this thesis was to explore the role of the therapeutic relationship and examine the effects of specific relational elements in CBT for anxiety disorders. In service of this, the project first critically evaluated the existing evidence of the therapeutic relationship in CBT for anxiety disorders using a systematic review. The results of this review were found to conflict with the conclusions of the Task Force. While there was consistent evidence for the effect of group cohesion and outcome expectations in treatment, results indicated no significant associations for goal consensus and treatment credibility with outcomes. Evidence for the effects of collaboration, empathy, and alliance rupture-repair in treatment were promising, but limited. No studies were identified for positive regard, obtaining client feedback, and emotional expression. Notably, the evidence for the therapeutic alliance was found to be especially problematic, as methodology and conclusions were inconsistent, and sometimes contradictory, across studies. In light of these issues, the thesis subsequently aimed to clarify the alliance-outcome relationship across two studies of independent samples of group transdiagnostic CBT (tCBT) for anxiety disorders.

In the first study, the impact of alliance component (agreement versus bond), perspective (client versus therapist), and timing (early versus late therapy) on the alliance-outcome relationship was examined. Using a sample of 117 individuals, findings revealed that while higher levels of client-rated agreement predicted improved outcomes throughout the course of therapy, stronger client-rated bond in late therapy predicted worse outcomes. In contrast, therapist ratings of agreement and bond did not predict treatment gains.

To extend on these findings, the second study compared client and observer ratings of alliance through an analysis of 55 individuals. Given the group context, client and observer ratings of group cohesion were also examined. Client-rated agreement was again found to predict treatment outcomes, while observer-rated alliance did not relate to symptom change. In contrast, both client and observer ratings of group cohesion uniquely predicted outcomes in the expected direction.

Overall, this body of research supports the theory that the alliance and cohesion may be effective components of CBT for anxiety disorders. However, the identification of unique and complex relationships between these factors and treatment outcomes also underscores the importance of examining elements of the relationship within their treatment context. These findings provide meaningful methodological and theoretical implications that ultimately contribute to a more nuanced understanding of the therapeutic relationship in CBT for anxiety disorders.

## Thesis Including Published Works Declaration

I hereby declare that this thesis contains no material which has been accepted for the award of any other degree or diploma at any university or equivalent institution and that, to the best of my knowledge and belief, this thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

This thesis includes three original papers submitted to peer reviewed journals. The core theme of the thesis is the therapeutic relationship in cognitive behaviour therapy for anxiety disorders. The ideas, development and writing up of all the papers in the thesis were the principal responsibility of myself, the student, working within the Turner Institute for Brain and Mental Health, School of Psychological Sciences under the supervision of Professor Peter J. Norton and Professor Sean P. A. Drummond.

The inclusion of co-authors reflects the fact that the work came from active collaboration between researchers and acknowledges input into team-based research.

In the case of Chapters Two, Four, and Five, my contribution to the work involved the following:

| Thesis Chapter | Publication Title | Status | Nature and % of student contribution | Co-author names Nature and % of Co-author's contribution* | Co-authors, Monash student Y/N |
|---|---|---|---|---|---|
| Two | Elements of the Therapeutic Relationship in CBT for Anxiety Disorders: A Systematic Review | Revised and resubmitted | 75%. Concept development; literature search strategy; data collection, interpretation, and analysis; manuscript synthesis and preparation. | 1) Prof Sean Drummond, manuscript input 10%<br>2) Prof Peter Norton, methodology, data screening, and manuscript input 15% | No |
| Four | What, Who and When? Demystifying the Alliance in Cognitive Behaviour Therapy for Anxiety Disorders | Submitted | 70%. Concept development; ethics; data preparation, analysis, and interpretation; manuscript synthesis and preparation. | 1) Prof Pasquale Roberge, manuscript input 3%<br>2) Prof Martin Provencher, manuscript input 3%<br>3) Prof Sean Drummond, methodology and manuscript input 10%<br>4) Prof Peter Norton, methodology, concept development and manuscript input 14% | No |
| Five | Can You See What I See? A Comparison of Client and Observer Perspectives of the Alliance and Group Cohesion in CBT | Submitted | 75%. Concept development; ethics; data collection, preparation, analysis, and interpretation; manuscript synthesis and preparation. | 1) Prof Sean Drummond, methodology and manuscript input 10%<br>2) Prof Peter Norton, concept development, methodology, and manuscript input 15% | No |

I have renumbered sections of submitted papers in order to generate a consistent presentation within the thesis.

**Student signature:** **Date:** 25 September 2020

I hereby certify that the above declaration correctly reflects the nature and extent of the student's and co-authors' contributions to this work. In instances where I am not the responsible author I have consulted with the responsible author to agree on the respective contributions of the authors.

**Main Supervisor name:**

Professor Sean P.A. Drummond

**Main Supervisor signature:** **Date:**

25 September 2020

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là ánh sáng soi đường cho thế hệ sau tiếp bước.
Ngoại yêu, Ngoại luôn ở trong trái tim con!

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## Glossary of Abbreviations

| | |
|---|---|
| ADIS-IV | Anxiety and Related Disorders Interview Schedule – DSM-IV Edition |
| ADIS-5 | Anxiety and Related Disorders Interview Schedule – DSM-5 Edition |
| APA | American Psychological Association |
| BAI | Beck Anxiety Inventory |
| CBT | Cognitive behaviour therapy |
| CEQ | Credibility and Expectancy Questionnaire |
| CSR | Clinical severity rating |
| CT | Cognitive therapy |
| DSM-IV | Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition |
| DSM-5 | Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition |
| dxCBT | Diagnosis-specific cognitive behaviour therapy |
| ET | Exposure therapy |
| EXRP | Exposure and response prevention |
| GAD | Generalised anxiety disorder |
| GCS | Gross Cohesion Scale |
| GSRS | Group Session Rating Scale |
| ICC | Intraclass correlation |
| MUHREC | Monash University Human Research Ethics Committee |
| OCD | Obsessive compulsive disorder |
| PD | Panic disorder |
| PTSD | Post-traumatic stress disorder |
| SAD | Social anxiety disorder |
| SRS | Session Rating Scale |
| STAI-SF | State Trait Anxiety Inventory – State Form |

| | |
|---|---|
| tCBT | Transdiagnostic cognitive behaviour therapy |
| TPOCS-GC | Therapy Process Observational Coding System – Group Cohesion |
| WAI | Working Alliance Inventory |
| WAI-C | Working Alliance Inventory - Client Version |
| WAI-O | Working Alliance Inventory - Observer Version |
| WAI-SF | Working Alliance Inventory – Short Form |
| WHO | World Health Organization |

# Chapter One: Introduction to the Therapeutic Relationship in CBT for Anxiety Disorders

This chapter presents a general overview of anxiety disorders, cognitive behaviour therapy (CBT), and the rationale for investigating mechanisms of change. The concept of the therapeutic relationship and its components are then introduced, and a detailed historical account of theorised mechanisms of action are presented. Hypotheses regarding the role of the relationship in improving outcomes specifically in CBT for anxiety disorders are also discussed. The evidence for the effect of the relationship on outcomes across psychological treatments is briefly reviewed, highlighting conceptual and methodological limitations in existing literature. These issues are demonstrated to limit the generalisability of these findings to CBT for anxiety disorder contexts. This ultimately provides the rationale for the overarching aim of this thesis.

## Anxiety Disorders

Anxiety disorders refer to the broad cluster of diagnoses characterised by persistent and excessive fear and worry, differentiated by the particular object or situations that provoke anxiety, avoidance, behavioural disturbance, and related cognitions. According to the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5; American Psychiatric Association, 2013), diagnoses include separation anxiety disorder, selective mutism, specific phobia, social anxiety disorder (SAD; social phobia), panic disorder (PD; with panic attack specifier), agoraphobia, and generalised anxiety disorder (GAD). For the purpose of this thesis, obsessive-compulsive disorder (OCD), post-traumatic stress disorder (PTSD), and acute stress disorder will also be included within this definition, despite no longer being classified as anxiety disorders in the DSM-5. This is due to the substantial overlap in clinical features, aetiology, and treatment shared between these diagnoses and DSM-5 anxiety disorders (Stein et al., 2010; Zoellner et al., 2011).

Anxiety disorders are the most prevalent mental health disorders in Australia, affecting one in seven individuals within the country (Slade et al., 2009) and 264 million people globally (World Health Organization; WHO, 2017). The impact of anxiety disorders on the individual, the community, and the economy is substantial. They are associated with reduced physical, mental, occupational, recreational, and social functioning (Chisholm et al., 2016; Olatunji et al., 2007), as well as socio-economic and academic disadvantage across the life span (Lochner et al., 2003). The economic impact of anxiety disorders is likewise significant and far-reaching, where anxiety disorders are estimated to cost the Australian government $376 million in healthcare, $648 million in forgone income tax, and almost five billion dollars in lost productivity every year (Lee et al., 2017), placing anxiety as the fourth largest contributor to total disease burden nationally (Australian Institute of Health and Welfare, 2019). Globally, twelve billion days of lost productivity every year is attributable to depression and anxiety disorders combined, with an estimated cost of $1.15 trillion annually (Chisholm et al., 2016). Estimates place anxiety as the sixth largest contributor to non-fatal health loss worldwide (WHO, 2017). It is apparent that anxiety disorders represent an enormous social, economic, and public health challenge.

With the growing recognition of the impact of anxiety across individuals and society, both national and global health representatives are prioritising efforts to address this issue. In a national review of Australia's mental health programs and services, investigators highlighted the importance of early intervention, cost-effective treatments, improved dissemination of services, and increased clinically applicable research into the treatments and prevention of mental health issues (National Mental Health Commission, 2017). Indeed, the Australian government has publicly committed to reforming the mental health sector through implementing and improving access to cost-effective, evidence-based services targeted to individual needs (Australian Government Department of Health, 2014). The WHO likewise

called for a global reform of mental health programs, and encouraged the increased provision of interventions in community-based settings and improved research in mental health (WHO, 2013). In support of this, economic evaluations of the treatment of anxiety and depression disorders have indicated that every dollar spent in improving treatment for these disorders will lead to a fourfold return in reduced burden on health services and increased participation in the community (Chisholm et al., 2016). Calls to action from both national and international health representatives, alongside empirical demonstrations of economic efficiency, work to highlight the importance of developing, optimising, and disseminating effective treatments for anxiety disorders.

**Cognitive Behaviour Therapy**

Cognitive behaviour therapy (CBT) is routinely recommended as an effective treatment for anxiety disorders in the United States, Australia, Canada, and New Zealand (American Psychiatric Association, 2009; Katzman et al., 2014; Royal Australian and New Zealand College of Psychiatrists, 2003). Several meta-analyses have demonstrated CBT to be more effective than no-treatment, waitlist, and placebo controls in the treatment of anxiety disorders, with effect sizes ranging from $g = 0.75$ to 0.88 across diagnoses (Bandelow et al., 2015; Carpenter et al., 2018; Cuijpers et al., 2016).

CBT refers to the broad family of psychological therapies that aim to address maladaptive emotional responses through targeting relevant thoughts, behaviours, or both. The roots of modern CBT can be traced back to "first wave" behaviour therapy in the 1950s, born from developments in behaviourism theory, and based on the contributions of Ivan Pavlov, John B. Watson, B. F. Skinner, and Joseph Wolpe among many others. Following these principles, behaviour therapy was adapted to include a cognitive component, ushering in the "cognitive revolution" in the 1960s and 70s. Based on work by Aaron T. Beck (1964; 1979) and Albert Ellis (1962), cognitive theory purported that maladaptive thoughts mediated

the relationship between triggers and their associated behavioural response. Cognitive therapy therefore introduced cognitions as targets for treatment in therapy.

Modern CBT theory acknowledges the contributions of both cognitive and behavioural processes in the development and maintenance of psychopathology, and utilises strategies to address both targets. Following these principles, these therapies address anxiety through the use of at least one of two key strategies; (i) identifying and challenging fear and anxiety related cognitive structures, and (ii) exposure to anxiety and fear-provoking stimuli to promote the extinction of learned fear through inhibitory learning. Such psychological treatments include cognitive therapy (CT; A. T. Beck, 1964, 1979), diagnosis specific CBT (dxCBT e.g., Craske & Barlow, 2007; Hope et al., 2006), transdiagnostic CBT (tCBT; e.g., Barlow et al., 2017; Norton, 2012a), exposure and response prevention (EXRP; Meyer, 1966), and exposure therapies (ET; e.g., Foa et al., 2007). Although these therapies differ according to their relative emphasis on cognitive versus behavioural strategies, these treatments will be conceptualised as falling under the umbrella of "CBT treatments" within this thesis. This allows acknowledgement of their shared core features, which provide a basis for discussion and investigation.

Despite decades of research establishing CBT as an effective intervention for anxiety disorders, suboptimal response rates raise concerns about these treatments. In a 2015 review, investigators found that response rates for CBT for anxiety disorders averaged at 49.5% post-treatment and 53.5% at follow-up (Loerinc et al., 2015). Response rates have been found to vary across diagnoses, with 77% for PD, 46% for GAD, and 38-50% for OCD (Hofmann et al., 2012). Moreover, a 2015 meta-analysis found that an average of 19.6% of individuals who received CBT for anxiety prematurely ceased treatment (Fernandez et al., 2015). As 1 in 5 individuals drop out of treatment and only half of patients receive benefit from therapy, it is apparent that current practices are still in need of improvement. Understanding the processes

through which treatments achieve their therapeutic effects is key to improving outcomes in CBT. Through identifying the factors responsible for change in therapy, researchers and clinicians are better able to understand how to promote engagement, improve acceptability, and optimise outcomes.

**Mechanisms of Change**

Proposed factors of change in therapy have historically been organised into two categories: "specific factors" and "common factors" (Castonguay, 1993). Specific factors refer to the components of therapy that are unique to the therapeutic modality, typically associated with theory specific mechanisms of change. Common factors, on the other hand, refer to components in therapy that are shared across treatments, irrespective of theoretical orientation. Historically, there has been fervent debate surrounding what makes therapy work, resulting in decades of process research (McAleavey & Castonguay, 2015). Proponents of the "empirically supported treatments approach" assert that treatment specific interventions, designed to target theorised mechanisms of change, are responsible for producing the benefits of therapy (Chambless & Hollon, 1998). In contrast, supporters of the "common factors approach" argue that the shared elements of therapy, such as a client-therapist relationship, a healing setting, and participation in any adaptive action irrespective of theoretical foundation, are the primary ingredients responsible for therapeutic change (Frank & Frank, 1993; Messer & Wampold, 2002). Stemming from Rosenzweig's (1936) "Dodo Bird Verdict", researchers aligned to this approach argue that the apparent equivalent effect sizes between therapies indicate that the unique, theoretically driven components of therapy are inert and have "comparatively little consequence" (Rosenweig, 1936, p. 415). In a pivotal study by Lambert and Barley (2001), researchers asserted that only 15% of variance in client outcome is attributable to specific techniques, while common factors account for

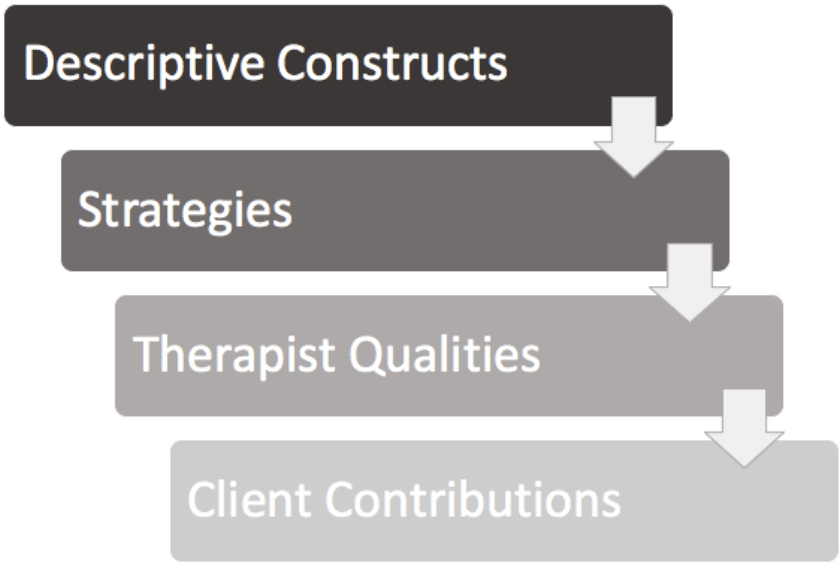
30% of therapeutic change. Notably, researchers identified the therapeutic relationship in particular as a main curative component of therapy.

**The Therapeutic Relationship**

Despite decades of debate between the relative contributions of common versus specific factors, there has been little, if any, disagreement surrounding the importance of the therapeutic relationship in treatment. Whilst specific factor theorists agree that a strong therapeutic relationship is necessary to allow change to take place, proponents of the common factor approach state the relationship alone is sufficient to produce therapeutic benefit (Messer & Wampold, 2002). Historically defined as the feelings and attitudes expressed between a therapist and their client (Gelso & Carter, 1985, 1994), modern definitions of the therapeutic relationship have expanded to incorporate broader "relational elements" that operate within the therapeutic context. According to the hierarchical conceptualisation of helping relationships (Horvath et al., 2016; Norcross & Lambert, 2018), these elements can be organised into four levels (Figure 1.1). At the highest level, superordinate "Descriptive Constructs" refer to the global ways of being in therapy. This includes the therapeutic alliance, group cohesion, and empathy. Beneath this level are "Strategies", describing the methods through which the relationship can be managed. Elements that fall under this category include collecting client feedback, repairing alliance ruptures, and therapist self-disclosure. The subsequent level is "Therapist Qualities", referencing the therapist's attributes and characteristics, rather than their skill or use of specific strategies. These qualities include therapist flexibility and congruence (genuineness). At the bottom of the hierarchy is "Client Contributions", describing independent client factors that influence the relationship in therapy, such as attachment style, expectations, coping style, and culture.

**Figure 1.1**

*Visualisation of Horvath and Colleagues' (2016) Hierarchy of the Therapeutic Relationship*




Given the broad nature of the interpersonal therapeutic environment, dissection of the therapeutic relationship into its constituent components has represented a substantial challenge for process-outcome researchers. In an effort to identify, define, and operationalise empirically supported relationship elements, the American Psychological Association (APA) Division 29 (Psychotherapy) established a Task Force for evidence-based relationships in 1999 (Ackerman et al., 2001). Through consultation with experts and extensive review of previous literature, the Task Force proposed and reviewed a preliminary list of relational elements. This list was updated in a subsequent Task Force in 2011 (see Norcross & Wampold, 2011), and again in 2018 (see Norcross & Lambert, 2018). The elements proposed by the most recent Task Force and their definitions are presented in Table 1.1.

**Table 1.1**

*2018 APA Task Force Relational Elements and their Definitions*

| Element | Definition |
|---|---|
| Therapeutic alliance | The collaborative working together of client and therapist focused on three components: (1) task agreement, (2) goal consensus, and (3) bond (Bordin, 1979). |
| Group cohesion | The attraction, belonging, or bond a client shares with their treatment group (Yalom & Leszcz, 2005). |
| Empathy | A therapist's willingness and ability to understand and be sensitive to a client's internal experience and point of view (Rogers, 1980). |
| Warmth and positive regard | A therapist's unconditional and warm acceptance of every aspect of the client's experience, and the affective response between client and therapist (Barrett-Lennard, 1986; Rogers, 1957). |
| Collaboration | The mutual involvement of client and therapist in a helping relationship (Tryon & Winograd, 2011). |
| Goal consensus | Agreement between client and therapist on the goals of therapy (Bordin, 1979; Tryon & Winograd, 2011). |
| Collecting client feedback | The monitoring of client treatment response during therapy in order to adjust treatment as indicated (Lambert et al., 2018). |
| Repairing alliance ruptures | The repair of a deterioration in the therapeutic alliance, signified by a disagreement between client and therapist, lack of collaboration, or strain in interpersonal bond (Eubanks-Carter et al., 2000). |

Table 1.1 *(Continued)*

| **Element** | **Definition** |
|---|---|
| Cultivating positive expectations | The promotion of positive client predictions regarding how they will respond to treatment (Constantino et al., 2011). |
| Promoting treatment credibility | Improvement of a client's perceived plausibility, reliability, and effectiveness of a treatment (Devilly & Borkovec, 2000). |
| Emotional expression | A client or therapist's expression of affect in session (Peluso & Freund, 2018). |
| Congruence/genuineness | A therapist's accurate and authentic representation and communication of themselves and their experience towards a client (Rogers, 1957). |
| Management of countertransference | A therapist's internal and external reactions in therapy prompted by typically unconscious unresolved personal conflicts (Gelso & Hayes, 1998). |
| Real relationship | The genuine personal relationship shared between client and therapist, and the realistic perception and experience of each other (Gelso, 2009). |
| Self-disclosure | A therapist's verbal sharing of personal information with the client (Hill & Knox, 2002). |

It is important to note that the Task Force's selection of relationship elements has drawn some criticism. Norcross and Lambert (2018) recognised that there is content overlap between some elements, which may have led to redundant constructs. As an example, the authors highlighted that both goal consensus and collaboration represent components of the therapeutic alliance, despite being presented as separate constructs. Furthermore, the authors acknowledged that their list was not exhaustive, and that increased recognition of client contributions to therapy was warranted. For the purpose of consistency with existing conventions, this thesis will proceed with the Task Force's proposed specification and taxonomy of therapeutic relationship elements, whilst acknowledging these limitations.

**The History of the Therapeutic Relationship as a Factor of Change**

The concept of the client-therapist relationship as an agent of change is believed to have originated from Freud's (1913) psychoanalytic theories of transference and attachment (Horvath & Luborsky, 1993). According to Freud, the relationship between a client and their therapist was a metaphor for the client's history of interpersonal problems, whereby the client's attachment to the therapist was a projection of their past relationships. The primary task for the psychoanalytic therapist was to therefore identify and interpret the origins, function, and manifestation of this transference in order to promote healing. The relationship was not only necessary for providing an environment of trust and security to encourage engagement and disclosure, but was also a target of therapeutic work. Within this context, the interpersonal interaction shared between client and therapist was central to treatment.

Following this, conceptualisations of the relationship were influenced by the work of Carl Rogers. In contrast to viewing clients as flawed, Rogers hypothesised that every individual has the capacity and desire for growth and change, referred to as their "actualising tendency" (Rogers, 1951). Through this work, Rogers advocated for a nondirective, empathetic approach, and that the role of the therapist was to stimulate and facilitate this

process through the provision of the "core conditions" of therapy (Rogers, 1957). When the conditions of (1) unconditional positive regard, (2) empathetic understanding, and (3) congruence were perceived by the client at least to a minimal level, it was believed that positive change was inevitable. Pivotally, Rogers argued that these relationship conditions were within themselves curative, and were primarily responsible for change irrespective of theoretical orientation. He further proposed that the therapist was unilaterally responsible for providing these conditions, and argued that the therapist's most significant contribution to their client's healing was through the relationship.

In contrast, early behaviour therapy emphasised the role of specific strategies and techniques above the relationship. This was based on the assumption that the efficacy of behavioural treatments was attributable to the specific strategies and techniques employed to shape client behaviour through establishing appropriate learning contingencies (Safran & Segal, 1990; Sweet, 1984). The interpersonal nature of therapy was accordingly perceived to have minimal significance in facilitating outcomes. Historically, the role of the relationship in behaviour therapy was relatively neglected, in favour of focus on conditioning principles to treat problematic behaviour (Sweet, 1984). Behaviour therapists perceived their role in treatment as "social reinforcement machines" (Krasner, 1962), where a strong relationship was a by-product of effective therapy, as opposed to an active ingredient of treatment. At best, the relationship could be used in service of behavioural strategies, where it could be leveraged to modify client behaviour through operant conditioning, modelling, and behavioural rehearsal amongst other strategies (Follette et al., 1996). The relationship could be used by the therapist to identify problem interpersonal behaviours as targets for behavioural modification (e.g., emotional avoidance, mistrust), and as a means to deliver social reinforcement through failing to reinforce problematic behaviours, promoting more

adaptive competing behaviours, or sometimes punishing behaviours that were harmful to others (Follette et al., 1996).

**The Therapeutic Relationship in CBT**

Given the de-emphasis of the relationship in early behaviour theory, behaviour therapists, and by extension cognitive behavioural therapists, received the reputation of being cold and mechanical (see Castonguay et al., 2018). With the introduction of cognitive therapy however, came the growing recognition of the relationship as an interactive process in treatment, responsible for supporting and facilitating the effectiveness of therapy. A. T. Beck (1979) conceptualised the therapeutic relationship as a required precondition of effective therapy. It was theorised that a genuine, warm, and collaborative relationship created the necessary conditions of trust and safety between client and therapist, allowing the effective application of techniques that were ultimately responsible for therapeutic change. In other words, the interpersonal client-therapist environment was responsible for activating the therapeutic benefit of specific techniques.

Currently, there exists a number of theories regarding the role of the relationship in CBT. First, it is thought that strong client-therapist bonds improve (1) the likelihood of the client engaging and accepting the therapist's restructuring of thoughts and behaviour, (2) client compliance and commitment to treatment, and (3) client persistence with challenging but ultimately therapeutic tasks (J. S. Beck, 2011). At the crux of this theory is the belief that a positive client-therapist relationship can be used to improve a client's adherence to the techniques of therapy, and preventing disengagement from treatment. In turn, the potency of treatment is optimised. Regarding CBT for anxiety disorders, a strong relationship may specifically encourage clients to engage and continue with confronting cognitive restructuring and difficult exposures, thereby promoting the inhibitory learning process and challenging maladaptive responses.

In addition, a core component of the effective CBT relationship is the concept of collaboration and active mutual involvement. In CBT, both client and therapists are required to actively contribute to treatment in order to optimise outcomes. Therapists are perceived as the expert in psychological theory and treatment, while clients are recognised as experts of their individual experience (Tucket et al., 1985). The application and design of appropriate interventions in treatment can only be achieved through the mutual input and consensus from both individuals. An environment of team work, respect, and symmetrical input allows effective information exchange and collaborative decision making, thereby ensuring accurate and appropriate diagnosis, case conceptualisation, and treatment (Kuyken et al., 2008). This promotes a shared understanding between client and therapist of the client's problems, the rationale for treatment, and the effective selection and application of appropriate interventions. This may be especially critical in CBT for anxiety, as the accurate and appropriate selection of exposures is necessary for effective inhibitory learning (Benito & Walther, 2015; Craske et al., 2014).

Regarding more direct actions of the client-therapist relationship in CBT, several researchers have proposed different mechanisms of change. Wolpe and Lazarus (1966) hypothesised that a positive relationship in therapy helped to reduce client anxiety when in the presence of the therapist, a process they described as "non-specific reciprocal inhibition". The therapist would therefore be able to capitalise on the client's reduced arousal to create a more productive therapeutic environment. It has also been suggested that the client-therapist relationship may provide important insights about the client's internal experience, similar to psychodynamic conceptualisations (Arknoff, 1981). Goldfried (1985) further argued that client-therapist interactions in session reveal unique opportunities to observe and modify interpersonal client behaviours in the here-and-now. As suggested by Safran and Segal (1990), metacommunication about the relationship in session may help clients gain awareness

of their maladaptive responding and challenge unhelpful interpersonal schema. This may be particularly useful for the treatment of clients with maladaptive patterns of relating to others. For example, an anxious client may excessively seek reassurance from others to cope with anxiety, and interact with individuals who confirm their negative beliefs. To combat this, a CBT therapist may choose to interact with the client in a manner that does not reinforce this pattern of behaviour or beliefs through encouraging autonomy and providing feedback about the consequences of these ways of relating. Using the relationship, the therapist may create an interpersonal environment through which the client can try new ways of relating to others without being dismissed, invalidated, or rejected. The relationship could therefore be conceptualised as a source of information about the client, as well as a target for treatment in CBT.

The relationship has also been conceptualised as a means of providing corrective experiences and direct challenges to maladaptive beliefs. For individuals with anxiety disorders (as well as clients with other diagnoses), particularly those whose interpersonal problems are a central subject of their distress (e.g., SAD, PTSD), the experience of a warm, accepting, and validating relationship in therapy may provide evidence to contradict negative beliefs about the self and others, encouraging the formation of more helpful cognitive structures (Castonguay et al., 2018). As an example, in abuse-related trauma populations, a positive interpersonal relationship may directly contrast with prior experiences of neglect or abandonment, therefore challenging related schematic structures. Regular contact with a therapist who is welcoming, friendly, and respectful may also combat feelings of isolation, loneliness, and demoralisation, thereby alleviating distress (Castonguay et al., 2018).

In summary, review of the history of the therapeutic relationship as an agent of change highlights the potentially unique effects of this factor in specific therapeutic contexts. CBT models in particular, posit both facilitative and central roles for the relationship in

treatment. The relative applicability of these mechanisms are dependent on the client's presentation and needs, and can be used by the therapist to support, inform, or direct the client's treatment. These models also hypothesise that the client-therapist interpersonal environment may play a specific role in the treatment of anxiety disorders. The differences in the conceptualisation of the therapeutic relationship between treatment modalities suggest that the effects of the relationship may not be equal, or "common", across all therapies. In other words, what may be considered therapeutic in one treatment context may be less relevant in another, and where the relationship may be more central for some individuals, it may only have a mutative benefit for others.

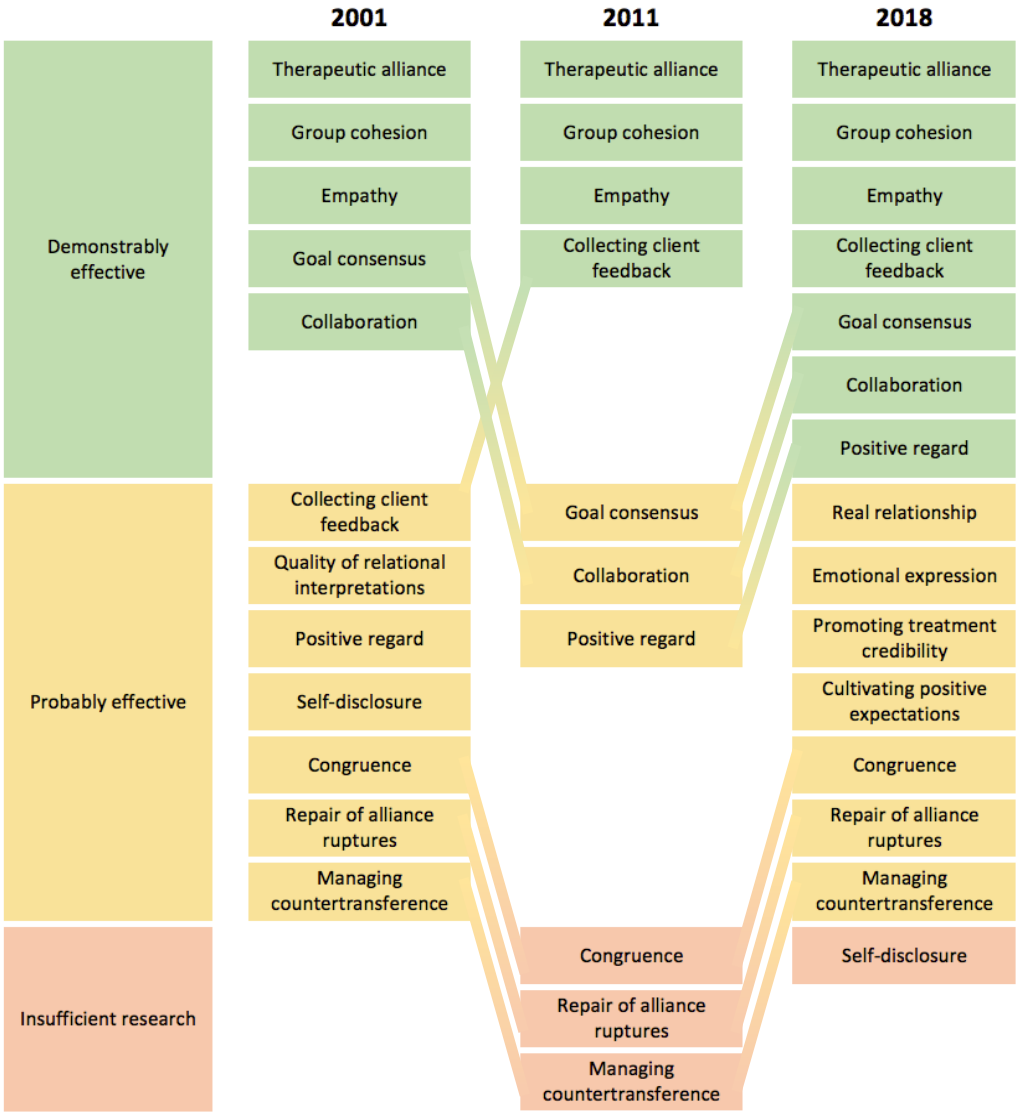
**The Evidence for the Therapeutic Relationship as a Factor of Change**

Decades of research have largely supported a correlation between therapeutic relationship elements and treatment outcomes (e.g., Hardy et al., 2007; Norcross & Wampold, 2011; Norcross & Lambert, 2018). Qualitative studies similarly show that elements of the therapeutic relationship are routinely identified by both clients and therapists as helpful in therapy (Gershefski et al., 1996; Kazantzis et al., 2018; Levitt et al., 2006). Alongside the identification and specification of relationship elements, the APA commissioned the 1999 Task Force to conduct meta-analytic review of the evidence of the link between relationship elements and treatment outcome (Norcross, 2001). Through a comprehensive review and summary of existing literature, the Task Force evaluated the evidentiary strength of each relationship element, labelling them to be either (1) "demonstrably effective", (2) "probably effective" or that (3) there was "insufficient research" to reach a conclusion (Ackerman et al., 2001). Eligibility for each judgment was based on the (1) number of supportive studies, (2) consistency of results, (3) magnitude of the effect size, (4) quality of the evidence, (5) directness of the element-outcome link, and (6) external validity of the research and evidence. Two additional Task Forces have since

updated this research, once in 2011 (see Norcross & Wampold, 2011), and again in 2018 (see Norcross & Lambert, 2018). A summary of the conclusions made by each successive Task Force is presented in Figure 1.2.

**Figure 1.2**

*Summary of Conclusions from Three APA Task Forces on Evidence-Based Relationships*




*Note.* The lines represent changes in conclusions regarding the evidentiary strength of the elements.

Overall, each meta-analysis indicated that there was considerable, or at least emerging, evidence that each identified relationship element was predictive of improved treatment outcomes. To parse out the effects of confounding variables, moderator analyses

were conducted to control for factors such as client diagnosis, therapeutic orientation, therapist experience, and treatment length. Notably, results generally indicated equal effect sizes across treatment types (see Norcross & Lambert, 2019), reinforcing the common factors argument. In light of these findings, after review of almost 40 years of process-outcome research, the 2018 Task Force emphatically concluded that "the psychotherapy relationship makes substantial and consistent contributions to patient outcome independent of the specific type of psychological treatment… it accounts for client improvement… as much as, and probably more than, the particular treatment method" (Norcross & Lambert, 2018, p. 313).

**Issues Within the Relationship-Outcome Literature**

The substantive work of the interdivisional Task Force has undeniably advanced the recognition, identification, and understanding of the relationship in therapy. However, the suggestion that the relationship operates independently of the therapeutic context, and that it likely contributes more than specific interventions, raises many concerns. Specifically, it is important to recognise that from the outset, the Task Force investigated the relationship from a pantheoretical and transdiagnostic perspective. Elements of the relationship were examined under the assumption that the relationship could be defined, operationalised, measured, and interpreted equally across treatment modalities and diagnostic populations. As a consequence, research from divergent treatment approaches and different diagnostic groups were aggregated, potentially obscuring important nuances and distinct functions in unique contexts. It is notable that the Task Force attempted to account for differences between treatment types and client diagnoses by incorporating moderation analyses. These analyses however, were unable to delineate differences between specific treatment modalities for specific disorders. That is, while comparisons were made between anxiety disorders versus other disorders, and for CBT versus other orientations, no comparisons were conducted specifically for CBT for anxiety disorders.

**The Importance of Nesting "Common" Factors Within Their "Specific" Contexts**

The reputation of the therapeutic relationship as a "common factor" has inevitably contributed to its conceptualisation as a transdiagnostic and pantheoretical mechanism of change (Castonguay, 2000). It has been argued that the conceptualisation of "common" versus "specific" factors presents a false dichotomy, with a misleading implication that these are separate and mutually exclusive entities (Castonguay, 2000; McAleavey & Castonguay, 2015). Critics have argued that this polarisation has detracted focus from investigating these factors in a holistic or contextual manner (Wampold & Budge, 2012), where discussion of these factors independent of each other fails to reflect the true complexities in therapeutic change (McAleavey & Castonguay, 2015). As previously discussed, what is considered an "ideal" relationship, and how this relationship can be nurtured and expressed, is inherently imbedded within the theoretical structure of each specific treatment for each disorder. In a demonstration of the intertwined nature of common factors and their therapeutic context, Tschacher et al. (2012) surveyed 68 therapists and asked how they would implement 22 common factors in therapy through their specific techniques. Results showed that each common factor was significantly associated with treatment specific techniques, such that they could be described and defined by a unique profile of strategies. Moreover, a therapist's perceived importance of a common factor was found to be associated with their theoretical allegiance.

To illustrate how the same interpersonal interaction could be interpreted and delivered differently in therapy, consider the example of a therapist with a directive, challenging interpersonal style. In other words, when confronted with client resistance, the therapist assumes a more authoritative teaching role. In the context of a person-centred therapy, directiveness could be conceptualised as a non-productive, and possibly detrimental experience for clients (Witty, 2004). According to Rogerian principles, a non-directive,

supportive, and facilitative approach is necessary to engage a client's actualising tendency, through nurturing a client's sense of autonomy and self-efficacy (Rogers, 1942). A confronting or challenging therapist could therefore undermine a client's "power to refuse", which may consequently hinder progress (Witty, 2004). In this respect, a directive therapist may be considered non-empathetic, and detrimental to client recovery (Moyers & Miller, 2013).

In contrast, directiveness may not necessarily represent a damaging interpersonal interaction in CBT for anxiety disorders. Through the use of exposure strategies, clients are required to confront uncomfortable and often distressing scenarios in a systematic and controlled manner. It is expected that some clients may choose to escape an exposure in order to alleviate their anxiety. However, to avoid negative reinforcement of avoidance, it may be best for a CBT therapist to encourage the client to reattempt the exposure (Pence et al., 2010). A CBT therapist may choose to leverage their expertise and knowledge of the inhibitory learning process to encourage a client to persist with an exposure that they would otherwise avoid (Abramowitz et al., 2002). According to a CBT conceptualisation of anxiety, not encouraging a client to continue with a difficult exposure could inadvertently reinforce their fears, and thus hinder recovery. Unlike in classic person-centred approaches, a CBT therapist can be conceptualised as simultaneously directive and empathetic, through actively encouraging a client to re-engage with the exposure, while validating their experience by recognising that their avoidance makes sense in context of their history (Thwaites & Bennett-Levy, 2007). From a person-centred perspective, this therapist may appear to have low empathy, while from a CBT perspective, the therapist could be seen as having high empathy.

It is clear that the specific theoretical model of psychopathology and treatment can influence the expression and interpretation of the relationship in therapy. Each theoretical perspective provides a unique, and to some extent mutually incompatible, framework for the

relationship in treatment. Regarding the findings of the Task Force, conclusions were drawn from the collapsing of evidence across CBT, psychodynamic, humanistic, counselling, interpersonal, and eclectic treatments, for diagnoses ranging from mood disorders, personality disorders, and substance use disorders amongst others. It may therefore be premature to assume that the generalised, unspecified conclusions of the Task Force can be accurately applied to CBT for anxiety disorders. Specific investigation of the relationship within this context is needed in order to identify and delineate the potentially unique and complex actions of these elements in treatment.

**Summary**

Since the inception of psychological therapies, the therapeutic relationship has been purported as a necessary, if not sufficient, active ingredient of treatment. The APA interdivisional Task Force on evidence based relationships has served as an authority on therapeutic relationships for the past two decades. Through their investigation of the relationship from a pantheoretical and transdiagnostic perspective, it has been asserted that the relationship is effective irrespective of theoretical orientation and client diagnosis. However, this evidence fails to adequately account for the possible unique actions and interactions of the relationship in specific therapies, and has inevitably resulted in a lack of nuanced exploration of the relationship nested within its treatment context. Conclusions regarding the effectiveness of the relationship across treatments and diagnoses may therefore be overgeneralised, and it is unclear whether these assertions are applicable to CBT for anxiety disorder contexts.

**Overall Aim of the Thesis**

Given the gaps within the existing literature, it remains unclear if, how, and to what extent the therapeutic relationship is associated with change in CBT for anxiety disorders. To address this issue, the overarching purpose of this thesis was to examine and understand the

link between treatment outcomes and elements of the therapeutic relationship in CBT for anxiety disorders. This overall aim was explored through a systematic review (Chapter Two), and two separate empirical studies (Chapter Four and Five). The findings from the review were used to generate subsidiary aims in order to address specific uncertainties identified within the literature. These aims are presented in Chapter Three.

# Chapter Two: Elements of the Therapeutic Relationship in CBT for Anxiety Disorders: A Systematic Review

## Preamble

In service of clarifying the role of the therapeutic relationship in CBT for anxiety disorders, it is first necessary to evaluate the existing evidence. The paper presented in this chapter offers a systematic review of the relationship elements deemed to be "demonstrably" and "probably" effective by the Task Force (Norcross & Lambert, 2018), specifically within CBT for anxiety disorders. It aimed to (1) qualitatively summarise and critically evaluate the state of the evidence for the link between relationship elements and CBT for anxiety treatment outcomes, and (2) identify and examine areas where key uncertainties exist. The strength of this evidence was contrasted with the Task Force's conclusions, in order to highlight discrepancies, inconsistencies, and gaps in the literature. In service of these purposes, this review followed the Task Force's methodology and conceptualisations where possible and appropriate. Operational definitions of each relationship element used in this review were based on (1) definitions presented in Table 1.1, and (2) methods described in each corresponding Task Force meta-analysis. For example, the operational definition of the alliance used in this review was based on the inclusion criteria outlined in the Task Force alliance-outcome meta-analysis conducted by Flückiger et al. (2018). Operational definitions served as inclusion criteria for the selection of relationship-outcome studies and are listed in Table 2.1.

The elements of (1) the real relationship, (2) congruence, and (3) managing countertransference were not included in this review. This is because these elements are typically associated with, and conceptually embedded within, psychoanalytic (see Freud, 1919, 1937) and humanistic/experiential theoretical frameworks (see Perls, 1969; Rogers, 1957). Although modern conceptualisations of these elements present pantheoretical

interpretations (see Gelso et al., 2018; Hayes et al., 2018; Kolden et al., 2018), CBT models of the relationship do not traditionally incorporate these concepts (see Gilbert & Leahy, 2007; and Kazantzis et al., 2017 for further information). It is likely that for these reasons, recent meta-analytic reviews have failed to identify CBT studies investigating these relational elements (see Gelso et al., 2018; Hayes et al., 2018; Kolden et al., 2018).

The paper presented in this chapter was submitted to a journal for peer review in April 2020 and revisions are currently under consideration by that journal. The format of this paper is consistent with journal requirements, with tables and figures renumbered for the thesis.

**Table 2.1**

*Operational Definitions of Elements of the Therapeutic Relationship*

| Relationship element | Operational definition |
|---|---|
| Alliance | The author refers to variable as the alliance, helping alliance, working alliance, or therapeutic alliance. The variable assesses the working together of client and therapist in treatment (Flückiger et al., 2018). |
| Group cohesion | The variable assesses the attraction of group members to each other (including or not including the therapist) by assessing the bond, willingness to collaborate/participate, and/or lack of hostility in the group (Burlingame et al., 2018). |
| Empathy | The author refers to therapy process as empathy. The variable assesses the therapist's understanding of the client and their internal experiences (Elliot et al., 2018). |
| Collaboration | The variable assesses the active and mutual participation of client and/or therapist during session (Tryon et al., 2018), excluding homework adherence (Kazantzis et al., 2015). |
| Goal consensus | The variable assesses the client and therapist's mutual agreement on the goals of therapy (Tryon et al., 2018). |
| Warmth/positive regard | The author refers to the therapy process as warmth or positive regard. The variable assesses the liking, affinity, validation, acceptance, and/or warmth of the therapist towards the client (Farber et al., 2018). |

Table 2.1 *(Continued)*

| Relationship element | Operational definition |
|---|---|
| Feedback | The study uses the Outcome Questionnaire system (OQ system, OQ-45, OQ-Analyst) or Partners for Change Outcome Monitoring System (PCOMS) for providing feedback about the client's mental health and progress. Clients are assigned to one of at least two conditions, (1) treatment with feedback and (2) treatment without feedback (Lambert et al., 2018). |
| Alliance Rupture-Repair | The author refers to therapy process as alliance rupture and/or alliance rupture-repair. The variable measures notable reductions in the alliance, with or without subsequent notable increases, as assessed by quantitative criteria (Eubanks et al., 2018). |
| Outcome expectations | The variable measures the client's expected benefits and/or consequences of engaging with treatment (Constantino, Vîslă et al., 2018). |
| Treatment credibility | The variable measures the client's perceptions of the credibility of treatment after their initial contact with the therapist (e.g., after session 1; Constantino, Coyne, et al., 2018). |
| Emotional expression | The variable measures client or therapist expression of emotions/affect during session (Peluso & Freund, 2018). |

**Elements of the Therapeutic Relationship in CBT for Anxiety Disorders: A Systematic Review**

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**Abstract**

To optimise the effects of cognitive behaviour therapy (CBT) for anxiety disorders, research has increasingly focussed on understanding mechanisms of change. Specifically, the therapeutic relationship has been identified as a potential "active ingredient" of therapy. The evidence for the effects of eleven elements of the therapeutic relationship (alliance, collaboration, goal consensus, group cohesion, empathy, positive regard, feedback, emotional expression, outcome expectations, treatment credibility, alliance rupture-repair) on treatment outcomes in CBT for anxiety disorders was systematically reviewed. Fifty unique studies were included, and findings were qualitatively reviewed and summarised. Results revealed consistent and sizeable evidence for the cohesion-outcome and expectation-outcome relationships. There was emerging evidence for the effects of collaboration, empathy, and alliance rupture-repair on outcomes. However, the evidence for goal consensus and credibility on outcomes was limited. Notably, review of the alliance literature revealed substantial inconsistencies across studies. No studies were identified for positive regard, feedback, and emotional expression. Overall, further research is needed to clarify the role of the therapeutic relationship in CBT for anxiety disorders. These findings will contribute to the conceptual integration of therapeutic relationship constructs in cognitive behavioural models, and help to improve treatments and outcomes for individuals.

**Keywords:** anxiety disorders, cognitive behavior therapy, psychotherapeutic processes

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**Elements of the Therapeutic Relationship in CBT for Anxiety Disorders: A Systematic Review**

## 1. Introduction

Anxiety disorders are the sixth largest contributor to non-fatal health loss worldwide, and are responsible for 24.6 million Years Lived with Disability (WHO, 2017). Meta-analyses have established cognitive and behavioural therapies (CBT) as an effective treatment for anxiety disorders (e.g., Cuijpers et al., 2016; Norton & Price, 2007; Stewart & Chambless, 2009). CBT refers to the broad family of psychological treatments that share the core premise that cognitive processes and associated behaviours are responsible for the development and maintenance of psychopathology (J. S. Beck, 2011). These therapies aim to treat anxiety disorders through at least one of two key mechanisms; (i) identifying and challenging fear and anxiety related cognitive structures, and (ii) exposure to anxiety and fear-provoking stimuli to promote the extinction of learned fear. Therapies that incorporate these principles include cognitive therapy (CT; A.T. Beck, 1964, 1970), diagnosis specific CBT (e.g., Craske & Barlow, 2007; Hope et al., 2006), group transdiagnostic CBT (tCBT; e.g., Barlow et al., 2017; Norton, 2012), exposure and response prevention (EXRP; Meyer, 1966), and exposure therapies (ET; e.g., Foa et al., 2007).

Efforts to further validate and optimise evidence supported treatments have increasingly focused on identifying and examining mechanisms of change. Specifically, the therapeutic relationship has been widely recognised as a key ingredient of treatment across all psychological modalities. Traditionally defined as the feelings and attitudes expressed between therapist and client (Gelso & Carter, 1985, 1994), the concept of therapeutic relationships has extended to encompass broader "relational elements" that exist within the therapeutic context. In a hierarchical conceptualisation of helping relationships outlined in Norcross and Lambert (2018a), these elements can be categorised under (1) superordinate

“descriptive constructs” of being in therapy (e.g., alliance, group cohesion, empathy), (2) “strategies” for managing the relationship (e.g., promoting treatment credibility, resolving alliance ruptures, improving outcome expectations), (3) “therapist qualities” (e.g., response to countertransference, congruence/genuineness), and finally (4) “client contributions” (e.g., client attachment style). Studies have demonstrated that therapists and clients routinely identify these elements as important in therapy (e.g., Gershefski et al., 1996; Murphy et al., 1984). For CBT, a sound therapeutic relationship is conceptualised as a necessary, but not sufficient, component of effective treatment (A. T. Beck, 1979). A positive relationship is thought to create the necessary conditions of trust and safety between client and therapist, allowing the effective application of techniques that are ultimately responsible for therapeutic change.

In recognition of these factors, the American Psychological Association (APA) Division of Psychotherapy first commissioned a Task Force in 1999 to empirically evaluate the therapy relationship across psychotherapies. Through comprehensive meta-analytic review, investigators synthesised and summarised the relationship-outcome evidence across psychotherapies and diagnoses, with detailed findings and recommendations subsequently published in a special issue journal (Norcross, 2001) and book (Norcross, 2002). Two further Task Forces have updated this research, with the Third Interdivisional APA Task Force on Evidence-Based Relationships and Responsiveness cosponsored by APA Divisions 29 and 17 publishing their findings in 2018 (Norcross & Lambert, 2018a). Regarding the evidentiary strength of different components of the therapy relationship, elements were concluded to be “demonstrably effective” (e.g., alliance, group cohesion), “probably effective” (e.g., promoting treatment credibility, improving outcome expectations), or “promising but insufficient research” (e.g., self-disclosure; see Norcross & Lambert, 2018b). The Task Force ultimately concluded that the relationship is indeed an effective ingredient of treatment, and

therefore encouraged clinicians to make the "creation and cultivation of the therapy relationship a primary aim of treatment" (Norcross & Lambert, 2018b, p. 309).

It is important to note however, that the investigations and conclusions of the Task Force were positioned from a pantheoretical and transdiagnostic perspective. Conceptualised as a "common factor" of all psychological therapies, relationship-outcome research was collapsed from a multitude of theoretical modalities and diagnoses. Because of this, nuances and patterns in how the relationship may differentially operate across treatments and disorders may have been obscured. CBT conceptualises the therapeutic relationship as a facilitative component of treatment, as opposed to other modalities, such as psychodynamic and person-centred therapies, that purport a more central role of the relationship in treatment (see Feltham, 1999, for further detail regarding the relationship in different therapies). It follows then that the relationship may have differential effects across theoretical orientations. Similarly, the relationship may demonstrate unique effects across diagnostic populations. Differences in interpersonal processes are key in the conceptualisation and diagnosis of many psychological disorders, and these differences may impact the influence of the therapeutic relationship on treatment outcomes. With potentially unique effects across therapies and diagnoses, it may therefore be premature to apply the broad conclusions of the Task Force to CBT for anxiety disorders specifically.

For example, the alliance-outcome relationship, concluded by the Task Force to be "demonstrably effective", has shown mixed results in the CBT for anxiety disorders literature. Defined as the collaborative working together of client and therapist through a positive bond, consensus on therapeutic goals, and agreement on the tasks of therapy (Bordin, 1979, 1994), some studies have indicated that stronger alliance predicts reduced anxiety symptom severity in CBT treatments (e.g., Simpson et al., 2011), while others have found no significant alliance-outcome relationship (e.g., Strauss et al., 2018). Indeed, in a recent

systematic review of alliance in ET for anxiety disorders (Buchholz & Abramowitz, 2020), investigators flagged potentially problematic variability within this literature. Although 10 of 14 papers indicated a significant alliance-outcome relationship, critical review of the research revealed conceptual and methodological inconsistencies across studies, including alliance assessment tool, rater of the alliance, timing of assessment, timing of alliance, and diagnosis, among others. It was concluded that due to methodological and conceptual limitations, the evidence for the alliance as an effective ingredient in ET required further investigation. Despite being arguably the most researched and substantiated relationship element, these inconsistencies raise the question of whether the robust reputation of the therapeutic relationship as an active ingredient in therapy is indeed applicable to CBT for anxiety disorders.

In order to clarify the evidence of relationship processes in CBT for anxiety disorders, it is necessary to investigate and review these factors specifically within this context. The recent qualitative review of alliance in ET (Buchholz & Abramowitz, 2020) contributes substantially to this area of knowledge. However, it is important to note that the scope of the review was limited to the alliance, and to studies that utilised exposure therapy as a primary treatment component. Studies that incorporated other cognitive behavioural strategies, namely cognitive restructuring, were excluded from investigation. The present study therefore aimed to qualitatively synthesise and critically review the current state of the relationship-outcome research in CBT for anxiety disorders. This will allow for both a summary of the evidence of the relationship as an effective CBT component, as well as the highlighting of any methodological and conceptual discrepancies, patterns, and nuances within the research that may otherwise be obscured if prematurely aggregated using meta-analytic methods. The study also aimed to compare the broad conclusions of the Task Force with the evidence of these relationships within the CBT for anxiety context. The present

study therefore investigated the same therapy relationship elements included in the most recent Task Force review (Norcross & Lambert, 2018b). It is important to acknowledge that there is some conceptual overlap between constructs (e.g., alliance, goal consensus, and alliance rupture-repair), and that there is debate surrounding the conceptualisation of some elements (e.g., collaboration; see Zimmerman, 2011). However, for the purpose of consistency with the Task Force review, the present study utilised the same constructs and definitions adopted by the Task Force where appropriate. Findings will allow clinicians to understand how best to cultivate, adapt, and monitor relationships in therapy to enhance therapeutic outcomes, as well as provide direction for future research.

## 2. Method

Guided by the conclusions of the most recent APA Task Force (see Norcross & Lambert, 2018b), eleven relationship elements were selected for review in the present study: alliance, collaboration, goal consensus, group cohesion, empathy, positive regard and warmth, feedback, emotional expression, outcome expectations, treatment credibility, and alliance rupture-repair. These represent the elements identified as "demonstrably effective" and "probably effective" by the Task Force. The additional elements of congruence, real relationship, and managing countertransference which were investigated by the Task Force were not included in the present study as they reflect psychoanalytic, humanistic, and Rogerian principles, and are not generally associated with CBT interventions.

### 2.1 Selection Criteria

Studies were selected for the present review using the following inclusion criteria: (1) the sample had a primary diagnosis of an anxiety disorder based on Diagnostic and Statistical Manual, Fourth Edition (DSM-IV; APA, 1994), DSM-IV Text Revision (DSM-IV-TR; APA, 2000), or Diagnostic and Statistical Manual, Fifth Edition (DSM-5; APA, 2013), (2) involved an individual or group CBT to treat the anxiety disorder, (3) measured at least one of the

eleven relationship elements previously outlined, and (4) reported the relationship between this element and an anxiety outcome measure.

Anxiety diagnoses used in the present study included generalised anxiety disorder (GAD), panic disorder (PD) with or without agoraphobia, social anxiety disorder (SAD), obsessive-compulsive disorder (OCD) and post-traumatic stress disorder (PTSD). Due to the substantial variation in terminology used within the specific phobia literature, complete coverage of this body of research could not be ensured. For example, spider phobia may also be referred to as arachnophobia, fear of spiders, or spider anxiety. Therefore, specific phobias were not included in this review. A CBT for anxiety disorder was defined as any psychological treatment that explicitly incorporated at least one of the following components: (1) cognitive restructuring of anxiety-related beliefs, or (2) exposure to avoided or feared stimuli. Interventions included CBT, CT, EXRP, ET, prolonged exposure (PE), cognitive processing therapy (CPT), and behaviour therapy (BT). An anxiety outcome measure was defined as an assessment of anxiety-related symptoms and/or change in relevant diagnostic status.

Articles were excluded if (1) an adult sample was not used (i.e., not over the age of 18), (2) the sample size was less than 8, (3) the intervention was not delivered face-to-face, (4) the article was not published in a peer-reviewed journal, or (5) the article was not available in English.

## 2.2 Search Strategy

Articles were initially sourced using the electronic databases PsycINFO, PubMed, and Scopus. To replicate the recent APA Task Force reviews, search terms used in the reviews were adapted to generate search strings for the present study. The relationship specific search terms outlined in Appendix A were combined with the search string (anxiety OR panic OR phobia OR stress disorder OR obsessive OR compulsive) AND [(cognitive OR behav* OR

CBT OR exposure) AND (treatment OR therapy)]. The search was limited to articles published between January 1994 and December 2018, to capture studies published after the introduction of the DSM-IV (APA, 1994). Filters were also used across the databases to reflect inclusion and exclusion criteria. Articles were also identified through manual searching of reference lists of the 2011 and 2018 Task Force meta-analytic reviews.

### 2.3 Study Selection

A PRISMA flow chart (Figure 2.1) depicts the review process. Title and abstracts were screened by the first author (HKL). Irrelevant studies were discarded, and full text manuscripts were retrieved. Eligibility for inclusion in the study was reviewed by the same author. To assess inter-observer agreement, 15% of the full-text articles were reviewed by the third author (PJN). One-hundred percent independent agreement was achieved for the inclusion/exclusion of articles.

## 3. Results and Discussion

A total of fifty unique articles were included in this qualitative review. A number of studies were found to include more than one relationship element. Although the Task Force reviewed goal consensus as an individual relationship component, given that it is a component of the alliance, goal consensus will be reviewed alongside alliance in Section 3.1.2. The elements of treatment credibility and outcome expectations were collapsed into a single category due to substantial overlap in measurement and conceptualisation. No studies were found to examine the role of obtaining client feedback, emotional expression, or therapist positive regard in treatment outcomes. The relationship constructs will be presented in descending order of number of studies to reflect the size of each body of evidence. Effect size interpretations were based on guidelines for social science data recommended by Ferguson (2009). Qualitative descriptors of effect sizes range from “recommended minimum effect size/small” (e.g., $r = .20$, $d = .41$), “moderate/medium” (e.g., $r = .50$, $d = 1.15$), and

"strong/large" (e.g., $r = .80$, $d = 2.70$; see Ferguson, 2009 for full details). These benchmarks are more conservative than the Cohen (1988) guidelines used by the APA Task force (i.e., small $r = .10$ and $d = .20$, medium $r = .30$ and $d = .50$, large $r = .50$ and $d = .80$), which have been criticized for not being anchored or translated consistently across effect sizes (e.g., $r = .30$ is not equivalent to $d = .50$; Ferguson, 2009).

## 3.1 Alliance

The alliance can be defined as the collaborative stance between client and therapist, comprised of three key components: (a) consensus on goals in therapy (b) agreement on therapeutic tasks, and (c) a positive client-therapist bond (Bordin, 1979). The Working Alliance Inventory (WAI; Horvath & Greenberg, 1989) and its short-form variants were found to be the most commonly used measures of the alliance. Other global measures of alliance included the Helping Alliance Questionnaire (HAQ; Luborsky et al., 1996) and the California Psychotherapy Alliance Scale (CALPAS; Marmar et al., 1989). Of the twenty-six studies identified, eight were found to have been included in Buchholz and Abramowitz's 2020 alliance in ET review, constituting less than 30% of the total studies obtained. The remaining six studies from Bulchholz and Abramowitz (2020) that were not included in the present study were excluded for the following reasons: (a) DSM-III-R diagnosis, (b) diagnosis of specific phobia, (c) study was not published in a peer-reviewed journal, (d) published outside of the dates set in the current study, and (e) diagnosis of health anxiety. A summary of findings is presented in Table 2.2. Effect sizes for the alliance-outcome relationship across studies predominantly fell within the small to moderate range.

### 3.1.1 Timing of the Alliance

Greater overall mean alliance across therapy was found to relate to improved outcomes in two studies (Langhoff et al., 2008; McLaughlin et al., 2014). One investigation of 373 individuals in group tCBT found alliance to be consistently related to lower next-

session anxiety symptoms across multiple time points in therapy (Norton & Kazantzis, 2016), while another study found that clients of "more effective" therapists reported greater alliance earlier in therapy (sessions 1-3), but not later in therapy (after session 5), when compared to "less effective" therapists (Westra, Constantino, Arkowitz, & Dozois, 2011). In contrast, two studies failed to identify significant alliance-outcome relationships at any point in therapy (Calamaras et al., 2015; Woody & Adessky, 2002).

Regarding early-therapy alliance specifically (i.e., within the first third of treatment, typically sessions 1-4), greater alliance was found to predict lower subsequent anxiety symptoms in PTSD (Cloitre et al., 2002), PD (Huppert et al., 2014), OCD (Maher et al., 2012; Simpson et al., 2011), and transdiagnostic samples (Norton et al., 2008). Conversely, null relationships were also observed in studies of PD (Casey et al., 2005; Haug et al., 2016; Weiss et al., 2014) and OCD (Strauss et al., 2018). Notably, Sauer-Zavala et al. (2018) found that early alliance predicted outcomes in diagnosis specific CBT, but not in transdiagnostic CBT. With respect to mid and late-therapy alliance (i.e., sessions after the first third treatment, typically session 5 onwards), alliance correlated with greater improvements in investigations of SAD and PD (Haug et al., 2016; Hayes et al., 2007; Huppert et al., 2014; Weck et al., 2016), however a smaller study of 59 individuals with PD with agoraphobia did not find alliance at the midpoint of treatment to be related to symptom change (Ramnerö & Öst, 2007).

In investigations of alliance as a dynamic variable, only one study showed that clients whose alliance increased more rapidly across therapy also experienced more rapid improvements in treatment (Norton et al., 2008). Inconsistent with these results, changes in alliance during therapy were not found to relate to treatment outcomes in four other studies (Hoffart et al., 2009; Strauss et al., 2018; Weiss et al., 2014; Woody & Adessky, 2002). Two studies observed that while fluctuations in alliance did not predict subsequent changes in

outcome, changes in outcome predicted subsequent alliance scores, with effects within the small to moderate range (Hoffart et al., 2009; Strauss et al., 2018).

### 3.1.2 Components of the Alliance

Six studies examined the contributions of the task, bond, and goal components of the alliance. Huppert et al. (2014) found all three components to significantly predict outcomes when the alliance was rated by the client, but only task agreement related to outcomes when it was rated by the therapist. In two studies, task and goal subscales were combined and found to predict improved outcomes, while bond did not (Brady et al., 2015; Hagen et al., 2016). However, when all components were investigated individually, task, but not goal or bond, were found to predict treatment outcomes (Hoffart et al., 2013; Wheaton et al., 2016). In contrast, Mörtberg (2014) found neither bond nor task to relate to outcomes. When comparing individual versus group CT, investigators found that lower ratings of goal consensus were significantly correlated with reduced gains in group CT only.

### 3.1.3 Perspectives of the Alliance

Six studies directly compared alternate perspectives of the alliance (i.e., client, therapist, or observer). One study found client-rated alliance, but not therapist, was a significant predictor of improved client-rated outcomes (Huppert et al., 2014). Conversely, neither client nor therapist ratings of the alliance (Casey et al., 2005; Strauss et al., 2018), nor changes in these ratings (Hoffart et al., 2009), were related to symptom improvement. When examining observer ratings, Hayes et al. (2007) found that observer-rated alliance predicted observer-rated outcomes, while client-rated alliance did not. Langhoff et al. (2008) similarly found observer ratings, but not client nor therapist ratings, correlated with improvement in observer-rated symptoms. In an investigation of the effects of convergence in client and therapist alliance ratings, Coyne et al. (2018) found that greater similarity in client and

therapist ratings early in therapy was associated with larger subsequent reductions in symptoms.

### 3.1.4 Mediators of the Alliance-Outcome Relationship

A number of studies investigated mediators of the alliance-outcome relationship. Three studies found that the alliance-outcome relationship was mediated by adherence to between- and within-session exposure tasks (Maher et al., 2012; Simpson et al., 2011; Wheaton et al., 2016), although two studies utilised overlapping samples (i.e., Maher et al., 2012; Simpson et al., 2011). Cloitre et al. (2002) also identified client capacity to regulate negative mood during exposures as a significant mediator of the alliance-outcome relationship.

### 3.1.5 Summary of Alliance-Outcome Relationships

Review of the alliance-outcome literature revealed substantial variability across results. Regarding the timing of alliance, evidence for alliance at early, mid, and late points in therapy were mixed. The Task Force meta-analysis of alliance found that late-therapy alliance was more predictive of broader psychotherapy outcomes when compared to early-therapy alliance (Flückiger et al., 2018). However, late alliance may be more confounded by prior symptom change when compared to early-rated alliance, thereby producing strong correlations with treatment outcomes. This is especially notable given that two studies identified in this review found improved outcomes to influence alliance, but that changes in alliance did not predict subsequent outcomes (i.e., Hoffart et al., 2009; Strauss et al., 2018). Moreover, by definition, studies of mid and late therapy alliance exclude individuals who have withdrawn earlier in treatment. This may in turn influence alliance ratings, outcome scores, or both. Results from these studies should therefore be interpreted with caution. Additionally, findings from this review suggest that static or overall levels of alliance, rather than the shape or dynamics of alliance across time, may be more relevant to outcomes in

CBT for anxiety disorders. Further research into the potentially time-varying effects of alliance on outcome using statistical models that control for prior symptom change will allow for greater understanding of the alliance-outcome relationship in therapy.

When investigating the specific components of alliance, task agreement was shown to consistently predict outcomes, while the evidence for bond and goal consensus was more equivocal. Task agreement may be especially important for CBT for anxiety disorders, as it may help encourage motivation for, and commitment to, completing exposure tasks in treatment. Greater client-therapist agreement on tasks may also reflect accurate selection of appropriate exposure tasks, tailored to the client's unique needs. Indeed, the selection, design, and adaptation of specific exposures with appropriate difficulty at relevant stages in therapy is highlighted as a key strategy to optimise habituation and inhibitory learning in exposure therapy (Benito & Walther, 2015; Craske et al., 2014). There was, however, preliminary evidence that group therapy may be especially vulnerable to poor goal consensus when compared to individual therapy, which may therefore adversely affect outcomes. It could be argued that there is less opportunity for clients and therapist to discuss, negotiate, and come to a consensus on specific goals in group contexts. Overall, the unique components of the alliance appear to differentially affect outcomes. Future research should therefore endeavour to analyse the relative contributions of these components, rather than overall alliance, in order to parse the unique effects of these elements on treatment outcomes.

The alliance-outcome relationship was also found to differ across perspectives of the alliance rater. In direct comparisons of ratings taken at the same time point, client ratings were shown to be more strongly related to outcomes when compared to therapist ratings, while observer ratings were superior to both client and therapist perspectives. This is in contrast to the Task Force meta-analytic review of the alliance, which indicated a trend where observer-rated alliance had a smaller effect size when compared to client-rated alliance

(Flückiger et al., 2018). This review also found that client-rated process appears to relate to client-rated outcomes, while observer-rated process relates to observer-rated outcomes. Taken together, these findings highlight the potential influence of rater perspective on the alliance-outcome relationship. Clients, therapists, and observers may be influenced by distinct phenomena, and may be assessing different aspects of both process and outcome. The lack of convergence between client, therapist, and observer perspectives of alliance raises questions regarding how the alliance should be measured. Understanding the differences between these ratings may reveal important information about underlying factors influencing alternate perceptions of the alliance, and may also highlight the utility of assessing the alliance from multiple perspectives.

Adherence to exposures and improved emotion regulation during exposures were identified as potential mediators of the alliance-outcome relationship. This suggests that greater consensus, trust, and bond between client and therapist may impact outcomes through improving engagement with exposures and promoting greater distress tolerance during these tasks. This in turn produces more effective and successful exposure experiences for clients. Formation of positive bonds in therapy may also directly challenge anxious beliefs about interpersonal relationships, which would therefore encourage clients to expose themselves to feared social situations, and in turn produce therapeutic effects. These hypothesised processes are consistent with theoretical conceptualisations of the relationship in CBT, which purport that the client-therapist bond plays a facilitative role by encouraging greater engagement with the core elements of treatment (A. T. Beck, 1979).

Overall, given the inconsistencies observed across the alliance-outcome relationship, it may be premature to conclude whether the alliance is indeed “demonstrably effective” in CBT for anxiety disorders. The literature would benefit from exploring more complex models of the alliance, while attempting to parse out the effects of multiple sources of variance.

These models should take into account (1) time varying effects, (2) relative contributions of the alliance components, (3) alternate rater perspectives, and (4) potential mediators. Without comprehensive investigation into the potentially confounding effects of these factors, the effectiveness of alliance in improving CBT outcomes cannot yet be established.

## 3.2 Outcome Expectations and Treatment Credibility

Outcome expectations refers to client predictions of how they will respond to therapy (Constantino et al., 2011), while treatment credibility is defined as a client's perceptions and beliefs about a treatment's suitability, effectiveness, and plausibility (Devilly & Borkovec, 2000). Most studies were found to use some variant of the Credibility and Expectancy Questionnaire (CEQ; Borkovec & Nau, 1972; Devilly & Borkovec, 2000), where adaptations of the scale included the Expectancy Questionnaire, the C-scale, and the Treatment Credibility Scale Modified Version among others. The CEQ consists of both a credibility and an expectancy subscale, assessing a client's broad perceptions and predictions of treatment. While many studies differentiated between these items, some did not. Given this overlap, credibility and expectations were reviewed together (Table 2.3). Studies primarily assessed expectations and credibility early in therapy, either at baseline, or within the first three sessions of treatment.

### 3.2.1 Treatment Credibility

Across nine credibility-outcome studies, only two revealed significant associations, with both finding a small effect of credibility on outcomes. In a study of 80 individuals randomised to either CT or interpersonal therapy for SAD, researchers found higher levels of credibility to significantly predict improved outcomes regardless of treatment condition (Borge et al., 2010). This finding was supported by a subsequent larger study of 126 individuals enrolled in either group or internet-based CBT for SAD, where results showed that greater credibility predicted improved symptoms and diagnostic status at six-month

follow up regardless of treatment type (Hedman et al., 2012). Conversely, credibility was not found to associate with treatment outcomes in PTSD (Devilly & Borkovec, 2000), GAD (Hundt et al., 2014), PD (Ramnerö & Öst, 2004), and transdiagnostic samples (Espejo et al., 2016; Norton et al. 2008; Smith et al., 2013; Thompson-Hollands et al., 2014), with study sample sizes ranging from 11 to 150.

### 3.2.2 Outcome Expectations

Seven out of ten expectancy-outcome studies identified a significant relationship, indicating a small to moderate effect of treatment expectations on outcome. Greater expected benefits of therapy predicted improved outcomes in studies of PD (Chambless et al., 2017), OCD (Maher et al., 2012; Simpson et al., 2011), and transdiagnostic samples (Sauer-Zavala et al., 2018), although one study found expectations to no longer predict outcomes after controlling for alliance levels and hoarding subtype (Simpson et al., 2011). One study of 11 individuals in CBT for PTSD found that more optimistic outcome expectations correlated with greater change in global symptoms, but not specific anxiety symptoms (Devilly & Borkovec, 2000). Studies also indicated that expectancy may dynamically relate to treatment outcomes, such that increases in expectations, particularly in the early phase of treatment, were shown to predict improvements in subsequent symptom severity (Hoffart et al., 2009; Vorstenbosch & Laposa, 2015). Additionally, Hoffart et al. (2009) found that improvements in symptoms predicted a subsequent increase in expectations, providing evidence for a positive-feedback reciprocal relationship. Sauer-Zavala et al. (2018) further found that the expectancy-outcome relationship was partially mediated by improvements in alliance.

Three studies failed to find a significant expectancy-outcome relationship. Thompson-Hollands et al. (2014) identified a trend of higher expectancy scores to associate with reduced anxiety symptom severity at post-treatment and follow-up ($r$ = -.31 and -.25 respectively), although not significant at alpha of .05. Strauss et al. (2018) also failed to identify a

significant relationship between expectations and outcomes in a comparison of EXRP and stress management training for OCD. However, unlike other studies reviewed, researchers assessed client and therapist expectations in specifically reducing obsessions, compulsions, and general distress symptoms, rather than measuring broad expectations of benefit or recovery. Moreover, in a study of older adults (i.e., over 60 years old) who completed CBT for GAD, expectancy scores did not predict anxiety symptoms at 6 months (Hundt et al., 2014).

In contrast to these studies, rather than correlating individual process scores to individual outcome, Westra, Constantino, Arkowitz, and Dozois (2011) examined differences in caseloads across four CBT therapists. Results showed that therapists who were "more effective" also had clients who reported higher outcome expectations and treatment credibility. These results should be interpreted cautiously however, as aggregating individual symptom change into a variable indicating "more effective" versus "less effective" therapists may be problematic. Analyses based on these aggregated statistics may result in inflated effects if they are interpreted as relating to individuals (James, 1982).

### 3.2.3 CEQ

Finally, four studies utilising the CEQ as a measure of credibility and/or expectancy, without explicit statement of whether credibility or expectancy subscales were used. The results of these studies will be conceptualised cautiously as a combination of both elements. Three studies indicated that greater CEQ scores were related to improved treatment outcomes with a small to moderate effect (Andersson et al., 2008; Price & Anderson, 2012; Price et al., 2015). Conversely, amongst 84 individuals with various anxiety disorders, CEQ scores were found to be unrelated to post-treatment clinical severity ratings (LeBeau et al., 2013).

### 3.2.4 Summary and Conclusion of Credibility-Outcome and Expectancy-Outcome Relationships

There was limited evidence for the credibility-outcome relationship in CBT for anxiety disorders, with only two studies indicating significant effects in SAD populations. The lack of significant findings within the present literature may be due to the fact that these studies often used fixed treatment protocols within efficacy trials. It could be argued that treatment credibility in these studies would therefore be generally higher and less variable when compared to community practice. Further research should therefore consider investigating the effects of credibility on treatment success in primary care settings. Given the current state of the literature, it is premature to extend the conclusions of the APA Task Force, identifying credibility as "probably effective", to apply to CBT for anxiety disorders.

In contrast, there was comparatively more support for the expectation-outcome relationship. There was emerging evidence that treatment expectations may share a reciprocal, positive-feedback relationship with outcome, whereby initial expectations predicted symptom improvements, which then in turn increased subsequent expectations. There was also suggestion that greater expectations may improve outcomes through promoting alliance, and that expectations may have differential effects in treatment for older populations. In general, positive predictions of the outcomes of therapy are thought to influence treatment effectiveness through encouraging greater commitment and adherence to interventions, and willingness to actively engage with tasks (Price et al., 2015). These findings indicate that therapists should cultivate positive expectations in clients at the outset, and throughout the course, of treatment. However, with one study showing null relationships in a sample of older adults (i.e., Hundt et al., 2014), it is possible that expectations may not be as effective in treatment for these individuals. Hundt et al. (2014) suggested that given (1) older adults may be less psychologically minded than younger individuals (e.g., Burgmer &

Heuft, 2004), and (2) that they may be less inclined to perceive a need to access mental health services, older adults may hold less positive expectations for therapy. Overall, consistent with the findings of the APA Task Force, it appears that positive expectations for treatment are a "probably effective" element in CBT for anxiety disorders.

### 3.3 Group Cohesion

Group cohesion refers to a client's sense of attraction and belonging with other group members in treatment (Stokes, 1983; Yalom & Leszcz, 2005). A summary of studies is presented in Table 2.4. From a total of nine studies, eight demonstrated a significant cohesion-outcome relationship, and generally indicated a small to moderate effect of cohesion on outcomes. Increases in group cohesion across the course of therapy were predictive of greater subsequent improvements in anxiety symptoms (Hoffart et al., 2009; Norton et al., 2008; Taube-Schiff et al., 2007). Moreover, one study of 373 individuals in group tCBT (Norton & Kazantzis, 2016) found that cohesion was related to next-session symptoms later in therapy (session 9 to 12), but not early in therapy, suggesting time-varying effects. Additionally, in a study of group tCBT that assessed whether group-level process can predict group-level outcomes, investigators found that groups with a high mean rating of cohesion were more likely to have a greater percentage of clients who achieved clinically significant change, after controlling for seven other predictors including differences in diagnosis or demographic between members (Paulus et al., 2015).

Furthermore, analysis of specific components of group cohesion revealed differential contributions to treatment outcomes. Group engagement, defined as the active participation, mutual liking, and collaborative climate within the group (MacKenzie, 1983), was found to predict greater decrease in anxiety across therapy (Bonsaksen et al., 2011), as well as changes in client-rated symptoms at post-treatment (Ellis et al., 2014) and 12-month follow-up (Bonsaksen et al., 2013). Group avoidance, defined as being dependent on the leader for

direction and an unwillingness to take responsibility for group progress, was not found to relate to changes in symptoms at post-treatment or follow-up, but was related to symptoms assessed four days later (Bonsaksen et al., 2013). Conflict, defined as anger, distrust, and rejection between members, was not related to any measure of treatment outcomes (Bonsaksen et al., 2011, 2013).

Only one study found cohesion to be unrelated to treatment outcomes. Analysis of 53 individuals completing CBT for SAD did not find outcome to relate to cohesion at any point in therapy (Woody & Adessky, 2002). Investigators noted that cohesion levels were lower than expected, and did not significantly increase over the course of therapy. Investigators suggested that the treatment methods used did not specifically incorporate or emphasize active group process as a key component of therapy, which may explain their null results.

### 3.3.1 Summary and Conclusion of Group Cohesion-Outcome Relationship

Overall, there is substantial evidence to indicate that greater group cohesion is predictive of improved treatment outcomes. In particular, growth in cohesion over time was consistently linked with reduced symptom severity. Furthermore, group engagement was highlighted as a key effective component of cohesion. Cohesion is thought to promote a sense of bonding, camaraderie through shared goals, support, mutual acceptance, and affiliation with the group (Marziali et al., 1997), which may in turn increase attendance, active participation in tasks, disclosure in treatment, and therapeutic risk-taking (Yalom & Leszcz, 2005). Moreover, it could be argued that individuals with anxiety disorders, particularly PTSD and SAD, may find the experience of building positive interpersonal bonds to be therapeutic within itself. The process of engaging positively with others can act as both an exposure for those apprehensive of social interactions, as well as directly challenge negative beliefs about forming relationships with others. To maximize the benefits of group therapy, therapists should therefore endeavour to promote greater cohesion amongst members.

Clinicians can facilitate cohesion by encouraging active participation and supportive feedback from all group members, allowing time for clients to share experiences with each other, and providing opportunity for members to talk and bond outside the rigid structure of treatment (e.g., scheduling break times in sessions). In sum, review of the cohesion-outcome literature supports the APA Task Force conclusion that group cohesion is a "demonstrably effective" element of the relationship in CBT for anxiety disorders.

### 3.4 Empathy

Empathy refers to the therapist's willingness and ability to understand and be sensitive to the client's thoughts, feelings, perspectives, and struggles (Rogers, 1959). Four studies examined the empathy-outcome relationship in CBT for anxiety disorders, reporting inconsistent results (see Table 2.5). In a study of 44 CBT for GAD clients, Hara et al. (2017) found that therapists with higher average client-rated early empathy (average score across session 1, 3, and 5) within their caseload were more likely to have clients report lower symptom levels post-treatment. In a subsequent analysis of this sample, researchers found greater levels of empathy after an experience of therapy resistance (at session 3 or 5) to be correlated with reduced post-treatment symptoms (Hara et al., 2018). Both studies indicated a small to moderate effect of empathy on outcomes.

In contrast to this, two studies examining the effects of change in empathy on outcome did not find significant relationships. In a study of schema-focused cognitive therapy for PD, results showed that the rate of change of client-rated empathy across sessions did not relate to mid to post-treatment changes in anxiety symptoms (Hoffart & Sexton, 2002). Similarly, in a study of individuals with SAD, week-to-week fluctuations in therapist-rated empathy were found to be unrelated to subsequent anxiety symptoms (Hoffart et al., 2009).

### 3.4.1 Summary and Conclusion of Empathy-Outcome Relationships

Current evidence for the empathy-outcome relationship is mixed and limited. Support for the empathy-outcome relationship was demonstrated in only one sample, while two independent samples found null relationships. Moreover, empathy measured as a static variable was related to outcome, while empathy as a dynamic variable was not. It could therefore be tentatively suggested that only an overall or average empathy level is relevant to treatment effectiveness, rather than the linear growth or decline of empathy across the course of treatment. If these findings are replicated in independent samples, this would imply that clinicians should focus on establishing a strong empathetic environment from the outset of therapy in order to optimise benefits from treatment. It is important to note however, that the effects of mid or late stage therapy empathy, or overall levels of empathy across the entire course of therapy have yet to be explored in the context of CBT for anxiety. It is apparent that additional examination of the effects of empathy at these stages of treatment is warranted. The use of therapist-rated empathy in one study also raises concerns. Given that empathy is inherently a client-centred relationship element (Gerdes et al., 2010), therapist perceptions of empathy may be biased, or may be measuring different phenomena. Indeed, comparisons of client and therapist ratings of empathy have shown no correlation between measurements, and revealed that only client-rated empathy predicted treatment outcomes (Kurtz & Grummon, 1972). Although shown to be a "demonstrably effective" element in the broader psychotherapy literature, it is premature to extend these conclusions to the CBT for anxiety context.

## 3.5 Collaboration

Collaboration refers to the mutual, and active involvement of client and therapist in session to achieve treatment goals (Tryon & Winograd, 2011; Tryon et al., 2018). Although definitions of collaboration differ across therapeutic modalities (see Kazantzis, 2012), all

conceptualisations incorporate the elements of (1) shared responsibility in planning treatment goals and activities, (2) mutual active involvement in therapy, (3) compliance with therapy tasks, and (4) cooperative behaviour (Ribeiro et al., 2013). It is important to acknowledge that the definition of collaboration has raised concerns regarding the ambiguity (e.g., Sundet et al., 2016; Zimmerman, 2011), potential misclassification, and possible "imperfect construct validity" (Kazantzis et al., 2015, p. 3) of the concept and its measurement. For the purpose of consistency with the Task Force review, the present study cautiously adopted the operationalisation of collaboration used in Tryon and Winograd (2018). In this review, researchers highlighted three aspects of collaboration: (1) general collaboration (i.e., general state of client-therapist collaborative environment, such as a feeling of equality between client and therapist), (2) client collaboration (i.e., client actions demonstrating a willingness to engage and contribute to therapy, such as task compliance), and (3) therapist collaboration (i.e., therapist actions promoting an environment of equal standing and encouraging client contributions in therapy, such as incorporating the client's preferences in task design). Although homework compliance is often used as an index of collaboration (Tryon & Winograd, 2011; Tryon et al., 2018), it has been argued that although the design of homework tasks may be collaborative, the completion of homework does not involve the input of the therapist, and should therefore not be used to represent collaboration (Kazantzis et al., 2015). Homework compliance was therefore not included in the present analysis of collaboration.

Collaboration was examined in two studies, with both assessing client contributions to therapy. Both studies reported a positive relationship between client collaboration and treatment outcomes (Table 2.6). Client compliance with in-session exposures in EXRP was found to be associated with lower post-treatment OCD symptoms, with a moderate to strong effect (Abramowitz et al., 2002). Similarly, therapist-rated "active participation of clients" at

session 4, 8, and 12 were found to correlate with greater post-treatment residual change scores in anxiety symptoms, with effect sizes ranging from small to moderate (Ramnerö & Öst, 2007). Mid and late-therapy collaboration, but not early collaboration, also correlated with improved symptoms at 12-month follow up.

### 3.5.1 Summary and Conclusion of Collaboration-Outcome Relationships

Overall, there is a very small body of evidence to indicate that client collaboration may have both immediate and enduring positive effects on treatment outcomes. Increased client willingness to contribute and participate with therapy may help to facilitate a greater understanding of the client's perceptions and experience, thus promoting more appropriate, responsive, and accurate case conceptualisation and techniques (Kuyken et al., 2008). The present review, however, was only able to identify studies investigating collaboration as measured by client behaviours. The use of compliance with tasks as a measure of collaboration is particularly problematic. Measuring the effect of client adherence to exposures on outcomes may assess the efficacy of the theoretically specific CBT techniques in treating anxiety, rather than the role of the collaborative relationship in producing symptom change. Moreover, assessment of task compliance cannot distinguish between "active, willing" compliance (i.e., collaborative), and "passive, unwilling" compliance. To remedy this, future research should aim to assess more conceptually distinct elements of collaboration that uniquely reflect the quality of the relationship, such as a sense of "equality" in therapy, or a client feeling able and willing to negotiate with the therapist in session. Therapist-initiated collaborative behaviours could also be assessed by observing shared decision-making, joint exposure planning, and collaborative cognitive restructuring (J. S. Beck 2011). Overall, although identified as a "demonstrably effective" element by the recent APA Task Force, the small body of evidence in CBT for anxiety disorders indicates that

more research is needed to better understand the potential effects of collaboration, particularly general and therapist collaboration, on treatment outcomes.

### 3.6 Alliance Rupture and Repair

Alliance ruptures are defined as substantial deteriorations in the alliance, demonstrated through lack of client-therapist collaboration, disagreement on tasks and goals of therapy, or a strain on the affective bond (Eubanks-Carter et al., 2010; Safran & Muran, 2000). Rupture repair refers to the subsequent restoration of the alliance. Alliance rupture with or without repair was investigated in two studies (Table 2.6).

In a study of 38 participants with GAD (Westra, Constantino, & Aviram, 2011), ruptures were statistically defined as an alliance score lower than predicted by a client's intercept, slope, and curve parameters, by at least twice the individual's root mean square. A repair was conceptualised as a return to pre-rupture alliance levels or higher. Although results did not identify a significant direct effect of the presence of alliance ruptures on post-treatment outcomes, researchers found evidence of a small indirect effect of rupture on outcome through outcome expectations. However, significance levels were not available for indirect effects. The presence of an alliance rupture was found to predict a greater decrease in expected improvement from therapy following the rupture event. This effect was moderated by initial ratings of outcome expectations, indicating that those who were already doubtful of the helpfulness of therapy from the beginning of treatment experienced greater decreases in expectations following a rupture. Subsequent modelling of these factors suggested that ruptures predicted poorer treatment response by reducing client outcome expectations.

In a larger study of 116 individuals receiving PE for PTSD (McLaughlin et al., 2014), an alliance rupture was defined less stringently as a decrease in the alliance score greater than the standard error of the difference between two assessments, as calculated using the internal consistency of the alliance measure. The rationale for the more liberal threshold was to

increase power and variability, and to investigate the effect of mild-to-moderate ruptures, as well as severe ruptures, on treatment outcomes. Analysis of a subset of this sample showed that after controlling for baseline symptoms, the presence of unrepaired ruptures predicted worse PTSD symptoms post-treatment when compared to those who experienced no ruptures or repaired ruptures, with moderate effect.

### 3.6.1 Summary and Conclusion of Alliance Rupture and Repair-Outcome Relationships

Overall, the limited evidence suggests that the presence of unrepaired alliance ruptures, even at mild-to-moderate levels, have a deleterious impact on the efficacy of CBT treatments for anxiety disorders. Alliance ruptures were shown to indirectly impact outcomes by decreasing client expectations for recovery, with those who show initial scepticism to be especially vulnerable. Increased doubt in the helpfulness of therapy following a rupture event may reduce client engagement in therapy, thereby negatively impacting outcomes. It has been shown that ruptures are common in therapy, with one study finding that 46% of their sample reported ruptures (McLaughlin et al., 2014), therefore highlighting the significance of predicting, identifying, and repairing alliance ruptures. Employing proactive measures to prevent alliance ruptures through strategies such as regular monitoring of the alliance, specific alliance-building techniques, and attuning to client emotional experience may be helpful in protecting against poor treatment response. Indeed, research has shown that integrating alliance-rupture prevention and resolution strategies into CBT is effective in treating depression (e.g., Castonguay et al., 2004; Constantino et al., 2008), and may also be useful for the treatment of anxiety disorders. With only two studies identified however, the APA Task Force's conclusion that alliance rupture and repair is a "probably effective" element across psychotherapies may be premature for CBT for anxiety disorders. Additional

research is needed to evaluate the impact of alliance ruptures in treatment, and to examine potential mechanisms of action.

## 4. General Discussion

The aim of this systematic review was to provide a summary and synthesis of existing literature of the therapeutic relationship-outcome association in CBT for anxiety disorders. Relationship elements identified as "demonstrably effective" and "probably effective" by the APA Task Force were reviewed in the present study within the context of CBT for anxiety disorders. Results supported the conclusions of the Task force for two relationship elements: group cohesion ("demonstrably effective") and outcome expectations ("probably effective"). Although findings were promising, the evidence for the effects of empathy, alliance rupture-repair, and collaboration on outcomes was undermined by the limited number of unique studies investigating these elements. Meanwhile, results generally indicated that treatment credibility and goal consensus may be unrelated to treatment outcomes. Notably, the alliance, perhaps the most widely recognised psychotherapeutic process, was found to have substantial variability across studies. Despite its reputation as an established "active ingredient" of therapy (Horvath, 2018; Horvath & Luborsky, 1993), these findings raise uncertainty about the role of the alliance in CBT for anxiety disorders. This underscores the need for more comprehensive examination of its effects, and exploration of potential sources of variance.

A number of limitations should be acknowledged. First, some relationship constructs had only a very small number of studies. Conclusions drawn from these constructs are therefore tentative, and highlight the need for additional research. Additionally, this review did not include studies of CBT for specific phobias due to the heterogeneity in how phobias are described in literature. Review of the evidence regarding the therapeutic relationship in the treatment of specific phobias may reveal unique effects of relational elements on treatment outcomes. Moreover, as this study aimed to focus specifically on more traditional

iterations of CBT, third-generation CBT treatments were not included. Third-wave CBTs such as acceptance and commitment therapy (ACT; Hayes et al., 1999) conceptualise the relationship differently from classic CBT interventions. It could therefore be speculated that the therapeutic relationship may operate differently in third-wave CBTs when compared to traditional approaches. With increasing utilisation of these treatments, future research should examine the role of the therapeutic relationship in these psychological modalities.

Overall, the lack of consistency between the pantheoretical and transdiagnostic conclusions of the Task Force and the evidence in CBT for anxiety disorders underscores the importance of investigating so called "common factors" within the specific, therapeutic context in which they operate. The "one size fits all" recommendations of the Task Force regarding what is effective in treatment may be an overgeneralisation, and perhaps therapeutic relationships need to be studied at a more refined level. To identify how best to capitalise on relationships in CBT for anxiety, further empirical investigation and improved conceptual integration of these factors into cognitive behavioural models is needed. Understanding how these elements specifically operate in treatment will ultimately help to improve outcomes for individuals living with anxiety disorders.

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**Table 2.2**

Summary of Alliance-Outcome Studies

| Study | *N* | Diagnosis | CBT intervention | Process measure (Rater) | Outcome measure | Main findings |
|---|---|---|---|---|---|---|
| Brady et al. (2015) † | 58 | PTSD | Trauma focused CT | WAI-SF (observer) | PDS | "Good responders" had higher scores on combined task and goal subscales when compared to "poor responders". No difference in the bond subscale was found between "good" and "poor" responders . |
| Calamaras et al. (2015) | 86 | SAD | Group ET vs Individual ET | WAI-SF (client) | BFNE | No significant relationships were found between early alliance and mid-treatment symptoms, and mid-treatment alliance and post-treatment symptoms. |
| Casey et al. (2005) | 106 | PD PDA | CBT vs brief CBT vs computer-assisted CBT | WAI (client) WAI (therapist) | PAS | Neither client nor therapist alliance predicted change in severity of symptoms across treatment. |
| Cloitre et al. (2002) | 49 | PTSD | Skills training with PE | WAI-SF (client) | Modified PSS-SR | Alliance significantly correlated with improved outcomes post-treatment. This relationship was mediated by client capacity to regulate negative mood during exposures. |
| Coyne et al. (2018) | 85 | GAD | CBT vs CBT + MI | WAI-SF (client) WAI-SF (therapist ) | DASS PSWQ | Convergence between client and therapist alliance ratings early in therapy correlated with greater subsequent reductions in symptoms. |
| Hagen et al. (2016) † | 44 | OCD | EXRP | WAI-SF (client) | YBOCS | Therapist variability on combined task and goal subscale of alliance correlated with improved outcome post-treatment, while patient variability did not. Bond subscale did not relate to outcome post-treatment. |
| Haug et al. (2016) | 82 | SAD or PD | CBT | WAI-SF | CSR BSQ SPS | Alliance later in therapy, but not early in therapy, was correlated with better self-report outcomes. Alliance did not correlate with clinician rated outcomes. |

Table 2.2 *(Continued)*

| Study | *N* | Diagnosis | CBT intervention | Process measure (Rater) | Outcome measure | Main findings |
|---|---|---|---|---|---|---|
| Hayes et al. (2007) | 18 | SAD | CBT | WAI-SF (client)<br>WAI-SF (observer) | CSR | Observer but not client-rated alliance predicted greater pre to post treatment improvement in outcomes. |
| Hoffart et al. (2009) | 40 in CT<br>40 in IPT | SAD | Group CT vs group IPT | WAI-SF (client)<br>WAI-SF (therapist) | SPWSS | In both treatments, week-to-week fluctuations in client and therapist-rated alliance across therapy did not predict subsequent symptom changes. Decreases in anxiety symptoms predicted subsequent increases in client-rated alliance. |
| Hoffart et al. (2013) † | 65 | PTSD | PE | WAI-SR (client) | PSS-SR | Higher initial task (but not bond or goal) alliance predicted greater rate of improvement in symptoms across therapy. Greater than expected growth of task agreement related to lower subsequent symptoms. |
| Huppert et al. (2014) † | 133 | PD<br>PDA | CBT | WAI-SF (client)<br>WAI-SF (therapist) | PDSS (observer)<br>PDSS (client)<br>ASI | At session 3 and 9, client-rated task, bond, and goal predicted both observer and client-rated outcomes. Early therapist-rated task predicted observer-rated outcomes only. Patient contribution to the alliance predicted outcome, while therapist contributions did not. |
| Langhoff et al. (2008) | 72 | GAD | CBT | VAS (client)<br>VAS (therapist)<br>VAS (observer) | HARS | Observer rated alliance correlated with improvement in symptoms from pre to post-treatment. Client and therapist-rated alliance did not predict outcome. |
| Maher et al. (2012)[a] | 28 | OCD | EXRP | WAI (client) | YBOCS | Alliance correlated with improved outcomes post-treatment. This effect was mediated by client adherence to exposure and response prevention tasks. |
| McLaughlin et al. (2014) | 116 | PTSD | PE | CALPAS (client) | PSS-SR | Higher overall alliance significantly correlated with lower PTSD severity post-treatment. |

Table 2.2 *(Continued)*

| Study | *N* | Diagnosis | CBT intervention | Process measure (Rater) | Outcome measure | Main findings |
|---|---|---|---|---|---|---|
| Mörtberg (2014) [†] | 54 | SAD | Individual CT vs group CT | WAI-SF (client) | SIAS | No correlation between total alliance score and outcome. Goal subscale was correlated with outcome in group but not individual therapy. Neither bond nor task subscales correlated with outcome. |
| Norton & Kazantzis (2016) | 373 | Anxiety disorders | T-GCBT | WAI-SF (client) | STAI-State | Higher alliance predicted lower next session symptoms across treatment. |
| Norton et al. (2008) | 54 | Anxiety disorders | T-GCBT | WAI-SF (client) | STAI-State | Higher alliance at session 1 significantly correlated with lower symptoms post-treatment. Clients whose alliance increased more rapidly across therapy also improved more rapidly. |
| Ramnerö & Öst (2007) | 59 | PDA | CBT vs in-vivo exposure | WAI-SF (client) | PDA symptom composite | Alliance at session 8 did not correlate with clinically significant change or residual change scores post-treatment or at 12-month follow up. |
| Sauer-Zavala et al. (2018) | 179 | Anxiety disorders | dxCBT vs T-CBT | WAI-SF (client) | HARS | Alliance was related to change in symptoms for dxCBT, but not T-CBT. Alliance was found to partially mediate the relationship between treatment expectations and outcome. |
| Simpson et al. (2011) [a] | 30 | OCD | EXRP vs EXRP + MI | WAI (client) | YBOCS | Alliance predicted improved outcomes post-treatment. This effect was fully mediated by client adherence to exposure and response prevention tasks. |
| Strauss et al. (2018) | 54 EXRP 54 SMT | OCD | EXRP vs SMT | WAI-SF (client) WAI-SF (therapist) | YBOCS | Neither client nor therapist-rated early alliance predicted change in outcomes in either treatment. Changes in client alliance did not predict subsequent changes in symptoms, but changes in symptoms preceded changes in client alliance. |

Table 2.2 *(Continued)*

| Study | *N* | Diagnosis | CBT intervention | Process measure (Rater) | Outcome measure | Main findings |
|---|---|---|---|---|---|---|
| Weck et al. (2016) | 84 | PD<br>PDA | ET | HAQ (observer) | PAS<br>Mobility Inventory | Alliance was associated with improved outcomes at 6-month follow up. |
| Weiss et al. (2014) | 19 | PD | CBT | WAI-SF (client) | ASI | Neither early alliance nor change in alliance predicted outcomes. |
| Westra, Constantino, Arkowitz, & Dozois (2011) | 4 therapists<br>32 clients | GAD | CBT | CALPAS (client) | PSWQ | Clients of "more effective" therapists reported higher early alliance, but not later alliance. |
| Wheaton et al. (2016)[†] | 37 | OCD | EXRP | WAI-SF (client) | YBOCS | Total alliance score did not predict post-treatment outcomes. Task subscale, but not bond or goal, predicted post-treatment symptoms. The task-outcome relationship was mediated by client homework adherence. |
| Woody & Adessky (2002) | 53 | SAD | Group CBT | WAI (client) | SPAI<br>Client composite<br>Observer composite | Alliance at multiple points in therapy did not predict post-treatment symptom scores. Change in alliance scores across therapy did not predict post-treatment outcomes. |

*Note. N* = study sample size, PTSD = post-traumatic stress disorder, SAD = social anxiety disorder, PD = panic disorder, PDA = panic disorder with agoraphobia, GAD = generalised anxiety disorder, OCD = obsessive compulsive disorder, CT = cognitive therapy, ET = exposure therapy, CBT = cognitive behaviour therapy, PE = prolonged exposure, EXRP = exposure and response prevention, IPT = interpersonal therapy, T-CBT = transdiagnostic CBT, T-GCBT = transdiagnostic group CBT, dxCBT = diagnosis specific CBT, SMT = stress management training, MI = motivational interviewing, WAI = Working Alliance Inventory, WAI-SF = WAI Short-Form, WAI-SR = WAI Short Revised Form, CALPAS = California Psychotherapy Alliance Scale, HAQ = Helping Alliance Questionnaire, PDS = Panic Disorder Severity Scale, BFNE = Brief Fear of Negative Evaluation, PAS = Panic and Agoraphobia Scale, PSS-SR = PTSD Symptom Scale-Self Report, DASS = Depression Anxiety Stress Scale, PSWQ = Penn State Worry Questionnaire, YBOCS = Yale-Brown Obsessive Compulsive Scale, CSR = Clinical Severity Rating, BSQ = Body Sensation Questionnaire, SPS = Social Phobia Scale, SPWSS = Social Phobia Weekly Symptom Scale, PDSS = Panic Disorder Severity Scale, ASI = Anxiety Sensitivity Index, HARS = Hamilton Anxiety Scale, SIAS = Social Interaction Anxiety Scale, STAI = State Trait Anxiety Inventory, PAS = Panic and Agoraphobia Scale, SPAI = Social Phobia and Anxiety Inventory.
[a] Indicates studies that analysed the same or overlapping sample.
[†]Indicates studies that also investigated the goal consensus-outcome relationship

**Table 2.3**

Summary of Expectations-Outcome and Credibility-Outcome Studies

| Study | *N* | Diagnosis | CBT intervention | Process measure (Rater) | Outcome measure | Main findings |
|---|---|---|---|---|---|---|
| Andersson et al. (2008) | 24 | PD | CBT | CEQ (client) | ACQ<br>BSQ | CEQ scores (described as credibility) correlated with greater reduction in fear of somatic sensations post-treatment, but not at 1-year follow-up. CEQ did not correlate with agoraphobic cognitions. |
| Borge et al. (2010) | 40 CT<br>40 IPT | SAD | CT vs IPT | CEQ Credibility subscale (client) | SPAI | Credibility predicted improved outcomes regardless of treatment type. |
| Chambless et al. (2017) | 81 CBT<br>80 PP | PD<br>PDA | CBT vs PP | CEQ Expectancy subscale (client) | PDSS | Both treatments showed that expectancy was a predictor of greater improvement in symptoms across treatment, but in the CBT condition, clients with low levels of expectancy improved more when compared to PP conditions. There was no difference in the expectancy-outcome relationship between conditions at average and high levels of expectancy. |
| Devilly & Borkovec (2000) | 11 | PTSD | CBT | CEQ Expectancy and Credibility subscales (client) | SCL – Global<br>STAI – Trait<br>CMS<br>IES<br>PSS-SR | Higher ratings of outcome expectancy correlated significantly with greater change on global symptoms as measured by SCL-Global from pre to post-treatment, and from pre-treatment to 3-month follow up. Expectancy did not relate to any other outcome measures. Credibility was unrelated to any change in outcomes. |
| Espejo et al. (2016) | 52 | Anxiety disorders | T-GCBT | CEQ Credibility subscale (client) | Mini Mood and Anxiety Questionnaire | Credibility did not predict post-treatment symptom scores after controlling for baseline levels. |
| Hedman et al. (2012) | 126 | SAD | Group CBT vs internet CBT | CEQ Credibility subscale (client) | Liebowitz Social Anxiety Scale | Credibility predicted improved symptom scores and diagnostic status at 6-month follow-up in both conditions. |
| Hoffart et al. (2009) | 40 in CT<br>40 in IPT | SAD | Group CT vs group IPT | 3 item composite of outcome expectation and optimism (client) | SPWSS | In both treatments, expectancy did not predict rate of change on anxiety symptoms across treatment. However, week-to-week increases in expectations predicted decreases in symptoms 4 days later. Decreases in anxiety also predicted increases in subsequent expectations. |

Table 2.3 *(Continued)*

| Study | *N* | Diagnosis | CBT intervention | Process measure (Rater) | Outcome measure | Main findings |
|---|---|---|---|---|---|---|
| Hundt et al. (2014) | 150 older adults | GAD | CBT | CEQ (client) | PSWQ<br>STAI – Trait | Neither expectancy nor credibility predicted outcomes at 6-months after controlling for baseline symptom levels and other predictors such as number of sessions attended. |
| LeBeau et al. (2013) | 84 | Anxiety disorders | CBT vs ACT | CEQ (client) | ADIS-IV Clinical severity rating | CEQ (described as credibility) scores did not predict post-treatment outcomes. |
| Maher et al. (2012)[a] | 28 | OCD | EXRP | Expectancy Questionnaire | YBOCS | Expectancy predicted post-treatment symptoms after controlling for baseline symptoms. No significant indirect effect of expectancies on outcomes through patient adherence was observed. |
| Norton et al. (2008) | 54 | Anxiety disorders | T-GCBT | Reactions to Treatment Questionnaire | STAI – State | Credibility was not related to symptoms at the end of treatment, nor the rate of change in symptoms across therapy. |
| Price & Anderson (2012) | 67 | SAD | Group CBT vs individual virtual reality CBT | CEQ (client) | PRCA-SF<br>SSPS | CEQ scores (described as expectancy) correlated with greater rate of change for all outcome measures. |
| Price et al. (2015) | 116 | PTSD | Virtual reality ET | CEQ (client) | STAI – State<br>PSS – self report<br>PSS – clinician<br>CGI – self report<br>CGI – clinician<br>Cortisol reactivity<br>Trauma-potentiated startle | CEQ (described as expectancy) correlated with post-treatment outcomes across all clinician and client-rated measures. CEQ was not related to rate of change in clinician rated outcomes, but was related to rate of change in client-rated outcomes across therapy. CEQ was not related to biological measures of symptoms. |
| Ramnerö & Öst (2004) | 62 | PDA | Behaviour Therapy | CEQ Credibility subscale (client) | Composite anxiety score | Credibility did not predict clinically significant improvement in symptoms post-treatment, nor residual change scores in symptoms. |

Table 2.3 *(Continued)*

| Study | *N* | Diagnosis | CBT intervention | Process measure (Rater) | Outcome measure | Main findings |
|---|---|---|---|---|---|---|
| Sauer-Zavala et al. (2018) | 179 | PDA, GAD, OCD, or SAD | dxCBT vs T-CBT | CEQ Expectancy subscale (client) | HARS | Early treatment expectancy predicted change in symptoms from mid to post-treatment. This effect was partially mediated by alliance. |
| Simpson et al. (2011)[a] | 30 | OCD | EXRP vs EXRP + MI | Expectancy Questionnaire (client) | YBOCS | Expectancy predicted reduced post-treatment symptoms after controlling for baseline symptoms. Expectancy did not remain a significant predictor when controlling for alliance and hoarding subtype. |
| Smith et al. (2013) | 48 | Anxiety disorders | T-GCBT | CEQ Credibility subscale – modified version (client) | ADIS-IV CSR | Credibility was not correlated with treatment response. |
| Strauss et al. (2018) | 54 EXRP<br>54 SMT | OCD | EXRP vs SMT | Patient Expectancy Ratings (client) | YBOCS | In both treatments, expectancy did not predict change in outcomes. |
| Thompson-Hollands et al. (2014) | 31 | Anxiety disorders | T-CBT | CEQ Expectancy and Credibility subscales (client) | HARS | Credibility did not correlate with anxiety symptoms post-treatment or at 6-month follow-up. A non-significant correlation was found between expectancy and outcome. |
| Vorstenbosch & Laposa (2015) | 64 | OCD | Group CBT | Anxiety Change Expectancy Scale (client) | YBOCS | Pre-treatment expectations did not predict pre to post-treatment outcomes. Increases in expectancy in early-treatment phase predicted decrease in symptoms by the end of treatment. |

Table 2.3 *(Continued)*

| Study | *N* | Diagnosis | CBT intervention | Process measure (Rater) | Outcome measure | Main findings |
|---|---|---|---|---|---|---|
| Westra, Constantino, Arkowitz, & Dozois (2011) | 4 therapists 32 clients | GAD | CBT | CEQ Expectancy and Credibility subscales (client) | PSWQ | Clients of "more effective" versus "less effective" therapists reported higher outcome expectations and higher credibility early in therapy. |

*Note. N* = study sample size, GAD = generalised anxiety disorder, OCD = obsessive compulsive disorder, PD = panic disorder, PDA = PD with agoraphobia, SAD = social anxiety disorder, PTSD = post-traumatic stress disorder, CBT = cognitive behaviour therapy, T-CBT = transdiagnostic CBT, T-GCBT = transdiagnostic group CBT, dx-CBT = diagnosis-specific CBT, EXRP = exposure and response prevention, MI = motivational interviewing, ET = exposure therapy, ACT = acceptance and commitment therapy, IPT = interpersonal therapy, PP = psychodynamic psychotherapy, SMT = stress management training, CEQ = Credibility/Expectancy Questionnaire, PSWQ = Penn State Worry Questionnaire, YBOCS = Yale-Brown Obsessive Compulsive Scale, ADIS-IV CSR = Anxiety Disorders Interview Schedule-IV Clinician Severity Rating, HARS = Hamilton Anxiety Rating Scale, SSPS = Self-Statements during Public Speaking, PRCA-SF = Personal Report of Communication Apprehension-Short Form, STAI = State Trait Anxiety Inventory, PSS = PTSD Symptom Scale, CGI = Clinician Global Impressions, SPWSS = Social Phobia Weekly Summary Scale, PSS-SR = PTSD Symptom Scale Self Report, IES = Impact of Events Scale CMS = Civilian Mississippi Scale, SCL = Symptom Checklist, PDSS = Panic Disorder Severity Scale, SPAI = Social Phobia Anxiety Inventory, ACQ = Agoraphobic Cognitions Questionnaire, BSQ = Body Sensations Questionnaire.
[a]Indicates studies that analysed the same or overlapping sample.

**Table 2.4**

Summary of Cohesion-Outcome Studies

| Study | Sample size | Diagnosis | CBT intervention | Process measure (Rater) | Outcome measure | Main findings |
|---|---|---|---|---|---|---|
| Bonsaksen et al. (2011)[a] | 40 CT<br>40 IPT | SAD | Group CT vs group IPT | GCQ-SF (client) | SPAI Social phobia subscale | In both treatments, only the engagement subscale of group cohesion predicted greater decrease in anxiety across therapy. The avoidance and conflict subscales did not relate to outcomes. |
| Bonsaksen et al. (2013)[a] | 40 CT<br>40 IPT | SAD | Group CT vs group IPT | GCQ-SF (client) | SPAI Social phobia subscale<br>SPWSS<br>ADIS | In both treatments, the engagement subscale of cohesion predicted self-reported symptom improvement from pre-treatment to post-treatment, but not interviewer rated symptoms. Engagement also predicted symptom reduction from pre-treatment to one-year follow-up for both client and interviewer rated outcomes. Group avoidance in a session predicted increased symptoms four days later when controlling for treatment group, engagement, and group conflict. |
| Ellis et al. (2014) | 38 | PTSD | Group CPT | CALPAS Group version (client) | PCL Military version | Willingness to engage in the group significantly predicted reduced symptoms post-treatment. Commitment to attending the group and sense of understanding between members did not relate to outcome. |
| Hoffart et al. (2009) | 40 CT<br>40 IPT | SAD | Group CT vs group IPT | WAI-SF group adaptation | SPWSS | Week-to-week increases in cohesion predicted a decrease in anxiety measured 4 days later. |
| Norton & Kazantzis (2016) | 373 | Anxiety disorders | T-GCBT | GCS (client) | STAI-S | Cohesion at session 2, 4, and 6 did not relate to next session symptom levels. Cohesion at session 8, and 10 correlated with lower next session symptom levels. |
| Norton et al. (2008) | 54 | Anxiety disorders | T-GCBT | GCS (client) | STAI-S | Group cohesion a session 1 correlated with lower symptom levels at the final session. Clients whose cohesion ratings increased more rapidly across therapy also had improved outcomes at the final session. |
| Paulus et al. (2015) | 221 | Anxiety disorders | T-GCBT | GCS (client) | STAI-S | Group-level cohesion (average cohesion between members within a group) correlated with the proportion of group members with clinically significant change after controlling for multiple predictors including racial and diagnostic heterogeneity. |
| Taube-Schiff et al. (2007) | 34 | SAD | Group CBT | Group Cohesion Scale – Revised (client) | DASS<br>SPIN | Increase in group cohesion across treatment predicted improvements over time in symptoms. |

Table 2.4 *(Continued)*

| Study | Sample size | Diagnosis | CBT intervention | Process measure (Rater) | Outcome measure | Main findings |
|---|---|---|---|---|---|---|
| Woody & Adessky (2002) | 53 | SAD | Group CBT | Group Attitude Scale (client) | SPAI Client composite Observer composite | Change in cohesion across treatment did not predict post-treatment outcomes. Cohesion measured at early, mid, and late-treatment did not predict post-treatment outcomes. |

*Note. N* = study sample size, CT = cognitive therapy, IPT = interpersonal therapy, SAD = social anxiety disorder, PTSD = post-traumatic stress disorder, T-GCBT = transdiagnostic group CBT, GCQ-SF = Group Climate Questionnaire – Short Form, CALPAS = California Psychotherapy Alliance Scale, WAI-SF = Working Alliance Inventory – Short Form, GCS = Gross Cohesion Scale, SPAI = Social Phobia Anxiety Inventory, SPWSS = Social Phobia Weekly Summary Scale, ADIS = Anxiety Disorders Interview Schedule, PCL = PTSD Checklist, STAI-S = State Trait Anxiety Inventory – State Form, DASS = Depression Anxiety Stress Scale, SPIN = Social Phobia Inventory.
[a]Indicates studies that analysed the same or overlapping sample.

**Table 2.5**

Summary of Empathy-Outcome Studies

| Study | *N* | Diagnosis | CBT intervention | Process measure (Rater) | Outcome measure | Main findings |
|---|---|---|---|---|---|---|
| Hara et al. (2017)[a] | 43 | GAD | CBT | BLRI Empathy subscale (client) | PSWQ | Therapists with higher average empathy across clients within their caseload (between-therapist level) were more likely to have clients report lower symptom levels post-treatment. Empathy did not relate to outcome at the within-therapist level. |
| Hara et al. (2018)[a] | 44 | GAD | CBT | BLRI Empathy subscale (client) | PSWQ | Empathy significantly correlated with improved outcome post-treatment. |
| Hoffart et al. (2009) | 40 in CT<br>40 in IPT | SAD | Group CT vs group IPT | Empathy Scale (therapist) | SPWSS | In both treatments, week-to-week fluctuations in empathy did not predict subsequent outcomes. |
| Hoffart & Sexton (2002) | 35 | PD<br>PDA | Schema focused CT | Modified version of pre and post-session impact questionnaire (client) | STAI<br>PRS<br>Mobility Inventory | Rate of change in empathy across therapy was not significantly related to symptom change from mid to post-treatment. |

*Note. N* = study sample size, GAD = generalised anxiety disorder, SAD = social anxiety disorder, PD = panic disorder, PDA = PD with agoraphobia, CBT = cognitive behaviour therapy, CT = cognitive therapy, IPT = interpersonal therapy BLRI = Barrett-Lenard Relationship Inventory, PSWQ = Penn State Worry Questionnaire, SPWSS = Social Phobia Weekly Summary Scale, STAI = State Trait Anxiety Inventory, PRS = Panic Rating Scale.
[a]Indicates studies that analysed the same or overlapping sample.

**Table 2.6**

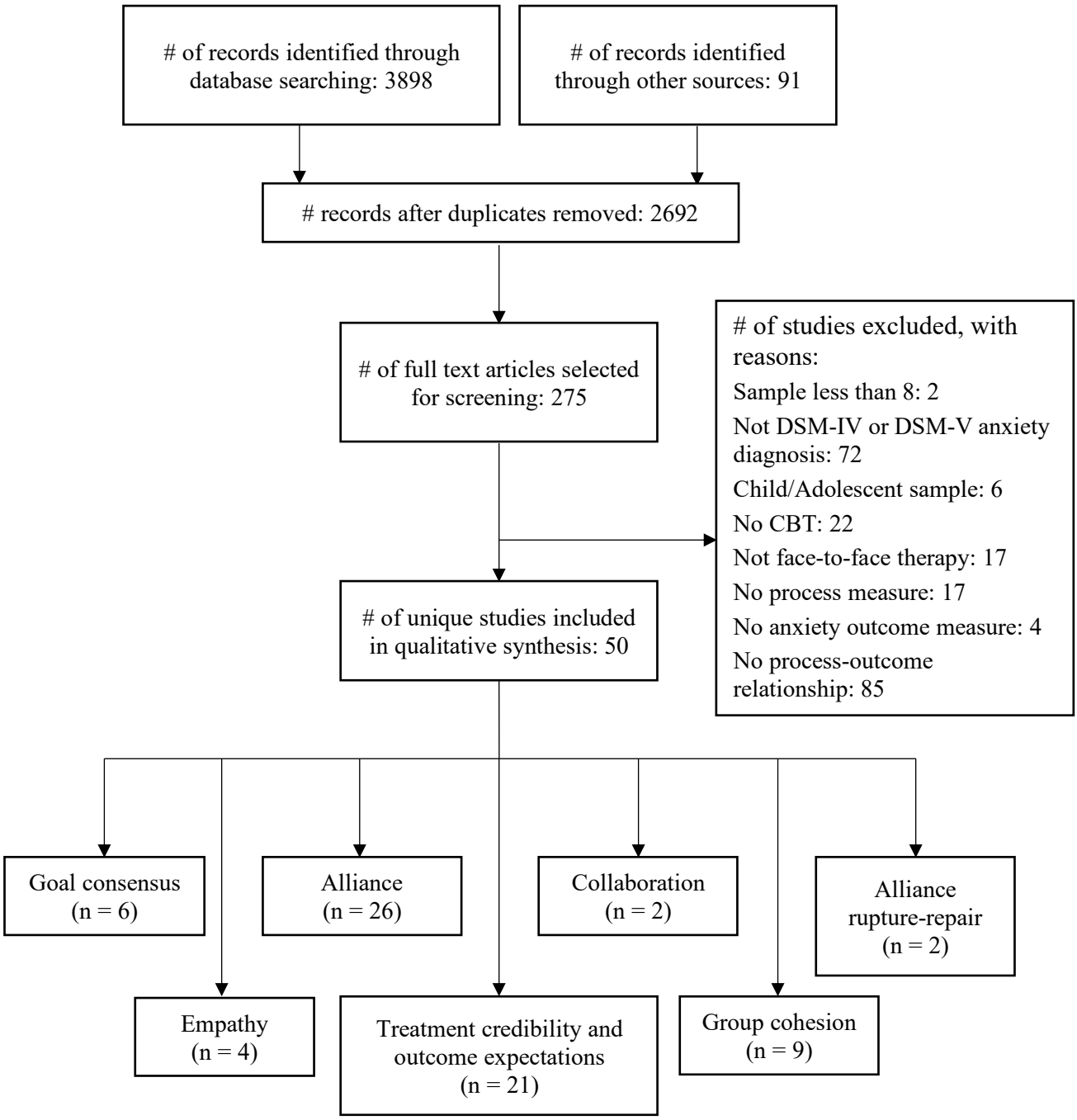
Summary of Collaboration-Outcome and Rupture Repair-Outcome Studies

| Study | *N* | Diagnosis | CBT intervention | Process measure (Rater) | Outcome measure | Main findings |
|---|---|---|---|---|---|---|
| Collaboration | | | | | | |
| Abramowitz et al. (2002) | 28 | OCD | EXRP | 4 item compliance measure (therapist) | YBOCS | Compliance with in-session exposures significantly associated with post-treatment symptoms after controlling for pre-treatment symptoms. |
| Ramnerö & Öst (2007) | 59 | PDA | CBT vs in-vivo exposure | TCRS – active participation factor (therapist) | PDA composite score | Greater active client participation at session 4, 8, and 12 correlated with greater post-treatment residual change scores in outcome. Session 8 and 12 active participation also correlated with residual change scores at follow up. |
| Rupture-repair | | | | | | |
| McLaughlin et al. (2014) | 116 | PTSD | PE | CALPAS (client) | PSS-SR | Presence of unrepaired alliance ruptures predicted worse PTSD symptoms post-treatment when compared to clients who had repaired ruptures or no ruptures. |
| Westra, Constantino, & Aviram (2011) | 38 | GAD | CBT | CALPAS (client) | PSWQ | When comparing clients who experienced rupture-repair vs rupture-no repair, there was no significant direct effect on post-treatment symptoms. Evidence of an indirect effect of rupture status on outcomes via outcome expectations, although significance levels were not available. |

*Note. N* = study sample size, OCD = obsessive compulsive disorder, PDA = panic disorder with agoraphobia, EXRP = exposure and response prevention, CBT = cognitive behaviour therapy, TCRS = Therapist Client Rating Scale, YBOCS = Yale–Brown Obsessive Compulsive Scale, PTSD = post-traumatic stress disorder, GAD = generalised anxiety disorder, PE = prolonged exposure, CALPAS = California Psychotherapy Alliance Scale, PSS-SR = PTSD Symptom Scale – Self Report, PSWQ = Penn State Worry Questionnaire.

**Figure 2.1**

PRISMA Flow Chart of the Study Selection Process



Appendix

List of Search Terms

| Relationship element | Search string |
|---|---|
| Alliance | Alliance |
| Collaboration | Collaboration |
| Goal consensus | Goal consensus OR agreement |
| Group cohesion | Group cohesion OR group climate OR group cohesiveness |
| Empathy | Empathy OR empathetic |
| Positive regard and warmth | Positive regard OR warmth |
| Feedback | Outcome Questionnaire-45 OR OQ-45 OR OQ-System OR OQ-Analyst OR Outcome Feedback OR Progress Feedback OR Routine Outcome Monitoring OR PROM OR Client Feedback OR Feedback Informed Psychotherapy OR Treatment Monitoring OR Outcome Rating Scale OR Session Rating Scale OR Partners for Change Outcome Management System |
| Emotional expression | Emotional expression |
| Outcome Expectations | Treatment expecta* OR outcome expecta* |
| Treatment Credibility | Credibility OR suitability OR therapist expert* |
| Alliance Rupture-Repair | Alliance AND rupture |

# Chapter Three: The Alliance in CBT for Anxiety Disorders

The systematic review presented in the previous chapter identified significant discrepancies between the conclusions of the Task Force and the evidence in CBT for anxiety disorders. Not only were some elements revealed to be understudied in CBT for anxiety contexts, but others were also found to contradict the findings of the Task Force. The disparity between the conclusions of the Task Force and the evidence in CBT for anxiety was perhaps best exemplified in the alliance-outcome literature. Despite the repeated conclusions of the Task Force that the alliance is a "demonstrably effective" component of therapy (Ackerman et al., 2001; Norcross & Lambert, 2018; Norcross & Wampold, 2011), review of the alliance-outcome relationship in CBT for anxiety disorders revealed substantial inconsistencies.

This chapter presents a detailed discussion of the therapeutic alliance, outlining the definition, conceptualisation, and theory regarding its effects in treatment. This chapter provides additional context for the conceptual and methodological issues in the alliance-outcome relationship identified in the systematic review presented in Chapter Two. The concept of group cohesion is also briefly introduced as a related, but distinct element of the therapeutic relationship. This chapter provides the rationale for clarifying the potential actions of the alliance in CBT for anxiety disorders through disentangling the influence of confounding factors, and for investigating these relationships in group therapy contexts.

## The Therapeutic Alliance: A History and Definition

The alliance, "working alliance," or "helping alliance" is the most widely recognised and studied element of the relationship (Horvath, 2018). Rooted in psychoanalytic theories of transference, the alliance was originally conceptualised as the joining together of the client's reasonable self with the therapist's analysing self for the purpose of therapeutic work (Gelso & Carter, 1985; 1994). Since then, pantheoretical definitions of the alliance have become

more widely adopted, with Bordin's (1979, 1994) tripartite conceptualisation to be the most commonly used (Ardito & Rabellino, 2011; Horvath and Luborsky, 1993). Bordin's formulation of the alliance asserts that it is a collaborative stance between client and therapist in their mutual purpose of overcoming the client's suffering and unhelpful behaviour. It is theorised to comprise of three key components: (1) consensus on therapeutic goals, (2) agreement on the tasks to achieve the goals of therapy, and (3) a positive client-therapist bond expressed through reciprocal trust, mutual liking, respect, and positive regard. This definition of the alliance was unique in that it interweaved "common" aspects (i.e., the relationship) with "specific" components (i.e., interventions), conceptualising them as interdependent. Although the specific term of "the alliance" was not used in classic CBT models, mutual input and team work between client and therapist is a key tenet of an effective CBT relationship (see A. T. Beck, 1979). Given the collaborative focus of the alliance, as well as its integration of theory specific elements (i.e., tasks, techniques) into the interpersonal relationship, the concept and terminology of the alliance has been readily integrated into modern CBT models and texts (e.g., J. S. Beck, 2011; Castonguay et al., 2010).

**The Alliance in Group Therapy**

Although traditionally associated with individual therapy, it is also important to consider the alliance in group therapy. This is especially pertinent, as group formats of psychotherapy, particularly CBT, have gained interest as a cost-effective method of improving access to treatment within the community (McEvoy et al., 2009; Norton & Philipp, 2008). While the relationship in individual therapy centres around the client-therapist dynamic, in group contexts, there are multiple agents of therapeutic relationships: (1) the therapist and/or co-therapists, (2) the other clients in the group, and (3) the group as a whole. According to Pinsof and Catherall's (1986) multisystem model, the alliance in group therapy

comprises at least three levels: (1) individual alliance (client-therapist), (2) whole system alliance (group-therapist alliance), and (3) subsystem alliance (other-therapist or subgroup-therapist). According to Gillaspy et al. (2002), the summation of these forces would reflect the alliance in group therapy.

**The Distinction Between Alliance and Group Cohesion**

Related to alliance in group therapy is the concept of group cohesion. While some have referred to cohesion in group therapy as the equivalent of the alliance in individual therapy (e.g., Schnur & Montgomery, 2010), others have advocated for distinction between these concepts (e.g., Joyce et al., 2007; Johnson, 2007). Definitions of cohesion have varied substantially, leading to a lack of clarity in cohesion research. The first widely used definition was proposed by Festinger et al. (1950), who described cohesion as "the total field of forces which act on members to remain in the group" (p. 164). Following this, group cohesion was further specified as a composite of member-member, member-therapist, and member-group relationships (Fuhriman & Barlow, 1982; Slavson, 1964; Yalom, 1975), reflecting the sense of attraction, belonging, and positive bonding within a group (Yalom & Leszcz, 2005). The systematic review in Chapter Two showed that there is consistent evidence that group cohesion predicts CBT for anxiety outcomes, with studies indicating a small to moderate effect size according to thresholds outlined by Ferguson (2009).

Through their mutual incorporation of client, group, and therapist relationships, it is apparent that multisystem definitions of the alliance and cohesion overlap. Marziali et al. (1997) argued that in order to distinguish the elements and avoid conceptual redundancy, group cohesion definitions should primarily focus on member-to-member interactions, while the alliance should focus on the client-therapist relationship. To aid conceptual clarity and interpretation of these concepts, the present thesis therefore defined the alliance as the relationship between client and therapist in both individual and group therapies, while

cohesion was defined as the relationship between the client and other group members. Empirical investigations of these concepts have likewise drawn this distinction between alliance and cohesion, and have operationalised these factors accordingly (e.g., Crowe & Grenyer, 2008; Joyce et al., 2007; Norton & Kazantzis, 2016).

**Issues in the Alliance-Outcome Evidence in CBT for Anxiety Disorders**

The systematic review in Chapter Two revealed that the alliance was the most studied relationship element in CBT for anxiety disorders. However, it also showed that the evidence for the alliance-outcome relationship was variable and sometimes contradictory. Studies of comparable populations, sample sizes, treatments, and instruments were found to produce conflicting results. For example, in a study of EXRP for OCD (Simpson et al., 2011), analysis of 30 individuals showed that stronger alliance as rated by clients using the Working Alliance Inventory (WAI; Horvath & Greenberg, 1989) significantly predicted improved treatment outcomes as assessed by the Yale-Brown Obsessive Compulsive Scale (YBOCS; Goodman et al., 1989). Conversely, a study of 37 individuals enrolled in EXRP for OCD (Wheaton et al., 2016) showed that the strength of client-rated alliance did not predict treatment outcomes as measured by the same instruments. The authors argued that the null results may be attributable to their restricted range of alliance scores in their sample as a result of ceiling effects, despite using the same measure of alliance. They further suggested that the timing of their assessment of the alliance may explain their null results, yet both Wheaton et al. (2016) and Simpson et al. (2011) measured the alliance at session 3. In post-hoc analyses however, Wheaton et al. (2016) found that after breaking down the alliance into its components, greater task-agreement predicted treatment outcomes, while goal-consensus and bond did not. This indicated that perhaps the alliance-outcome relationship varies according to which component is being assessed.

Investigations of the alliance-outcome relationship in CBT for SAD has found similarly conflicting results. In the first assessment of alliance specifically in CBT for SAD, Woody and Adessky (2002) failed to find a significant relationship between alliance and outcome, as assessed at multiple points in therapy. As this finding contradicted their predictions based on broader alliance-outcome research, the authors suggested that methodological differences may be responsible for the inconsistent results. Differences in theoretical orientation of researchers, treatment phase, patient factors, and therapist factors were suggested as potential sources of variance. In a subsequent investigation of 18 individuals enrolled in CBT for SAD, Hayes et al. (2007) found that while client-rated alliance did not relate to symptom improvement, it did predict perceived session helpfulness. In contrast, observer-rated alliance predicted observer-rated treatment outcomes, but not client impressions of session helpfulness. These findings highlighted the potential influence of rater perspective on the alliance-outcome relationship.

Regarding transdiagnostic client groups, in an analysis of 373 individuals enrolled in group tCBT, Norton & Kazantzis (2016) found alliance, as rated by clients in one session, to associate with symptom levels at the next session across the course of therapy. Contradicting these findings, Sauer-Zavala et al., (2018) showed that alliance was related to symptom recovery in dxCBT, but not tCBT ($N = 179$). Researchers suggested that the alliance may therefore be less relevant in transdiagnostic treatments when compared to single-disorder focussed therapy.

This inconsistency across studies raises concerns regarding the evidence for the alliance in CBT for anxiety disorders. In the systematic review (Chapter Two) it was concluded that these differences in findings could be attributable to variations in methodology between studies, highlighting (1) component of the alliance (task, bond, or goal), (2) perspective of the alliance rater (client, therapist, or observer), and (3) timing of the

alliance (early or later in therapy) as likely confounders of the alliance-outcome relationship. Critical reviews of the alliance literature in exposure therapies (Buchholz & Abramowitz, 2020), as well as across psychotherapy in general (Ardito & Rabellino, 2011), have similarly emphasised concerns regarding variations in methodology and measurement of the alliance. These studies are united in their conclusions that investigating the effects of variance in alliance measurement is necessary to be able to clarify the role of the alliance in treatment.

**Subsidiary Aims**

Given the inconsistencies and nuance found in the literature related to the role of the alliance in CBT for anxiety disorders, examination of the impact of component, perspective, and timing on the alliance-outcome relationship will help to clarify the potential effects of this element in treatment. The subsequent aims of the thesis were therefore as follows: (1) to examine which alliance components relate to treatment outcomes, (2) to test whether different perspectives of the alliance uniquely explain outcomes, and (3) to investigate whether alliance measured at different points in therapy differentially relate to outcomes.

These aims were explored through two investigations of the alliance-outcome (Chapter Four and Five) relationship in two independent samples of group tCBT for anxiety disorders based on the same treatment manual (Norton, 2012a). Given the group context, it was also important to consider the potential contributions of a related, but separate relationship element, group cohesion. A supplementary aim of the study was to therefore (4) examine the group cohesion-outcome relationship in CBT for anxiety disorders. The specific aims of each study are outlined below:

***What, Who and When? Demystifying the Alliance in Cognitive Behaviour Therapy for Anxiety Disorders (Chapter Four)***

This study is an examination of the effects of alliance component, rater, and timing on the alliance-outcome relationship in a previously published trial of group tCBT for anxiety

disorders conducted in Québec, Canada (Roberge et al., 2018). The specific aims of this study were to:

1. Investigate whether components of the alliance differentially relate to CBT for anxiety outcomes
2. Determine whether client and therapist ratings of alliance uniquely and differentially predict outcomes
3. Explore whether the alliance-outcome relationship changes over the course of treatment
4. Examine whether group cohesion uniquely contributes to outcomes, independent of the alliance

***Can You See What I See? A Comparison of Client and Observer Perspectives of the Alliance and Group Cohesion in CBT (Chapter Five)***

This study presents a comparison of client and observer ratings of alliance and group cohesion in a previously published trial of group tCBT for anxiety disorders conducted in Houston, USA (Norton, 2008, 2012b; Norton & Barrera, 2012). The specific aims of this study were to:

1. Examine and compare the predictive validity of client and observer ratings of the therapeutic alliance
2. Examine and compare the predictive validity of client and observer ratings of group cohesion

# Chapter Four: What, Who and When? Demystifying the Alliance in Cognitive Behaviour Therapy for Anxiety Disorders

## Preamble

To address the inconsistencies evident in the alliance in CBT for anxiety disorders literature, the following chapter presents an examination of the effects of component, rater, and timing on the alliance-outcome relationship. This investigation serves to help clarify the potential role of the alliance in CBT for anxiety disorders.

The study utilised participant data drawn from a clinical trial of group tCBT conducted across three sites in Québec, Canada (Roberge et al., 2018). All participants provided written informed consent for their anonymous data to be used in subsequent research, and the study was approved by the Monash University Human Research Ethics Committee (MUHREC; certificate found in Appendix A).

The paper presented in this chapter was submitted to a journal for peer review in July 2020. The format of this paper is consistent with journal requirements, with tables renumbered for the thesis.

**What, Who and When? Demystifying the Alliance in Cognitive Behaviour Therapy for Anxiety Disorders**

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**Abstract**

The evidence for the effect of the alliance in cognitive behaviour therapy (CBT) for anxiety disorders is inconsistent and unclear. Identifying whether the alliance-outcome relationship depends on (1) what components are assessed, (2) who is measuring the alliance, and (3) when the alliance is measured, will help to clarify the role of the client-therapist relationship in therapy. The present study explored the effects of alliance component (agreement versus bond), rater perspective (client versus therapist), and timing (early versus late therapy) on the alliance-outcome relationship. Individuals with an anxiety disorder enrolled into transdiagnostic group CBT were studied, with *N* = 78 at early therapy and *N* = 57 at late therapy. Results showed that greater client-rated agreement significantly predicted improved post-treatment outcomes throughout the course of therapy, while stronger client-rated bond in late therapy predicted reduced treatment gains. In contrast, therapist perceptions of agreement and bond did not predict post-treatment outcomes at any point in therapy. Group cohesion also did not predict additional variance in outcome after accounting for client-rated alliance. Overall, these findings highlight the importance of prioritising the client's perception of the client-therapist relationship in CBT for anxiety disorders, as well as parsing the effects of component, rater, and timing in future process-outcome studies.

*Keywords:* anxiety disorders, cognitive behavior therapy, psychotherapeutic processes, therapeutic alliance, group cohesion

## Clinical Impact Statement

**Question:** In group cognitive behaviour therapy for anxiety disorders, how does the alliance relate to the effectiveness of treatment?

**Findings:** Although therapists' perceptions of the alliance were unrelated to outcomes, clients' perceptions of greater agreement on tasks and goals predicted better treatment gains, while increased liking and bond towards the therapist predicted reduced treatment benefits.

**Meaning:** Therapists should regularly seek feedback about their client's experience of the relationship to respond to any issues, and also be aware that a strong bond may be a sign of poorer treatment response.

**Next Steps:** Future research should examine why a strong bond relates to worse outcomes, and explore models of the alliance-outcome relationship that account for what part of the alliance is being measured, who is measuring it, and when it is being measured.

**What, Who and When? Demystifying the Alliance in Cognitive Behaviour Therapy for Anxiety Disorders**

Anxiety disorders represent a substantial global health issue, ranking as the sixth largest contributor to non-fatal health loss worldwide (World Health Organisation, 2017). Research has established cognitive behaviour therapy (CBT) as an effective treatment for anxiety disorders (e.g., Cuijpers et al., 2016; Norton & Price, 2007) that is more cost-effective (Heuzenroeder et al., 2004) and better tolerated by patients when compared to pharmacological interventions (Mitte, 2005). Despite this, reviews have shown CBT response rates to range between 38% to 77% across anxiety disorders (Hofmann et al., 2012), with 1 in 5 patients prematurely ceasing treatment (Fernandez et al., 2015). As the global burden of anxiety disorders increases, there is a growing urgency to optimise existing practices. With the acknowledgement that "understanding mechanisms of treatment is the path toward improved treatment" (Kazdin, 2007, p. 23), identifying and capitalising on the factors responsible for change may be key to alleviating the burden of anxiety in the community.

Throughout decades of research, the therapeutic alliance has maintained strong interest as an "active ingredient" of all psychotherapies. Defined as the collaborative working together of client and therapist, the alliance is thought to comprise of three components: (1) consensus on treatment goals, (2) agreement on the tasks of therapy, and (3) a positive client-therapist bond (Bordin, 1979, 1994). Established as a "demonstrably effective" element of the therapeutic relationship (Norcross & Lambert, 2018; Norcross & Wampold, 2011), meta-analytic reviews have shown the alliance to be a predictor of treatment outcomes across therapeutic modalities, with a moderate effect size in face-to-face individual treatments ($d$ = .58, Flückiger et al., 2018). Although arguably a well-established active ingredient of therapy, research has primarily investigated the alliance from a pantheoretical and transdiagnostic perspective. Indeed, the alliance is widely considered a "common factor" of therapy (Castonguay, 1993); in other words, an element shared across treatments, irrespective of theoretical orientation or diagnosis. As a consequence, alliance research has broadly

focused on exploring the impact of the alliance on outcomes in general psychotherapy, with little attention on the potential unique effects and actions in specific treatments for certain diagnoses.

**The Alliance in CBT for Anxiety Disorders**

While the alliance is theorised to be a central mechanism in more process-focused treatments such as psychodynamic or Rogerian therapies (see Feltham, 1999, for further detail of the relationship across orientations), CBT conceptualises the therapeutic relationship as a facilitative, rather than direct, factor of change. A warm, collaborative, genuine therapeutic environment is believed to be an essential, but not sufficient, component of therapy (Beck, 1979). It is thought to be responsible for providing the necessary conditions for the effective application of CBT techniques, which are ultimately responsible for change. With the action-oriented nature of CBT, the alliance may be closely intertwined with the specific techniques employed in treatment. In CBT for anxiety disorders, two key strategies are utilised; (1) cognitive restructuring of anxious beliefs, and (2) repeated exposure to fear-provoking stimuli. Within this context, a strong alliance may facilitate change through encouraging clients to engage and persist with difficult within-session and between-session tasks, which in turn reduce anxiety symptoms. In support of this, a number of studies have found adherence to exposure tasks to significantly mediate the alliance-outcome relationship (Maher et al., 2012; Simpson et al., 2011; Wheaton et al., 2016).

Although meta-analyses have shown the alliance to predict outcomes in (1) CBT, and (2) for clients with anxiety disorders (Flückiger et al., 2018; Horvath et al., 2011), the evidence for the alliance specifically within the context of CBT for anxiety is complex and unclear. In a recent systematic review of the alliance in CBT for anxiety, we found significant variation in methodology, conceptualisation, and findings across alliance-outcome studies (Luong et al., 2020). Comparable investigations produced conflicting results, with some studies showing significant alliance-outcome effects (e.g., McLaughlin et al., 2014; Norton & Kazantzis, 2016; Hoffart et al., 2012), while others did not (e.g., Calamaras et al., 2015; Strauss et al., 2018; Weiss et al., 2014). This review highlighted the importance of identifying and investigating the factors responsible for this heterogeneity in order to

clarify the role of the alliance in treatment. The present study will therefore examine the effects of three potential sources of variance in the alliance-outcome relationship: (1) alliance components, (2) rater perspective, and (3) the timing of the alliance assessment.

***Alliance Components***

There is emerging evidence indicating that the task, bond, and goal components of the alliance differentially relate to outcomes across CBT for anxiety disorders. Using the Working Alliance Inventory (WAI; Horvath & Greenberg, 1989) to assess the three alliance components, increased task agreement has been found to consistently predict greater treatment gains (e.g., Hoffart et al., 2013; Wheaton et al., 2016), while bond has been shown to be broadly unrelated to outcomes (e.g., Brady et al., 2015; Hagen et al., 2016; Mörtberg, 2014). The evidence for goal consensus however is mixed and inconclusive (see Luong et al., 2020). In contrast to the tripartite alliance structure, Andrusyna et al. (2001) proposed a two-factor solution for the WAI in CBT specifically, consisting of (1) "agreement/confidence" (i.e., collaboration and consensus in carrying out therapy according to its rationale) and (2) "relationship" or bond (i.e., the affective components of the relationship). In a factor analysis, researchers found that in CBT, agreement on the goals and tasks of therapy may be inextricably linked, while the client-therapist bond remains conceptually distinct. Few studies have investigated the alliance for anxiety disorders using this CBT specific two-factor structure. In a study of cognitive therapy for post-traumatic stress disorder (PTSD), Brady et al. (2015) found that "good" treatment responders had significantly higher agreement when compared to "poor responders", while no difference was found for bond. Similarly, Hagen et al., (2016) found that stronger agreement was related to greater gains in exposure and response prevention therapy (EXRP) for obsessive-compulsive disorder (OCD), yet bond was unrelated to outcomes. This preliminary evidence indicates that agreement may be more critical to treatment success when compared to bond. Through further investigation of the effects of agreement versus bond in CBT for anxiety disorders, researchers and clinicians may be able to reveal greater insight into how the relationship could be specifically adapted to facilitate recovery.

***Rater Perspective***

Different raters of the alliance may be assessing unique aspects of the relationship (Horvath et al., 2011), with previous research indicating that alternate perspectives share less than half the common variance (Fenton et al., 2001). There is a sizeable body of evidence indicating that client-rated alliance predicts outcomes in CBT for anxiety disorders (see Luong et al., 2020), however interest in utilising therapist perspectives is growing. Studies have suggested that therapist contributions to the alliance are more important for outcomes than client contributions (Baldwin et al., 2007; Del Re et al., 2012), raising questions about whether there is additional merit in obtaining therapist perceptions alongside client ratings. In an exploration of client versus therapist alliance conceptualisations, Bachelor (2013) found that clients tended to emphasise helpfulness and joint participation, while therapists emphasised client contributions and active participation. In addition, client and therapist ratings have been shown to be differentially influenced by in-session experiences (Nissen-Lie et al., 2015). Research indicates that negative therapist reactions impact client but not therapist ratings, while in-session flow affect therapist, but not client alliance ratings. These differences may be especially relevant in CBT for anxiety disorders, as challenging therapeutic tasks such as difficult exposures may have unique effects on client versus therapist perceptions of the alliance. The potential differences between client and therapist perspectives have rarely been compared in CBT for anxiety disorders. Client ratings, but not therapist ratings, have been found to correlate with improved outcomes in CBT for social anxiety disorder (SAD; Hoffart et al., 2012), suggesting that client perspectives have greater utility in predicting treatment efficacy. Moreover, Huppert et al. (2014) found that although all client-rated alliance subscales predicted treatment outcome, only therapist-rated task agreement was related to symptom improvement. It remains unclear whether therapist perspectives provide additional benefit in explaining treatment outcomes above client ratings of the alliance.

### *Timing of the Alliance*

There has been a lack of consensus regarding the time-varying effects of alliance on outcomes. Although there is evidence that alliance measured later in therapy is a stronger predictor of outcomes when compared to early-alliance (Flückiger et al., 2018), some have argued that this may merely be a symptom of reverse causation, where later stage alliance is a function of prior symptom change, rather than a predictor of outcomes (Crits-Christoph et al., 2011). On the other hand, it is important to consider whether the alliance may have greater influence on outcomes at different stages of treatment. It could be speculated that in the early stages of treatment, where introductory techniques such as psychoeducation are utilised, the benefits of alliance in this context are minimal. In contrast, when more advanced and theoretically effectual techniques are used later in treatment (e.g., exposure, cognitive restructuring), a strong alliance may have greater impacts on outcome. Few studies have directly compared the alliance-outcome relationship at multiple points in CBT for anxiety disorders. One study of 373 individuals enrolled in a transdiagnostic group CBT found that the alliance shared a consistent and stable relationship with next-session symptoms, irrespective of the stage of therapy (Norton & Kazantzis, 2016). In contrast, Westra et al. (2011) found that alliance later in therapy, but not earlier in treatment, was related to outcomes. There is a paucity of research in the time-varying effects of alliance in CBT for anxiety disorders, and understanding the dynamics of the alliance through treatment can aid clinicians in understanding how best to capitalise on these processes.

## Group Cohesion

Group formats of CBT have gained interest as a cost-effective method of improving access to evidence-based anxiety treatment within the community (McEvoy et al., 2009; Norton & Philipp, 2008). Consequently, there is interest in investigating the potential therapeutic effects of relationships between group members. Group cohesion, or the client's sense of attraction and belonging towards other members in treatment (Stokes, 1983; Yalom, 1985), has been shown to significantly predict improved treatment response in the broader psychotherapy literature

(Burlingame et al., 2018). In CBT for anxiety disorders, bonding, support, and camaraderie shared with other members may improve outcomes through encouraging greater treatment adherence, and increased willingness to participate and persist with challenging therapeutic tasks. In support of this, greater cohesion in therapy has been shown to predict improved outcomes in CBT for SAD (Bonsaksen et al., 2013), PTSD (Ellis et al., 2014), and transdiagnostic anxiety disorders (Norton & Kazantzis, 2016). Given the conceptual similarities between alliance and cohesion however, there has been discussion surrounding the comparative effects of these elements in treatment. Some have argued that cohesion not only contributes to outcomes, but is also more critical to treatment success when compared to the alliance (Crowe & Grenyer, 2008). In contrast, others have suggested that cohesion does not predict post-treatment symptoms over and above the client-therapist relationship (e.g., Bisseling et al., 2018; Marziali et al., 1997). To our knowledge, only one study to date has directly compared the predictive abilities of alliance and cohesion in CBT for anxiety, however researchers found that neither alliance nor cohesion predicted symptom improvement (Woody & Adessky, 2002). Distinguishing the effects of cohesion and alliance on treatment outcomes may provide insight into whether fostering positive client-member relationships, as well as client-therapist bonds, should also be prioritised in treatment.

**The Current Study**

To capitalise on the benefits of therapeutic relationships in treatment, understanding if, when, and how these relationships contribute to change is necessary. The present study therefore aimed to explore the role of the alliance in CBT for anxiety disorders through an investigation of (1) which alliance components relate to symptom change; (2) whether client and therapist perspectives uniquely contribute to outcomes; (3) if the alliance-outcome relationship changes over the course of therapy; and (4) whether group cohesion contributes to treatment effectiveness independent of the alliance.

In light of previous research, three sets of hypotheses are proposed. First, it was hypothesised that higher scores in the agreement component of the alliance would predict

improved treatment outcomes. Second, in line with Brady et al. (2015) and Hagen et al., (2016), it was expected that agreement would be a stronger predictor of outcomes when compared to bond. Third, based on preliminary findings from Hoffart et al. (2012) and Huppert et al., (2014), it was predicted that client-rated alliance would be a stronger predictor of outcomes when compared to therapist perspectives. Finally, it was hypothesised that higher levels of group cohesion would uniquely predict improved treatment outcomes independent of the alliance. Given that the literature regarding the effects of timing on the alliance-outcome relationship is unclear and limited, no predictions could be made about this factor. The present study therefore approached analysis of this potential source of variance from an exploratory perspective.

## Method

Data were drawn from a recently completed pragmatic superiority randomised trial of group transdiagnostic CBT (tCBT) in primary care settings across three sites in Québec, Canada. All participants provided written informed consent for their de-identified data to be used for the primary purposes of the original study, as well as other related analyses for future research. The study design and details are described in detail elsewhere (Roberge et al., 2018; Roberge et al., 2019). All methods and procedures were reviewed and approved by local institutional ethical review boards.

### Participants

Participants were recruited between September 12th 2016 and February 16th 2018 through newspaper advertisements, geo-targeted Facebook and Google AdWords, and community bulletin boards. Inclusion criteria were as follows: (a) aged 18 to 65, (b) fluent in written and spoken French, (c) principal diagnosis of panic disorder, agoraphobia, SAD, or generalised anxiety disorder (GAD) according to the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM–5; American Psychiatric Association, 2013). Individuals were excluded from the study if there was evidence of active suicidal intent, psychosis, bipolar disorder, substance-related and addictive disorders, or cognitive impairments, or if they had consulted with a psychiatrist in the past 12 months. Eligible

participants were randomly assigned to one of two conditions: group tCBT (in addition to treatment as usual), or treatment as usual (TAU). Data from the 117 individuals who were assigned the group tCBT condition were used in the present study, representing 12 treatment groups.

Demographic and baseline information for the full sample (*N* = 117), clients who attended session 12 (*n* = 95), and those who did not (*n* = 22) is presented in Table 4.1. Independent sample t-tests were used to compare mean baseline anxiety symptoms scores between treatment completers and non-completers. Non-completers were found to have significantly higher pre-treatment anxiety symptoms, $t(115) = 2.30$, $p = .023$. The mean difference between those who attended session 12 and those who did not was 5.88, 95%CI[0.82, 10.94] representing a small to medium effect size ($r^2 = .04$).

**Measures**

***Anxiety and Related Disorders Interview Schedule for DSM-5 (ADIS-5, Brown & Barlow, 2014)***

Diagnosis and eligibility for the study were determined using the ADIS-5. The ADIS-5 is a semi-structured, clinician-administered diagnostic interview designed to assess anxiety, mood, trauma, obsessive-compulsive, and related disorders according to DSM-5 criteria. Interviewers assess the presence, nature, and severity of symptoms, and determine a clinical severity rating (CSR) on a scale from 0 (*not severe at all*) to 8 (*extremely severe/distressing*) to indicate the degree of distress and interference of the symptoms. To determine eligibility for the study, a CSR score of 4 (moderate impairment) or higher was used as a clinical threshold to indicate diagnosis of an anxiety or related disorder (Barlow, 2014). Psychometric investigations of a previous version of the ADIS-5 have shown good to excellent inter-rater agreement in principal diagnoses (range of kappas = .67-.86), except dysthymia (kappa = .22; Brown et al., 2001). The ADIS-5 was administered by trained PhD psychology students in face-to-face assessments at the pre-treatment stage.

***Beck Anxiety Inventory (BAI; Beck et al., 1988)***

Treatment outcomes were assessed using the BAI. The BAI is a 21-item self-report measure designed to assess anxiety symptoms. Individuals rate the severity of symptoms on a scale ranging from 0 (*not at all bothered*) to 3 (*severely bothered*), with total scores ranging from 0 to 63. The BAI

has been shown to have high internal consistency (Cronbach's alpha = .92) and test-retest reliability (*r* = .75; Beck at al., 1988). Clients completed the BAI at pre-treatment and post-treatment. Pre-treatment BAI ratings showed high internal consistency (Cronbach's alpha = .88)

***Working Alliance Inventory Short Form (WAI-SF; Horvath & Greenberg, 1989; Tracey & Kokotovic, 1989)***

The quality of the working alliance was assessed using the client and therapist versions of the WAI-SF. The WAI-SF is a 12-item shortened version of the original 36-item WAI measure (Horvath, 1981), designed to measure the three dimensions of Bordin's (1979) working alliance (i.e., task agreement, goal consensus, and bond). However, research has shown that a two-factor structure of agreement and bond may be more appropriate for CBT contexts (Andrusyna et al., 2001). Using this structure, 9 items were used to assess agreement, and 3 items were used to measure bond. Items are rated on a scale from 1 (*never*) to 7 (*always*), where higher WAI-SF scores represented stronger alliance. The average scores across items within the agreement and bond subscales were calculated. Both client and therapist versions of WAI-SF have demonstrated high internal consistency across subscales and total scores (Hanson et al., 2002). Clients and therapists completed the WAI-SF at the end of session 3 (early treatment) and session 9 (late treatment). To reduce therapist burden, therapists were asked to rate the average WAI-SF across all group members, reflecting the therapist's perception of the group's alliance with the therapist, as opposed to their cohesion with each other in the group. Only principal therapist ratings were used in the present study. Internal consistency at session 3 was high for client agreement (Cronbach's alpha = .85) and bond (Cronbach's alpha = .91). Session 3 therapist ratings also showed good consistency for agreement (Cronbach's alpha = .81) and bond (Cronbach's alpha = .72).

***Gross Cohesion Scale (GCS; Stokes, 1983)***

The GCS is a 9-item self-report measure of perceived cohesiveness and bond towards members in a group. Items are rated from 0 (*dislike very much*) to 8 (*like very much*), with total scores ranging from 0 to 72. The GCS has shown acceptable reliability and validity, and has been

used as a measure of group cohesion in previous CBT trials for anxiety (e.g., Heimberg et al., 1998; Norton et al., 2008). Clients completed the GCS at the end of session 9. Client GCS ratings at session 9 showed good internal consistency (Cronbach's alpha = .80).

**Procedure**

Self-referred individuals completed an online screening survey to assess basic eligibility criteria. Eligible individuals were then contacted for a brief telephone-screening interview, with potential candidates subsequently assessed in face-to-face interviews. Interviews were conducted by trained PhD psychology students, and eligibility for the study was determined using the ADIS-5. Individuals who met inclusion criteria were then given self-report questionnaires for baseline assessment and a return envelope. Participants were then randomly assigned to group tCBT (in addition to TAU) or TAU across three sites (Québec, Sherbrooke, Laval).

**Group tCBT Treatment**

Group tCBT consisted of 12 weekly two-hour sessions, and followed a manualised treatment protocol (Norton, 2012). Sessions were facilitated by two clinicians, and group sizes ranged from 8 to 12 clients. This treatment is designed to address anxiety from a transdiagnostic perspective, focussing on challenging and confronting feared stimuli regardless of their specific nature. Psychoeducation, self-monitoring, and cognitive restructuring were introduced in the first three sessions. Sessions 4 to 9 focussed on exposure to feared stimuli, based on each client's individual exposure hierarchy. In session 10 and 11, cognitive techniques gained in therapy were then used to identify and challenge core beliefs and schema that underpin a general negative affective style. Treatment concluded with relapse prevention.

Principal therapists were psychologists accredited by the provincial regulatory body, with PhD level qualification and at least two years of clinical CBT experience. Co-therapists were PhD psychology students, or registered psychologists or psychotherapists selected by health care managers at each site. Therapists were initially trained by the protocol developer (PJN) in a two-day workshop, and tailored individual training was provided (MDP) to other therapists who were unable

to attend. Mandatory case consultation (MDP, PG) was provided at predetermined times throughout treatment (pre-treatment, between sessions 3 and 4, 6 and 7, 10 and 11, and post-treatment) via case-discussion phone calls. Thirty-three percent of treatment sessions were randomly reviewed for treatment adherence and competence using audio recordings and an integrity rating scale.

**Data Preparation and Analyses**

Principal therapist ratings of WAI-SF were disaggregated from the group to the individual level for the purposes of this study. As recommended by Shrive et al. (2006), missing items on scales were replaced with the individual's mean score on all other items if at least 80% of item scores were available. All analyses were conducted using IBM SPSS Statistics, Version 26.0. All study variables except for group cohesion were found to have non-normal distributions as determined by Shapiro-Wilk tests of normality. To explore simple relationships between variables, Spearman correlations were used. Hierarchical multiple regression analyses were conducted to determine the effects of predictors on treatment outcomes. Regression assumptions were evaluated separately for predictors at early and late treatment. Investigations revealed a multivariate outlier for early predictors as diagnosed by a standardised residual larger than 3, and another with an extreme Mahalanobis distance score ($p$<.001). Outliers were excluded from analyses, with $n$ = 78 for early process analyses and $n$ = 57 for later process analyses. Models for both early and late predictors showed evidence of heteroscedasticity, as assessed by visual inspection of residual plots, and an approximation of the Breusch-Pagan test (Breusch & Pagan, 1979) as outlined in Astivia and Zumbo (2019). To account for heteroscedasticity, weighted least squares regression was used as advised by Rosopa et al. (2013). Regression weights were estimated separately for predictors at each time point by using the inverse of the estimated variance ($w_i = 1/\sigma_i^2$). Estimated variance was calculated by regressing the absolute values of the residuals against the fitted values, where the subsequent fitted values were used as an estimate of $\sigma_i$.

## Results

### Preliminary Analyses

Correlations between all study variables are presented in Table 4.2. Notably, there were no significant correlations between client ratings of the alliance and their therapist-rated counterparts. Group cohesion was significantly correlated with session 9 client and therapist-rated agreement, and client-rated bond. Dependent t-tests were conducted to compare mean client and therapist ratings of the agreement and bond at each time point. No statistically significant difference was found between client and therapist agreement and bond ratings at session 3, $t(84) = -0.69$, $p = .49$ and $t(84) = -0.02$, $p = .98$ respectively; and at session 9, $t(62) = 1.19$, $p = .24$ and $t(62) = 0.03$, $p = .97$ respectively. Regarding correlations between process and outcome, only client-rated agreement at session 3 was correlated with post-treatment BAI in the expected direction. No other process variables were significantly related to outcome.

### Early Alliance and Outcome

A hierarchical multiple regression was run to determine if the addition of client-rated early alliance and then of therapist-rated early alliance improved the prediction of post-treatment symptoms over and above baseline symptoms alone. Baseline BAI was entered at step 1, client-rated alliance at step 2, and therapist-rated alliance at step 3 (see Table 4.3 for full details of each model).

At step 1, baseline BAI contributed significantly to the regression model, $R^2 = .19$, $F(1,76) = 17.79$, $p < .001$. The addition of client-rated agreement and bond to the prediction of post-treatment BAI led to a statistically significant increase in $R^2$ of .09, $F(2,74) = 4.73$, $p = .012$. The addition of therapist-rated agreement and bond at step 3 did not reliably improve $R^2$. The full model with all session 3 predictors was statistically significant, $R^2 = .28$, adjusted $R^2 = .23$, $F(5,72) = 5.69$, $p < .001$. Only pre-treatment BAI and client-rated agreement were significant predictors in the final model, uniquely explaining 10.5% and 9% of variance respectively in post-treatment BAI.

**Late Alliance and Outcome**

To assess the predictive abilities of client and therapist-rated late therapy alliance, baseline BAI was entered at step 1, client-rated alliance at step 2, and therapist-rated alliance at step 3 (see Table 4.4 for full details). At step 2, the addition of client-rated agreement and bond to the prediction of post-treatment BAI led to a significant increase in $R^2$, $F(2,53) = 6.44$, $p = .003$, explaining an additional 13.5% variance. Adding therapist-rated agreement and bond did not reliably improve $R^2$. The final model was statistically significant, $R^2 = .48$, adjusted $R^2 = .43$, $F(5,51) = 9.29$, $p < .001$, with only client-rated agreement and bond significantly predicting outcome. Greater client-rated agreement predicted a decrease in post-treatment symptoms, explaining 6.2% unique variance, while bond, contrary to expectations, predicted an increase in symptoms, explaining 15% variance.

**Group Cohesion and Alliance as Predictors of Outcome**

A hierarchical multiple regression model was used to determine whether group cohesion could explain additional variance in post-treatment outcomes after controlling for baseline symptoms and client alliance rated at the same time point. In step 1, baseline BAI and late client agreement and bond were entered as predictors. In step 2, late GCS was added as a predictor (see Table 4.5 for full details). The addition of GCS to the regression model did not significantly improve $R^2$. The final model with all predictors was significant, $R^2 = .46$, adjusted $R^2 = .42$, $F(4,52) = 10.93$, $p < .001$, however GCS was not found to be a significant predictor of treatment outcomes, after controlling for baseline symptoms and client-rated alliance.

## Discussion

The present study examined the role of alliance in group CBT for anxiety disorders through observing the effect of alliance component, rater perspective, and timing on the alliance-outcome relationship. The unique effect of group cohesion on outcomes was also explored. The main findings of the study were as follows: (1) stronger client-rated agreement at both early and later stages of therapy predicted greater treatment outcome, (2) greater client-rated bond later in therapy, but not early in therapy, predicted poorer treatment gains, (3) at both early and late therapy stages,

therapist perceptions of agreement and bond did not explain additional outcome variance over and above client-rated alliance, and (4) group cohesion did not explain additional variance in outcomes after accounting for client-rated alliance.

Client-rated agreement significantly predicted improved treatment outcomes, supporting our first hypothesis. This finding is consistent with previous research (e.g., Brady et al., 2015; Hagen et al., 2016), and extends the evidence by demonstrating that these effects are present at both early and late stages of treatment. This suggests that a client's perception of agreement regarding how and why therapy is carried out contributes to change throughout the course of treatment. Consensus on introductory interventions such as psychoeducation (early agreement), as well as more advanced techniques like exposure (late agreement), appear to be important in enhancing treatment response. Greater agreement with the rationale and methods of treatment may encourage client commitment and adherence to therapy and its tasks, therefore maximising its ameliorative effects. Additionally, greater agreement may reflect appropriate application and tailoring of interventions to address the client's unique difficulties, which in turn promote recovery. In support of this, the design and use of exposures targeted to a client's individual needs and abilities is argued to be a key strategy for effective habituation and inhibitory learning (Benito & Walther, 2015; Craske et al., 2014). Therapists should therefore regularly request client feedback on goals and tasks from the outset of therapy. This will ensure that treatment is appropriately tailored to each client's unique needs, and that any doubts or concerns about the therapeutic rationale can be addressed.

On the other hand, our hypothesis that agreement would be a stronger predictor of therapy gains when compared to bond was only partially supported. Although bond did not relate to outcomes early in therapy, results showed that not only did bond predict outcomes later in treatment, but that it also explained over double the amount of variance when compared to agreement measured at the same time. Surprisingly, clients who perceived stronger, more positive affective bond with their therapist were found to experience fewer benefits from treatment. This is

in contrast to previous literature indicating a null relationship between bond and treatment outcomes in CBT for anxiety disorders (Brady et al., 2015; Hagen et al., 2016). Notably however, these studies did not control for the effects of agreement, which may have obscured any bond-outcome relationships. The reasons for our finding is unclear. Given that the bond-outcome relationship was observed at the exposure stage of treatment (session 9) and not earlier in therapy,[1] it could be speculated that greater client-therapist liking may be a reflection of therapists that are not sufficiently challenging their clients to engage in increasingly difficult exposures as part of treatment. Therapists with greater fear that exposure may harm their clients have been shown to select less intense exposure tasks and design less ambitious exposure hierarchies in treatment (Farrell et al., 2013). It is not uncommon for therapists to believe that exposure is harmful for clients (Deacon et al., 2013), which may therefore prompt overly cautious treatment delivery, such as less effective exposures, premature termination of exposures, and reassuring clients of safety. Although these strategies may increase client liking towards therapists, and therefore bond, this unnecessarily cautious and substandard delivery of treatment may ultimately prevent clients from achieving optimal gains. This theory has yet to be tested however, and future research should investigate whether overly cautious exposure delivery explains the bond-outcome relationship. Regardless, if the findings of the present study are replicated, it would suggest that the client-therapist affective relationship may be able to indicate reduced treatment gains in CBT for anxiety disorders.

Regarding therapist perspectives of the alliance, results showed that neither therapist-rated agreement nor bond predicted outcomes over and above client-rated alliance, consistent with our third hypothesis. This contributes to existing evidence that client perspectives are more useful in predicting outcomes when compared to therapist ratings (e.g., Hoffart et al., 2012; Huppert at al., 2014), and extends this research by demonstrating that this is apparent irrespective of alliance component and stage of treatment. Clients and therapists are known to rate the alliance differently, responding uniquely to in-session process (Nissen-Lie et al., 2015) and being differentially influenced by external factors such as client disturbance (Gunderson et al., 1997), social functioning (Couture et

al., 2006), and insight and problem-solving capacity (Hersoug et al., 2002). Although it is debated whether clients or therapists are more “accurate” assessors of the alliance, these results show that client perspectives, rather than therapist perceptions, may be more meaningful in explaining treatment response. Therapists should therefore be aware that their appraisals of the alliance may not match the client’s perception and may not be relevant to a client’s treatment success, and should instead prioritise gaining regular feedback from clients about their experience of therapy.

The hypothesis that group cohesion would significantly predict treatment outcomes above client-rated alliance was not supported. These results are consistent with comparisons of alliance and cohesion in interpersonal therapy for borderline personality disorder (Marziali et al., 1997), and mindfulness-based CBT for cancer patients (Bisseling et al., 2019). It seems that in CBT for anxiety disorders, the client’s relationship with their therapist may be more important to treatment success than their relationship with other group members. It is possible however, given that cohesion was rated later in treatment, that clients who were not well bonded with their group members prematurely ceased therapy. Unfortunately, the present study did not have data regarding early therapy cohesion levels and was unable to test this theory. To clarify whether cohesion is indeed less predictive of treatment outcomes when compared to the alliance, future research should therefore investigate the potential impact of group cohesion on treatment dropout, as well as post-treatment symptoms.

**Limitations**

A number of limitations of the present study should be acknowledged. First, therapists were asked to rate their alliance with the group as a whole, rather than their alliance with individual clients. The present study was therefore unable to explore the effects of therapists’ perceptions of their alliance with individual group members, and the conclusions presented are only applicable to therapist perspectives of their alliance with the group. Second, conclusions about the potential role of alliance and cohesion in facilitating treatment effectiveness are tentative. It is possible that clients who experience greater gains in treatment are also more likely to share stronger relationships with

their therapists and group members. Finally, process-outcome relationships later in therapy excluded individuals who withdrew earlier in treatment, which may have confounded process or outcome ratings. Although comparisons of completers and non-completers revealed a statistically significant difference in baseline anxiety symptoms, their scores represented a marginal clinical difference, with completers' mean score being on the high end of the "moderate" score range, and non-completers having a score at the low end of the "severe" score range.

**Conclusion**

Overall, the results of this study demonstrate that the alliance-outcome relationship in CBT for anxiety disorders may depend on (1) what element is being assessed, (2) who is rating the alliance, and (3) when the alliance is measured. This study highlights the importance of obtaining clients' perspectives of agreement on the goals and tasks of therapy throughout treatment. This study also shows for the first time that client perception of a strong bond with their therapist later in treatment may be an indication of poorer treatment outcomes for that individual (at least in CBT for anxiety). Therapists should be aware that their perceptions of the alliance, and the client's bond with other group members, might not be as meaningful to treatment success as their client's impression of the alliance. Future research is encouraged to explore models that take into account the effects of time, component, and perspective on the alliance-outcome relationship. Investigations into how interpersonal processes may interact with CBT specific strategies (e.g., exposure, cognitive restructuring) will also help to shed light onto the complex actions of the relationship in CBT for anxiety disorders.

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Endnotes

[1] Re-analysis of session 3 predictors with only those present at session 9 did not show bond to significantly relate to outcomes. This suggests that session 9 may represent a meaningful point in therapy for the bond-outcome relationship, rather than that clients who perceived strong bonds with their therapists overall tended to do worse in treatment.

**Table 4.1**

*Demographic and Baseline Characteristics*

| Variable | Full sample (*N*=117) | Completers (*n*=95) | Non-completers (*n*=22) |
|---|---|---|---|
| Age, mean (*SD*) | 37.8(12.2) | 39.0(12.1) | 32.8 (11.7) |
| Gender, n(%) | | | |
| Female | 101(86.3) | 80(84.2) | 21(95.5) |
| Male | 16(13.7) | 15(15.8) | 1(4.5) |
| Marital status | | | |
| Married/Living with partner | 66(56.4) | 57(60.0) | 9(40.9) |
| Separated/Divorced | 42(35.9) | 5(5.3) | 4(18.2) |
| Single | 9(7.7) | 33(34.7) | 9(40.9) |
| Education | | | |
| Secondary or less | 9(7.8) | 6(6.3) | 3(13.6) |
| Post-secondary/Vocational | 57 (49.1) | 44(46.3) | 13(59.1) |
| University | 50(43.1) | 44(46.3) | 6(27.3) |
| Occupation | | | |
| Full-time | 73(62.4) | 62(65.3) | 11(50.0) |
| Student | 21(17.9) | 15(15.8) | 6(27.3) |
| Other | 23(19.7) | 18(18.9) | 5(22.7) |
| Principal diagnosis | | | |
| Panic disorder | 13(11.1) | 11(11.6) | 2(9.1) |
| Agoraphobia | 6(5.1) | 5(5.3) | 1(4.5) |
| Social Anxiety Disorder | 26(22.2) | 19(20.0) | 7(31.8) |
| Generalised Anxiety Disorder | 72(61.5) | 60(63.2) | 12(54.5) |
| CSR, mean (*SD*) | 6.2(1.1) | 6.2(1.1) | 6.4(0.9) |
| BAI pre-treatment, mean (*SD*) | 24.5(11.0) | 23.4(10.6) | 29.2(11.6) |

**Table 4.2**

*Spearman Correlations Among Study Variables*

| Variable | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Baseline BAI | - | | | | | | | | | | |
| 2. Post-treatment BAI | .32** | - | | | | | | | | | |
| 3. Early Client Agreement | -.19 | -.28* | - | | | | | | | | |
| 4. Early Client Bond | -.09 | -.02 | .53** | - | | | | | | | |
| 5. Early Therapist Agreement | .06 | -.04 | .03 | -.05 | - | | | | | | |
| 6. Early Therapist Bond | .15 | .07 | -.10 | -.11 | .77** | - | | | | | |
| 7. Late Client Agreement | -.05 | -.24 | .56** | .56** | -.01 | -.02 | - | | | | |
| 8. Late Client Bond | .04 | .04 | .45** | .59** | -.04 | -.11 | .72** | - | | | |
| 9. Late Therapist Agreement | 0 | -.24 | .08 | -.03 | .50** | .59** | .17 | -.03 | - | | |
| 10. Late Therapist Bond | -.35** | -.16 | .04 | -.09 | .15 | .09 | -.06 | -.10 | .46** | - | |
| 11. Late Group Cohesion | .21 | -.10 | .37** | .24 | -.02 | .13 | .53** | .31* | .27* | -.11 | - |

*Note.* BAI = Beck Anxiety Inventory. Number of participants included in each analysis range from 58 to 85 due to pairwise deletion of cases with missing values. *$p < .05$, **$p < .01$

**Table 4.3**

*Hierarchical Regression Analysis of Early Therapy Alliance to Predict Post-Treatment BAI*

| Step | Predictor | *B* | *SE B* | $\beta$ | 95%CI | $\Delta R^2$ |
|---|---|---|---|---|---|---|
| 1 | Baseline BAI | 0.32 | 0.08 | .44*** | [0.17,0.48] | .19*** |
| 2 | Baseline BAI | 0.25 | 0.08 | .34** | [0.10,0.40] | .09* |
| | Early Client Agreement | -4.31 | 1.40 | -.36** | [-7.11,-1.52] | |
| | Early Client Bond | 1.39 | 0.91 | .17 | [-0.43,3.21] | |
| 3 | Baseline BAI | 0.26 | 0.08 | .35** | [0.10,0.41] | .00 |
| | Early Client Agreement | -4.35 | 1.44 | -.36** | [-7.23,-1.47] | |
| | Early Client Bond | 1.36 | 0.93 | .17 | [-0.51,3.22] | |
| | Early Therapist Agreement | 0.60 | 3.04 | .03 | [-5.46,6.65] | |
| | Early Therapist Bond | -1.17 | 3.17 | -.06 | [-7.49,5.15] | |

*Note. N = 78, BAI = Beck Anxiety Inventory. Weighted Least Squares regression was used to account for heteroscedasticity of residuals. ***p* < .001.***p* < .01. **p* < .05

**Table 4.4**

*Hierarchical Regression Analysis of Late Therapy Alliance to Predict Post-Treatment BAI*

| Step | Predictor | *B* | *SE B* | $\beta$ | 95%CI | $\Delta R^2$ |
|---|---|---|---|---|---|---|
| 1 | Baseline BAI | 0.38 | 0.08 | .56*** | [0.23,0.53] | .31*** |
| 2 | Baseline BAI | 0.19 | 0.09 | .28* | [0.01,0.38] | .14** |
| | Late Client Agreement | -4.36 | 1.55 | -.51** | [-7.46,-1.26] | |
| | Late Client Bond | 2.48 | 0.69 | .76** | [1.09,3.87] | |
| 3 | Baseline BAI | 0.18 | 0.09 | .26 | [-0.01,0.37] | .03 |
| | Late Client Agreement | -3.98 | 1.63 | -.47* | [-7.26,-0.70] | |
| | Late Client Bond | 2.78 | 0.73 | .85*** | [1.32,4.23] | |
| | Late Therapist Agreement | -4.74 | 3.19 | -.24 | [-11.15,1.68] | |
| | Late Therapist Bond | 0.68 | 2.67 | .04 | [-4.69,6.03] | |

*Note. N = 57, BAI = Beck Anxiety Inventory. Weighted Least Squares regression was used to account for heteroscedasticity of residuals. ***p* < .001. **p* < .01. *p* < .05*

**Table 4.5**

*Hierarchical Regression Analysis of Late Therapy Cohesion and Alliance to Predict Post-Treatment BAI*

| Step | Predictor | *B* | *SE B* | $\beta$ | 95%CI | $\Delta R^2$ |
|---|---|---|---|---|---|---|
| 1 | Baseline BAI | 0.19 | 0.09 | .28* | [0.01,0.38] | .45*** |
| | Late Client Agreement | -4.36 | 1.55 | -.51** | [-7.46,-1.26] | |
| | Late Client Bond | 2.48 | 0.69 | .76** | [1.09,3.87] | |
| 2 | Baseline BAI | 0.21 | 0.09 | .31* | [0.03,0.40] | .01 |
| | Late Client Agreement | -3.58 | 1.71 | -.42* | [-7.00,-0.16] | |
| | Late Client Bond | 2.58 | 0.70 | .79** | [1.18,3.98] | |
| | Late Group Cohesion | -0.14 | 0.13 | -.18 | [-0.41,0.12] | |

*Note. N = 57, BAI = Beck Anxiety Inventory. Weighted Least Squares regression was used to account for heteroscedasticity of residuals. ***p* < .001. **p* < .01. *p* < .05

# Chapter Five: Can You See What I See? A Comparison of Client and Observer Perspectives of the Alliance and Group Cohesion in CBT

## Preamble

The following chapter presents an examination of the predictive validity of client and observer ratings of alliance and group cohesion in CBT for anxiety disorders. Participant data and video recordings of sessions used in this study were drawn from three previously published clinical trials of a 12 session group tCBT conducted at the University of Houston Anxiety Disorder Clinic (Norton, 2008, 2012b; Norton & Barrera, 2012). Videos of group sessions were used to obtain observer ratings of the alliance and group cohesion. All participants provided written informed consent in the original trials for their de-identified data and video recordings of sessions to be used in additional research. The study received approval from the Monash University Human Research Ethics Committee (MUHREC; certificate found in Appendix B).

Given that agreement and bond were found to differentially relate to outcome in Chapter Four, this study similarly examined each factor individually. The study was also originally designed to compare client and observer-rated alliance at multiple points in therapy, as the previous study indicated that alliance-outcome relationship varied over the course of treatment. A total of 39 treatment groups, representing 373 participants, were involved in the original trials. Eleven groups, reflecting 64 participants, were selected pseudo-randomly for inclusion in the study based on the availability of video-recordings such that groups that did not have sufficient recordings (i.e., minimum five recordings across twelve sessions) were excluded from selection. The absence of video-recordings was attributable to faults in recording equipment. All available sessions for each of these 11 groups were rated, representing 90 two-hour video recordings, with 42 recordings missing. After completing observer ratings of these sessions, it was found that sample sizes varied

wildly depending on the session number ($n$ = 7 – 39). This was due to absence of video recordings and client non-attendance. Moreover, the samples for each session were, at best, only partially overlapping. For example, for a group X comprising of participants a, b, c, d, and e, participant a, b, and c may have attended session 6, but participant c, d, and e attended session 7. Meanwhile, the video for session 8 would be missing due to faults in recording equipment. Given that there would only be one shared participant, it would be inappropriate to extrapolate from this sample. Due to issues with sample size and minimal overlap between sessions, the decision was made to instead select two key sessions based on the literature (sessions 7 and 8), and rate all available participants. Subsequently, the original aim to explore the alliance and cohesion over the course of therapy was changed to focus on examining the effects of these factors at these key sessions. The data collected outside of these two sessions were not used for the study.

The paper presented in this chapter was submitted for peer review to a journal in August 2020. The format of this paper is consistent with journal requirements, with tables renumbered for the thesis.

# Can You See What I See? A Comparison of Client and Observer Perspectives of the Alliance and Group Cohesion in CBT

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# Can You See What I See? A Comparison of Client and Observer Perspectives of the Alliance and Group Cohesion in CBT

Both the therapeutic alliance and group cohesion have been identified as "demonstrably effective" relationship elements in therapy. However, the overwhelming majority of process-outcome research has relied on clients as raters of the therapeutic relationship. A lack of convergence between client, therapist, and observer perspectives has raised questions regarding how best to measure relationships in therapy. Interest in observational measures has grown, as they may offer more objective and reliable measurements of process. This study compared the predictive validity of client and observer ratings of the alliance (agreement and bond) and group cohesion in the context of group cognitive behaviour therapy (CBT) for anxiety disorders. Results showed that client and observer ratings of process were unrelated to each other, and regarding the alliance, only client-rated agreement predicted client-rated treatment gains. In contrast, both client and observer-ratings of group cohesion were found to uniquely contribute to treatment outcomes. If replicated, the findings from the present study suggest that (1) client ratings of alliance should be prioritised until the validity of observer measures is further clarified, and (2) both clients and observers provide meaningful and distinct information about group cohesion in therapy.

Keywords: cognitive behavior therapy; therapeutic alliance; psychotherapeutic processes; group cohesion; anxiety disorders

## Introduction

Identifying the factors responsible for change in cognitive behaviour therapies (CBT) is key to understanding how best to adapt and optimise existing treatments (Kazdin, 2007). Conclusions from the most recent APA Task Force on Evidence Based Relationships identified the therapeutic alliance and group cohesion as two "demonstrably effective" relationship elements across all psychotherapy treatments (Norcross & Lambert, 2018). The alliance, perhaps the most recognised element of therapeutic relationships, refers to the collaborative working together of client and therapist, characterised by agreement on the goals and tasks of therapy, and a positive affective bond (Bordin, 1979). In contrast, group cohesion refers to a client's sense of attraction, belonging, and bonding towards other group members and the group as a whole (Stokes, 1983; Yalom, 1985). Reviews of decades of alliance and cohesion research have suggested that these relationships predict treatment outcomes across therapeutic orientations and diagnoses (Burlingame et al., 2018; Flückiger et al., 2018).

Despite the general consensus that these relationship elements relate to better treatment outcomes, there has been little agreement on how best to measure these processes. Relationships can be measured from three different perspectives: clients, therapists, and independent observers. Previous studies have indicated that measures of alliance from alternative perspectives share less than half the common variance (Fenton et al., 2001), raising questions regarding the validity, equitability, and comparative utility of each perspective. Overwhelmingly, clients are the most common raters of both alliance (Flückiger et al., 2018) and group cohesion (Burlingame et al., 2018). However, concerns regarding the objectivity and reliability of client-rated process have prompted researchers to encourage the use of neutral, independent observers as assessors of relationships in therapy (Ardito & Rabellino, 2011).

***The potential advantages of observer perspectives***

Observers as raters of therapeutic process, when compared to client perspectives, present a number of possible advantages. Firstly, observers may be able to offer unbiased and objective assessments of the relationship. Client assessments of alliance have been shown to be biased by external influencers such as prior symptom improvement (Falkenström et al., 2014), specific personality traits (Taft et al., 2004), and the quality of previous and current interpersonal relationships (Hersoug et al., 2002). In addition, observers may be able to offer more reliable and consistent ratings of relationship constructs. Due to standardised training and practice rating, it could be argued that observers may be better able to understand the theoretically relevant components of the construct, and can develop a mental database of what constitutes a "strong" and "weak" therapy relationship. In contrast, clients are broadly unfamiliar with the theoretical conceptualisations of therapy relationships, and often do not have much previous experience of therapy. They may therefore be less able to accurately assess their relationship, given that they have little or no basis for comparison.

Furthermore, observers may be better able to capture difficulties within therapy relationships. Clients may be susceptible to underreporting issues in therapy due to a lack of awareness or discomfort in disclosure. Social desirability bias, referring to the tendency of individuals to provide socially favourable responses instead of reporting their true experiences, has been shown to influence client self-report measures (Van de Mortel, 2008). Being "polite" and not wanting to "upset" the therapist have been identified as the most common client motivations for withholding negative evaluations of therapists and treatment (Blanchard & Farber, 2016). Indeed, clients have been shown to only use the top 20% of rating points of alliance measures, potentially indicating over-inflated alliance scores (Tryon et al., 2008). In contrast, observational

measures have been shown to be more sensitive to alliance ruptures when compared to client-ratings (Coutinho et al., 2014).

Few studies have directly compared the predictive validity of client and observer ratings of alliance in CBT. Recent meta-analysis of alliance-outcome studies across psychotherapies indicated a trend that observer-rated alliance-outcome correlations ($r_{adjusted}$ = .22, $k$ = 66) were smaller than client-rated effects ($r_{adjusted}$ = .25, $k$ = 223; Flückiger et al., 2018). In contrast, comparisons of alliance perspectives at the same time point have indicated that observer-rated alliance, but not client-rated, relates to CBT outcomes (Fenton et al., 2001; Hayes et al., 2007; Langhoff et al., 2008). Notably however, these studies utilised treatment outcomes as assessed by independent evaluators. With increasing calls to prioritise client-rated outcome measures to achieve patient-centred care (see Williams et al., 2016), it is important to investigate whether client-rated outcomes are uniquely predicted by both client and observer perspectives of alliance.

Regarding rater perspectives of group cohesion, no studies to date have directly compared client and observer ratings of group cohesion in therapy. In fact, only two observer instruments of cohesion have been published: (1) the Harvard Community Health Plan Group Cohesiveness Scale (Budman et al., 1987), and (2) the Therapy Process Observational Coding System – Group Cohesion (TPOCS-GC Lerner at al., 2013). Although both have indicated promising predictive validity individually (e.g., Budman et al., 1989; Lerner et al., 2013), these measures have yet to be directly compared to client assessments of group cohesion. The comparative predictive validity of observer assessments of group cohesion remains untested.

### *The present study*

While decades of research have established client-rated alliance and cohesion as predictors of outcome (Burlingame et al., 2018; Flückiger et al., 2018), the potential advantages of observer perspectives over client ratings suggest that observers may provide additional, if not superior, information about therapeutic processes. Establishing and comparing the predictive validity of client and observer ratings will provide important implications for how these constructs are measured in future. The present study therefore aims to explore and contrast the predictive abilities of client versus observer ratings of alliance and cohesion in a previously published sample of individuals with anxiety disorders enrolled into a group transdiagnostic CBT program (see Norton & Kazantzis, 2016). Given that client and observer measures of process have been found to be generally unrelated, but that both have been shown to associate with treatment outcomes, it is likely that each rater is capturing important but distinct aspects of the relationship. It was therefore hypothesised that (1) client and observer-rated therapeutic alliance would uniquely predict outcomes and (2) client and observer-rated group cohesion would uniquely explain outcome variance.

## Method

Data and video-recordings of sessions of group transdiagnostic CBT (tCBT) for anxiety were sourced from three previously published clinical trials (Norton, 2008; 2012a; Norton & Barrera, 2012). Participants provided written informed consent for their de-identified data to be used for the purposes of the original studies as well as subsequent research. Methods and procedures of the original trials and the present study were reviewed and approved by local institutional ethical review boards.

***Participants***

Inclusion criteria were as follows: (a) aged 18 years or older, (b) principal diagnosis of an anxiety disorder according to the Diagnostic and Statistical Manual of Mental Disorders (4th ed., text rev.; DSM-IV-TR; American Psychiatric Association, 2000), and (c) adequate proficiency in English. Individuals were excluded if there was evidence of dementia or other neurocognitive condition, active serious suicidality, substance use disorder, or other condition requiring immediate intervention.

The present study utilised a subset of the original sample, analysing 55 participants who attended one of two key sessions and for whom video-recordings were available (see Data Preparation and Analyses below). Sessions 7 and 8 were selected as research has shown that the alliance-outcome relationship is strongest later in therapy (Flückiger et al., 2018), and that group cohesion may only facilitate change in the later stages of CBT (Norton & Kazantzis, 2016). This sample consisted of 54.5% women and 45.5% men with a mean age of 30.7 years (*SD* = 9.4). The sample was ethnically diverse, with 60% European American, 21.8% Hispanic, 7.3% African American, 5.5% Asian American, and 3.6% Other or Mixed. The principal diagnoses were as follows: 50.9% social anxiety disorder, 20% generalised anxiety disorder, 10.9% panic disorder with agoraphobia, 7.3% panic disorder without agoraphobia, 7.3% obsessive compulsive disorder, and 3.6% anxiety disorder not otherwise specified. All individuals had comorbid diagnoses, with 66.8% meeting diagnosis for another anxiety disorder.

***Treatment***

Treatment consisted of 12 weekly two-hour sessions following a structured tCBT for anxiety disorder protocol (Norton 2012b). Treatment began with psychoeducation about the nature of anxiety (session 1), and continued with self-monitoring (sessions 1-2), cognitive restructuring (sessions 2 – 9), and exposure to feared stimuli (sessions 4-9).

Session 10 and 11 involved advanced cognitive restructuring of core beliefs underpinning a general negative affective style. Treatment concluded with relapse prevention (session 12). Therapists were doctoral-level clinical psychology graduate students who received training and supervision provided by the protocol developer. Each treatment group was facilitated by two therapists, with group sizes ranging between 6-8 individuals at treatment initiation.

***Measures***

*Anxiety and Related Disorders Interview Schedule for DSM-IV (ADIS-IV; Brown, Di Nardo, & Barlow, 1994)*

The ADIS-IV was used at pre-treatment to determine diagnosis and eligibility for the study. The ADIS-IV is a semi-structured diagnostic interview designed to assess the presence and severity of anxiety and mood disorder symptoms according to DSM-IV criteria. A clinical severity rating (CSR) was used to indicate the degree of distress and interference of symptoms, with a score of 4 (*moderate impairment*) used as a threshold for a clinically significant diagnosis. All interviews were conducted by trained clinical psychology graduate students who received regular supervision by a senior clinical psychologist. A subset of interviews were rated by a second blind interviewer, showing high inter-rater reliability (86% agreement, $\kappa = .76$, $p <. 001$; Norton & Kazantzis, 2016).

*State-Trait Anxiety Inventory – State Form (STAI-S; Speilberger, 1983)*

The STAI-S was used to assess anxiety symptoms at the beginning of every session. The STAI-S is a 20 item self-administered questionnaire measuring the presence and severity of state anxiety symptoms. Items are rated on a 4 point likert scale, with scores ranging from 1 (*not at all*) to 4 (*very much so*). The STAI has demonstrated acceptable

psychometric properties (Ortunio-Sierra et al., 2016), and session 1 STAI-S scores showed excellent internal consistency (α = .93).

*Working Alliance Inventory - Short Form Client Version (WAI-C; Horvath & Greenberg, 1989; Tracey & Kokotovic, 1989)*

The WAI-C is a 12-item client-rated questionnaire, based on the original 36-item WAI (Horvath, 1981) designed to assess the alliance according to Bordin's (1979) three dimensions of task agreement, goal consensus, and bond. Subsequent factor analyses of the WAI-C have indicated a two-factor model of "agreement" (9 items) and "bond" (3 items) to be more appropriate in CBT contexts (Andrusyna et al., 2001). Items are scored from 1 (*never*) to 7 (*always*). The WAI-C has been shown to have acceptable psychometric properties (Busseri & Tyler, 2003). Clients completed the WAI-C at the end of every odd numbered session (session 1, 3, etc.) after therapists had left the room. Completed measures were placed in a lockbox, and clients were assured that therapists would not have access to responses. Internal consistency at session 7 was high for agreement (α = .83) and bond (α = .89). Average item score within each factor was used for analyses.

*WAI Observer Version (WAI-O; Tichenor & Hill, 1989)*

The WAI-O is a 36-item observer adaptation of the original WAI. The present study used 12 items from this scale to correspond with the items included in the WAI-C. Items are rated on a scale from 1 (*very strong evidence against*) to 7 (*very strong evidence*), with points awarded or taken away when evidence for or against a strong alliance is observed. This 12-item WAI-O has previously demonstrated good psychometric properties (Santirso et al., 2018). Available video-recordings of session 7 were rated by observers using the WAI-O for each participant in attendance. Using

Cicchetti's (1994) guidelines, inter-rater reliability for agreement and bond fell within the "good" range, ICC(2,2) = .72 and .66 respectively.

*Gross Cohesion Scale (GCS; Stokes, 1983)*

The GCS is a 9-item client-rated measure of group cohesion, with each item scored on a scale between 0 to 8, where higher scores reflect greater attraction and bonding towards the group. The GCS has demonstrated adequate psychometric properties, and has been used in previous studies of process in CBT for anxiety disorders (e.g., Heimberg et al., 1998). Clients completed the GCS at the end of every even numbered session (session 2, 4, etc.) after the therapists left the room. Completed measures were placed in a lock box and clients were assured that responses would be kept confidential from therapists and other members. Total scores were used for analyses, and session 8 GCS showed good internal consistency (α = .82).

*Therapy Process Observational Coding System – Group Cohesion (TPOCS-GC; Lerner et al., 2013).*

The TPOCS-GC is a 6-item observer measure of group cohesion, designed to assess member-member bonding behaviours. Both positive bonding behaviours (e.g., understanding, supportiveness) and negative bonding interactions (e.g., hostility, criticism) are assessed. Observers rate the frequency and intensity of explicit and observable behaviours throughout the session, with item scores ranging from 0 (*not at all*) to 5 (*a great deal*). The TPOCS-GC has shown adequate psychometric properties in preliminary investigations (Lerner et al., 2013). Session 8 video-recordings were rated by observers, and total scores showed "excellent" inter-rater reliability, ICC(2,2) = .88.

***Procedure***

Baseline, outcome, and client-rated data were sourced from the original trials. Observer data was collected via viewing of session video-recordings. The first author (HKL)

completed extensive training in the use of the WAI-O and TPOCS-GC under the supervision of a senior psychologist before proceeding with data collection. The first author had three years' experience in utilising observer measures of process for other research projects. Training involved comprehensive review of the scoring manuals for the WAI-O (Darchuk et al., 2000) and TPOCS-GC, and practice ratings of sessions not included in the study. To evaluate the inter-rater reliability of ratings, a second rater (an advanced psychology graduate) double coded 27.3% of sessions. The second rater underwent training provided by the first author, which consisted of two 3-hour didactic sessions, and practice ratings. Formal re-training was provided after 12 months had elapsed since initial training to minimise the risk of coder drift. The second rater was blind to research aims and hypotheses, and both raters were blind to participants' pre and post-treatment symptoms during coding.

***Data Preparation and Analyses***

A baseline anxiety symptom variable was created by using session 1 or 2 STAI-S based on the availability of data, as a small number of clients missed the first session. An outcome variable was calculated by using a client's latest available STAI-S score from session 10 onwards, given that the core components of the treatment had been delivered by session 10. Across 39 treatment groups, only 18 recordings were available for session 7 and 15 for session 8. The absence of video-recordings was attributable to faults in recording equipment. Due to video availability and participant retention, process and outcome data was available for 43 individuals at session 7, and 28 individuals at session 8.

Pearson correlations were used to explore simple relationships between variables. Two hierarchical multiple regression analyses were used to examine the predictive abilities of client versus observer-rated alliance and cohesion. Regression

models were designed to test whether there was additional benefit in obtaining third-person perspectives after accounting for client-rated process. At step 1, baseline symptoms were entered to control for pre-treatment symptoms. Client-rated process was subsequently entered at step 2, and the corresponding observer-rated process was entered in step 3. Assumption testing revealed two multivariate outliers diagnosed by a standardised residual larger than 3, which were subsequently excluded from analyses. A total of $n$ = 42 was included for alliance analyses, and $n$ = 26 for cohesion analyses.

**Results**

***Preliminary analyses***

Client ratings of agreement ($M$ = 6.13, $SD$ =.80) and bond ($M$ = 6.07, $SD$ = .90) were generally high, as were observer-rated agreement ($M$ = 6.07, $SD$ = .70,) and bond ($M$ = 6.15, $SD$ = .81). Neither client-rated agreement nor bond were related to their observer-rated counterpart, $r$ = .16, 95%CI[-.15, .44], $n$ = 42, $p$ = .30 and $r$ = .20, 95%CI[-.13, .46], $n$ = 42, $p$ = .22 respectively. Clients similarly reported strong group cohesion ($M$ = 61.81, $SD$ = 7.82, range = 46-72), as did observers ($M$ = 22.40, $SD$ = 4.08, range = 15-29). No significant relationship was found between client and observer perspectives of cohesion, $r$ = .08, 95%CI[-.32, .45] $n$ = 26, $p$ = .69.

***Client- and observer-rated alliance as predictors of outcome***

A hierarchical multiple regression analysis (see Table 5.1) showed baseline anxiety to contribute significantly to the regression model in step 1, $R^2$ = .12, $F$(1,40) = 5.42, $p$ = .03. The addition of client agreement and bond led to a significant increase in $R^2$ of .20, $F$(3,38) = 6.05, $p$ = .002. The inclusion of observer-rated agreement and bond in the last step did not reliably change $R^2$, although the final model was statistically significant, $R^2$ = .37, adjusted $R^2$ = .28, $F$(5,36) = 4.23, $p$ = .004. Baseline symptoms and client-

rated agreement were the only significant predictors of outcome in the final model, explaining 12.2% and 13.1% of unique variance respectively.

***Client- and observer-rated cohesion as predictors of outcome***

In a hierarchical regression analysis (see Table 5.2), after accounting for baseline symptoms, the addition of client-rated cohesion in the second step led to a significant change in $R^2$ of .18, although the model was not statistically significant $F(2,23) = 2.70$, $p = .09$. The inclusion of observer-rated cohesion also resulted in a significant change in $R^2$ of .21, and a statistically significant final model, $R^2 = .40$, adjusted $R^2 = .31$, $F(3,22) = 4.81$, $p = .01$. Both client and observer-rated cohesion were significant predictors of outcome in the final model, explaining 15.4% and 21% unique variance respectively.

To test whether observer-rated cohesion explained a significantly greater amount of outcome variance when compared to client-rated cohesion, confidence intervals of beta weights were calculated. A statistically significant difference between beta weights can be demonstrated by confidence intervals that overlap by less than 50% ($p <. 05$; Cumming, 2009). The beta weight of observer-rated cohesion ($\beta = -.46$), 95%CI[-.80, -.11]) was not found to be significantly larger than client-rated cohesion ($\beta = -.41$, 95%CI[-.76,-.05]).

**Discussion**

The present study aimed to examine and compare the predictive validity of client and observer ratings of alliance and cohesion. Of particular interest was exploring whether there was additional benefit in assessing process from a third-party perspective, after accounting for client ratings. Regarding the first hypothesis that both client and observer ratings of alliance would uniquely explain outcomes, only client-rated agreement was found to predict symptom improvement. Client-rated agreement has consistently been found to relate to CBT for anxiety disorder outcomes (see Luong et al., 2020), and the

present finding extends this evidence to show that this factor predicts outcomes even after controlling for the potential effects of observer-rated alliance. In contrast, observer-rated alliance did not account for any additional variance in outcomes above the contributions of client-rated agreement. This is consistent with previous evidence that client-rated alliance is more strongly related to broader psychotherapy outcomes than observer ratings (Flückiger et al., 2018). While previous comparisons of these perspectives in CBT at the same time points have shown observer, but not client, ratings to relate to outcomes rated by independent evaluators (i.e., Fenton, 2001; Hayes et al., 2007; Langhoff et al., 2008), these findings show that client, but not observer, alliance predicts client-rated outcomes. It is possible that neutral, external raters see similar phenomena, distinct from subjective client perceptions of process and outcome. Future research should therefore be conscious that the alliance-outcome relationship may depend on the rater of both process and outcomes.

The findings of (1) no significant correlation between client and observer-ratings of alliance, and (2) only client-rated agreement predicting outcomes, contribute to the increasing evidence that different raters assess different aspects of the alliance (Horvath, 2018). Because observers are limited to only rate overt and direct interactions, third-person assessments may not be able to capture more complex, indirect, and internal aspects of the alliance. Clients are often unwilling to express negative feelings about their therapist (Blanchard & Farber, 2016), and may choose to modify their behaviour towards their therapist in a socially desirable manner. It is possible that clients may be more willing to disclose their true impressions in a confidential report, than to demonstrate their negative feelings through their interactions in sessions. With regards to therapist ratings, research has likewise indicated that in CBT, client-rated alliance has greater predictive validity when compared to therapist measures (e.g., Hoffart et al.,

2012; Luong et al., 2020). Taken together, these findings suggest that until the predictive validity of observer (and therapist) measures is clarified, it is recommended that future studies prioritise and utilise client assessments of the alliance.

In contrast, both client and observer-rated group cohesion independently predicted treatment outcomes, supporting our second hypothesis. Notably, client and observer ratings of cohesion were found to be unrelated. These results indicate that clients and observers are assessing different aspects of group cohesion, both of which may be meaningful to treatment outcomes. Subjective ratings of cohesion rely on asking individuals about their internal attraction and belonging towards a group. Objective ratings however, are based on evidence of observable interpersonal bonding behaviours. It could be argued that client ratings attend to the attitudinal components of cohesion (e.g., members like each other), while observers focus on the behavioural aspects (e.g., members often speak with each other), each of which uniquely operate in treatment. Due to the complex and abstract nature of cohesion, measurements of cohesion can differ according to their conceptualisation (individual attraction to the group versus total forces acting on the group), dimensionality of measurement (task cohesion versus social cohesion), and focus of measurement (attitude versus behaviour) amongst other factors (see Salas et al., 2015). In their review of the assessment of cohesion, Salas et al. (2015) concluded that measurements that capture multiple aspects, including both attitudinal and behavioural cohesion, are the most effective measurements of the construct. The results of the present study provide preliminary evidence that client and observer perspectives of cohesion may provide distinct and meaningful information about CBT treatment effectiveness. Future research is therefore encouraged to utilise both client and observer ratings of cohesion to explore the unique insights that each perspective can provide.

Several limitations from this study should be noted. First, due to client dropout and limited availability of video recordings, the sample size for session 8 analyses was small. Results from the cohesion analyses should therefore be interpreted with caution, and replication of results in a larger sample is required. Second, given that session 7 and 8 were selected for measurement, clients who prematurely ceased treatment were not included in present analyses. It is possible that clients who had low alliance or cohesion may have ceased treatment earlier. Analysis of client versus observer perspectives of alliance and cohesion earlier in therapy may therefore reveal additional or contrasting results. Third, the primary coder of sessions was not blind to the research aims or hypotheses, which may have biased observer ratings. The study mitigated this bias by blinding the researcher to client symptom data. Moreover, comparisons with ratings from a second coder who was blind to the research aims and hypotheses showed good inter-rater reliability. Regardless, it is important to acknowledge that ratings may have been unintentionally influenced by experimenter expectations. Next, client and observer ratings of cohesion were obtained using two different instruments. The TPOCS-GC and GCS are independently designed tools not necessarily intended to be used interchangeably. It cannot be definitively concluded whether the differences between GCS and TPOCS-GC were attributable to the alternative perspectives (i.e., client or observer) or to the unique attributes of each assessment tool. Only two published observer measures of group cohesion exist, and TPOCS-GC was selected as its items most closely approximated the items on the GCS. Finally, given that the present analyses were conducted in the context of group CBT, these results may not generalise to individual CBT.

### *Conclusion*

Ratings of process from an observer perspective are often purported to be more objective and accurate measures when compared to client-ratings. This study showed that while both client and observer-ratings of cohesion uniquely predicted outcome, only client-ratings of alliance agreement predicted treatment gains. Researchers are therefore encouraged to assess cohesion from the perspectives of both client and observer, as each rater may provide unique and meaningful information about member-to-group interactions. In contrast, the present findings suggest that researchers should aim to prioritise client perspectives of the alliance until further investigation and development into observer measures clarify the utility and validity of these approaches. Understanding how best to measure process and why alternate perspectives differ will help to provide important insights into how relationships operate in therapy.

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**Table 5.1**

*Hierarchical Regression Analysis of Client and Observer Rated Session 7 Alliance to Predict Outcome*

| Step | Predictor | *B* | *SE B* | $\beta$ | 95%CI | $\Delta R^2$ |
|---|---|---|---|---|---|---|
| 1 | Baseline STAI-S | .30 | .13 | .35* | [0.04, 0.57] | .12* |
| 2 | Baseline STAI-S | .33 | .12 | .38** | [0.09, 0.57] | .20** |
| | WAI-C Agreement | -7.40 | 2.71 | -.55** | [-12.88, -1.92] | |
| | WAI-C Bond | 1.72 | 2.39 | .15 | [-3.12,6.57] | |
| 3 | Baseline STAI-S | .32 | .12 | .36* | [0.07, 0.56] | .05 |
| | WAI-C Agreement | -7.51 | 2.75 | -.56** | [-13.08, -1.94] | |
| | WAI-C Bond | 2.33 | 2.44 | .20 | [-2.62, 7.28] | |
| | WAI-O Agreement | .44 | 3.39 | .03 | [-6.44, 7.32] | |
| | WAI-O Bond | -3.13 | 3.00 | -.25 | [-9.16, 2.90] | |

*Note. N = 42, STAI-S = State Trait Anxiety Index State Version, WAI-C = Working Alliance Inventory Client Version, WAI-O = Working Alliance Inventory Observer Version.*

*$p < .05$. **$p < .01$. ***$p < .001$

**Table 5.2**

*Hierarchical Regression Analysis of Client and Observer Rated Session 8 Cohesion to Predict Outcome*

| Step | Predictor | *B* | *SE B* | $\beta$ | 95%CI | $\Delta R^2$ |
|---|---|---|---|---|---|---|
| 1 | Baseline STAI-S | .07 | .15 | .10 | [-0.23, 0.38] | .01 |
| 2 | Baseline STAI-S | -.01 | .14 | -.01 | [-0.30, 0.29] | .18* |
| | GCS | -.50 | .22 | -.44* | [-0.95, -0.04] | |
| 3 | Baseline STAI-S | -.02 | .12 | -.02 | [-0.27, 0.24] | .21* |
| | GCS | -.46 | .19 | -.41* | [-0.86, -0.06] | |
| | TPOCS-GC | -1.0 | .36 | -.46* | [-1.74, -0.24] | |

*Note. N = 26, STAI-S = State Trait Anxiety Index State Version, GCS = Gross Cohesion Scale, TPOCS-GC = Therapy Process Observational Coding System – Group Cohesion.*

*$p < .05$.

# Chapter Six: General Discussion

This chapter presents an integrated discussion of the thesis findings. The aims of the thesis are first briefly reviewed, and a summary of the findings of each study is provided. The clinical and theoretical implications of the research are then discussed, and the strengths and limitations of the research are explored. Based on this body of work, directions for future research are then suggested.

## Review of Aims

The overarching purpose of this thesis was to examine and clarify the role of the therapeutic relationship in CBT for anxiety disorders. In service of this, a critical review of the literature on the elements of the therapeutic relationship in CBT for anxiety disorders was conducted. This review highlighted substantial uncertainties in the alliance-outcome relationship, informing the aims of the subsequent studies. Through observational investigations of two independent samples of group tCBT for anxiety disorders, the effects of alliance component, rater, and timing on the alliance-outcome relationship were explored. Given that the treatment was delivered in a group format, a supplementary aim was to also examine the relationship between group cohesion and treatment outcomes.

## Summary of Research Findings

The systematic review presented in Chapter Two evaluated the current state of the evidence regarding the link between treatment outcomes and elements of the therapeutic relationship in CBT for anxiety disorders. Key discrepancies were identified between the conclusions of this review and the conclusions of the APA Task Force. Many relationship elements that were declared by the Task Force to be “demonstrably effective” and “probably effective” irrespective of treatment were found to be understudied, unsupported, or inconsistent in CBT for anxiety contexts. A summary of these findings is presented in Table 6.1.

**Table 6.1**

*Comparison of Conclusions between the 2018 Task Force and the CBT for Anxiety Disorder Systematic Review*

| Relationship element | 2018 Task Force findings | Chapter Two findings |
|---|---|---|
| Alliance | Demonstrably effective | Mixed findings and inconsistent methodology were identified, raising doubts regarding the strength of the evidence ($k$ = 26). |
| Group cohesion | Demonstrably effective | Moderate body of consistent evidence supporting a cohesion-outcome relationship ($k$ = 9). |
| Empathy | Demonstrably effective | Small body of evidence with mixed findings ($k$ = 4). |
| Collaboration | Demonstrably effective | Very small body of evidence supporting a collaboration-outcome relationship ($k$ = 2). |
| Goal consensus | Demonstrably effective | Moderate body of evidence generally indicating no significant goal consensus-outcome relationship ($k$ = 6). |
| Outcome expectations | Probably effective | Moderate body of evidence generally indicating a significant expectation-outcome relationship ($k$ = 11). |
| Treatment credibility | Probably effective | Moderate body of evidence generally indicating no significant credibility-outcome relationship ($k$ = 10). |

Table 6.1 *(Continued)*

| Relationship element | 2018 Task Force findings | Chapter Two findings |
|---|---|---|
| Alliance rupture-repair | Probably effective | Very small body of evidence supporting a negative impact of unrepaired ruptures on outcomes ($k$ = 2). |
| Emotional expression | Probably effective | No studies were identified. |
| Warmth/positive regard | Demonstrably effective | No studies were identified. |
| Feedback | Demonstrably effective | No studies were identified. |

These findings highlighted the importance of investigating the therapeutic relationship within its unique treatment context, rather than from a pantheoretical, transdiagnostic perspective. The alliance-outcome relationship in CBT for anxiety disorders was found to be a key area of uncertainty in particular. Substantial variations in methodology and conceptualisation across studies were found to undermine confidence in the alliance as an effective relationship element in CBT for anxiety disorders. It was concluded that disentangling the effects of alliance component, rater, and timing on the alliance-outcome relationship may help to clarify the potential actions of this relationship element in treatment.

The empirical study presented in Chapter Four examined the effects of alliance component (agreement versus bond), rater (client versus therapist), and timing (early versus late therapy) on the alliance-outcome relationship in group tCBT for anxiety disorders. It also investigated the contributions of group cohesion to treatment outcomes. Findings demonstrated that client ratings of stronger agreement at both early and late treatment predicted improved treatment response, however a more positive client-rated bond at late therapy was found to predict worse outcomes. In contrast, neither therapist-rated alliance nor client-rated group cohesion predicted outcomes above the effects of client-rated alliance. Client and therapist ratings of the alliance were also found to be unrelated. It was concluded that the alliance components differentially relate to outcomes over the course of CBT for anxiety disorders, and that client perspectives of the alliance may be more helpful than therapist impressions to explain variation in treatment response.

The empirical study presented in Chapter Five compared the predictive validity of client and observer ratings of the alliance and group cohesion in group tCBT for anxiety disorders. Again, client ratings were found to be unrelated to their observer-rated counterparts. Client ratings of agreement were found to predict treatment response in the expected direction, while client-rated bond was unrelated to outcomes. In contrast, observer

ratings of agreement and bond did not explain any additional outcome variance. On the other hand, both client and observer ratings of group cohesion were found to uniquely explain treatment outcomes. It was concluded that while observer ratings of alliance are unlikely to explain treatment response above client perspectives, both client and observers may provide distinct and meaningful insights into group cohesion.

The findings from this body of research provides important implications for the measurement of alliance and cohesion in CBT for anxiety, potential mechanisms of action in treatment, and how existing therapies can be adapted to optimise outcomes.

**Why Do Client, Therapist, and Observer Perspectives of the Same Construct Differ?**

There is a growing recognition that different perspectives of the therapeutic relationship represent distinct phenomena (Horvath, 2018; Tichenor & Hill, 1989). In assessments of the alliance, alternate perspectives have been found to be unrelated to each other, and also share differential relationships with treatment outcomes (Fenton et al., 2001; Fitzpatrick et al., 2005; Hartmann et al., 2015). The findings from this thesis contribute to this evidence through demonstrating that different perspectives of alliance and cohesion are non-interchangeable, and that they share divergent relationships with treatment outcomes in CBT for anxiety disorders. There are many possible reasons for the discrepancies observed between client, therapist, and observer ratings of the alliance and cohesion. Two potential explanations are discussed below.

***Differences in the Accuracy of Raters***

First, scores between raters may differ because clients, therapists, and observers are differentially sensitive, or accurate, in measuring the relationship. Given that client-rated alliance was found to have superior predictive validity when compared to both therapist and observer perspectives, this finding may indicate that clients are the most sensitive assessors of the alliance. Therapists and observers are arguably limited in their ability to measure the

alliance, as they must rely on direct, observable behaviours and disclosures in order to measure the construct. In spite of rigorous, comprehensive, and standardised training, it is likely difficult for an external viewer to fully perceive, and therefore report on, a client's internal, subjective and genuine experience of the relationship. Specifically, being able to interpret a client's intentions is critically important in assessing collaboration, a core aspect of the alliance. Referring to the active and willing contribution of the client to the therapeutic work (Bordin, 1979; Tryon & Winograd, 2018), collaboration may be difficult to distinguish from "non-willing" or "non-collaborative" compliance by third party observers. In both the therapist and observer versions of the WAI (Horvath & Greenberg, 1989; Darchuk et al., 2000), raters are asked to differentiate between "willing participation" and mere "acquiescence" in therapy. While clients are readily able to assess their own internal motivation to complete a task, external assessors may have to make assumptions about the client's intentions if they are not expressed explicitly.

Furthermore, a client's observable behaviours in session may not necessarily reflect their true feelings towards the therapist, further complicating third-party assessments of alliance. Client behaviour may be influenced by social desirability, referring to the tendency to respond favourably towards others rather than expressing their genuine feelings. Clients are often uncomfortable and unwilling to report negative feelings about their therapist in session, citing fear of "upsetting" their therapist or not wanting to seem "rude" as the primary reasons for concealing their true feelings (Blanchard & Farber, 2016). Indeed, in a survey of 547 therapy clients, 29% reported that they had pretended to like their therapist's comments and suggestions, and almost one third admitted that they lied to their therapist about the helpfulness of therapy (Blanchard & Farber, 2016). Anxiety disorder populations may be especially susceptible to changing behaviour in a socially desirable manner, as anxious individuals are more likely to report approval seeking schema (Lindsey, 2014). Clients have

been found to be more sensitive to issues in the alliance when compared to therapists (Bachelor et al., 2013), suggesting that therapists are less able to detect ruptures, possibly due to client concealment. Clients may feel more comfortable to disclose their true experience of the relationship through anonymous self-report measures, as used in the present thesis.

It is also possible that differences in social identity between clients, therapists, and observers, such as race, ethnicity, and gender may influence interpretations of the alliance. Communication is closely linked with an individual's culture and identity (Gudykunst, 2003), and it could be speculated that sociocultural differences impact perceptions and expressions of client-therapist interactions. It has been argued, for example, that cultural differences between clients and therapists pose unique threats to the alliance (Vasquez, 2007). Vasquez (2007) suggested that dyads comprised of White therapists and ethnic minority clients may be especially vulnerable to cultural misunderstandings and unintentional microaggressions. Microaggressions refer to the power dynamics experienced in cross-cultural interactions that convey an attitude that the person with privilege is superior to the person with minority status (Fouad & Arrendondo, 2007). Well-meaning individuals with egalitarian beliefs may still perpetrate microaggressions if they have not had sufficient contact with diverse groups (Fouad & Arrendondo, 2007). In support of this, in an investigation of interactions between White and Black individuals, Dovidio et al. (2002) found that the nonverbal friendliness (e.g., tone of voice, eye contact) of White participants towards Black participants was influenced by their own implicit biases, but that they were unaware of this behaviour. In contrast, Black individuals' perceptions of the interactions were predicted by their White partner's implicit biases. This suggested that each individual perceived the interaction differently, and were responding to different cues. While White participants were unable to recognise the effects of their implicit bias, Black participants were aware of their partner's unconscious beliefs. Additionally, cultural differences may impact perspective-taking abilities, where Nelson and

Baumgarte (2004) found that individuals experienced less empathy towards others who experienced distress from incidents related to unfamiliar cultural norms. Comas-Díaz (2006) suggested that cross-cultural therapy dyads often experience "missed empathetic opportunities", where therapists fail to identify or address client reports of emotional issues due to differences based on race, ethnicity, gender, sexual orientation, ideological differences and so on. Therapists and observers that differ from the client across these factors may therefore find it more difficult to accurately attune to the client's experience of the therapeutic relationship.

***Conceptual Differences Between Perspectives***

Alternatively, differences between client, therapist, and observer ratings of the relationship may be because each assessor is responding to conceptually related, but ultimately distinct aspects of the relationship. Regarding the alliance, exploratory factor analyses of client and therapist perspectives (Bachelor et al., 2013) have found clients to place greater emphasis on joint participation, the perceived helpfulness of treatment, and alliance-disrupting events. In contrast, therapists were found to focus more closely on a client's commitment to therapy, and their ability to participate in tasks, likely reflecting their emphasis on rating alliance according to the client's adherence to treatment protocols. Therapists and observers may be more likely to rate the alliance according to clinical theory, training, and professional experience, reflecting their expectations of a client in treatment within this context rather than their client's internal experience (Swift & Parkin, 2017).

Moreover, different raters may interpret, internalise, and respond uniquely to interpersonal events in session. After an alliance rupture, clients report negative feelings about their ability to fulfil their role as a client, while therapists tend to doubt their own competency and skills (Coutinho et al., 2011). This suggests that perhaps client and therapist assessments of alliance are a reflection of each individual's unique internal experience of the

relationship, rather than the "objective" client-therapist relationship playing out in session. Indeed, when assessing the alliance, therapist ratings have been shown to be influenced by their confidence in carrying out treatment (Bachelor et al., 2013), and their perception of how stimulated and inspired they felt in session (Nissen-Lie et al., 2015). In contrast, client perceptions of the alliance have been shown to be predicted by their individual expectations of their own commitment to treatment (Patterson et al., 2008). In other words, clients who reported stronger alliances were those who believed themselves to be more willing to engage in therapy, take responsibility for treatment, and be more involved with their role as a client. While there has yet to be formal investigation of how observers respond to alliance events when compared to clients and therapists, it is argued that observers provide neutral, unbiased reports of the client-therapist interaction, given that they exist outside of the transference-countertransference dynamic (Fenton et al., 2001). Taken together, the alliance may be conceptualised as a multidimensional concept, consisting of (1) the client's subjective, internal experience of the relationship (client ratings), (2) the therapist's subjective, internal experience of the relationship (therapist ratings), and (3) the external manifestation of these client and therapist experiences interacting in session (observer ratings). As only client ratings of alliance predicted treatment outcomes, it is possible that only the client's subjective experience of the relationship is relevant to treatment effectiveness. It could therefore be argued that when investigating what works in therapy, the alliance may be most useful as a concept when measured *from* the client rather than *about* the client.

In contrast to the alliance, when directly comparing client and observer ratings of group cohesion in Chapter Five, both perspectives uniquely predicted treatment outcomes. This is consistent with the theory that each perspective reflects a distinct aspect of cohesion, and that each independently contributes to treatment. As discussed in Chapter Five, client ratings of cohesion may reflect "attitudes", as they assess how the client subjectively feels

about the group (e.g., “I get along well with my group members”). In contrast, observer ratings may represent “behaviours”, measuring the objective interpersonal interactions between the client and their group (e.g., “the group frequently share their experiences with each other”). According to conceptualisations of cohesion at the individual level (i.e., an individual’s bond with the wider group), both factors play a crucial role in maintaining a cohesive group environment (Friedkin, 2004). It is theorised that cohesion manifests as both (1) the individual’s membership attitudes towards the group, relating to their desire to remain in the group, their attachment to group, and beliefs about group members among other elements, and (2) the individual’s behaviours towards the group, including decisions to weaken, maintain, or strengthen their relationships (e.g., use of prosocial or antisocial behaviours), and other behavioural indicators of group attachment (Friedkin, 2004). Following this model, focus on one factor would be overly restrictive, and would likely be insufficient in capturing all the “active” aspects of group cohesion in therapy. The potential utility of therapist-rated cohesion was not tested in the present thesis, and the contributions of this perspective have yet to be examined in CBT for anxiety disorder contexts. To develop more comprehensive models of cohesion that incorporate multiple perspectives, it is therefore recommended that therapist perceptions of cohesion be examined in future. Ultimately, these findings show that through the use of client and observer ratings of cohesion, researchers may be able to gain insight into two related but discrete elements, each of which may uniquely operate in treatment to facilitate change.

**So Who Should Rate the Alliance and Cohesion?**

For the purpose of clarifying what works in CBT for anxiety disorders, these findings indicate that client perspectives of the alliance should be prioritised. As the strongest predictor of client-rated treatment outcomes, client ratings of the alliance may be able to provide useful insights into how this factor operates in treatment. Current evidence indicates

that self-report measures of alliance have the greatest predictive validity, suggesting that clients are attuned to the most relevant aspects of the alliance and should therefore be emphasised. Clients are already the most frequently used raters of the alliance (Flückiger et al., 2018), which is likely attributable to the ease and convenience of administering questionnaires post-session (Elvins & Green, 2008). Researchers investigating the potential role of the alliance in CBT for anxiety disorders are therefore encouraged to continue to use client-rated measures, unless and until the predictive utility of therapist and observer measures is clarified and improved upon. It is also recommended that therapists obtain regular feedback about the client's experience of the relationship, and address any issues as they arise. This is especially important given the divergence between client and therapist impressions of the alliance. Therapists should be aware however, that clients may be uncomfortable with disclosing their true feelings about therapy directly to their therapist. Clients may choose to respond differently on measures of alliance that they know will be reviewed by their therapists, as opposed to anonymous third-party researchers. Love and Farber (2018) found that clients are more likely to be honest to therapists if they (1) believed that disclosure would be valuable to treatment, (2) trusted the therapist, and (3) were asked directly by the therapist, rather than having to volunteer the information themselves. In order to encourage honest disclosure about the relationship in therapy, therapists should therefore explain the value and clinical rationale for disclosure, work to establish a sense of trust and safety from the outset of treatment, and explicitly seek feedback on any issues within the relationship.

Regarding group cohesion, both client and observer perspectives should be obtained to better understand the role of this element in treatment. Each rater appears to provide unique and meaningful information about group cohesion, which may help to clarify the role of cohesion in treatment. Although clients are the most commonly used raters of cohesion

(Burlingame et al., 2018), the present findings provide promising evidence that there is additional utility in obtaining observer perspectives. Observer measures of cohesion are severely understudied, with only two published measures available in the literature (i.e., Budman et al., 1987; Lerner et al., 2013). If the findings of the study reported here are replicated, future research into the cohesion-outcome relationship in CBT for anxiety disorders should emphasise both client and observer measures, and consider integration of these perspectives in multidimensional models of cohesion.

Overall, these findings underscore the importance of recognising that client, therapist, and observer ratings of the alliance and cohesion, and perhaps by extension all elements of the therapeutic relationship, cannot be used interchangeably. Understanding how and why these perspectives differ will inform the development of more sensitive relationship measures, and help to build more comprehensive conceptual models of these elements.

In this section, we have discussed how the findings of the present thesis contribute to our understanding of how alliance and cohesion should be measured in CBT for anxiety disorders. Next, we will discuss the theoretical and clinical implications of the broader thesis findings, speculate as to potential mechanisms of action of alliance and cohesion in treatment, and discuss potential ways for clinical practice to capitalise on the relationship in CBT for anxiety disorders.

## Explaining the Alliance-Outcome and Cohesion-Outcome Relationships: Potential Mechanisms of Change

### *Models of Alliance*

Existing evidence of the alliance-outcome relationship in CBT for anxiety disorders was found to be conflicting and sometimes contradictory in Chapter Two. Through investigation of the impact of timing (early versus late) and component (agreement versus bond) on the alliance-outcome relationship, patterns emerged that may help to explain these

discrepancies. Client perceptions of alliance-agreement were found to predict improved treatment outcomes across two independent, international samples of group tCBT for anxiety disorders. This is consistent with previous CBT for anxiety research (e.g., Brady et al., 2015; Hagen et al., 2016), and extends this evidence through demonstrating that agreement at both early and late stages of treatment predict improved outcomes. According to CBT conceptualisations, the therapeutic relationship primarily facilitates treatment effectiveness through improving client commitment, motivation, and adherence to the theoretically active aspects of treatment (A. T. Beck, 1979; J. S. Beck, 2011). The agreement-outcome relationship observed in this thesis is conceptually consistent with this theory, as the agreement aspect of the alliance focusses on a client's alignment with the theoretically active ingredients of treatment. The evidence of this relationship at both early and late stages of treatment suggests that agreement with introductory interventions (e.g., psychoeducation) as well as more advanced strategies (e.g., exposure), may play a role in facilitating symptom change. Greater consensus on these interventions may be an indication of appropriate and accurate application of techniques, and may encourage greater adherence to, and internalisation of, these strategies, thereby impacting treatment outcomes. In support of this, adherence to within and between-session tasks have been found to mediate the alliance-outcome relationship in CBT for anxiety disorders (Maher et al., 2012; Simpson et al., 2011; Wheaton et al., 2016).

In contrast to alliance agreement, mixed results were obtained regarding the relationship between client-rated bond and treatment outcomes. While greater client bond was found to significantly predict worse treatment outcomes in the Québec study (Chapter Four), no significant relationship was observed in the Houston study (Chapter Five). The reason for this discrepancy is unclear, however it is possible these differences may be due to variations in supervision, delivery, and conditions between the studies. While the Houston

study was designed as an efficacy trial, the Québec trial was a test of treatment effectiveness. Treatment in the Houston study was delivered under controlled, ideal circumstances, where therapists received weekly in-person supervision from the protocol developer to ensure treatment fidelity. In contrast, therapists in the Québec trial delivered treatment in real word conditions across multiple centres, and received supervision at predetermined sessions via case-discussion phone calls. It is possible that the less stringent conditions of the Québec study were more vulnerable to eclectic practice and greater variation in bonding. Conversely, therapists in the Houston study may have had less opportunity to deviate from treatment protocols, and were therefore less susceptible to the negative impact of overly close bonds on treatment outcomes. Differences in client-therapist bond between explanatory and pragmatic trials have yet to be formally explored however, and is a matter for ongoing research.

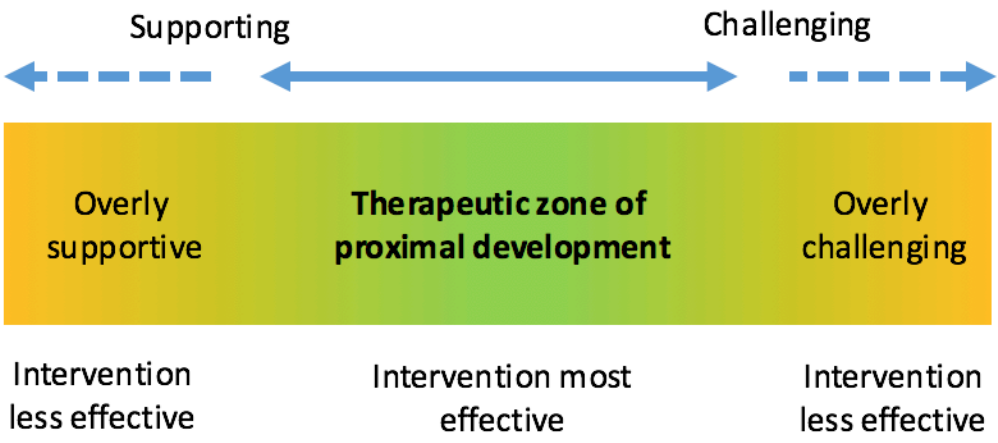
Given this uncertainty, conclusions in this thesis regarding the relationship between bond and CBT for anxiety outcomes will be discussed tentatively. In the Québec study, late-therapy client-rated bond was found to uniquely explain 15% of variance in post-treatment anxiety symptoms, after accounting for baseline anxiety levels and agreement. As discussed in Chapter Four, it is possible that greater client-rated bond may be an indicator of individuals who are not being sufficiently challenged in therapy. Therapists who hold negative beliefs about exposure therapy (e.g., it is unsafe or intolerable for clients) are more likely to design less challenging fear hierarchies, and select less difficult exposure tasks for their clients (Farrell et al., 2013). Clients who are perceived to be “emotionally fragile” or reluctant to participate in exposure are particularly vulnerable to being excluded from exposure treatments by their therapists (Meyer et al., 2014). Although these strategies may strengthen a client’s liking and emotional affinity towards a therapist, overly cautious delivery of exposure treatments risk suboptimal outcomes for clients.

Taken together, these findings emphasise the importance of obtaining the "right" alliance, as opposed to merely a "strong" alliance in CBT for anxiety disorders. The alliance may be best conceptualised as a dynamic negotiation of the client-therapist relationship – a process that responds to each client's unique needs. In line with this, Vygotsky's (1978) theory of the zone of proximal development (ZPD) has been used to model how the alliance may work in therapy. The ZPD (Vygotsky, 1978) originally described the distance between a child's actual developmental level (as determined by their ability to problem solve independently) and their potential developmental level (as determined by their ability to problem solve with guidance from and/or collaboration with more capable individuals). As therapy can be similarly conceptualised as an educative environment, particularly in CBT as opposed to non-directive treatments, this concept was adapted to therapy contexts to produce the model of the "therapeutic zone of proximal development" (TZPD; Leiman & Stiles, 2001; Ribeiro et al., 2013). The TZPD refers to the space between the client's unaided ability to achieve therapeutic change, and their potential ability to change with the support of their therapist. Through engaging with the client's TZPD, the therapist can provide a safe, scaffolded environment through which a client is able to comfortably challenge themselves, develop new skills, and approach difficult situations with support. According to Ribeiro et al. (2013), engaging the TZPD requires the therapist to negotiate an optimal balance between "supporting" the client to create a sense of safety (e.g., confirming and validating a client's perspective of their experiences), and "challenging" the client to advance beyond their present state and adopt alternative ways of thinking and behaving. Being too supportive or too challenging risks undershooting or overshooting the client's TZPD, subsequently reducing the effectiveness of treatment. High client-rated agreement may be a reflection of clients who feel optimally challenged, therefore promoting treatment change. Clients who report high bond, however, may feel very supported and validated by the therapist, but that

may come at the cost of an insufficiently challenging therapeutic environment. The interplay of these factors is depicted in Figure 6.1.

**Figure 6.1**

*Therapeutic Developmental Continuum Showing the Therapeutic Zone of Proximal Development*




*Note.* Adapted from Figure 1 in Ribeiro et al., (2013; p. 299).

In support of this model, qualitative analysis of what clients find helpful in therapy identified a core principle of "caring the right amount yet providing firm direction when needed" (Levitt et al., 2006). Therapists who were perceived by clients to be too challenging were seen as pushy, judgemental, or insensitive, while those who were overly caring were seen as overinvolved and less productive. Investigations into how alliance may produce outcomes in therapy have primarily focussed on examining whether a unilaterally "strong" alliance predicts treatment change. The findings of the present thesis provide preliminary evidence that more complex and nuanced models of the alliance may be needed to understand this factor in CBT for anxiety disorders. Through observing that agreement and bond share differential relationships with outcomes, the need for future research to disaggregate the alliance into its components is also underscored. Future research should explore models of the alliance that account for "optimal" alliance, rather than just "strong" alliance, in order to

clarify the potentially complex role of this element in CBT for anxiety disorders. For example, this may be achieved through investigating quadratic alliance-outcome models to account for detrimental effects at both low and high alliance levels. Post-hoc tests of curvilinear effects were not conducted in the present thesis due to risk of overfitting the data. Given the limited sample sizes in the analyses, and that up to five predictors were already included in regression models (to account for baseline symptoms, different raters, and separate components), the inclusion of an additional polynomial term was deemed to be inappropriate according to sample size guidelines recommended by Stevens (2002). Larger sample sizes will likely be needed to investigate curvilinear effects in future studies. In addition, future research into the alliance-outcome relationship should consider measuring and accounting for the effects of therapist willingness to challenge clients.

***Models of Cohesion***

Somewhat contradictory results were obtained regarding the cohesion-outcome relationship. In the study presented in Chapter Four, client-rated cohesion was found to be unrelated to post-treatment symptoms, and did not predict symptom change above the effects of client-rated alliance. However, in the study reported in Chapter Five, both client and observer-rated cohesion were found to uniquely predict treatment outcomes. It is possible that this discrepancy is attributable to differences in the study design. In the study presented in Chapter Four, group sizes averaged at about nine clients per group, while the sample used in Chapter Five had an average of six clients per group. As group sizes increase, people may find it more difficult to establish close and meaningful bonds with their peers. Research has indicated that group cohesion is more readily cultivated in small groups when compared to larger groups (Carron & Spink, 1995). Moreover, trust, commitment to the group, and awareness of other members have been found to decrease as group sizes increase (Soboroff et al., 2020). Consistent with this, in their meta-analysis of cohesion in psychotherapy,

Burlingame and colleagues (2018) found that groups with less than ten clients demonstrated a significant cohesion-outcome relationship, while group sizes of ten and above showed no significant cohesion-outcome link. It can be speculated that the larger group sizes used in Chapter Four limited the ability of clients to form close, cohesive bonds when compared to the clients in smaller groups in Chapter Five. Indeed, a post-hoc independent t-test analysis comparing mean cohesion between the two studies showed that clients within the sample with larger groups ($M = 54.36$, $SD = 8.91$, $N = 66$) reported significantly lower scores when compared to the sample using smaller groups ($M = 61.81$, $SD = 7.82$, $N = 26$), $t(90) = -3.73$, $p < .001$. This theory has yet to be formally tested in therapy settings however, and further investigation into the potential impact of group size on the cohesion-outcome relationship is required.

Despite the finding that cohesion did not significantly predict outcomes above the effects of alliance in Chapter Four, the systematic review in Chapter Two and the results of the study in Chapter Five provides favourable evidence for the role of cohesion in improving the effectiveness of CBT for anxiety disorders. Strong bonds between clients and their treatment group are generally believed to improve treatment outcomes through increasing commitment to treatment, session attendance, and willingness to take risks in therapy (Yalom & Leszcz, 2005), as interpersonal connections create an environment of safety and accountability. In CBT for anxiety disorders specifically, cohesion may improve persistence or adherence to difficult exposures or confronting cognitive restructuring, thus increasing treatment effectiveness. In addition to these theorised mechanisms of change, group therapy contexts allow for exposure of clients to multiple peer models, and provide ample opportunity for observational learning. For group CBT for anxiety disorders in particular, watching others successfully complete exposures may prompt vicarious extinction of fears in other members. Experimental research has suggested that when compared with standard

exposure extinction procedures, vicarious extinction (i.e., observation of another individual completing the extinction procedure) promoted reductions in conditioned fear, and prevented recovery of fear memories (Golkar et al., 2017). Greater empathy for others has also been shown to enhance vicarious fear learning (Olsson et al., 2016). Taken together, improved cohesion and closeness with other members of the group may help to facilitate vicarious extinction of feared stimuli during treatment, which may in turn increase the effectiveness of therapy. However, the role of empathy and vicarious extinction has yet to be investigated in clinical contexts. To clarify the mechanisms through which cohesion may affect treatment outcomes, further investigation is warranted.

**Implications for Clinical Practice**

Taken together, the findings of the present thesis suggest that improving client perceptions of alliance agreement and group cohesion may help to increase the effectiveness of CBT for anxiety disorders, while an overly strong bond may be an indicator of poor progress. Existing treatments can therefore be adapted to capitalise on the potential therapeutic effects of agreement and group cohesion.

Regarding the alliance, therapists are encouraged to improve agreement on the goals and tasks of therapy through actively collaborating with their clients in the design and direction of treatment. While therapists may need to take a more directive role initially, clients will gradually build skills and competencies over the course of therapy. According to TZPD theory, therapists should be attuned to the client's stage of change in treatment, and provide appropriate opportunities for clients to gradually take on more responsibilities in decision making in therapy. Encouraging clients to make independent decisions in setting the tasks and goals of therapy is perceived as empowering by clients, however clients still want therapists to provide guidance and direction after asking for their consent (Levitt et al., 2006).

Therefore, developmentally appropriate collaboration is needed in order to establish strong agreement on the goals and tasks of therapy.

Therapists should also be cautious of clients who may be merely acquiescing to their interventions, and instead seek regular feedback from clients to identify potential disagreements regarding how and why therapy is being carried out. This is especially important as a therapist's impression of the alliance does not necessarily align with a client's interpretation. Disagreement on the goals and tasks of therapy should be immediately attended to and mitigated in treatment. Client feedback systems have been designed to allow therapists to monitor, and therefore respond to, their client's perception of the therapeutic alliance. Instruments include the Session Rating Scale (SRS; Duncan et al., 2003) for individual and couples' therapy and the Group Session Rating Scale (GSRS; Quirk et al., 2013) for group therapy. Investigations of these systems have indicated that clients who provide regular feedback about their therapy experiences achieve significantly greater gains from treatment (Lambert & Shimokawa, 2011). These systems have yet to be tested in CBT for anxiety disorder settings however, and further examination of the utility of these methods is CBT for anxiety is needed.

Furthermore, therapists should be aware that overly close affective bonds with their clients may be an indication of poorer treatment outcomes. It is premature to conclude that therapists should therefore act coldly towards their clients, however it may be appropriate for therapists to be cautious of sacrificing effective strategies in treatment in favour of strengthening the client-therapist bond. Therapists who are afraid of harming their relationship with their clients by assigning challenging exposures can be reassured that alliance levels do not appear to be impacted by the use of exposures (Kendall et al., 2009). In addition, therapists should recognise that client reluctance towards exposure treatments may not necessarily indicate refusal or disagreement. Ambivalence or apprehension towards

exposure is common amongst clients, yet despite this, clients continue to hold positive perceptions about the credibility and effectiveness of treatment (Olatunji et al., 2009). It is possible that through appropriate encouragement and support from their therapist, clients will be able to complete challenging and aversive, but ultimately therapeutic, tasks. Overall, the findings of the present study highlight the importance of therapists tuning in to the client's internal intentions and perceptions of the alliance, and using this information to appropriately respond to each client's individual needs.

Regarding group cohesion, therapists may be able to encourage the cultivation of strong member-member bonds through a number of different methods. First, therapists can attend to group composition in order to create therapy groups that will have the greatest chance of bonding. Assessment of a client's willingness and capacity to integrate into group contexts will help to determine whether a client may be appropriate for group treatment, or better suited to individual therapy. Incorporation of a disruptive or overly internalising client into a treatment group may jeopardise the development of cohesion, often described in the group therapy literature as "the difficult patient" (Motherwell & Shay, 2004; Yalom & Leszcz, 2005). It may also be suggested that clinicians prioritise closed group structures (i.e., fixed group members for a set duration), as opposed to open group methods (i.e., undefined number of group members that intermittently attend sessions), in order to increase opportunity for affective bonds to form between individuals through repeated contact. In support of this, stable membership structures have been shown to improve group task performance in the broader group dynamic literature (Salas et al., 2008).

In addition, active efforts should be made in treatment to encourage bonding between individuals. Meta-analysis of the broader cohesion-outcome literature indicates that groups with therapists who emphasise interaction between members have the strongest cohesion-outcome link (Burlingame et al., 2018). Moreover, therapists that utilise specific

interventions to promote a positive group climate similarly report higher cohesion-outcome correlations (Burlingame et al., 2018). Following this, therapists should create opportunities for group members to share positive group bonding experiences (e.g., designing group tasks as opposed to individual tasks), encourage clients to openly support and motivate each other, and address issues within the group dynamic promptly. Interventions based on general team building principles may also prove useful in therapeutic settings. For example, team building interventions focussed on strategies such as improving communication between members, resolving conflict, and creating positive attitudes towards the team environment have shown to be effective in improving cohesion and performance in broader group settings (Buljac-Samardzic et al., 2010; Salas et al., 2008). To our knowledge, adaptations of these strategies to group therapy settings have yet to be formally examined in the literature. Future development and testing of group-cohesion interventions as an adjunct to therapy may provide a cost-effective method to improve the effectiveness of existing group treatments.

**Directions for Future Research**

Through discussion of the findings of this thesis, a number of suggestions for further research were provided. These suggestions will not be repeated in the following section, however additional areas for future investigations will be briefly outlined below.

While observational studies provide important insights into the link between therapeutic relationships and treatment outcomes, direction and causation between elements cannot be inferred. Although experimental studies may be best suited to test cause-and-effect models, there are ethical issues associated with experimentally manipulating alliance or cohesion levels in therapy. As an alternative, this hypothesis can be tested by investigating the impacts of additional alliance (or cohesion) training programs on treatment outcomes. Despite the wealth of research examining the potential effects of alliance and cohesion on treatment, psychology training programs rarely incorporate formal evidence-based alliance or

cohesion education into their curriculums (Constantino et al., 2017). Alliance-focussed training (AFT; Eubanks-Carter et al., 2015) has emerged as a potentially effective intervention. AFT is a structured and manualised education system designed to improve alliance through increased therapist self-awareness, interpersonal sensitivity, and affect regulation. Research has indicated that therapists find training helpful in improving their awareness of ruptures and their confidence in addressing issues with clients (Eubanks et al., 2019). Preliminary investigations of this training in CBT for personality disorders found that clients of therapists who completed the program reported lower rates of dependence on their therapist, and greater levels of expressiveness and affirmation in therapy (Muran et al., 2018). Evidence for these interventions is still emerging however, and have yet to be examined in CBT for anxiety disorder contexts. Additional research is needed in the design and testing of evidence-based alliance and cohesion training interventions in order to determine the potential utility of these interventions in improving outcomes in CBT for anxiety disorders.

Furthermore, investigations into the therapeutic relationship have primarily focussed on face-to-face treatments. Examination of these factors in therapy delivered via telehealth or videoconferencing is comparatively lacking (see Simpson & Reid, 2014 for a review). It is broadly assumed that relationships are more difficult to build without face-to-face contact, however there is a small body of evidence indicating that the alliance may be as strong in technology-assisted treatments when compared to traditional therapy (Pihlaja et al., 2018; Simpson & Reid, 2014). Review of the literature in internet-delivered CBT has indicated that the alliance-outcome relationship has scarcely been investigated in these settings, and although the link is promising, the evidence remains unclear (Pihlaja et al., 2018). Critically, there is a growing urgency for research into technology-supported therapies, as the global health emergency of the coronavirus disease 2019 (COVID-19) has created unprecedented demand for these psychological services (see Torous & Wykes, 2020). While communities

follow public health directives to stay at home, psychologists have had to transition their practice online, or over the phone, to continue seeing clients safely. The COVID-19 pandemic has also been linked with a substantial increase in mental health issues in the community, including anxiety, depression, stress, and sleep disturbance (Rajkumar, 2020). This implies that the demand for psychological interventions will only increase. Fear of being unable to develop strong relationships with their clients is one of the most commonly cited barriers for therapists to transition to technology-assisted treatments (Titzler et al., 2018; van der Vaart et al., 2014). Greater understanding of how the relationship develops and operates in online or telehealth therapies will help to address therapist concerns, and allow for the appropriate adaptation of face-to-face treatments to a virtual space. In light of these issues, future process research should focus on technology-assisted therapies as a matter of priority.

**Strengths of the Thesis**

The systematic review presented in Chapter Two provided a comprehensive summary of the existing literature surrounding the therapeutic relationship in CBT for anxiety disorders. Through critical review of the evidence, key areas of uncertainties were revealed and directions for future research were highlighted. While majority of process-outcome research is conducted from a pantheoretical and transdiagnostic perspective, this method has inevitably de-emphasised the unique interactions of interpersonal process and therapeutic interventions. This study was unique in that it was the first to not only review the therapeutic relationship literature in CBT for anxiety disorders, but also conceptualise and interpret the findings from a theoretically and diagnostically specific perspective. Using these methods, specific nuances in the relationship-outcome evidence were able to be identified.

Additionally, the empirical investigations of the alliance and cohesion in Chapters Four and Five have several strengths. First, this thesis analysed the alliance and cohesion across two independent, international, and ethnically diverse samples. Identifying consistent

findings across these samples support the generalisability of related conclusions. Individuals were also recruited from the broader community, as opposed to universities or hospitals. The samples used in this research program therefore strengthen the ecological validity of the findings. Next, the studies in this thesis analysed alliance using the two-factor solution (Andrusyna et al., 2001), which has been shown to be more appropriate for CBT settings. Previous research has primarily investigated the alliance using total scores, average scores, or the Bordin (1979) tripartite model (Flückiger et al., 2018), which may have obscured any differential effects between alliance agreement and bond. Through using the two-factor alliance structure, a strong bond late in treatment was demonstrated for the first time to be linked with worse treatment outcomes. It is possible that previous research was unable to identify this link due to inappropriate analysis of the alliance. Furthermore, relationships between predictors and outcomes were explored using hierarchical regression analyses, which allowed for direct comparisons of predictors. Previous analyses of alternative perspectives of the alliance have relied on comparing correlations or simple regressions (e.g., Fenton et al., 2001; Hoffart et al., 2009), which do not account for any shared variance between predictors. Methods used in the present thesis allowed for investigation of the unique contributions of each predictor to treatment outcomes. Moreover, the present study used multiple regression models that were able to control for baseline symptoms, presenting an advantage over previous study designs that only correlated predictors with subsequent symptom levels (e.g., Fenton et al., 2001; Norton & Kazantzis, 2016).

An additional strength of the study presented in Chapter Five was the use of an observer-rated measure of group cohesion. Observer measures of cohesion are scarcely used in the broader psychotherapy literature (Burlingame et al., 2018), and prior to this study, had never been investigated in CBT for anxiety disorders. Through the use of the TPOCS-GC (Lerner et al., 2013), this thesis was able to identify a unique relationship between observer-

rated cohesion and treatment outcomes independent of client perspectives, providing important theoretical implications about the concept. Inter-rater analysis of this cohesion measure demonstrated excellent reliability, providing support for the validity of this measure. In addition, inter-rater analysis of observer ratings of alliance also showed "good" reliability. In the assessment of clinician-rated diagnosis, self-reported outcome, and client-rated alliance and cohesion, well validated instruments were used, and internal consistency was high for all measures.

**Limitations of the Thesis**

The findings of this thesis must be considered within the context of its limitations. Specific limitations associated with each individual study were addressed in Chapters Two, Four, and Five, and will not be repeated here. The global limitations of the broader research project will be explored below.

First, it is important to acknowledge that the observational methods used in this thesis are unable to indicate direction of association or causation. The question of whether a strong alliance (or any other relationship element) causes improved outcomes, or if clients who experience gains in therapy develop stronger alliance with their therapist is a prominent area of debate. While some studies have indicated that changes in anxiety symptoms precede changes in the alliance (Strauss et al., 2018), others have found changes in alliance to predict subsequent symptom levels (Hoffart et al., 2013). It is possible that these discrepancies may be attributable to some of the sources of variance identified in this study (i.e., perspective, timing, or component), or other confounding factors. Although this thesis cannot offer definitive evidence of an effect of alliance or cohesion on outcomes, it does provide additional clarity around these process-outcome relationships and potential mechanisms of action. Researchers have called for process-outcome research to move away from simple correlational or regression designs, and instead adopt more sophisticated statistical analyses

to determine causation (see Kazdin, 2007). It could be argued however, that it is evidence enough that clients themselves report that the therapeutic relationship is one of the most helpful aspects of therapy (Levitt et al., 2006). Regardless, future studies that incorporate alternative study designs such as mediation (testing pathways of action), time effects (establishing which factor comes first), and intervention or manipulation (experimentally altering the predictor) will help to clarify our understanding of the role of the relationship in treatment.

Second, the findings of the present study were based on investigations of group tCBT for anxiety disorders, and may not be generalisable to individual treatments, and/or diagnosis specific interventions. The alliance in individual therapy may have differential effects when compared to the alliance in group contexts. In support of this, Mörtberg (2014) found that group treatments may be especially vulnerable to low goal consensus when compared to individual therapy. Moreover, it has been suggested that clients may conceptualise the alliance differently in group versus individual treatments. In group therapy, clients have been found to distinguish relationships according to relationship quality (e.g., positive, negative), as opposed to the specific role of the other individual (i.e., therapist, group member; Johnson et al., 2005). It is therefore possible that client perceptions of the alliance in group therapy cannot be directly equated with the alliance in individual therapy. It has also been suggested that the alliance differentially operates in diagnosis-specific versus transdiagnostic treatments (Sauer-Zavala et al., 2018). Transdiagnostic groups are unique in that treatment is delivered from a unified perspective, where general treatment components are used to address multiple diagnoses. It is unclear whether this broader approach, as opposed to a diagnosis specific approach, may impact a client's perceived agreement on the tasks and goals of treatment. In addition, transdiagnostic groups are comprised of diagnostically heterogeneous individuals, which may impact bonding within the group. Research suggests that homogenous groups

based on gender and ethnicity report stronger cohesion levels when compared to heterogeneous groups (Paulus et al., 2015; Perrone & Sedlacek, 2000). The effects of diagnostic heterogeneity on group cohesion have yet to tested however, and additional research is needed to explore these relationships. Ultimately, until there is replication of the present findings in individual and diagnosis specific CBT for anxiety disorders, these findings are applicable only to transdiagnostic group treatment contexts.

Finally, this thesis did not distinguish between client and therapist effects in the alliance-outcome relationship. Therapist effects refer to the contributions that can be attributed to the therapist when evaluating the effectiveness of treatment (Barkham et al., 2017), while client effects relate to what clients contribute to outcome variance. Understanding what each individual brings to the relationship helps to explain how these interpersonal bonds develop and operate in therapy. It has been argued that the therapist is more important to the alliance when compared to the client, as variability in the alliance between therapists, rather than between clients, has been found to predict treatment gains (Del Re et al., 2012). In contrast, others have suggested that greater focus should be placed on client contributions to the relationship-outcome link. It has been proposed that a client's alliance can be separated into trait-like (between-person effects) and state-like (within-person effects) components (Zilcha-Mano, 2017). Trait-like effects of the alliance refer to the client's general ability and internal capacity to form satisfactory relationships with others, while state-like effects refer to deviations from a client's expected alliance trend through the course of therapy. Although the present research project did not explore client versus therapist contributions to the alliance, the findings highlighted the utility of obtaining client perspectives. Regardless of whether the client or the therapist is responsible for the quality of the relationship, results indicated that it is the client's perception of that relationship that matters.

**Concluding Remarks**

Suboptimal CBT for anxiety disorder response rates underscore the need to improve existing treatments. Understanding the factors that are responsible for change in therapy will help inform how existing treatments should be adapted. In light of this, the overarching aim of this research project was to clarify the role of the therapeutic relationship in CBT for anxiety disorders, with a specific focus on the effects of alliance and cohesion in treatment. The findings in this thesis highlighted the importance of investigating the relationship within its therapeutic context, and indicated that pantheoretical and transdiagnostic approaches to the relationship may be ineffective in identifying critical nuances unique to CBT for anxiety disorders. Investigations of the alliance and group cohesion in group tCBT for anxiety disorders revealed complex patterns that provided important implications for how these factors should be conceptualised and assessed, and how they may operate in therapy. While the findings of this study provide support for the alliance and group cohesion as active ingredients of treatment, they also underscore the need for more comprehensive conceptual models to capture the complexity of these elements. The research presented in this thesis represents a unique and substantial contribution to our understanding of the therapeutic relationship in CBT for anxiety disorders, and provides clear direction for future research into the effects of these elements on treatment outcomes. Through deepening our understanding of how elements of the therapeutic relationship operate in therapy, future research will be able to develop methods to optimise treatments, and ultimately improve outcomes for individuals living with anxiety disorders.

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# Appendix A

Monash University Human Research Ethics Committee Approval Certificate for Chapter Four

**Monash University Human Research Ethics Committee**

**Approval Certificate**

This is to certify that the project below was considered by the Monash University Human Research Ethics Committee. The Committee was satisfied that the proposal meets the requirements of the *National Statement on Ethical Conduct in Human Research* and has granted approval.

| | |
|---|---|
| **Project ID:** | 22778 |
| **Project Title:** | The Therapeutic Relationship in Transdiagnostic Group Cognitive-Behaviour Therapy for Anxiety: Secondary Analysis of a RCT of TGCBT in Primary Care |
| **Chief Investigator:** | Professor Peter Norton |
| **Approval Date:** | 02/12/2019 |
| **Expiry Date:** | 02/12/2024 |

**Terms of approval - failure to comply with the terms below is in breach of your approval and the *Australian Code for the Responsible Conduct of Research*.**

1. The Chief Investigator is responsible for ensuring that permission letters are obtained, if relevant, before any data collection can occur at the specified organisation.
2. Approval is only valid whilst you hold a position at Monash University.
3. It is responsibility of the Chief Investigator to ensure that all investigators are aware of the terms of approval and to ensure the project is conducted as approved by MUHREC.
4. You should notify MUHREC immediately of any serious or unexpected adverse effects on participants or unforeseen events affecting the ethical acceptability of the project.
5. The Explanatory Statement must be on Monash letterhead and the Monash University complaints clause must include your project number.
6. Amendments to approved projects including changes to personnel must not commence without written approval from MUHREC.
7. Annual Report - continued approval of this project is dependent on the submission of an Annual Report.
8. Final Report - should be provided at the conclusion of the project. MUHREC should be notified if the project is discontinued before the expected completion date.
9. Monitoring - project may be subject to an audit or any other form of monitoring by MUHREC at any time.
10. Retention and storage of data - The Chief Investigator is responsible for the storage and retention of the original data pertaining to the project for a minimum period of five years.

Kind Regards,

Professor Nip Thomson

Chair, MUHREC

CC: Miss Hoang Luong

**List of approved documents:**

| Document Type | File Name | Date | Version |
|---|---|---|---|
| Supporting Documentation | AF MP-22-2016-570 | 28/04/2016 | Ethics Approval 1 |
| Consent Form | FIC patients 2017-12-20-cer | 20/12/2017 | Consent Form |
| Consent Form | FIC patients 2017-12-20-cer | 20/12/2017 | Consent Form |
| Supporting Documentation | Approbation du renouvellement (F9 - 24700) - Projet MP-22-2016-570 | 02/05/2019 | Ethics Approval 2 |
| Supporting Documentation | Kim Risk Assessment | 21/11/2019 | Risk Assessment |
| Supporting Documentation | Kim RCT TGCBT Data Permission | 21/11/2019 | Data Permission |

# Appendix B

Monash University Human Research Ethics Committee Approval Certificate for Chapter Five

**Monash University Human Research Ethics Committee**

**Approval Certificate**

This is to certify that the project below was considered by the Monash University Human Research Ethics Committee. The Committee was satisfied that the proposal meets the requirements of the *National Statement on Ethical Conduct in Human Research* and has granted approval.

**Project ID:** 22769
**Project Title:** The Therapeutic Relationship in Transdiagnostic Group Cognitive-Behaviour Therapy for Anxiety
**Chief Investigator:** Professor Peter Norton
**Approval Date:** 10/12/2019
**Expiry Date:** 10/12/2024

**Terms of approval - failure to comply with the terms below is in breach of your approval and the *Australian Code for the Responsible Conduct of Research*.**

1. The Chief Investigator is responsible for ensuring that permission letters are obtained, if relevant, before any data collection can occur at the specified organisation.
2. Approval is only valid whilst you hold a position at Monash University.
3. It is responsibility of the Chief Investigator to ensure that all investigators are aware of the terms of approval and to ensure the project is conducted as approved by MUHREC.
4. You should notify MUHREC immediately of any serious or unexpected adverse effects on participants or unforeseen events affecting the ethical acceptability of the project.
5. The Explanatory Statement must be on Monash letterhead and the Monash University complaints clause must include your project number.
6. Amendments to approved projects including changes to personnel must not commence without written approval from MUHREC.
7. Annual Report - continued approval of this project is dependent on the submission of an Annual Report.
8. Final Report - should be provided at the conclusion of the project. MUHREC should be notified if the project is discontinued before the expected completion date.
9. Monitoring - project may be subject to an audit or any other form of monitoring by MUHREC at any time.
10. Retention and storage of data - The Chief Investigator is responsible for the storage and retention of the original data pertaining to the project for a minimum period of five years.

Kind Regards,

Professor Nip Thomson

Chair, MUHREC
CC: Miss Hoang Luong, Miss Lauren Thomson

**List of approved documents:**

| Document Type | File Name | Date | Version |
|---|---|---|---|
| Consent Form | ATP Informed Consent for GATS | 25/01/2014 | Consent Form |
| Consent Form | ATP Informed Consent for GATS | 25/01/2014 | Consent Form |
| Supporting Documentation | 05227-02May62014 | 02/05/2014 | Houston Ethics |
| Supporting Documentation | Houston Data Permission | 19/11/2019 | Consent for Data Use |
| Supporting Documentation | Kim Risk Assessment | 21/11/2019 | Risk Assessment |