Counsellor Contributions to the Therapeutic Alliance: From the Client’s Perspective

by

Carlton Thomas Duff
B.A., University of British Columbia, 2005

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ABSTRACT

A concept known as the therapeutic alliance has been shown to be a robust predictor of counselling outcome. However, the specific counsellor behaviours that relate to the alliance have not been clearly identified, and few prior attempts to identify these variables have been based on client-derived conceptualizations of the alliance. 51 adult clients participated in a cross-sectional study of the relationship between 15 client-identified counsellor behaviours and the strength of the therapeutic alliance. Results indicated that 11 of the 15 behaviours were moderately to strongly correlated with the strength of the alliance, and that two behaviours (i.e., making positive comments about the client and greeting the client with a smile) significantly predicted the strength of the alliance. The findings support the hypothesis that client-identified behaviours are related to and predict alliance; however, some discrepancy remains between the present results and prior research. Implications are discussed and future research is suggested.
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Dedication

To Melissa,

whose faith in me has taught me to have faith in myself.
CHAPTER 1

Introduction

Of all factors that have been shown to predict positive counselling outcomes, a concept known as the therapeutic alliance is among the most consistent and robust (Horvath & Bedi, 2002; Horvath & Symonds, 1991; Martin, Garske, & Davis, 2000). The therapeutic alliance is a construct that can be defined as the quality and strength of the reciprocal relationship that exists between a client and a counsellor, including both the collaborative and working elements of the relationship (see Horvath & Bedi, 2002). An important concept in most forms of psychotherapy and counselling, the alliance has become one of the most frequently researched topics in psychotherapy and counselling research. This popularity is likely due to its consistent predictive qualities, as well as increasing focus in the field on common factors of therapeutic change (Safran & Muran, 2006).

However, despite the large body of knowledge generated by this inquiry, specific counsellor behaviours that relate to the alliance\(^1\) have not been clearly identified (Ackerman & Hilsenroth, 2003; Horvath, 2001a; Horvath, 2006; Horvath & Bedi, 2002). Moreover, the few prior attempts to identify practitioner behaviours that relate positively to the alliance (e.g., Ackerman & Hilsenroth, 2003; Thomas, Werner-Wilson, & Murphy, 2005) have been typically based on observations made by practitioners or researchers rather than by clients themselves. This is a problem for alliance research, since the client’s perspective of the alliance is often found to be a better predictor of outcome when compared to that of the counsellor or of an observer (Horvath & Bedi, 2002; Zuroff & Blatt, 2006). As a result of this deficit, educators and counsellors may lack the empirical

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\(^1\) The terms “therapeutic alliance” and “alliance” are used synonymously throughout this manuscript.
evidence necessary to maximize their potential for developing strong alliances and improving counselling outcomes.

Several prominent scholars have made note of the marked deficit of clear evidence that supports a relationship between specific counsellor behaviours and the alliance. Castonguay, Constantino and Holtforth (2006) have argued that future research on the alliance needs to focus on these factors to improve understanding of how the alliance develops and how to train counsellors to foster the alliance. Horvath (2006) has suggested that research on counselling microprocesses (or small-scale interpersonal events) may help shed light on clinically useful guidance for counsellors. He argues that identifying evidence-based alliance-fostering counsellor behaviours has been difficult in the past due to the variety of definitions and theoretical conceptualizations of the alliance (Horvath, 2005). Ackerman and Hilsenroth (2003) have also argued that psychotherapy research in general would benefit from a close evaluation of counsellor characteristics that relate to the alliance, given the small set of prior research devoted to this topic.

While some research has begun to focus on practitioner characteristics that contribute to alliance development (e.g., Ackerman & Hilsenroth, 2003; Thomas, Werner-Wilson, & Murphy, 2005; Watson & McMullen, 2005; Werner-Wilson, Michaels, Thomas, & Thiesen, 2003) and on the client’s perspective of the alliance (e.g., Bachelor, 1995; Bachelor & Salamé, 2000; Bedi, 2006; Bedi, Davis, & Arvay, 2005; Bedi, Davis, & Williams, 2005; Bedi & Duff, 2008; Bohart, 2000; Duncan & Miller, 2000; Duncan et al., 2003; Fitzpatrick & Chamodraka, 2007; Fitzpatrick, Janzen, Chamodraka, & Park, 2006; Henkelman & Paulson, 2006; Mohr & Woodhouse, 2001), very little of this research has investigated the statistical relationship between the client’s
perspective on counsellor behaviours and the strength of the alliance, instead focusing on
the identification of alliance factors and processes. Consequently, there is a deficiency in
our knowledge about whether or not the counsellor behaviours that clients think relate to
the development of the alliance actually do relate to the development of the alliance. A
systematic investigation of the possible relationship between client-identified counsellor
behaviours and alliance strength is therefore needed.

Addressing this deficiency will help solidify our understanding of the potential
impact of the client’s perspective on the alliance, and of counsellor behaviours on the
therapeutic alliance. Theorists and researchers will directly benefit from any
investigation into this relationship, regardless of the results. For example, findings that
suggest that certain counsellor behaviours relate positively to the alliance will prompt
future research to investigate the causal relationship between these variables. Should such
a causal relationship be demonstrated, theories and models of alliance development might
then be adapted or created to account for the impact of these factors while acknowledging
the importance of the client’s perspective. However, findings that suggest no relationship
between counsellor behaviours and the alliance could prompt change in existing alliance
models, where the possibility that the client’s perspective on certain counsellor
behaviours is not a reflection of any real-world relationship between these behaviours and
the alliance must be addressed. In this way, the present study has the potential to help
shape and refine alliance development theory\(^2\) regardless of its findings.

\(^2\) The term theory refers to general assertions about the relation between two or more variables (Pelham &
Blanton, 2003). Therefore, the phrase alliance development theory specifically refers to those general
statements made by counselling and psychotherapy researchers about the relation between various alliance
antecedents and the strength of the therapeutic alliance. In the field of counselling practice, theory guides
the interventions and strategies used by counsellors to help clients resolve their issues, while counselling
researchers conduct studies to test and investigate the goodness-of-fit of psychological and counselling
Educators and counsellors should also benefit from any investigation that explores the link between discrete counsellor behaviours and alliance development, as these behaviours can be readily incorporated into counselling practice and training programs. Incorporating evidence-based behaviours and techniques into a counselling practice may improve a counsellor’s chances for establishing a strong therapeutic alliance with clients, thereby improving counselling outcomes. Indeed, the influence of evidence-based practice has grown in recent decades, with emphasis on evidence-based practice being increased among national and international professional bodies (Goss & Rose, 2002).

The purpose of the present study is to examine the relationship between 15 client-identified counsellor behaviours thought to be helpful in alliance formation and the strength of the therapeutic alliance for counselling clients from two major Canadian metropolitan centres. Using a multivariate correlational design, the proposed study attempts to answer the following question: how well do 15 discrete counsellor behaviours identified by clients as formational to the development of the therapeutic alliance (see Bedi & Duff, 2008) relate to and predict the strength of the alliance for counselling clients from two major Canadian metropolitan centres? Two hypotheses are made in relation to this question: (a) that a positive linear relationship exists between the frequency of each of these behaviours and the strength of the alliance, and (b) that any combination of these behaviours is more predictive of alliance strength than any behaviour alone. Predictor variables are defined as participant ratings of the frequency of occurrence of each of 15 counsellor behaviours in the past three counselling sessions.

3 Despite the limitations of hypothesis testing (see Anderson, Burnham, & Thompson, 2000; Cohen, 1994; Loftus, 1996; Robinson & Wainer, 2002; Thompson, 1999; Vacha-Haase, Nilsson, Reetz, Lance, & Thompson, 2000), the technique is widely used and accepted in psychological research.
while the criterion variable is defined as participant ratings on the Working Alliance Inventory, Short Form, Revised (WAI-SR; Hatcher & Gillaspy, 2006), which is a measure of alliance quality or strength.

The following literature review discusses the therapeutic alliance and Web-based research. First, the therapeutic alliance is reviewed. This includes a working definition of the alliance and a review of its history and measurement, followed by a review of the literature on 15 counsellor behaviours identified by prior research (see Bedi & Duff, 2008) as relating to the development of therapeutic alliance. The relationship between culture, ethnicity, and the alliance is then discussed, closing with a review on the client’s perspective on the alliance. Second, the current literature on online research in the social sciences is reviewed. In this section, the advantages and limitations of online research are discussed, evidence for the validity and quality of data collected online is examined, and the ethical considerations necessary for the collection of data online are presented. The chapter is followed by three additional chapters, which contain a detailed description of the study, a presentation of the results, and a discussion.

The Therapeutic Alliance

*Defining the Therapeutic Alliance*

The therapeutic alliance is a concept that has evolved from a modest beginning in early counselling theory to an important construct in its own right. Although varying definitions of the alliance have been offered (e.g., Bordin, 1979; Gelso & Carter, 1985; Horvath & Bedi, 2004; Luborski, 1976; Meissner, 2007), its precise meaning remains inconsistent across theorists, researchers, and practitioners. Therefore, for clarity and consistency of discourse in the present manuscript, I offer a working definition of the
therapeutic alliance here that clarifies my own view and which integrates some of the consensus in the field\(^4\). The term *therapeutic alliance* refers to the *client and counsellor’s subjective experience of working together toward psychotherapeutic goals in the counselling context, including the experience of an interpersonal bond that develops while engaged in this endeavor*. This definition has several key implications. First, it implies that the alliance is the product of the relationship between the client and counsellor, but that it does not constitute the entire relationship. In fact, the therapeutic alliance can be seen as a lesser part of the broader relationship between the client and counsellor, which is sometimes referred to as the *therapeutic relationship*\(^5\) (e.g., Bordin, 1979; Gelso & Carter, 1985; Hill, 2005). Second, it implies that the therapeutic alliance is a product of both the client and counsellor’s perspectives of it. While the perspective of the client and counsellor may differ, each perspective constitutes an equally valid and necessary component of the alliance. Third, this definition implies that the therapeutic alliance is both a *subjective* and *experiential* construct, and therefore cannot be directly observed. This is a feature that is common to all psychological constructs, of which indirect means of observation and measurement must be used to capture them. Fourth, this definition asserts that the therapeutic alliance is mutual in nature, and is therefore shaped by the client and counsellor’s sense of agreement on the therapeutic tasks and goals. Fifth, it asserts that a defining factor of the alliance is an emotional bond between

\(^4\) With a few exceptions, my view of the alliance is largely consistent with Bordin’s (1979) conceptualization, while also being in close agreement with Meissner’s (2007) more recent formulation.

\(^5\) To add to the confusion that permeates the topic, the *therapeutic relationship* has also been referred to as the “working relationship”, the “counselling relationship”, and various other terms. I prefer the more widely applicable but equally expressive “therapeutic relationship”, and will refer to it solely as such throughout this manuscript.
the client and counsellor. The quality and strength of this bond therefore mediates the quality and strength of the alliance.

It may be helpful here to further clarify the distinction between the concept of the therapeutic relationship and that of the therapeutic alliance, as they are sometimes confused with one another or implicitly regarded as one in the same (Horvath, 2006). In my view, the therapeutic relationship includes all factors that can be seen as relational or interactional in nature and which exist in the psychotherapeutic context. This is along the same lines of Gelso and Carter’s (1985) definition, which is that the therapeutic relationship consists of “the feelings and attitudes that counseling [sic] participants have toward one another, and the manner in which these are expressed” (p. 159). However, my definition of the therapeutic relationship (which shall be definitive throughout this manuscript) is more broad than that offered by Gelso and Carter, where in my view, the therapeutic relationship includes any and all acts of interaction between the client and counsellor, such as communication (both verbal and non-verbal), observation, influence, experience and the like, which can all be heuristically considered a part of the therapeutic relationship. These acts may be either reciprocal or unilateral, but in any case are considered as occurring between two people rather than as occurring solitarily or independently. Conversely, the therapeutic alliance can be regarded as encompassing the part of the therapeutic relationship that involves a reciprocal pact and emotional bond between the client and counsellor, existing as a result of working together toward the client’s achievement of his or her therapeutic goals. In this way, the therapeutic alliance is a part of the therapeutic relationship. A therapeutic relationship is created immediately in the psychotherapeutic context simply through interpersonal interaction, while the
therapeutic alliance develops under certain conditions, over time, and in the presence of specific antecedent factors. It is possible, therefore, that a therapeutic relationship can exist in the absence of a therapeutic alliance, but not vice versa.

Based on my clinical experience, and consistent with Bordin’s (1979) conceptualization of the alliance, I view the bond that develops between the client and counsellor as contingent upon a sense of trust that develops between parties. The basis and consequence of this trust will certainly be different for the client than it is for the counsellor. For example, the client must have confidence in the counsellor’s ability to provide help in resolving his or her psychological problem or issue, and the counsellor must have confidence in the potential for the client to experience change. In other words, the client and counsellor must trust one another (albeit in qualitatively different ways) to be instrumental in the client’s process of therapeutic change. It is my view that this trust is essential to the establishment and maintenance of an interpersonal therapeutic bond between client and counsellor, and that this bond is a core component of the therapeutic alliance.

On the Dyadic and Experiential Nature of the Therapeutic Relationship

The present study is based on an implicit assumption that a quantitative investigation of the therapeutic relationship from the perspective of the client is meaningful, despite the fact that the relationship is dyadic and experiential in nature. This assumption is contrary to those of the radical social constructionist or constructivist approaches to counselling, proponents of which are likely to argue that measurement and generalization of the therapeutic relationship, and consequently the therapeutic alliance, is an endeavor of little utility, since the meaning and substance of the co-constructed

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6 See Schwandt (2003) for an excellent review of the fundamentals of radical social constructionist thought.
relationship is dependent on the unique relational and temporal context within which it occurs. Viewed from a social constructionist perspective, the therapeutic relationship is a fluid and perpetually shifting construction of the client and counsellor’s identities in relation to one another (Carr, 1998; Grafanaki, & McLeod, 1999; McGuire, McCabe & Priebe, 2001). Those who favor this perspective may further argue that investigating any aspect of the therapeutic relationship (including the alliance) from a single perspective (e.g., the client’s) is inadequate at best and useless at worst, given that the relationship is the product of dual perspectives. These types of arguments are based on an epistemological position that rejects (or at least questions) the existence of a structured reality and of knowledge as an accurate and objective representation of that reality. While a more detailed discourse on social science epistemology is well beyond the scope of this manuscript, it may be prudent to address these contrary arguments while briefly clarifying some of the underlying epistemological assumptions made in this manuscript.

My beliefs are grounded in what might be called a weak relativist (Schwandt, 2003) or co-constructivist (Speed, 1991) ontology, where reality is considered to exist, but which is also constructed and mediated to some degree by our beliefs about it. From this position, and contrary to the arguments outlined above, I argue that it is possible to view the therapeutic relationship (as well as the alliance) as socially constructed, co-created, and dyadic while also acknowledging that this construction (or co-creation) can be observed, remembered, reported, and symbolically represented (i.e., quantified). Similar to the ideas espoused by some attachment, relational, and cognitive behavioural theorists (e.g., Ainsworth, 1969; Bowlby, 1988; Crits-Christoph & Gibbons, 2002; Teyber, 2006; Young, 2002), I believe that similarities exist between the many
relationships that are constructed by dyads. That is, people experience and construct relationships in familiar and repetitive ways, both as individuals experiencing relationships in their own lives and as groups of individuals experiencing relationships with each other. While one particular relationship between two people may be unique from other relationships in many ways, it also shares features common with other relationships between other people. I believe that this is especially true in respect to different relationships that occur within a similar context. It follows, then, that studying and identifying the similarities between relationships that occur in a similar context may help identify a pattern between them and likewise improve the understanding of how and why such patterns occur. Identifying patterns in the therapeutic relationship that develop in the counselling context is one of the underlying goals of the present study.

I also argue that independently studying the client’s perspective of the therapeutic relationship is essential to improving our understanding of the alliance. As outlined previously, this argument is grounded in the finding that the client’s perspective of the alliance is the most robust and reliable predictor of counselling outcome when compared to the perspective of the counsellor (Horvath & Bedi, 2002; Zuroff & Blatt, 2006). In counselling and psychotherapy, we are ultimately concerned with positive outcomes, and it is incumbent on the researcher and clinician to illuminate the features of counselling that most relate to these positive outcomes (Duncan & Miller, 2000). It is the superordinate goal of the present study, therefore, not to evaluate or elucidate the dyadic nature of the alliance, but to explicate the perspective that is most related to outcome: the client’s perspective on it.
Historical Origins of the Therapeutic Alliance

One of the first to emphasize the importance of the relationship between practitioner and client was Sigmund Freud (1913/1966). In fact, the interpretation of transference in the psychoanalytic context is foundational to the psychodynamic theory\(^7\) that Freud originated (Horvath, 2001b). The concept of “positive transference”\(^8\) was thus born with Freud, who suggested that the client’s Ego was capable of bonding with the Ego of the counsellor to achieve the goals of psychotherapy (Horvath, 2001b).

Although the emphasis on relational components in psychotherapy was born from the psychodynamic tradition, Carl Rogers would ultimately popularize the importance of positive relationships in counselling and psychotherapy. He argued that positive therapeutic change would occur, given that three relational features were present in the therapeutic context: (a) the counsellor experiences genuine empathy for the client’s frame of reference, (b) the counsellor experiences unconditional positive regard for the client, and (c) the counsellor effectively communicates these experiences to the client (Rogers, 1957). In emphasizing these tenets, Carl Rogers was a pioneer of the humanistic movement in psychology, where strong, positive relationships were believed to be at the core of effective psychotherapy.

However, Rogers and other humanistic theorists withstood harsh criticism from behaviorists such as Skinner (1985) and Eysenck (1952), who deemphasized the

\(^7\) *Psychodynamic theory* refers to the theory of mind established by Sigmund Freud (1938/1989) where the mind is conceptualized as a dynamic system in which conflicting processes can cause psychological disturbances. *Psychoanalysis* is a type of psychotherapy that emerged from this theory, in which an analyst helps a client examine and resolve these internal conflicts, thereby ameliorating psychological problems. Very roughly, psychoanalysis differs most from other types of psychotherapy in that it focuses on unconscious dynamics and personality change, rather than on conscious experience and direct problem resolution.

\(^8\) *Transference* is a psychodynamic concept in which the unconscious “projects” the characteristics of an important life figure (e.g., father, mother) onto the analyst.
importance of relational factors in counselling and psychotherapy, questioned the
efficacy of non-behavioural approaches, and criticized the methodologies used to study
them (Zygowicz, 2007). In response to such criticisms, counselling and psychotherapy
research methodologies were improved, and more sophisticated statistical techniques
began to be used. By the 1970’s, meta-analyses were able to summarize the results of
many different studies on the efficacy of various psychotherapeutic approaches (e.g.,
Smith & Glass, 1977). As a result of these meta-analyses, it became apparent that the
efficacy of differing treatment modalities was essentially the same. This prompted some
to suggest that factors common to all forms of counselling and psychotherapy, rather than
discrete treatment techniques, must be responsible for observed psychotherapeutic
outcomes (Zygowicz, 2007). This brought the concept of the therapeutic relationship, and
ultimately the therapeutic alliance, quickly into the foreground of counselling and
psychotherapy research.

Conceptualizing the Alliance

With this newfound emphasis on the therapeutic alliance as an important factor in
many types of counselling and psychotherapy, the need arose for a broadly defined and
generic conceptualization of the alliance that could apply to many different settings
(Bordin, 1979). Apart from conceptualizations of the alliance that arose in other fields
such as nursing (e.g., Peplau, 1962) and social work (e.g., Dore & Alexander, 1996), two
influential conceptualizations of the alliance in counselling and psychotherapy were
Both of these conceptualizations are reviewed here.
Luborsky’s conceptualization. In a seminal paper that delineated a new formulation of the alliance concept, Luborsky (1976) viewed the alliance as the bond between client and counsellor that kept the pair dedicated to therapeutic work in the face of stress caused by transference. In this way, his conceptualization was similar the original psychodynamic conceptualization posited by Freud (1913/1966). Luborsky argued that the alliance was not therapeutic in itself, and that therapeutic work was necessary to elicit change. He identified two types of alliance, based on his findings in a large-scale alliance measure validation study. In a “Type 1” alliance, the client experiences the practitioner alone as providing the help in psychotherapy, whereas a “Type 2” alliance is characterized by the client and counsellor working together to provide the help. However, because Luborsky heavily based his conceptualization on his study of psychodynamic therapies, it was not developed to be readily generalizable to other forms of counselling or psychotherapy. That is, Luborsky’s alliance types were heavily derived from fundamental psychodynamic concepts (such as transference) that were not shared by other psychotherapeutic philosophies, thus limiting their conceptual utility to psychodynamic therapies.

Bordin’s conceptualization. Bordin’s (1979) conceptualization of the alliance was also empirically based, but was instead developed from a pantheoretical perspective. Consequently, this conceptualization will provide the framework for the proposed study. Bordin argued that the alliance was composed of three parts, regardless of the type of counselling with which the alliance developed: agreement on the goals of counselling, collaboration on therapeutic tasks, and the formation of an emotional bond between the client and counsellor. He suggested that the presence or absence of these
three components were the key difference between successful and unsuccessful counselling.

Agreement on the goals of counselling refers to the extent to which the client and counsellor agree on the conceptualization of the client’s problems. After listening to the client’s history and concerns, the counsellor conceptualizes the client’s presenting issues and decides which issues he or she will be willing to collaborate with the client on resolving. The client and counsellor then determine the goals of counselling together, based on the client’s wishes and the counsellor’s willingness to help. Agreement on goals, therefore, is contingent on agreement from both the client and counsellor.

Collaboration on tasks refers to the specific tasks that the client and counsellor engage in to help the client overcome his or her difficulties. The counsellor selects and suggests the tasks based on his or her expertise, but the client must understand the nature of these tasks and their expected outcome in order to be a full participant. Collaboration on tasks, therefore, is contingent on understanding and effort from both the client and counsellor.

The formation of an emotional bond refers to a sense of mutual like, respect, and trust that develops between the client and the counsellor as a result of working together toward the goals of counselling. Therefore, it develops not only out of positive feelings for one another, but from the sense of trust that is gained as deeper emotions are revealed and met with trustworthy behaviour in the therapeutic context. The formation of an emotional bond, is not then only contingent on an agreeable match of individuals who like one another, but also on the ability for both parties to develop a sense of trust between them.
As scholarly interest in the therapeutic alliance has grown, so has the need for research instruments that will capture and measure the concept. Indeed, the method used to measure the alliance is also the means used to define it (Horvath & Bedi, 2002). This section briefly reviews those alliance measures that have been used to operationalize the concept in counselling and psychotherapy research. While some measures have been empirically derived, others have been theoretically derived.

**Empirically-derived measures.** The first measures developed to quantify the therapeutic alliance were empirically derived, using a variety of factors that reflected aspects of the alliance described in the literature. Statistical techniques such as factor analyses were used to identify underlying alliance dimensions from this assortment of factors. Three measures were developed in this manner: the Vanderbilt Scales (Hartley & Strupp, 1983), the Penn Helping Alliance Scales (Alexander & Luborsky, 1987; Luborsky, Crits-Christoph, Alexander, Margolis, & Cohen, 1983; Luborsky, McLellan, Woody, O'Brien, & Auerbach, 1985; Morgan, Luborsky, Crits-Christoph, Curtis, & Solomon, 1982), and the Therapeutic Alliance Rating Scale (Marziali, 1984). Although the development of these instruments was an important advancement in the measurement of the alliance because they confirmed the value of the alliance as a predictor of outcome (Henry, Strupp, Schacht, & Gaston, 1994), these measures were drawn from a diverse assortment of writings and were not designed to measure a theoretical conceptualization of the alliance (Zygowski, 2007). The alliance measures described next accounted for this shortcoming.
Theoretically-derived measures. Two alliance measures were developed from theoretical frameworks, and both would become frequently used and highly influential in psychotherapy research. First, the California Psychotherapy Alliance Scales (Gaston, 1991; Gaston & Marmar, 1994; Marmar, Horowitz, Weiss, & Marziali, 1986) were designed to measure four theoretically derived alliance dimensions based on an eclectic theoretical position (Horvath, 1994). The four subscales of these measures are Patient Commitment, Patient Working Capacity, Therapist Understanding and Involvement, and Working Strategy Consensus. While some of these scales emphasize either the client’s or the practitioner’s contribution to the alliance, all are viewed as influenced by the interactive context of counselling.

Second, the Working Alliance Inventory (WAI; Horvath, 1981; 1986; Horvath & Greenberg, 1987; 1989) was based on Bordin’s (1979) conceptualization of the alliance, and was thus intended to be pantheoretical in nature. Moreover, the WAI consists of three subscales that mirror Bordin’s alliance components: Goals, Tasks, and Emotional Bond. The validity and reliability of this measure has been consistently supported (Horvath, 1994; Horvath & Greenburg, 1989; Tracey & Kokotovic, 1989). More recently, shorter versions of the WAI have been developed that are about as valid and reliable (e.g., Hatcher & Gillaspy, 2006; Tichenor & Hill, 1989). The most recent of these, the Working Alliance Inventory, Short Form, Revised (WAI-SR; Hatcher & Gillaspy, 2006) has been chosen for use in the present study, and will be reviewed in greater detail in a later section of this manuscript.
The concept of the therapeutic alliance has also been extended beyond the field of counselling and psychotherapy to other healthcare professions. Scholarship on the importance of the physician-patient relationship has been particularly ample, and research has suggested that the alliance between physician and patient is key to the promotion of positive patient outcomes (Kaplan, Greenfield, & Ware, 1989). In a large-scale study of pediatric patients undergoing maintenance therapy for chronic asthma, a strong physician-rated alliance between the child’s family and the physician significantly predicted treatment adherence and subsequent improvement in asthma symptoms (Gavin, Wamboldt, Sorokin, Levy, & Wamboldt, 1999). The alliance has also been linked with improvement in psychological problems outside of the counselling context, as a strong alliance between physician and patient has been shown to have a positive effect on symptom improvement in patients with depression, an effect that has been demonstrated above and beyond that of pharmacotherapy alone (Krupnick et al., 1996).

The therapeutic alliance has also become an important concept in nursing theory and praxis, developing from early theoretical emphasis on the importance of relational factors in the patient-nurse relationship to a more fundamental and ubiquitous concept (O’Brien, 2001). The importance of the therapeutic alliance in nursing has its roots in the work of Hildegard Peplau (1962), who argued that the fundamental basis of effective nursing was in the development of a relational bond between patient and nurse. More recently, Hummelvoll (1996) has posited a nurse-client alliance model in which the nurse provides support and guidance while encouraging the development of a relational bond. There has been some support for the validity of both of these models as reflective of real-
world nursing practice (Forchuk, 1994; Forchuk et al., 1998; Hummelvoll, 1996), suggesting that the concept of the therapeutic alliance will continue to play an integral role in the development of nursing.

The field of social work has also seen an extension of the alliance concept to the practice of social workers, child protection workers, and community mental health workers (e.g., Dore & Alexander, 1996). Qualitative inquiries into the nature of the alliance in social work and community mental health have conceptualized the alliance as being built on trust, collaboration, and goal-oriented problem-solving (Kirsh & Tate, 2006). The development of a strong alliance between social workers and families has been shown to be an important precursor to the resolution of relational conflicts and other positive outcomes (Marziali et al., 2005). Clearly, with its basis in relational therapeutic work, the alliance is a concept that is readily generalizable to helping professions outside of counselling and psychotherapy.

**The Client’s Perspective**

The concept of tailoring the therapeutic relationship to meet the needs of the client is not new, and many have suggested that adapting one’s therapeutic style to match the client’s preference will likely result in stronger alliances (e.g., Duncan et al., 2003; Lambert, Okiishi, Finch, & Johnson, 1998; Lazarus, 2003; Norcross and Beutler, 1997). However, few conceptualizations of the alliance are based directly on the client’s perspective of it, and little research has been conducted directly on the client’s perspective (Bedi, 2006; Henkelman & Paulson, 2006). This is troublesome, as there is evidence that clients’ and counsellors’ perspectives of the alliance can diverge significantly (Bachelor & Salamé, 2000; Fitzpatrick, Iwakabe, & Stalikas, 2005). Indeed,
clients are likely to be the best judges of their own experience (Henkelman & Paulson, 2006), and there is evidence that client-directed counselling (counselling that is driven by direct client feedback) is highly effective in establishing a strong early alliance (Duncan & Miller, 2000; Duncan et al., 2003).

Most research on the client’s perspective of the alliance has focused on two areas: alliance typology and factors that influence alliance development. The following review covers each of these areas in detail.

Alliance Typology

A small subset of literature on the client’s perspective on the alliance has revealed various typologies that clients use to conceptualize the alliance. Two typologies have specifically emerged. First, in a pioneering study of the client’s perspective, Bachelor (1995) recruited 34 participants to provide descriptive accounts of the alliance that they had developed with their counsellor. Content analyses of these descriptions revealed three alliance types across three phases of counselling: nurturant (46% of accounts), insight-oriented (39%), and collaborative (15%). A nurturant alliance emphasized counsellor characteristics such as empathic understanding, authenticity, respectfulness, patience, friendliness, and was characterized by the client’s sense of trust in (and level of comfort with) the counsellor. An insight-oriented alliance emphasized counsellor techniques that led to increased self-awareness and improved self-understanding, and was characterized by client self-expression and self-disclosure. A collaborative alliance emphasized the shared responsibilities of the client and counsellor in the selection and evaluation of goals, strategies and solutions for the client’s presenting issues.
In another investigation of the client’s perspective, Mohr and Woodhouse (2000; 2001) asked clients to sort a number of factors derived from Bachelor’s (1995) data to form new conceptualizations of the alliance. They found that 74% of the variability in client’s new conceptualizations of the alliance could be attributed to one of two factors: a professional and a personal alliance type. A professional alliance type was characterized by an emphasis on deep self-exploration by the client, an objective and impartial counsellor, and collaboration between the client and counsellor on the establishment of goals and tasks. A personal alliance type was characterized by a sense of shared emotional connection, intimacy, and warmth, and a friendly and self-disclosing counsellor.

In an attempt to conceptually replicate some of the findings from these studies, Bedi and Duff (under review) asked clients to identify their ideal working alliance type by choosing from alliance type descriptions that were based on Bachelor’s (1995) and Mohr and Woodhouse’s (2000; 2001) typologies. They found that, similar to Mohr and Woodhouse, clients were about equally as likely to prefer a professional alliance type as they were to prefer a personal one. However, contrary to Bachelor’s findings, they found that most clients in their study preferred an insight-oriented alliance type to a nurturant or collaborative one. Results from this study also suggested that clients prefer an alliance typology system that describes the alliance in multidimensional terms, where an alliance can be described as a combination of different types rather than reduced to only a single, discrete type. This finding particularly underscores the complex nature of the client’s perspective on the alliance.
Factors that Influence Alliance Development

Several studies have also solicited the perspective of clients in identifying critical incidents that lead to or inhibit the development of the alliance. In a qualitative study of 20 clients’ experiences in counselling, Fitzpatrick, Janzen, Chamodraka, and Park (2006) asked clients to identify a critical incident that impacted the formation of the therapeutic alliance. Using a participant critical events model of alliance development (see Fitzpatrick & Chamodraka, 2007, for a description of this model) and a consensual qualitative research method, they found that clients associated those critical incidents that elicited positive feelings with increased exploration in the therapeutic context. This exploratory process was thought to lead to an increase in positive feelings, subsequently enhancing the therapeutic alliance. In this way, Fitzpatrick and colleagues suggest that clients perceive early alliance development as a positive emotion-exploration spiral, where early critical incidents lead to a positive alliance, which leads to increased exploration, thereby strengthening the alliance, and so forth. However, they also found that critical incidents that clients associated with negative feelings were associated with decreases in alliance strength, thereby hindering the alliance. It has been suggested by others (i.e., Henkelman & Paulson, 2006) that the client’s perspective on these hindering experiences may play a significant role in unsuccessful counselling.

The client’s perspective on the alliance has also been investigated in the nursing context. Using a qualitative research design, Forchuck and her colleagues (1998) found that the perceived positive attitude of the nurse was identified as a factor that promoted the development of the alliance, whereas the alliance was hindered when clients perceived the nurse as unavailable or distant.
Research by Bedi and colleagues (Bedi, 2006; Bedi, Davis, & Arvay, 2005; Bedi, Davis, & Williams, 2005; Bedi & Duff, 2008) has also enlisted the expertise of counselling clients to identify factors that are critical in the development of the alliance. Through this line of research, clients have identified about 400 factors (Bedi, Davis, & Williams, 2005), the most common of which can be organized into 11 categories (Bedi, 2006), and rated according to the relative importance that clients place on each of the factors in the development of the alliance (Bedi & Duff, 2008). A preliminary conceptualization of the alliance has emerged from these investigations, which is somewhat contrary to prior alliance models. For example, instead of emphasizing the collaboration of client and counsellor on alliance development, it appears that clients place significantly greater responsibility on the counsellor for alliance formation than they do on themselves (Bedi, 2006; Bedi & Duff, 2008). This has important implications for alliance theory in general, as the development of the early alliance may need to be partly re-conceptualized as a counsellor-driven endeavor, maintained in later stages by mutual collaboration, rather than an alliance that is established early on through shared responsibility between client and counsellor. Therefore, the elucidation of the role that client-identified counsellor behaviours play in early alliance development is central to the advancement of alliance theory as a whole, and especially in capturing the client’s perspective. It is upon this empirical and theoretical foundation that the present study rests.

Counsellor Behaviours that May Impact the Therapeutic Alliance

Although there is some evidence that tailoring counsellor behaviours to match the particular type of client encountered in counselling may help to improve the alliance
(Duncan et al., 2003; Guadiano & Miller, 2006; Lambert, Okiishi, Finch, & Johnson, 1998; Norcross, 1993; Norcross and Beutler, 1997), there is also evidence that some counsellor behaviours may be considered universally applicable to positive alliance development with most clients (Bachelor & Horvath, 1999). These may include demonstrating respect for the client, being receptive, demonstrating good listening skills (Bachelor & Horvath, 1999), conveying understanding or appreciation of the client’s experience, giving clients a sense of control over the counselling session (Horvath & Bedi, 2002), recalling details of past counselling success, accurately interpreting clients’ feelings, and affirming positive features of the client (Ackerman & Hilsenroth, 2003).

Since the present study focuses on common counsellor behaviours that relate positively to the alliance in most counselling relationships, these types of counsellor behaviours are of particular interest here. The following section reviews the existing literature on the relationship of each of the 15 counsellor behaviours (derived from Bedi & Duff, 2008) that are examined in the present study, and presents the current evidence of their relationship to the alliance.

*Maintaining Eye Contact*

Maintaining appropriate eye contact during counselling is widely considered to be an essential behaviour for counsellors, and is often suggested in primary training texts as a necessary antecedent to alliance development (e.g., Neukrug & Schwitzer, 2006). In their seminal study on the validation of the Working Alliance Inventory, Horvath and Greenberg (1989) found that non-verbal gestures such as eye contact were significantly related to feelings of positive connectedness early in the therapeutic relationship. There is also some evidence to suggest that frequency of direct eye contact by the counsellor
during counselling improves counsellor-client rapport (Sharpley & Sagris, 1995), and
direct eye contact appears to positively impact client-counsellor interactions, thereby
influencing how the alliance develops (Watson & McMullen, 2005). However, the
importance and social meaning of eye contact differs greatly between cultures, and
maintaining direct and frequent eye contact with some clients may actually impede
alliance development (Vasquez, 2007).

**Disclosing Personal Experience**

The results of investigations into the effect of counsellor self-disclosure on the alliance have been mixed. Some research has found that counsellor self-disclosure is related to alliance formation early in the relationship (Horvath & Greenberg, 1989), while other research has demonstrated that counsellor self-disclosure has the potential to both negatively and positively impact the alliance (Ackerman & Hilsenroth, 2001; Bachelor & Horvath, 1999). The inconsistency of these findings suggests that the content or perceived appropriateness of counsellor self-disclosure may mediate the effect that such disclosures have. For example, Hanson (2008) found that the client’s perceived helpfulness of counsellor self-disclosure modulated the impact that such disclosure had on the alliance. Specifically, counsellor self-disclosures that clients perceived as helpful were found to be strong contributors to the development of the alliance, while unhelpful disclosures conversely hindered alliance formation (Hanson, 2008).

**Asking Questions**

The act of asking questions is a central feature of many forms of counselling, especially those based on a solution-focused framework (Guterman, 2006) and particularly during the early stages of the counselling process. The direct effect of asking
questions on the alliance has not been widely investigated, but some evidence of a
positive effect on the alliance does exist. In an examination of the relationship between
counselling microprocesses and the alliance, Sexton, Hembre, and Kvarme (1996) found
that asking questions was significantly related to alliance formation, particularly in the
early stages of the relationship. Although the specific action of question-asking on
alliance development is not clear, it appears that open-ended questions may particularly
contribute to the alliance (Boardman, Catley, Grobe, Little, & Ahluwalia, 2006).

### Giving Encouragement

Positive encouragement of client success is a core concept in a number of
counselling approaches, including solution-focused (Guterman, 2006), person-centered
(Rogers, 1957), and motivational (Miller & Rollnick, 2002) frameworks. Counsellor
couragement and support has been linked to reductions in client resistance and
increases in the development of counsellor-client rapport (Watson & McMullen, 2005).
However, the specific relationship between counsellor encouragement of the client and
alliance formation is not yet clear.

### Smiling During Greeting

There is very little research that has investigated the link between smiling during
greeting and alliance development. In one study, the observed frequency of counsellor
smiling in-session was related to scores on an alliance measure (de Roten, Gillieron,
Despland, & Stigler, 2002). Crits-Christoph et al. (2006) also found that counsellors who
were trained to communicate mutual affirmation through nonverbal signs such as smiling
were rated as having higher alliances than those who were not trained. However, smiling
was only encouraged in-session, and counsellors were not specifically trained to smile upon greeting.

Counsellors who are trained in classical analytic psychotherapy sometimes assume the *tabula rasa* position as a means of eliciting and analyzing transference, thereby avoiding smiling altogether. However, counsellors who strictly adhere to this model are nowadays rare, and most counsellors are likely motivated to smile upon greeting due to cultural expectations rather than specific training.

*Identifying and Reflecting the Client’s Feelings*

The expression of empathy through the reflection of feelings is usually regarded as a fundamental counselling skill (Neukrug & Schwitzer, 2006), popularized by the work of humanistic theorists such as Carl Rogers (1957). Lazarus (1993) has long asserted that accurate empathy, or the accurate reflection of emotion, is crucial to the development of a strong therapeutic relationship. The reflection of feelings by the counsellor is strongly associated with the alliance (Ackerman & Hilsenroth, 2003), and the accuracy with which this emotion is identified is directly linked with alliance improvements (Crits-Christoph, Cooper, & Lubrowski, 1998). Moreover, counsellors’ sensitivity and attunement to the client’s feelings is positively correlated with alliance, suggesting that the counsellor’s ability to communicate this attunement may lead to higher overall alliance ratings (Price & Jones, 1998). Counsellors’ accurate expression of empathy has been cited in several reviews of the literature as a significant contributing factor in the development of the alliance (e.g., Ackerman & Hilsenroth, 2003; Bachelor & Horvath, 1999; Horvath & Bedi, 2002).

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9 *Tabula rasa* is directly translated from the Latin as “blank slate”. Classic psychodynamic therapists are trained to assume this state, expressing as little emotion as possible to allow for the client’s unimpeded free expression of unconscious conflicts, projections, and transference.
Referring to Details from Previous Sessions

Linking details from past therapy sessions to those in the present is considered to be a core feature of counsellor competence (Teyber, 2006). Counsellors who make particular note to clients of past counselling successes are more likely to develop stronger alliances than those counsellors who do not (Ackerman & Hilsenroth, 2003).

Allowing the Client to Direct the Course of the Session

A fundamental principle of many postmodern approaches, the ability of the counsellor to remain flexible rather than enforce relational control or rigid expectations is a consistent theme across much of the literature on alliance-enhancing counsellor behaviours (Horvath, 2001a). In a study of the client’s perspective on critical incidents in the development of the alliance, Fitzpatrick, Janzen, Chamodraka, and Park (2006) found that clients identified feeling in control of counselling sessions as a major critical incident in alliance formation. Counsellor openness and flexibility has been associated with alliance in a number of studies (Horvath & Bedi, 2002), and a significant positive relationship has been observed between increased counsellor flexibility and the alliance (Kivlighan, Clements, Blake, Arnzen, & Brady, 1993). Not surprisingly, clients who have a sense of control over the course of each session tend to have better outcomes that those who do not (Lichenberg et al., 1988), suggesting that a link exists between client control, alliance, and outcome.

Being Honest

Fundamental to any significant relationship, counsellor honesty is essential in the psychotherapeutic context. While counsellor guardedness has been negatively associated with alliance (Ackerman & Hilsenroth, 2001), honesty, respectfulness,
trustworthiness have all been identified as contributing to alliance development (Ackerman & Hilsenroth, 2003). In general, clients must be able to feel a sense of trust with the counsellor before a bond between parties can be formed (Bachelor, 1995; Bordin, 1979; Fitzpatrick, Janzen, Chamodraka, & Park, 2006). Moreover, clients have identified honesty as a superordinate category of alliance-building counsellor behaviours (Bedi, 2006).

Making Positive Comments about the Client

Emphasizing positive features of the client is a common counselling technique used to build clients’ emotional resources and improve counselling outcomes (Teyber, 2006). However, a number of studies have also consistently demonstrated a positive relationship between active, supportive, and affirming comments made by the counsellor and a strong alliance (Ackerman & Hilsenroth, 2003). In a study of the effect of practitioner behaviours on the alliance in couples therapy, Thomas, Werner-Wilson, and Murphy (2005) found that practitioners’ positive comments made toward male clients (but not female clients) were positively and significantly correlated with alliance. This suggests that the effect of positive comments may vary between contexts and clients.

Remaining Relaxed/Not Fidgeting During the Session

While the specific effect of the counsellor sitting still (i.e., not fidgeting, appearing relaxed) during counselling has not been directly investigated in the context of the alliance, Saunders (1999) found that counsellors who were perceived by clients as alert, relaxed, interested and confident were more likely to elicit feelings of intimacy and closeness with clients than counsellors who were perceived by clients as distracted or tired. Remaining still without fidgeting remains an important strategy that is frequently taught to counselling students in graduate training programs (Neukrug & Schwitzer, 2006).
Facing the Client

Empirical investigations on the impact of counsellor posture are scarce. One study (Sharpley, Halat, Rabinowicz, Weiland, & Stafford, 2001) found that mirroring the client’s posture (sitting in a position that mimics that of the client’s) resulted in increased levels of client-perceived rapport. However, this study investigated client-counsellor rapport rather than the alliance, and the results cannot be directly applied to the alliance without further investigation. Despite the lack of empirical inquiry, facing the client to nonverbally signify attentiveness is usually regarded as an important aspect of counselling process (Brammer & MacDonald, 2003).

Validating the Client’s Experience

The most highly rated and most frequently cited factor identified by clients as foundational to alliance development (Bedi & Duff, 2008), expressing an appreciation and understanding of the client’s phenomenological perspective has been repeatedly associated empirically with alliance strength (Horvath & Bedi, 2002). Based on a review of the literature on counsellor variables that positively impact the alliance, Ackerman and Hilsenroth (2003) suggest that the counsellor’s ability to understand and relate to the client’s experience may be one of the most important components in building a strong alliance. Counsellors who are perceived as affirming are more likely to form strong alliances early in the relationship (Najavits & Strupp, 1994), and validation of the client’s experience has been identified by clients as one of the critical incidents to alliance formation (Bedi, 2006; Bedi, Davis, & Williams, 2005; Fitzpatrick, Janzen, Chamodraka, & Park, 2006). In a recent study that evaluated the efficacy of an alliance-fostering counselling, Crits-Christoph, Connoly Gibbons, and Hearon (2006), found that verbal and
non-verbal techniques that were used to communicate respect, acceptance, and positive regard for the client’s experience were associated with moderate to large increases in alliance ratings. It is clear that validation of the client’s experience plays an important role in alliance formation.

**Making Verbal Prompts and Keeping Administration Outside of Session Time**

Surprisingly, the impact of either of these factors on the alliance has not yet been directly investigated outside of the present line of research, although minimal encouragers (such as “uh huh”) are often cited as fundamental to effective counselling (e.g., Brammer & MacDonald, 2003; Neukrug & Schwitzer, 2006). To my knowledge, the current study is the first investigation of this type on the relationship between these factors and alliance strength.

**Culture, Ethnicity, and the Alliance**

Culture and ethnicity play an important role in counselling and psychotherapy, as individual worldviews mediate and influence interpersonal interaction in the counselling context. As a core component of effective counselling, the therapeutic alliance is likewise mediated and influenced by ethnic and cultural factors. As a result, the therapeutic alliance may develop and be experienced differently by clients of differing cultural and ethnic backgrounds (Vasquez, 2007). Given that many counselling interventions have been designed for middle-class populations of European ethnicity living in Western cultures, counselling interventions that are not adapted to meet the unique needs of ethnic minority clients or clients from non-Western cultures may actually impede alliance development (Wei & Heppner, 2005). Consequently, techniques and strategies that are
used by counsellors to help promote the development of the alliance must be based on 
evidence derived from ethnically and culturally representative research samples.

There is also evidence that ethnically dissimilar client-counsellor dyads tend to be 
less likely than ethnically similar ones to develop a strong therapeutic alliance early in 
therapy (Erdur, Rude, Barón, Draper, & Shankar, 2000; Møllersen, Sexton, & Holte, 
2005), leading to a shorter duration of counselling and poorer outcomes (Zane, Hall, Sue, 
Young, & Nunez, 2004). It has been suggested that this effect is due to cross-cultural 
misunderstandings, unaddressed power differentials in the counselling relationship 
(Keenan, Tsang, Bogo, & George, 2003), or counsellors’ inappropriate use of self- 
disclosure (Constantine & Kwan, 2003). In any case, counsellors must recognize the 
effect of counsellor and client cultural and ethnic factors as a prerequisite to culturally 
competent practice (Hwang & Wood, 2007), and these factors may require a 
reconceptualization of the alliance in light of cultural and ethnic differences (Shonfeld-
Ringel, 2001).

Conducting Research Online

The present study proposes the use of an online questionnaire for data collection. 
As such, this section reviews the current literature on online research in the social 
sciences, including a review of the advantages and limitations, the validity and quality, 
and ethical considerations of data collected online. It is concluded that, based on the 
available evidence, collecting data for the present study using an online questionnaire is a 
safe and superior alternative to traditional pencil-and-paper questionnaires.

Over the last 15 years, the Internet has made a profound and ubiquitous impact on 
our world, with at least 68% of Canadians using the Internet for personal purposes on a
regular basis (Statistics Canada, 2006) and nearly equal numbers of men and women using the Internet (Lenhart et al., 2003). With the advent of hypertext markup language (HTML) 2 in the mid-1990’s, the creation of online “forms” and the administration of secure, Web-based questionnaires became possible (Pettit, 1999). Researchers in the social sciences quickly took advantage of this technology, creating a wave of online social science research in a variety of areas (Birnbaum, 2004a). Since then, many hundreds of studies have been successfully conducted using the World Wide Web (WWW), driven by the ease of participant recruitment, efficiency of data collection, and a marked reduction in the time and cost required to execute them (Birnbaum, 2004b).

Advantages of Online Research

The administration of Web-based questionnaires has many advantages over traditional pencil-and-paper questionnaires. Participants of Web-based research are able to complete questionnaires at any time of the day or night, bypassing the inconvenience of scheduling and attending a meeting with the researcher, or of completing and mailing a questionnaire by mail. The administration of online questionnaires is possible through any computer that has access to the internet, including public libraries and computer terminals in a research lab (Birnbaum, 2004b). Participant recruitment for online questionnaires is not limited by geographic constraints; very large numbers of diverse participants can be recruited and tested from all over the world (Pettit, 1999), and certain special populations (such as those who are shy, introverted, physically handicapped, or disorganized) may be better represented in Internet samples than in traditional ones (Gosling, Vazire, Srivastava, & John, 2004). Rapid collection times are common with Web-based surveys and questionnaires (Cook, Heath & Thompson, 2000), with the
collection of data from samples of 800 or more possible in less than 30 days (Birnbaum, 2004a; Gosling, Vazire, Srivastava, & John, 2004; Pettit, 1999). Web-based research also has the advantage of increased anonymity, since participants do not need to meet the researcher in person, nor give any identifying information not necessary for the purposes of the study. Moreover, eliminating face-to-face interaction with the researcher reduces the threat of participant coercion, experimenter bias, and demand characteristics (Nosek, Banaji, & Greewald, 2002; Reips, 2000).

The costs of Web-based research are significantly lower than traditional research methods (Kraut et al., 2004). Printing costs are eliminated, since all questionnaires are administered via computer. Data collected through Web-based questionnaires is automatically coded and compiled into electronic form, eliminating the need for time-consuming and costly data entry. Moreover, the nature of Web-based questionnaires is such that participants can be alerted at the time of administration if they have accidentally skipped any questions, eliminating the problem of missing data and reducing the number of questionnaires that must be excluded from the final analysis. However, Web-based research also has important limitations, which are reviewed next.

*Limitations of Online Research*

The limitations to research on the WWW are primarily due to the anonymous and uncontrolled nature of the Internet. For example, it is not possible (or very difficult) to control the environment of participants, the hardware that they use to access the Internet, or the Internet connection itself (Kraut et al., 2004; Riva, Teruzzi, & Anolli, 2003). Participants are also less likely to complete an online questionnaire if the questionnaire is long, boring, or difficult, but the same is not true if participants complete the same
questionnaire in person (Reips, 2002). Privacy of data and participant information is also of particular concern, as data stored on network servers is more vulnerable to malicious infiltration than paper questionnaires stored in locked university filing cabinets (Kraut et al., 2004; Nosek, Banaji, & Greenwald, 2002).

The representativeness of some samples derived from or tested on the Internet has also been challenged (Duffy, 2002). Internet samples are not likely to be representative of certain special populations who have limited access to the WWW, including the elderly, homeless, illiterate, or those living without electricity (Gosling, Vazire, Srivastava, & John, 2004). However, this is also a limitation inherent with many traditional convenience samples, and is therefore not likely unique to Web-based studies (Riva, Teruzzi, & Anolli, 2003).

There have also been arguments that question the quality and validity of data collected through the Web (e.g., Azar, 2000; Buchanan, 2000). However, because the veracity of these criticisms has serious implications for the present study, a careful review of the empirical literature is necessary.

**Validity and Quality of Data Collected Online**

Gosling, Vazire, Srivastava, and John (2004) suggest that the bulk of criticisms of Web-based research can be categorized into six preconceptions: that (a) Internet samples are not diverse, (b) Internet users are socially maladjusted, (c) the data obtained from Web sites are affected by the presentation of the site, (d) Web-based data are adversely affected by non-serious responses, (e) the anonymity afforded by Web questionnaires adversely affects the data, and (f) the findings of Web-based studies are not consistent with findings obtained by traditional methods. Using a Web-based sample of 361,703
participants and a comparison set of 510 samples from 156 articles published in top-tier journals of the American Psychological Association, Gosling and his colleagues found that five of the six preconceptions were incorrect. Moreover, they argued that the only preconception that was supported (that the anonymity afforded by Web questionnaires adversely affects the data) could be countered by taking steps to eliminate repeat responders.

Other studies have confirmed these findings. Riva, Teruzzi and Anolli (2003) compared results obtained from a questionnaire administered both through the Web and in a traditional laboratory setting. They found that although the samples from both studies differed demographically (the Web-based samples were more diverse), the psychometric properties of the questionnaires remained the same (Riva, Teruzzi, & Anolli, 2003). These results mirror those of Buchanan and Smith (1999), who administered a well-established personality inventory to a sample of Web-based respondents and found that the psychometric properties of the inventory was consistent between methods. The consistency of responses between online and paper-and-pencil questionnaires has also been demonstrated for psychotherapy process research (Reynolds & Stiles, 2007), a finding which has particular relevance to the present study.

In 2002, the American Psychological Association formed an advisory group of scholars to investigate the viability and legitimacy of Web-based research (Kraut et al., 2004). They suggest that online research is a suitable alternative to laboratory studies in psychology, and that survey research using the Web is superior in many respects. They make a number of recommendations to help ensure the quality and validity of data obtained online while maintaining a high level of ethical standards. These include: (a)
using methods to track data from individual respondents, thereby preventing abuse and repeated responses, (b) pilot testing online questionnaires to ensure quality, (c) using sensible but not overly extreme measures to protect user data, (d) allowing informed consent to be obtained in low-risk studies by simply clicking a link that reads “I agree”, rather than requiring physical documentation, (e) avoiding the use of the Internet for research when the risk is high, and (f) taking special precautions when dealing with research involving minors. They suggest that following these guidelines will increase the potential quality of Web-based data while protecting ethical integrity. But what other ethical considerations must be made when conduction research on the Web? The following section addresses this question.

Ethical Considerations of Online Research

Similar to studies carried out in the laboratory, time spent participating in a Web-based study is undoubtedly less dangerous than time spent in many daily activities such as driving and shopping (Birnbaum, 2004b), and Web-based research likely poses no more risk to participants than comparable research conducted through other means (Kraut et al., 2004). However, there are some risks unique to conducting online research that must be considered. First, appropriate steps must be taken to safeguard the confidentiality of data collected via the Web, given that the security of Web-based servers and computers is not invulnerable to infiltration, and that unauthorized access to this information is a palpable threat (Duffy, 2002; Kraut et al., 2004). Second, the conduct of researchers who use the Web must be carefully considered in the context of a worldwide audience, as misrepresentation, unnecessary deception, or unfulfilled promises (i.e., unrequited financial incentives promised for participation) to Web participants by
researchers is not only seriously unethical, but dangerous to the reputation of all research conducted on the Web (Birnbaum, 2004b). Third, the ability of researchers to monitor and remediate any harm that may come to participants as a result of participation is diminished in online research, posing a special problem for researchers who use the Web to collect data (Kraut et al., 2004). Fourth, providing enough information so that the participant can make an informed decision about participation is more challenging with online research, as the researcher is unable to immediately respond to any questions or concerns that the potential participant may have regarding the study (Nosek, Banaji, & Greewald, 2002). Fifth, it is more difficult to control adverse events that may involuntarily end participation (such as server errors, broken Internet connections, etc.) and prevent adequate debriefing (Nosek, Banaji, & Greewald, 2002).

There are actions that can be taken to significantly reduce the impact of each of these respective ethical problems. First, Secure Socket Layer (SSL) encryption (an industry-standard method of secure data transmission that is widely used in Internet commerce) should be used whenever possible to prevent the unauthorized interception of participant data. The server storing such data should also be secured using the latest technology available, and identifying participant information (such as name and address) should be kept separate from other data (Kraut et al., 2004). Second, research conducted using the Web should be enacted with the same level of integrity granted to studies conducted elsewhere. Third, the potential for harm should be at an absolute minimum for research conducted on the Web, and studies that are considered high risk may not be appropriate for online administration. Fourth, participants should be given every opportunity to contact the researcher if necessary, and a list of frequently asked questions
should be compiled that anticipate common queries, including regular updates that include questions that have been asked by prior participants (Nosek, Banaji, & Greewald, 2002). Fifth, all possible steps should be taken to ensure that participants have the opportunity to access debriefing information when leaving the study, even if dropping out early (Kraut et al., 2004). Given that these precautions are heeded, online research can be considered ethical and safe.
CHAPTER 2
The Study

Method

Design

A cross-sectional, correlational design was used to examine the relationship between 15 client-identified formation factors and alliance strength. Obtained after at least three sessions of counselling or psychotherapy, units of analysis included (a) participant ratings of the frequency of occurrence of fifteen formation factors that may have occurred during the three most recent sessions, and (b) participant ratings of the strength of the therapeutic alliance they had with their counsellor, as evidenced by Working Alliance Inventory, Short Form, Revised (WAI-SR; Hatcher & Gillaspy, 2006) scores.

The rationale for this choice of design over other quantitative designs was that it could reveal relationships between variables without the use of control groups or the manipulation of independent variables, neither of which could be used ethically nor practically for the present research problem. For example, withholding potentially alliance-enhancing behaviours from control group participants may result in poorly formed alliances, thereby reducing the potential for positive counselling outcomes. A cross-sectional design was also chosen because it required a one-time collection of data from each participant, reducing the threat of dropout and the overall expense of the study.

A quantitative method was chosen over qualitative inquiry because the measured relationship between client-identified counsellor behaviours and the alliance was of particular interest, given that prior research (e.g., Bedi, 2006; Bedi & Duff, 2008) had
already used qualitative and mixed methods to elicit the client’s perspective on counsellor
behaviours that contribute to the alliance. This particular research question cannot be
directly assessed using qualitative methods, which implicitly assume multiple ontological
realities (Creswell, 2007). As mentioned earlier, the present study makes certain
ontological and epistemological assumptions that recognize a common or shared reality
among interpersonal relationships that are formed in similar circumstances. Therefore, to
further our understanding of how clients’ common perspective on counsellor behaviours
relates to the alliance, the goal of the present study was to measure and investigate the
strength of relationship between client-identified counsellor behaviours and the alliance
and determine their ability to predict alliance strength.

Participants

Based on an a-priori power analysis, it was determined that the minimum sample
size necessary to achieve adequate statistical power would be 43 participants\(^\text{10}\), but since

\(^\text{10}\) An a-priori power analysis was performed using G*Power software for Macintosh (see Faul,
Erdfelder, Lang, and Buchner, 2007). Effect size estimates that were used in the analysis were based on
prior reports that have reviewed the research on counsellor characteristics that relate positively to the
alliance, which have reported adjusted \(R^2\)’s ranging from .33 to .47 (Ackerman & Hilsenroth, 2003). More
recently, a study that used multiple regression analyses to determine the effect of counsellor behaviours on
the alliance reported adjusted \(R^2\)’s ranging from .25 to .56 (Thomas, Werner-Wilson, & Murphy, 2005).
According to Cohen’s (1988; 1992) effect size estimates for multiple regression, results from both of these
reports represent large effect sizes. Therefore, it was estimated that a large effect size (\(R^2 = .40\)) could be
anticipated for the predictor variables in the present study (based on Cohen’s effect size estimates for
multiple regression; see Cohen, 1988; 1992). Given the use of a post-hoc \(F\)-test for significance (likelihood
of \(R^2\) deviation from zero) with 15 independent variables, where \(\alpha = 0.05\), \((1 - \beta) = 0.8\), and \(R^2 = .40\), a
minimum sample size was calculated to be 43.
a high ratio of participants-to-predictor variables is desired when using multivariate
correlational analyses, there was no limit placed on the number of eligible participants
that could participate. Therefore, 52 adult counselling clients from the Edmonton, Alberta
and Victoria, British Columbia regions participated in the study. Due to unreliable
responses, the data from one participant was excluded (this exclusion is discussed in
greater detail in a later section), leaving 51 participants as the final sample size used in
analyses. Given that random sampling from the population of all those who seek
counselling was not logistically feasible, purposive sampling was determined to be the
most reasonable option for the present study; the sample derived from this recruitment
method is therefore considered a nonprobabilistic sample (Creswell, 2004).

Participants were recruited using posters (see Appendix A) and flyers (see
Appendix B) that were placed in visible areas at community-based counselling agencies,
post-secondary counselling centers, support agencies, community centres, and private
practitioners’ offices. Advertisements were also posted through online classifieds that
served the Edmonton and Victoria regions.

Advertisements for the study offered prospective participants a chance to win one
of four $100 cash gift prizes in exchange for participation (see Appendix A and B).
Prospective participants were given the opportunity to contact the researcher via
telephone or email, where they were screened for eligibility using a screening
questionnaire (see Appendix C). Qualifying participants included those who (a) were at
least 19 years of age, (b) had had at least three sessions with their current or last
counsellor or psychotherapist, (c) had received counselling or psychotherapy services
within the last 30 days, (d) were willing and able to complete a 20-minute online
questionnaire, or to travel to the University of Alberta to meet the researcher for one 30-minute interview, and (e) had completed a grade 10 education (or equivalent). The rationale for each of these eligibility criteria was to recruit participants who (a) were adults and able to consent freely to participation, (b) had been in counselling or psychotherapy long enough to have potentially established an alliance with their counsellor or psychotherapist, (c) were able to accurately recall events that occurred during counselling or psychotherapy, (d) were willing and able to complete the questionnaires using the procedures designed for this study, and (e) were able to understand the language used in the research instructions and questionnaires.

**Measures**

*Therapeutic Alliance Critical Incidents Questionnaire.* Derived from the 74 common factors identified by clients as critical to the development of the alliance (Bedi, 2006), the Therapeutic Alliance Critical Incidents Questionnaire (TACIQ) is a 15-item likert-type questionnaire designed specifically for use in the proposed study (see Appendices K and L). In the TACIQ, participants are asked to indicate the frequency with which each of 15 critical incidents occurred over the last three sessions with their counsellor. Items in the TACIQ were selected based on the results of Bedi and Duff (2008), in which clients were asked to rate the perceived relative impact that 74 different factors had on the development of the working alliance that they had established with their counsellor. Items were first selected for the TACIQ based on a high median rating of importance, high degree of consensus on that rating, and if the factors represented counsellor behaviors. That is, those items rated by participants in Bedi and Duff (2008) as either “very helpful” or “extremely helpful” (as indicated by a median score of 4 or more
on a scale of 0 to 6) and upon which participants were in high agreement (as indicated by an interquartile range ≤ 1) were selected out from the original set of 74 factors. Since the TACIQ was developed to use a likert-type rating scale to measure frequency of occurrence, several of the 23 selected items were excluded from the final list if they represented dichotomous rather than continuous variables. For example, if the factor was likely to have either always or never occurred (e.g., “the counsellor greeted me at the beginning of each session”), it was excluded from the TACIQ. Finally, because counsellor behaviours (rather than client behaviours) were of specific interest in the present study investigating counsellor contributions to the alliance, items that represented client behaviours (e.g., “I found my own counsellor”) were also excluded. This exclusion process resulted in 15 items, all of which have been included in the TACIQ. These items are listed in Appendices K and L.

*Working Alliance Inventory, Short Form, Revised (WAI-SR; Hatcher & Gillaspy, 2006).* Many measures of the alliance exist, including the California Psychotherapy Alliance Scales (CALPAS; Gaston, 1991; Gaston & Marmar, 1994), the Penn Helping Alliance Rating Scales (Luborsky, Crits-Christoph, Alexander, Margolis, & Cohen, 1983; Luborsky, McLellan, Woody, O'Brien, & Auerbach, 1985; Morgan, Luborsky, Crits-Christoph, Curtis, & Solomon, 1982), and the Vanderbilt Therapeutic Alliance Scale (Hartley & Strupp, 1983). However, the WAI-SR (Hatcher & Gillaspy, 2006; see Appendices M and N) was selected for use in the present study over other measures because of its ease of administration, high internal and external validity, robust test-retest reliability (Hatcher & Gillaspy, 2006), and foundation in Bordin’s (1979) pantheoretical
conceptualization of the alliance. It was also chosen for its parsimony, thereby reducing the chance for participants to experience research fatigue (see Hill & Lambert, 2004) and stop the study prematurely.

Based on the original Working Alliance Inventory (WAI) developed by Horvath and colleagues (Horvath, 1981; Horvath & Greenberg, 1987; 1989), the WAI-SR was developed using more sophisticated factor analyses and a much larger sample than had been used in earlier WAI studies (Hatcher & Gillaspy, 2006). It has shown to be a valid measure of the alliance, correlating highly with the WAI and other measures (Hatcher & Gillaspy, 2006). In fact, the ability of various alliance measures to predict outcome varies little from one to another (Cecero, Fenton, Frankforter, Nich, & Carrol, 2001; Bachelor & Salamé, 2000; Fenton, Cecero, Nich, Frankforter, & Carroll, 2001), making the choice between alliance measures mostly a matter of relevance to the study at hand. For example, measures such as the CALPAS use highly specific language such as “therapist” and “doctor”, whereas the WAI-SR avoids the use of such terminology, instead instructing the participant to mentally insert the name of his or her therapist or counsellor into a blank space. Therefore, the pantheoretical nature of the WAI-SR is more readily transferable to the diverse variety of counselling and psychotherapy situations that participants in the proposed study are likely to be recruited from. Moreover, it has been suggested that the WAI and its derivatives are likely appropriate for most research projects, due to its ability to measure alliance in all types of counselling and psychotherapy (Martin, Garske & Davis, 2000). It has also been noted that the measure

11 Permission to use the WAI-SR for this study was granted by both the author of the original WAI (Adam O. Horvath) and of the WAI-SR (Robert L. Hatcher). Copyright permission was also obtained to include a copy of the WAI-SR in the appendecies of this thesis. Documents verifying these permissions can be found in Appendix O.
used to study the alliance is also used to operationally define it (Horvath & Bedi, 2002). Therefore, in the strictest sense, the kind of alliance measured in the present study is one that is based on Bordin’s (1979) theoretical conceptualization.

Procedure

An online questionnaire service called PsychData was employed to administer the web-based version of the questionnaire. While a number of such online questionnaire services are available, PsychData was chosen for several reasons. First, it offered full 128-bit SSL encryption for all questionnaire elements, including researcher data access. This ensured a high level of transmission security between the respondent’s browser and the server. Second, PsychData’s server hardware is housed in a highly secure facility that is under 24-hour security surveillance, further ensuring the physical security of data collected. Third, unlike other online questionnaire services, the PsychData company is owned and operated by social science researchers and was designed specifically for university-level social science research. Consequently, the questionnaire creation tools and services offered by PsychData were found to be more easily applied to the present study than other services, and it was found that data could be easily downloaded in a format that was readily analyzed by most statistical packages. Fourth, many departments from leading international universities use the PsychData service for their online research, which further bolstered its credibility. My experience using the service was consistent with reports of other researchers, which was that the service was secure, easy to use, affordable, credible, and reliable.

After qualifying for the study, participants were asked if they had access to the Internet and if they would prefer to complete the questionnaires online or in person. If
participants had preferred to complete a pencil-and-paper version of the questionnaire in person, they would have been scheduled to meet with the researcher at the main library at the University of Alberta in a private room reserved for this purpose. However, all participants elected to complete the questionnaire online. A website address was given either over the phone or via email, through which participants were directed to a secure, encrypted online version of the questionnaire. Each participant was given a unique, randomly assigned Verification Code, which consisted of a random string of five characters (e.g., “ex15r”). Participants were prompted to enter this code before beginning the online questionnaire. The Verification Code served three purposes: (a) to allow the researcher to confirm that the data entered in the online questionnaire was valid and represented information provided by an individual who had been screened, (b) to prevent repeat responders, since it was unlikely that random codes would be guessed, and (c) to ensure that the identity of participants remained confidential, since only the Verification Code and no identifying personal information (e.g., name or address) was entered online. To further protect the confidentiality of participants, information such as the participants’ name and email address was only collected during screening, and only for the purposes of entering the participant in the reimbursement draw.

After screening, participants were given the opportunity to ask the researcher any questions that they may have had about the study. For those participants who might have completed the questionnaire in person, a consent form (see Appendix D) was prepared. Participants would have then been asked to complete and sign the consent form, a copy of which would have been given to the participant to keep. For those who completed the online version, the portal for the online questionnaire was located at http://www.counsellingstudy.com, which linked participants to the questionnaire hosted at http://www.psychdata.com.
questionnaire online, a nearly identical version of the consent form (see Appendix E) was shown on the website before beginning the study, and participants were given the opportunity to print the form or to save a digital copy of it. Online participants were again offered the email address and telephone number of the researcher in the case that they had any additional questions before beginning the study. A frequently asked questions section was also provided to participants, which contained a number of anticipated questions and answers about the study (see Appendix F). This section was updated as participants asked new questions. Online participants were then required to indicate their consent by clicking a link that read “I AGREE”. This consent was recorded digitally and attached to the data file associated with each participant. Two resource lists (one for the Edmonton region and another for the Victoria area; see Appendix G and H) were made available to all participants for use in the case that participants required support as a result of experiencing distress while participating in the study.

After the consent form was read and agreed to, clients were asked to complete the full questionnaire, which included (a) a number of demographic questions (see Appendix I for the paper version, and Appendix J for the online version), (b) the Therapeutic Alliance Critical Incident Questionnaire (TACIQ; see Appendix K for the paper version, and Appendix L for the online version), and (c) the Working Alliance Inventory, Short Form, Revised (WAI-SR; Hatcher & Gillaspy, 2006; see Appendix M for the paper version, and Appendix N for the online version). To control for primacy and order effects, the TACIQ and WAI-SR were administered in randomly varying order, such that the TACIQ was presented before the WAI-SR in approximately half of the cases. All
items, including the consent form, the demographic questionnaire, the WAI-SR, and the TACIQ were found in pilot tests to take approximately 20 minutes in total to complete.

In-person participants would have been given an opportunity to debrief if necessary, and online participants were again offered to contact the researcher should they want to debrief their experience in the study. Resource lists and frequently asked questions were also offered again to online participants.

At the conclusion of the study, four participants were randomly drawn from the database of contact information that was collected during screening. Those four participants were contacted, informed of their winning, and asked for a mailing address where a money order of their prize could be sent. All four winners provided this information and were sent their respective prizes. All other participant contact information was then either deleted or destroyed.

_A Priori Analytic Strategy_

It was decided that correlational analyses would be conducted to determine the degree to which each of the predictor variables were related to the WAI-SR. It was hypothesized prior to analysis that a positive relationship would exist between each variable measured by the TACIQ items and global WAI-SR scores, and that this relationship would be evidenced by statistically significant positive correlation values.

Multiple regression\(^\text{13}\) analyses would also be conducted to determine the degree to which items on the TACIQ predicted WAI-SR scores, where predictor variables would be entered into the regression model in a hierarchical, block-wise fashion based on prior research and theoretical considerations. Specifically, those predictor variables that were

\(^{13}\) The terms *multiple regression*, *linear regression*, and *regression* are used synonymously in this manuscript to refer to the more specific *multivariate linear regression.*
strongly expected to predict WAI-SR scores would be entered in the first block, followed by those that were of less certain relationship in the second block (see Table 1 for a list of variables and their order of entry). The underlying rationale for the order of input of predictors into the model is discussed in detail in the next section. As stated earlier, it was hypothesized prior to analysis that some combination of predictor variables, particularly those related to validation, would account for a statistically significant amount of variance in WAI-SR scores. SPSS 16.0 Graduate Student Version for Mac was used for all descriptive, correlational, regression and reliability analyses.

Table 1

*A Priori Strategy for Variable Entry in Hierarchical Regression*

<table>
<thead>
<tr>
<th>Block</th>
<th>Variable</th>
</tr>
</thead>
</table>
| 1     | _____ asked me questions.  
    | _____ made encouraging comments.  
    | _____ identified and reflected back my feelings.  
    | _____ made positive comments about me.  
    | _____ validated my experience (e.g., he/she said that my reaction was understandable and reasonable, and that it was okay to feel this way). |
| 2     | _____ told me about similar experiences that he/she had.  
    | _____ referred to details we had discussed in previous sessions.  
    | _____ let me decide what to talk about.  
    | _____ was honest (i.e., he/she shared negative information truthfully). |
| 3     | _____ made eye contact with me.  
    | _____ greeted me with a smile.  
    | _____ sat still (i.e., did not fidget).  
    | _____ provided verbal prompts (e.g., “uh huh,” “hmm-mmm”).  
    | _____ sat facing me (i.e., sat directly across from me).  
    | _____ kept the administration (e.g., fees, scheduling of appointments, paperwork) outside of our sessions. |
Multiple regression analysis is a statistical method of assessing the ability of any number of predictor variables to predict values of a single criterion variable (Kleinbaum, Kupper, Muller, & Nizam, 1998). It is an extension of basic linear regression, allowing the researcher to determine the degree to which the variance in the observed values of the criterion variable can be accounted for by the predictor variables. In other words, it allows one to examine how well certain variables are able to predict changes in other variables. In the case of the present study, where one of the purposes is to assess the degree to which scores on each item of the TACIQ can predict scores on the WAI-SR, regression analysis is appropriate.

The primary goal of regression analysis is to compute a regression equation (known as a “model”) that can be used to predict criterion scores. However, there are several different methods of selecting and entering predictor variables into a regression model during the analysis process, each resulting in potentially different regression models and computed statistics. Two of the most commonly used methods are discussed here.

**Stepwise regression.** Stepwise regression uses an algorithm to select variables to be entered into the regression equation (Wampold & Freund, 1987). While stepwise methods of regression analysis can be useful in distilling a set of predictor variables that are maximal in predicting criterion scores, Thompson (1995) has noted that statistical software packages compute the incorrect degrees of freedom when determining the statistical significance of a regression model obtained using stepwise methods, thereby
producing artificially reduced $p$-values\textsuperscript{14} and inflating the chance of Type I error\textsuperscript{15}.

Moreover, it has been argued that stepwise analyses are not appropriate for most research goals (Huberty, 2003; Thompson, 1995).

Stepwise regression analyses are based on the rule that the obtained model must account for the greatest degree of variance in the criterion variable while remaining statistically significant; in this way, stepwise regression is considered a *data-driven* method of variable selection. In this method, predictor variables are always first added to the model if they predict the most criterion variance independently from other predictor variables, and any remaining variables that are subsequently added to the model are chosen based on their ability to add a useful degree of predictive ability to the model while keeping the model statistically significant. All other variables that do not increase the overall value of $R^2$ while maintaining the pre-determined statistical significance of the model (typically $\alpha = .05$) are excluded from the regression model. One major problem with this method is that selecting variables in each step based on the explained variance of previously selected variables can result in a model that ignores sets of variables that *together* predict criterion scores better than any other model but that *alone* minimally predict criterion variance (Thompson, 1995). That is, if a collection of variables exist in the population that each alone account for very little criterion variance but together account for more than any other collection of variables, stepwise methods will not accurately identify them as a viable model. Since the second hypothesis of the study was that a group of variables existed that were *as a group* better predictors of alliance than

\textsuperscript{14} In hypothesis testing, $p$-values are the calculated probability of obtaining the observed statistic if the null hypothesis is true.

\textsuperscript{15} In hypothesis testing, a Type I error is the rejection of a null hypothesis that is true. In other words, it is the error of deciding that the predictor variables predict the criterion variable when they actually do not.
any one variable alone, and in light of the possible inflation of Type I error and other computational problems associated with stepwise regression, it was reasoned that a stepwise method of analysis should be avoided. Instead, it was determined that a hierarchical, block-wise method that selects variables based on theoretical (rather than mathematical) considerations should be used.

_Hierarchical regression._ In hierarchical linear regression, the researcher chooses the order in which variables are entered prior to analysis of the data and on the basis of some rationale (Wampold & Freund, 1987). This rationale should account for both the underlying theory being tested as well the expected causal and temporal relationship between variables (Petrocelli, 2003).Hierarchical regression can therefore be considered a _theory-driven_ method of variable selection. Variables are entered in an ordered, systematic fashion, where single variables are entered in _steps_, or groups of variables are entered in _blocks_, and the change in $F$ is then tested for statistical significance$^{16}$. The change in the value of $R^2$ between each step allows the researcher to identify the unique contribution made by each step to explaining the variance in the criterion while controlling for the effect of all other variables in the previous step.

In the case of the present study, the selection of variables was based on prior research on the client’s perspective on the alliance. Although variables were selected for inclusion in the study based on their identification by clients as foundational to (Bedi, 2006) and highly important in (Bedi & Duff, 2008) the development of the alliance, among those selected for inclusion, it was believed that factors related to validation of the client’s experience would most likely be associated with alliance strength. It was

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16 _The F-test is used to determine statistical significance in analysis of variance and regression analysis. The F-statistic is based on the F-distribution, which is composed of values that have a known probability and can be used to test null hypotheses._
determined *a priori* that these factors would be input first into the regression model, the rationale for which is threefold. First, prior research has consistently identified validation of the client’s experience as an important factor in alliance development (Ackerman & Hilsenroth, 2003; Crits-Christoph, Connoly Gibbons, & Hearon, 2006; Fitzpatrick, Janzen, Chamodraka, & Park, 2006; Horvath & Bedi, 2002; Najavits & Strupp, 1994). Second, Bedi and Duff (2008) found that clients rated validation-related items most highly and most consistently as important to the formation of a strong alliance when compared to other variables. Third, Bedi (2006) found that clients rated *Validation* as the most important category of factors that they believed were facilitative in early alliance development. Therefore, it was determined that the five factors that were identified by participants in Bedi (2006) as belonging to the category of *Validation* and which were part of the TACIQ would be included in the first block of regression analysis, using the *Enter* (forced entry) method in SPSS (see Table 1).

It was decided that another four variables would be included in the second block of hierarchical regression analysis using the *Enter* method (see Table 1). These variables were chosen for the second block because prior research (i.e., Bedi & Duff, 2008) had shown that clients ranked and identified these items as among the most important factors in alliance formation, relative to the other remaining TACIQ items. Moreover, these items had been identified by other research (Ackerman & Hilsenroth, 2003; Horvath & Greenberg, 1989; Kivlighan, Clements, Blake, Arnzen, & Brady, 1993; Lichenberg et al., 1988) as likely contributors to alliance formation.

Due to the less certain relationship between the remaining predictors and the criterion, it was decided that these variables would be entered into the third and final
block of hierarchical analysis using the *Forward* method in SPSS. In this method, variables are included only if they add a statistically significant degree of predictive ability to the regression model. Because the inclusion of these variables would be based on statistical rather than theoretical criteria, their interpretation would be deemed tentative.
CHAPTER 3

Results

Preliminary Analyses

Descriptive Statistics

Participant descriptive statistics are presented in Table 2. Descriptive statistics of the service received by participants are presented in Table 3.

Table 2

<table>
<thead>
<tr>
<th>Descriptive Statistics (N = 51)</th>
<th>N (%)</th>
<th>M (SD)</th>
<th>Mdn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>15 (29.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>36 (70.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never married</td>
<td>26 (51.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married/common-law</td>
<td>14 (27.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Divorced/separated</td>
<td>11 (21.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest level of education completed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary</td>
<td>1 (2.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school</td>
<td>11 (21.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diploma</td>
<td>16 (31.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate degree</td>
<td>21 (41.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate degree</td>
<td>2 (4.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>European</td>
<td>38 (74.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Nations/aboriginal</td>
<td>2 (3.9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian Indian</td>
<td>2 (3.9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Asian</td>
<td>6 (11.8)</td>
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<td></td>
</tr>
<tr>
<td>Other</td>
<td>3 (5.9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Method of recruitment</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Flyer at counselling office</td>
<td>12 (23.5)</td>
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<tr>
<td>Flyer elsewhere</td>
<td>12 (23.5)</td>
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<tr>
<td>Online classified advertisement</td>
<td>27 (53.0)</td>
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<tr>
<td>Age</td>
<td>34.9 (10.6)</td>
<td>33</td>
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<tr>
<td>Number of days since last session</td>
<td>7 (6.9)</td>
<td>7</td>
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<tr>
<td>Number of sessions with current counsellor</td>
<td>21.2 (28.7)</td>
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<tr>
<td>Number of counsellors seen in lifetime</td>
<td>3.7 (2.5)</td>
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Table 3  
Descriptive Statistics of Service Received by Participants (N = 51)

<table>
<thead>
<tr>
<th>Reason for counselling</th>
<th>N (%)</th>
</tr>
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<tbody>
<tr>
<td>Addiction issues</td>
<td>10 (19.6)</td>
</tr>
<tr>
<td>Anger issues</td>
<td>6 (11.8)</td>
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<tr>
<td>Anxiety/stress</td>
<td>30 (58.8)</td>
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<tr>
<td>Career issues</td>
<td>7 (13.7)</td>
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<tr>
<td>Depression</td>
<td>29 (56.9)</td>
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<tr>
<td>Educational issues</td>
<td>4 (7.8)</td>
</tr>
<tr>
<td>Post-traumatic stress disorder</td>
<td>13 (25.5)</td>
</tr>
<tr>
<td>Relationship Issues</td>
<td>23 (45.1)</td>
</tr>
<tr>
<td>Other</td>
<td>13 (25.5)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Payment of service</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full coverage by health care plan</td>
<td>12 (23.5)</td>
</tr>
<tr>
<td>Partial coverage</td>
<td>10 (19.6)</td>
</tr>
<tr>
<td>Out-of-pocket</td>
<td>13 (25.5)</td>
</tr>
<tr>
<td>No-charge service</td>
<td>16 (31.4)</td>
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</table>

<table>
<thead>
<tr>
<th>Location of service</th>
<th>N (%)</th>
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</thead>
<tbody>
<tr>
<td>Community agency</td>
<td>13 (25.5)</td>
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<tr>
<td>Hospital or clinic</td>
<td>6 (11.8)</td>
</tr>
<tr>
<td>Private practice</td>
<td>20 (39.2)</td>
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<tr>
<td>University/college counselling centre</td>
<td>12 (23.5)</td>
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<table>
<thead>
<tr>
<th>Counsellor gender</th>
<th>N (%)</th>
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</thead>
<tbody>
<tr>
<td>Male</td>
<td>17 (33.3)</td>
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<tr>
<td>Female</td>
<td>34 (66.7)</td>
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</table>

<table>
<thead>
<tr>
<th>Counsellor education</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor’s Degree</td>
<td>3 (5.9)</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>24 (47.1)</td>
</tr>
<tr>
<td>Doctoral Degree or MD</td>
<td>11 (21.6)</td>
</tr>
<tr>
<td>Unknown</td>
<td>13 (25.5)</td>
</tr>
</tbody>
</table>

*Note.* More than one reason for counselling could be selected.
Reliability Analyses

The reliability\(^\text{17}\) of the WAI-SR and the TACIQ was evaluated using Cronbach’s \(\alpha\), which is a measure of internal consistency\(^\text{18}\). The WAI-SR demonstrated excellent internal consistency (Cronbach’s \(\alpha = .91\))\(^\text{19}\), and inter-item correlations were good\(^\text{20}\) \((r \geq .3)\). All items correlated well with the total scale \((r > .47)\). The Goal, Task, and Bond subscales of the WAI-SR also appeared to have good internal consistency, with Cronbach’s alpha of .82, .85, and .80 respectively.

The TACIQ demonstrated good internal consistency, \((\text{Cronbach’s } \alpha = .81)\). However, items 2, 8, 12, and 14 on the TACIQ appeared to be candidates for removal from the scale, as Cronbach’s alpha would increase .021, .023, .020, and .036 respectively by removing such items\(^\text{21}\). Moreover, inter-item correlations for these items were generally low \((r < .3)\), and all four items correlated poorly with the total scale, with corrected item-total correlations of .115, -.045, .131, and -.008, respectively, which is below the recommended cutoff of .3 (Briggs & Cheek, 1986).

Correlational Analyses

To test the first hypothesis that there is a positive linear relationship between the each of the predictor variables and the criterion variable, Pearson correlation coefficients

\(^{17}\) Reliability is the ability of a measure to consistently produce the same results over time or across individuals (that is, reliably measure a construct).
\(^{18}\) Internal consistency is the degree to which different parts of a measure are able to measure the same construct (that is, consistently measure the construct internally). It is a type of reliability.
\(^{19}\) Cronbach’s alpha is a measure of how well a set of variables measures a single underlying construct. For example, an alpha of .8 indicates that 80% of the observed score can be attributed to true score variance. It varies from zero to one, with one indicating perfect measurement of the construct. Generally speaking, an alpha greater than .7 is considered adequate, and greater than .85 is considered good (Cortina, 1993).
\(^{20}\) The inter-item correlation is the correlation between the item and the total scores of all other items, and therefore indicates the degree to which the item correlates with the overall scale. Items with inter-item correlations greater than .3 are considered adequate (Field, 2005).
\(^{21}\) Field (2005) suggests that researchers consider removing items from a scale if their removal would increase alpha by a value greater than .02.
were computed. Intercorrelations between each of the 15 predictor variables and the criterion variable are presented in Table 4. Correlations between predictor variables and the WAI-SR Goal, Task, and Bond subscales are also presented in Table 4. The correlation between the WAI-SR and the composite TACIQ score was large and highly statistically significant ($r = .708$, $\alpha = .01$, 2-tailed), supporting the overall construct validity of the TACIQ. Four predictors (items 2, 8, 12, and 14) were not correlated with WAI-SR scores and were not statistically significant ($\alpha = .05$, 2-tailed), indicating that they were not linearly associated with the alliance. All other predictors were at least moderately correlated with the WAI-SR and were statistically significant ($p < .01$, 2-tailed), with most correlations being greater than .4. All WAI-SR subscales correlated well with the composite TACIQ score ($r \sim .6$), and all predictor variables that were correlated with the WAI-SR were also moderately correlated with all WAI-SR subscales ($r \sim .5$). Those predictors that did not correlate with the overall WAI-SR score also did not correlate with any WAI-SR subscales. Due to the lack of correlation with the predictor and the poor reliability of items 2, 8, 12, and 14, it was determined that these predictors would not be suitable for inclusion in the regression model and were excluded from further analyses.

---

22 An outlier case (discussed later in this section) was removed prior to conducting this analysis; consequently, the sample size used in the production of this table was 51.
23 Cohen (1988) suggests that an absolute value of $r$ between .1 and .3 represents a small correlation, a value between .3 and .5 represents a moderate correlation, and a value between .5 and 1.0 represents a large correlation.
24 Construct validity refers to the degree to which a measure actually measures the construct of interest.
Table 4

Pearson Correlation Matrix of Measured Variables (N = 51)

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. WAI-SR</td>
<td>—</td>
<td></td>
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<tr>
<td>2. TACIQ</td>
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<td>—</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>3. TACIQ-Q1</td>
<td>.494**</td>
<td>.749**</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. TACIQ-Q2</td>
<td>.166</td>
<td>.249</td>
<td>.173</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. TACIQ-Q3</td>
<td>.417**</td>
<td>.627**</td>
<td>.412**</td>
<td>.071</td>
<td>—</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>6. TACIQ-Q4</td>
<td>.585**</td>
<td>.717**</td>
<td>.422**</td>
<td>.318*</td>
<td>.425**</td>
<td>—</td>
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<tr>
<td>7. TACIQ-Q5</td>
<td>.553**</td>
<td>.589**</td>
<td>.395**</td>
<td>-.131</td>
<td>.500**</td>
<td>.343*</td>
<td>—</td>
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<tr>
<td>8. TACIQ-Q6</td>
<td>.476**</td>
<td>.813**</td>
<td>.563**</td>
<td>.019</td>
<td>.556**</td>
<td>.517**</td>
<td>.634**</td>
<td>—</td>
<td></td>
<td></td>
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<tr>
<td>9. TACIQ-Q7</td>
<td>.435**</td>
<td>.604**</td>
<td>.458**</td>
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<td>.496**</td>
<td>.513**</td>
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<tr>
<td>10. TACIQ-Q8</td>
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<td>.050</td>
<td>.064</td>
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<td>-.240</td>
<td>-.113</td>
<td>-.184</td>
<td>.119</td>
<td>-.101</td>
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<td>11. TACIQ-Q9</td>
<td>.508**</td>
<td>.613**</td>
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<td>.112</td>
<td>.454**</td>
<td>.560**</td>
<td>.332*</td>
<td>.271</td>
<td>.415**</td>
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<td>.675**</td>
<td>.206</td>
<td>.417**</td>
<td>.169</td>
<td>.020</td>
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<td>13. TACIQ-Q11</td>
<td>.465**</td>
<td>.529**</td>
<td>.654**</td>
<td>.069</td>
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<td>.190</td>
<td>.386**</td>
<td>.341*</td>
<td>.410*</td>
<td>.035</td>
</tr>
<tr>
<td>14. TACIQ-Q12</td>
<td>-.060</td>
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<td>.126</td>
<td>-.086</td>
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<td>.017</td>
<td>-.028</td>
<td>.292*</td>
<td>.121</td>
<td>.066</td>
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<td>15. TACIQ-Q13</td>
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<td>.667**</td>
<td>.723**</td>
<td>-.001</td>
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<td>.406**</td>
<td>.283*</td>
<td>.485**</td>
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<td>16. TACIQ-Q14</td>
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<td>.162</td>
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<td>.008</td>
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<td>17. TACIQ-Q15</td>
<td>.491**</td>
<td>.692**</td>
<td>.529**</td>
<td>-.296*</td>
<td>.378**</td>
<td>.521**</td>
<td>.310*</td>
<td>.582**</td>
<td>.165</td>
<td>.133</td>
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<tr>
<td>18. WAI Goal</td>
<td>.920**</td>
<td>.636**</td>
<td>.440**</td>
<td>.188</td>
<td>.424**</td>
<td>.590**</td>
<td>.528**</td>
<td>.421**</td>
<td>.398**</td>
<td>-.061</td>
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<td>19. WAI Task</td>
<td>.888**</td>
<td>.571**</td>
<td>.429**</td>
<td>.108</td>
<td>.288*</td>
<td>.511**</td>
<td>.493**</td>
<td>.357*</td>
<td>.472**</td>
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<td>20. WAI Bond</td>
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<td>.631**</td>
<td>.413**</td>
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<td>.415**</td>
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<tr>
<th>M</th>
<th>44.29</th>
<th>55.12</th>
<th>4.12</th>
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<td>SD</td>
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<td>8.56</td>
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<td>1.13</td>
<td>1.10</td>
<td>1.11</td>
<td>1.10</td>
<td>1.17</td>
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</table>

Reliability (α) | .91   | .81   |

Note. WAI-SR = Composite score of Working Alliance Inventory, Short Form, Revised (WAI-SR); TACIQ = Composite score of Therapeutic Alliance Critical Incidents Questionnaire (TACIQ); TACIQ-Q1 = TACIQ item 1; TACIQ-Q2 = Item 2, etc.; WAI Goal = WAI-SR Goal subscale; WAI Task = Task subscale; WAI Bond = Bond subscale; α = Cronbach’s alpha. Item scores on the WAI-SR range from 1 (seldom) to 5 (always), and on the TACIQ from 1 (never) to 5 (always). Total scores range on the WAI-SR from 12 to 60, and on the TACIQ from 15 to 75. * p < .05, two-tailed. ** p < .01, two-tailed.
Table 4 (continued)

<table>
<thead>
<tr>
<th></th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
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<td>.170</td>
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<tr>
<td>.082</td>
<td>- .038</td>
<td>.004</td>
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<td>.330*</td>
<td>.429**</td>
<td>.737**</td>
<td>.049</td>
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<td>-.038</td>
<td>.080</td>
<td>-.204</td>
<td>.127</td>
<td>-.105</td>
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<td>.383**</td>
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<td>.100</td>
<td>.415**</td>
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<td>.490**</td>
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<td>.286*</td>
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<tr>
<td>.442**</td>
<td>.442**</td>
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<td>.632**</td>
<td>.562**</td>
<td>.486**</td>
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<td></td>
</tr>
</tbody>
</table>

3.90 | 3.76 | 4.14 | 3.399 | 4.51 | 1.96 | 4.04 | 14.22 | 14.61 | 15.47 |    |
1.19 | .99 | .96 | 1.22 | .95 | 1.40 | 1.02 | 3.47 | 3.35 | 3.34 |    |
Hierarchical Multiple Regression Analysis

Hierarchical multiple regression was employed to test the second hypothesis by determining how well each of the counsellor behaviours predicted therapeutic alliance. To accommodate the exclusion of the four non-correlated predictors, the *a priori* analytic strategy was adapted slightly. The remaining 11 predictor variables included all of those related to validation and presentation/body language (see Bedi, 2006, for a description of these categories), as well as several other variables. It was decided that the first block (step one) would contain all variables closely related to validation, while the second block (step two) would contain all remaining variables. The results would then be examined, and the regression model would be recomputed with any non-significant variables removed (step three). Therefore, rather than enter variables in a third block using the *Forward* method, it was decided that all variables would be entered into the regression analysis in two blocks using the *Enter* method in SPSS (see Table 5), allowing the independent contribution of the first and second blocks of variables to be evaluated.
Table 5

| Strategy for Hierarchical Regression Variable Entry After Exclusion of Noncorrelated Predictors |
|---|---|
| Block | Variable |
| 1 | _____ asked me questions. |
|   | _____ made encouraging comments. |
|   | _____ identified and reflected back my feelings. |
|   | _____ was honest (i.e., he/she shared negative information truthfully). |
|   | _____ made positive comments about me. |
|   | _____ validated my experience (e.g., he/she said that my reaction was understandable and reasonable, and that it was okay to feel this way). |
| 2 | _____ made eye contact with me. |
|   | _____ greeted me with a smile. |
|   | _____ referred to details we had discussed in previous sessions. |
|   | _____ sat still (i.e., did not fidget). |
|   | _____ sat facing me (i.e., sat directly across from me). |
| Excluded | _____ told me about similar experiences that he/she had. |
|   | _____ let me decide what to talk about. |
|   | _____ provided verbal prompts (e.g., “uh huh,” “hmm-mmm”). |
|   | _____ kept the administration (e.g., fees, scheduling of appointments, paperwork) outside of our sessions |

A preliminary hierarchical regression was then computed to visually and statistically inspect the data for multivariate outliers. Inspection of a regression standardized residual\textsuperscript{25} histogram (see Figure 1) and scatterplot of standardized predicted values against standardized residuals (see Figure 2) revealed the presence of one extreme case (see lone frequency bar at extreme left of Figure 1 and value at extreme bottom right of Figure 2).

\textsuperscript{25} Residual values are the difference between the observed value and the corresponding value predicted by the regression model. These values can be standardized to have a mean of zero and a standard deviation of one.
Figure 1. Frequency distribution of regression standardized residuals with outlier at extreme left.

Figure 2. Scatterplot of regression standardized residuals as a function of standardized predicted values with outlier represented as a solid dot.
Standardized residuals were then computed to identify the outlier case. Inspection of the standardized residuals revealed a single case with a value of -3.73, which would be expected in less than 0.1% of all observations. Cook’s distance for this case ($D = 0.27$) was also higher than for most other cases, indicating that it was relatively influential on the regression model and was likely impacting skew. Close inspection of the corresponding participant’s responses suggested that the participant was either non-serious or had not read reverse-coding directions carefully, as the participant’s answers to the reverse-coded items were very low compared to the participant’s answers on the other items. The data associated with this case were therefore regarded as unreliable, and the case was excluded from subsequent analyses.

With the outlier removed, the regression analysis was recomputed. Since the appropriate use of regression analysis is based on several assumptions, the tenability of these assumptions was assessed prior to further analysis or interpretation. First, the assumption of normality of errors was examined visually using a standardized residual histogram (see Figure 3), which appeared approximately normal. Homoscedasticity was examined using visual inspection of a scatterplot of standardized predicted values against standardized residuals. An even spread indicates homoscedasticity.
against standardized residuals (as suggested by Miles & Shevlin, 2007; see Figure 4). This inspection indicated reasonable consistency of variance throughout the horizontal spread of the distribution, suggesting that the assumption of homoscedasticity had been met. Examination of the residual scatterplot also suggested that the assumption of a linear association between predictor and criterion variables was tenable, since plotted values appeared to fall evenly and consistently about the mean. The potential for multicollinearity was assessed using the collinearity statistics tolerance and variance inflation factor (VIF). For all variables, tolerance was greater than .2 and VIF was less than 4, indicating that multicollinearity was not a problem. Based on these data, it was concluded that the necessary assumptions had been met and that multiple regression analysis was appropriate. The final results of the hierarchical multiple regression are presented in Table 6.

---

31 This method of checking for the assumption of linearity is suggested by Osborne and Waters (2002).
32 Multicollinearity (sometimes simply referred to as collinearity) refers to a high degree of correlation between predictor variables. In regression analysis, it is assumed that multicollinearity is not present.
33 Tolerance can be interpreted as the degree to which a particular predictor variable cannot be predicted by other predictor variables (Miles & Shevlin, 2007). It has a maximum value of one and a minimum of zero. Values less than .2 indicate that collinearity may be present and that linear regression may not be appropriate (Menard, 1995).
34 VIF relates to the amount that the standard error of the predictor variable has been increased as a result of collinearity; values greater than 4 indicate that collinearity is likely a problem (Miles & Shevlin, 2007).
Figure 3. Frequency distribution of regression standardized residuals with outlier removed.

Figure 4. Scatterplot of regression standardized residuals as a function of standardized prediction values with outlier removed.
Table 6
Hierarchical Multiple Regression of Counsellor Behaviours on Therapeutic Alliance (N = 51)

<table>
<thead>
<tr>
<th>Step and variables</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>t</th>
<th>Low</th>
<th>High</th>
<th>95% confidence interval of B</th>
<th>R²</th>
<th>Adj. R²</th>
<th>ΔF</th>
<th>dfs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>___ asked me questions</td>
<td>1.00</td>
<td>1.12</td>
<td>.13</td>
<td>.89</td>
<td>-1.26</td>
<td>3.26</td>
<td></td>
<td>.50**</td>
<td>.43**</td>
<td>7.23**</td>
<td>6, 44</td>
</tr>
<tr>
<td>___ made encouraging comments</td>
<td>.95</td>
<td>1.37</td>
<td>.12</td>
<td>.69</td>
<td>-1.81</td>
<td>3.70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>___ identified and reflected back my feelings</td>
<td>1.15</td>
<td>1.24</td>
<td>.14</td>
<td>.93</td>
<td>-1.34</td>
<td>3.64</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>___ was honest</td>
<td>1.30</td>
<td>1.04</td>
<td>.18</td>
<td>1.25</td>
<td>-.80</td>
<td>3.40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>___ made positive comments about me</td>
<td>3.08</td>
<td>1.48</td>
<td>.35</td>
<td>2.08*</td>
<td>.09</td>
<td>6.07</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>___ validated my experience</td>
<td>.12</td>
<td>1.33</td>
<td>.01</td>
<td>.09</td>
<td>-2.56</td>
<td>2.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.65**</td>
<td>.55**</td>
<td>3.36*</td>
<td>5, 39</td>
</tr>
<tr>
<td>___ made positive comments about me</td>
<td>4.55</td>
<td>.87</td>
<td>.51</td>
<td>5.24**</td>
<td>2.80</td>
<td>6.29</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.56**</td>
<td>.54**</td>
<td>1.11</td>
<td>9, 39</td>
</tr>
<tr>
<td>___ made positive comments about me</td>
<td>4.55</td>
<td>.87</td>
<td>.51</td>
<td>5.24**</td>
<td>2.80</td>
<td>6.29</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Note.  B = unstandardized regression coefficient; SE B = standard error of unstandardized regression coefficient; β = standardized regression coefficient; t = value of t test; R² = squared coefficient of determination; Adj. R² = R² adjusted for sampling error; ΔF = change in Fisher’s F statistic; dfs = degrees of freedom.

* p < .05, two-tailed.  ** p < .05, two-tailed.
The regression constant coefficient\(^{35}\) for the final model was 12.41. As can be inferred from the value of the adjusted \(R^2\) in step 3 (.54), the two variables included in the final regression model (listed under step 3 in Table 6) accounted for 54\% of the variance in WAI-SR scores. The beta weights (or standardized regression coefficients, listed as \(\beta\) in Table 6) are standardized values of \(B\), or the regression coefficients\(^{36}\), and indicate what the correlation between the predictor and the criterion would be if the other predictor variables were held constant. Therefore, with beta weights of .51 and .45, the two variables included in the final model can be interpreted as both correlating moderately with the WAI-SR when the other variable is held constant.

The \(t\)-test is a statistic used to test the null hypothesis that the observed beta weight is equal to zero. That is, it tests the hypothesis that there is no correlation between the predictor variable and the criterion when the other predictors are held constant, and therefore tests whether the variable is a statistically significant contributor to the regression model. The \(t\) statistics computed for the beta weights in the final model indicate that \(\beta\) is statistically significant for the two variables at the \(\alpha = .01\) level and imply they are statistically significant contributors to the regression model. This can also be interpreted to indicate that, statistically speaking, all other variables do not contribute significantly to the predictive ability of the regression model.

Similar to the \(t\)-test, an \(F\)-test is used to test the null hypothesis that the multiple correlation (\(R\))\(^{37}\) is equal to zero. The \(F\) statistic for the final regression model was

\[^{35}\text{The constant coefficient is equal to the } y \text{-intercept of the regression line. Therefore, the equation for the final regression model is } y' = 4.55x_1 + 3.42x_2 + 12.41.\]
\[^{36}\text{The unstandardized regression coefficient } B \text{ is also the slope of the regression line.}\]
\[^{37}\text{The value of the multiple correlation (} R \text{) is simply the square root of } R^2. \text{ It is a Pearsonian correlation between the criterion variable and all predictor variables in the regression model.}\]
calculated to be 30.01, indicating statistical significance of the multiple correlation \( R = .73 \) at the \( \alpha = .01 \) level.

**Power Analysis**

Statistical power is defined as the probability of not making a Type II error\(^{38} \) when testing the tenability of a null hypothesis (Glass & Hopkins, 1996). To estimate the probability that this error would be made when testing the statistical significance of observed values, a post hoc power analysis was conducted using G*Power software for Macintosh OS X (see Faul, Erdfelder, Lang, & Buchner, 2007). Power was calculated for the regression model in each step of the hierarchical analysis. Power for the model at step one was .98 (\( \alpha = .01 \), two-tailed, \( R^2 = .43 \), \( N = 51 \), \( dfs = 6, 44 \)), at step two was .99 (\( \alpha = .01 \), two-tailed, \( R^2 = .55 \), \( N = 51 \), \( dfs = 11, 39 \)), and at step three was .99 (\( \alpha = .01 \), two-tailed, \( R^2 = .54 \), \( N = 51 \), \( dfs = 2, 48 \)). All obtained values are considered adequate\(^{39} \).

Power of .99 for the final regression model and can be interpreted to indicate that there is a 99% probability in this study of detecting a multiple correlation if one actually exists in the population.

A sensitivity power analysis was also conducted to determine the minimum correlation necessary for adequate power. With a sample size of 51, a correlation coefficient greater than .37 was necessary to achieve power of .8 or greater (alpha = .05, two-tailed, \( df = 49 \)). According to this criteria, the correlation between the WAI-SR and the composite TACIQ, as well as all statistically significant correlations between the WAI-SR and predictor variables had achieved adequate power.

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\(^{38}\) In hypothesis testing, the probability of accepting a false null hypothesis is known as a Type II error, and is represented by the statistic \( \beta \) (not to be confused with \( \beta \), or the standardized regression coefficient). Therefore, power is equal to 1 - \( \beta \), or the probability of not accepting a false null hypothesis.

\(^{39}\) By convention, a value of power greater than or equal to .80 is considered to be adequate. See Cohen (1988).
CHAPTER 4

Discussion

The present study investigated the relationship between 15 client-identified counsellor behaviours and the therapeutic alliance and examined their ability to collectively predict alliance strength. The combined frequency of all 15 counsellor behaviours together were strongly related to the therapeutic alliance, while 11 of the behaviours were also each individually related to the alliance. Two behaviours (i.e., making positive comments about the client and greeting the client with a smile) best predicted the alliance, accounting for the majority of variance in alliance scores. In this section, the results of the correlational and regression analyses are reviewed and interpreted in further detail, followed by a discussion of the implications of the results, the limitations, and suggestions for future research.

The Relationship Between Counsellor Behaviours and Alliance

Research has identified a number of counsellor behaviours that clients believe are instrumental in the development of the alliance (Bedi, 2006; Bedi, Davis, & Arvay, 2005; Bedi, Davis, & Williams, 2005; Bedi & Duff, 2008), yet the empirical relationship between these discrete behaviours and the alliance has not been clearly established. Therefore, one goal of the present study was to investigate this relationship.

There was a strong correlation ($r = .71$, $\alpha = .01$, two-tailed) between the Working Alliance Inventory, Short Form, Revised (WAI-SR; Hatcher & Gillaspy, 2006) and the composite score of the Therapeutic Alliance Critical Incidents Questionnaire (TACIQ), supporting the construct validity of the TACIQ as a measure of the therapeutic alliance from the client’s perspective. This correlation suggests that the combined frequency of
behaviours measured by the TACIQ is closely related to the therapeutic alliance. The comparable magnitude of correlations between the TACIQ composite scores and each of the WAI-SR subscales \((r \approx .6)\) indicates that the TACIQ is not particularly reflective of any subscale of the WAI-SR. Moreover, the similar magnitude of correlations between each predictor variable and each WAI-SR subscale \((r \approx .5)\) indicates that not any one WAI-SR subscale is more substantially related to any counsellor behaviour than any other subscale. That is, no particular subscale emerged as being markedly more related to any specific behaviour. Therefore, all further discussion will focus on the relationship between the total WAI-SR scores and each predictor variable.

The findings support the first hypothesis of the present study, which was that a positive linear relationship exists between the frequency of each of the 15 behaviours and the strength of the alliance. In terms of individual counsellor behaviours, five behaviours (i.e., asking questions, making encouraging comments, identifying and reflecting back the client’s feelings, making positive comments about the client, and validating the client’s experience) were moderately to strongly correlated with therapeutic alliance \((r \geq .4, \alpha = .01,\) two-tailed). All five of these behaviours belong to a superordinate category of counsellor behaviours described by clients in prior research as *Validation* (Bedi, 2006). Moreover, the finding that these behaviours moderately to strongly relate to alliance supports prior research (i.e., Bedi, 2006; Bedi & Duff, 2008) in which clients rated factors related to validation as most important to the development of the alliance. Coupled with previous research where clients identified these behaviours as *antecedents* to alliance development (Bedi, 2006; Bedi & Duff, 2008), the present findings are also consistent with the notion that these behaviours cause an increase in alliance strength.
However, this study was not designed to infer causal relationships between variables, but rather to identify linear relationships between predictor and criterion variables; research methods that can infer causal relationships must be used in the future in order to make the assertion of causality with any confidence.

Another six counsellor behaviours (i.e., making eye contact, greeting the client with a smile, referring to details discussed in previous sessions, being honest, sitting still without fidgeting, and facing the client) were also moderately to strongly correlated with the therapeutic alliance ($r \geq .4$), and the correlations were statistically significant ($\alpha = .01$, two-tailed). Most of these behaviours appear to be related to communicating a sense of focus or attention on the client (i.e., physical attending skills), and may represent an underlying factor of counsellor nonverbal communication of attention on the client. Four behaviours in particular (i.e., making eye contact, greeting the client with a smile, sitting still without fidgeting, and facing the client) can be seen as the non-verbal communication of positive and undivided focus on the client. While it is unclear whether these behaviours increase in frequency as a result of a strong alliance, or that the alliance improves as a result of these behaviours, prior research seems to support the idea that positive focus on the client plays a significant role in the development of the therapeutic alliance (Ackerman & Hilsenroth, 2003; Crits-Christoph, Connoly Gibbons, & Hearon, 2006; Najavits & Strupp, 1994). The finding that the counsellor behaviours of referring to details from previous sessions and being honest are positively related to alliance is also supported by prior research (Ackerman & Hilsenroth, 2003).

Four counsellor behaviours (i.e., telling the client about similar personal experiences, letting the client decide what to talk about, providing verbal prompts, and
keeping administration outside of session time) were not correlated with alliance. These findings may be demonstrative of a discrepancy between what clients believe is important in the development of the alliance and what factors are measurably related. The finding that counsellor self-disclosure was not linearly related to alliance is mirrored by the mixed results of prior research, which has found that counsellor self-disclosure can be both positively and negatively related to alliance (Ackerman & Hilsenroth, 2001; Bachelor & Horvath, 1999). As mentioned previously, clients’ perception of the helpfulness of counsellor self-disclosure has been shown to modulate the impact that the disclosure has on alliance (Hanson, 2008), and therefore a direct, linear model of the relationship between the frequency of counsellor self-disclosure and alliance may not be appropriate. For example, it is possible that a good number of clients perceive their counsellor’s self-disclosure as helpful in the development of the alliance, while an equally large number of participants do not. Further to this possibility, if a large number of participants identified counsellor self-disclosure as contributing to alliance development in the previous studies from which these 15 behaviours were derived (i.e., Bedi, 2006; Bedi & Duff, 2008), counsellor self-disclosure may have been singled out as an important factor. However, when its relationship to alliance is measured empirically (as in the present study), its differential relationship to alliance for the two subgroups of participants may result in nonsignificant findings.

Although providing verbal prompts and keeping administration outside of session time may be behaviours that are essential to competent counselling, there is no evidence here that they are measurably related to the therapeutic alliance. Consequently, these behaviours may exemplify a discrepancy between what clients believe are related to the
alliance and what has been found here to be empirically related to the alliance. It is possible that this discrepancy is due to a cognitive bias known as *illusory correlation*, or the erroneous belief that two or more variables are correlated (Chapman, 1967; Fiedler, 2000). This type of cognitive bias can result from a false stereotyped expectation that members of a particular group tend to have particular traits (Hamilton, & Rose, 1980), where the perceived but false correlation is due to *expectancies* about variables rather than due to an observed correlation between them. However, illusory correlations can also result from the application of unequal weight to certain information or from the selective attention to and encoding of such information (Fiedler, 2004). As applied to the present study, the action of making verbal prompts or of keeping administration outside of the session may have occurred frequently and regularly throughout counselling, including at a time when the experience of a strong alliance was particularly salient for clients. Clients may consequently be associating these behaviours with the formation of a strong alliance while no empirical association between them exists. Alternatively, clients may hold a stereotyped but incorrect belief that counsellors who form strong alliances also provide frequent verbal prompts and keep administration outside of session time. However, it is not clear what the cause of an illusory correlation might be based solely on the data from the present study. Additional research is necessary to explore the possibility that an illusory correlation bias is responsible for the present findings, and if so, to establish the cause of such a bias.

*Predicting Alliance from Counsellor Behaviours*

A second goal of the present study was to determine how well the 15 counsellor behaviours were able to predict the strength of the therapeutic alliance. While a
A statistically significant regression model (Adj. $R^2 = .55$, $p < .01$) that contained 11 of the 15 behaviours was able to predict 55% of the variance in alliance scores, only two of the beta weights in this model were statistically significant contributors ($p < .05$). Therefore, another regression model was computed that included only the two statistically significant behaviours (i.e., making positive comments about the client and greeting the client with a smile) and was found to account for 54% of the total variance in alliance scores (Adj. $R^2 = .54$, $p < .01$). The second hypothesis of the present study, which was that any combination of variables would predict the alliance better than any single variable alone, was therefore supported.

The hierarchical regression also indicated that the nine excluded variables collectively predicted only 1% more of the variance beyond that explained by the two behaviours included in the final (step three) regression model. The change in $R^2$ between the model in step two and the final model in step three was not statistically significant, indicating that the differential ability of the two models to predict the strength of the alliance was statistically negligible. Therefore, the more parsimonious of the two models that contained only two predictor variables (step three) was retained as the final model.

The combination of the counsellor behaviours of making positive comments about the client and greeting the client with a smile may be interpreted as behaviours that communicate a sense of positive regard or liking toward the client. The communication of positive regard toward the client is an action that has been argued to be the primary basis of effective counselling and psychotherapy (Rogers, 1957). Indeed, prior research supports the idea that positive regard promotes the development of the therapeutic alliance (Ackerman & Hilsenroth, 2003; Crits-Christoph, Connoly Gibbons, ...
& Hearon, 2006; Najavits & Strupp, 1994; Thomas, Werner-Wilson, & Murphy, 2005). It may also be that communicating positive regard elicits positive feelings in clients, which, as Fitzpatrick, Janzen, Chamodraka, and Park (2006) found, then leads to enhancement of the therapeutic alliance.

As discussed earlier, prior research has also shown that making positive comments about the client is a behaviour that clients associate with the concept of validation, a category of behaviours that clients believe is the most important in alliance formation (Bedi, 2006). Given that clients associate this behaviour with validation, frequently making positive comments about the client may increase the client’s sense of being validated. While other behaviours related to validation were not found to be statistically significant contributors to the regression model, the sample size used in this study was perhaps slightly inadequate for a statistically powerful regression analysis (a limitation that is discussed in detail in a later section). Given that statistical significance is a function of sample size (Glass & Hopkins, 1996), it is very possible that, with a larger sample size, the beta weights for other behaviours related to validation may have also reached statistical significance and been retained in the final model. Indeed, the practice of hypothesis testing has been widely criticized for just this reason, and it has been argued that the reporting of effect size estimates and confidence intervals is a much more useful practice than simply rejecting or retaining null hypotheses based on an arbitrary $p$ level (see Anderson, Burnham, & Thompson, 2000; Cohen, 1994; Loftus, 1996; Robinson & Wainer, 2002; Thompson, 1999; Vacha-Haase, Nilsson, Reetz, Lance, & Thompson, 2000). Nonetheless, the method used for the present study was based on a null hypothesis-testing model of statistical inference, and the results are reported as such.
Other factors may also be responsible for the finding that some behaviours are not empirically related to the alliance, despite the fact that clients have identified them as fundamental to alliance development. Nisbett and Wilson (1977) have argued that people do not have introspective access to higher order cognitive processes and are therefore unaware of the factors that have influenced such processes; yet, despite this unawareness, individuals will still give reasons for the causes of such processes. Nisbett and Wilson have suggested that the sources of these reports are based on *a priori*, implicit theories that individuals have about the plausible causes of their intrapersonal and interpersonal cognition, rather than on actual memories of the causal factors. Consequently, people’s reports will occasionally be accurate about the causal antecedents of cognitive events, but these reports can also be inaccurate. It is possible that this is the case with clients’ reports of factors that lead to the development of the therapeutic alliance, wherein clients have developed implicit causal theories about factors that lead to alliance development, correctly identifying some counsellor behaviours that predict the alliance (i.e., making positive comments about the client and smiling during greeting) but incorrectly identifying a number of other behaviours that do not. Indeed, the tendency for people to provide explanations of events when they are unaware of such causes has been supported by research (Anderson, Lepper, & Ross, 1980)\(^40\).

However, other scholars have argued that introspective access to cognitive processes is possible, but that this access may be contingent upon specific conditions

\(^40\) It is important to emphasize here that my position is not that the client’s perspective on the alliance is incorrect, nor do I believe that the client’s subjective experience is in any way invalid. On the contrary, as I have argued earlier in this manuscript, I believe that the alliance is the product of the subjective experience of both the client and counsellor, experience which is *de facto* valid and correct. However, I suggest that clients may not always be accurate in the identification of those factors that contribute to the development of the alliance, and I note here that this possibility is supported by research (e.g., Anderson, Lepper, & Ross, 1980; Nisbett & Wilson, 1977; Osberg & Shrauger, 1982, 1986; Smith & Miller, 1978).
(Smith & Miller, 1978), such as the familiarity of the process or the type of individual (Osberg & Shrauger, 1986). For example, one investigation found that people are fairly accurate in identifying the underlying processes and causes of intrapersonal and interpersonal cognitive events when the event occurs frequently (Shrauger & Osberg, 1982). As applied to the present study, it could be that some specific but unmeasured condition (such as the frequency with which the client experiences a sense of a strong therapeutic bond) mediates clients’ ability to accurately identify and recall the counsellor behaviours that impact the development of the alliance. However, the present data are insufficient to provide any clues regarding the nature of these possible conditions, and without further investigation, the existence of these conditions in the counselling context will subsequently remain uncertain.

**Implications of the Findings**

The findings of the present study have implications for both counselling research and practice. First, the results demonstrate that some empirical relationship exists between what clients *think* plays a role in alliance development and what actually *does* play a role, giving credence to the client as an insightful and knowledgeable agent. Unfortunately, the client has been traditionally regarded as dysfunctional and pathological, unable to discern what is helpful from what is not (Bohart, 2000; Duncan & Miller, 2000). The present findings suggest that this conceptualization is mostly inaccurate, and instead demonstrate that clients can accurately identify some statistically significant and helpful experiences in the counselling process. In fact, routinely eliciting the perspective of the client on the alliance during counselling has been shown to improve the alliance and increase positive outcomes (Miller, Duncan, Sorrell, & Brown,
Given that the findings in the present study demonstrate a strong statistical relationship between client-identified factors and the alliance, practitioners are encouraged to elicit feedback from their clients on factors that they believe may be helpful in developing a strong therapeutic relationship.

The findings also suggest that validation plays an important role in the therapeutic alliance. Based on the results alone, it remains unclear whether validation occurs as a result of a strong alliance, or if a strong alliance is the result of the counsellor validating the client. Nonetheless, the data suggest that validation appears to be somehow related to the therapeutic alliance. This is, in some ways, unsurprising; the act of validation (communicating to someone that his or her experience is valid) conveys a sense of understanding, non-judgment, and respect toward the client, which Bordin (1979) suggested was a fundamental antecedent to alliance development. When appropriate, validation of the client should be an integral part of any counselling practice, as its effect likely extends beyond the alliance (Duncan, Miller & Sparks, 2007). Counsellors are therefore encouraged to validate the experience of clients whenever possible, and counsellors should be trained to emphasize validation during the early stages of counselling.

Behaviours that communicate a sense of focus or attention on the client also appear to be related to the alliance, and might be used by counsellors to maximize the potential of developing a strong alliance. Although the data are not able to identify whether or not making eye contact, greeting the client with a smile, sitting still without fidgeting, and facing the client cause the alliance to improve, it seems unlikely that enacting these behaviors will cause the alliance to deteriorate. Clients are likely to benefit
from the efforts of any counsellor who nonverbally communicates focus and attention on the client (Teyber, 2006), and the alliance may improve as a result.

Lastly, the results suggest that communicating positive regard toward clients by way of the two particular client-identified behaviours (i.e., making positive comments about the client and greeting the client with a smile) is a strong predictor of alliance. Given that the alliance is a strong predictor of outcome (Horvath & Bedi, 2002; Horvath & Symonds, 1991; Martin, Garske, & Davis, 2000), communicating positive regard toward clients via these behaviours may be seen as a potentially important indicator of positive counselling outcome. While it remains uncertain whether or not these behaviours will actually cause alliance development (and consequently positive outcomes), it seems intuitively unlikely that they would impede alliance development. This assertion is supported by decades of the successful practice of person-centred counselling, which emphasizes positive regard as a core feature of effective counselling (cf. Rogers, 1957). However, the findings make a unique contribution to counselling research by identifying a specific method of communicating positive regard toward clients (i.e., through making positive comments about the client and greeting the client with a smile) that has a strong predictive relationship with the therapeutic alliance. Counsellors-in-training are generally encouraged to establish a strong therapeutic alliance early in counselling (e.g., Teyber, 2006), and as a result of the present study, educators may now also instruct students to incorporate these behaviours into empirically-supported practice. Practitioners are likewise encouraged to greet clients with a smile and to frequently make appropriate positive comments about clients while in session as a means of maximizing potential alliance development.
It should be mentioned here that although the results indicate an unlimited linear association between the identified counsellor behaviours and the alliance, the practical reader will note that constant and unscrupulous repetition of these behaviours will probably not improve the alliance; on the contrary, practitioners who make positive comments too frequently or at inappropriate times may find that the alliance develops poorly or does not develop at all. The results must therefore be interpreted in light of clinical experience and prior research, both of which suggest that particular behaviours can have a positive impact on the alliance when used appropriately and with skill, but which can impede the alliance when used inappropriately or with certain clients (e.g., Ackerman & Hilsenroth, 2001; 2003; Bachelor & Horvath, 1999; Hanson, 2008; Thomas, Werner-Wilson, & Murphy, 2005; Vasquez, 2007). Moreover, there is an interpretive component to each of the measured counsellor behaviours, such that different clients may interpret the meaning of any particular behaviour differently. For example, a counsellor’s comments may be interpreted as encouraging by one client, but another client may not similarly interpret these same comments. Practitioners are cautioned to use clinical and practical judgment when implementing any of these behaviours, such that the impact of the behaviour on each client is carefully weighed and assessed before being used. The same cautionary measures must be taken when educators are training new counsellors in alliance-building processes, given that new counsellors may be less attuned to the subtleties of relationship building in the counselling context. The results of the present study do not, therefore, supersede the clinical judgment of skilled practitioners, and are intended to provide evidence to augment and support the practice of counsellors as they work to build strong alliances.
Taken together, the findings seem to suggest that, from the perspective of the client, the counsellor’s contribution to the alliance is embodied by behaviours that communicate validation, positive regard, and focus on the client. Although it is known that practitioners infrequently use current research literature to inform their practice (Boisvert & Faust, 2006), which may be due to the perception among clinicians that research findings are not generally applicable to real-world practice (Stewart & Chambless, 2007), it is hoped that the present findings will encourage practitioners to consider integrating these behaviours into their counselling practice.

**Limitations of the Study**

There are a number of important limitations to the present study. First, the design of the study limits the inferences that can be drawn from it. The causal effect between variables cannot be evaluated using this cross-sectional design, since the study is correlational and retrospective rather than experimental or prospective. The proposed study also does not control for the presence of so-called confounding or third variables, and the findings are limited to inferences that grant the potential effect of third variables possible.

Second, the sampling method used in the present study narrowed the variability of participants, limiting the generalizability of the findings. Non-probabilistic sampling reduces confidence in the representativeness of the sample, since self-selection biases may artificially skew the results. For example, those who elect to participate in the study may have a greater interest in counselling and counselling research than those who may qualify but choose not to participate; those who participate may therefore have a more favorable view of counsellors and counsellors in general, potentially influencing their
alliance ratings. Indeed, participants were highly experienced in counselling, having received a median of 11 sessions of counselling with their current counsellor and having seen a median of 3 counsellors in their lifetime, indicating that participants may have had a favorable enough opinion of counselling to repeatedly return. Purposive samples are also (by definition) not random, and therefore statistical inference methods that are based on random population samples cannot be used with complete confidence, and the generalizability of the results are therefore called into question. Moreover, the generalizability of the sample is limited to populations that meet the screening demographic criteria; that is, the population represented by this study is literate adult clients who have obtained a grade 10 education or higher, who have the ability to obtain three or more sessions of counselling, who are able to complete an online questionnaire or to travel to meet the researcher, and who live within the recruitment area.

Third, as discussed earlier, online research presents the researcher with unique challenges and limitations. The consistency of the testing environment cannot be guaranteed, and therefore remains uncontrolled (Kraut et al., 2004; Riva, Teruzzi, & Anolli, 2003). However, this is more of a problem with experimental control designs, and does not present as significant of a concern for the present study.

Fourth, certain characteristics of the sample further limit generalizability. For example, the majority of the sample also had a good degree of post-secondary education, with 45% of participants possessing an undergraduate or graduate degree; this characteristic limits findings to a population with similar qualities. The majority of the sample was also female (70%), which is reflective of the general gender distribution of

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41 The logic of statistical inference rests on the assumption that the sample used to derive parameter estimates is a random selection of cases from the larger population. However, it is more often the rule than the exception to violate this assumption in social science research.
the population of those who seek counselling (e.g., see Benton, Robertson, Tseng, Newton, & Benton, 2003). While participants’ average number of sessions with their current counsellor was high ($M = 21.2$), so was the variance ($SD = 28.7$), suggesting that the median number of sessions ($Mdn = 11$) may be a better indicator of central tendency. With a median of 11 sessions of counselling with their last counsellor and a median of three counsellors seen during their lifetime, participants’ counselling experience was typical of the population of those who seek counselling (Benton, Robertson, Tseng, Newton, & Benton, 2003).

Most participants in this study also identified themselves as being of European ethnicity (74.5%). As discussed in the literature review, clients of European descent may experience the alliance differently than clients of other ethnic heritages (Vasquez, 2007). This potentially places restrictions on the generalizability of the results to clients of non-European ethnicity. It may also be that the findings are reflective of Western cultural values, which emphasize both verbal and nonverbal expressions of liking and respect through the use of smiling, eye contact and positive comments (behaviours that are mirrored by the present results). It is possible that the results would not be replicated in a more culturally and ethnically diverse sample than the one used in the present study. For example, Chinese cultural values are such that eye contact is not typically maintained with authority figures as a sign of respect (Hwang & Wood, 2007), and therapists who attempt to make frequent eye contact may actually impede alliance development. Future research should be conducted that better elicits the expertise of clients of diverse ethnic and cultural heritage to help elucidate the perspective of non-European clients on the therapeutic alliance.
Fifth, since certain report biases\textsuperscript{42} were not controlled for, the results of the study must also be interpreted with caution. Indeed, the validity of all questionnaire-based research is threatened by \textit{self-report bias}, which is the tendency for a participant to intentionally report information inaccurately due to the nature of the information being asked for, the sensitivity of the information, the dispositional characteristics of the individual, or the situational characteristics of the study (Donaldson & Grant-Vallone, 2002). This type of bias has the most potential for negative impact on the data collected if there is some feature of the study that systematically elicits misrepresentation by participants, thereby producing false effects or correlations. Given that all communication with participants was via telephone or email and that the questionnaire was administered online, the anonymity afforded to participants in the present study likely minimized the potential for self-report bias to impact data systematically.

A more insidious threat to the validity of data collected in self-report retrospective studies is \textit{hindsight bias}, or the tendency for participants’ outcome knowledge (knowledge of what actually happened) to influence their memory of the event (Villejoubert, 2005). Applied to the present study, participants’ knowledge of a particular outcome (e.g., the formation of a strong alliance) may have increased the salience of certain events in memory (e.g., the counsellor greeting the participant with a smile), thereby increasing the reported frequency of that event. However, there is evidence that hindsight bias tends to be minimized when participants have a good deal of experience with the task being remembered (Christensen-Szalanski & Willham, 1991). Participants in the present study had median of 11 sessions with their current or last counsellor, and

\textsuperscript{42} Report biases are participant factors that cause them to systematically misrepresent the true state of affairs (i.e., make false reports). If uncontrolled, these biases can influence research results and produce false effects or mask real ones.
had seen a mean of 3.7 counsellors in their lifetime. Given that most counselling clients have an average of less than 17 sessions with a single counsellor (Sibbald, Addington-Hall, Brenneman, & Freeling, 1996), it can be said that the participants in the present study had about the same amount or more counselling experience as the average client. Consequently, the threat of hindsight bias may have been minimized by participants’ good deal of counselling experience. Nonetheless, hindsight bias was not controlled for in the present study, and it is possible that this bias had systematic effects on the results.

Since the data is based on retrospective recall, there is some potential for the results to be influenced by the inaccurate recall of events. Although there is evidence that retrospective recall does become less accurate with the passage of time (Sudman & Bradburn, 1973), accuracy tends to be high when the memory is of non-routine events that occurred within five weeks of recall (Mathiowetz, 2000). Since all participants had been in counselling within the past 30 days, and counselling can be considered a non-routine event, the accuracy of data provided by participants is not likely to be threatened to a great degree by retrospective recall deficits. However, past subjective states may be difficult for participants to assess, thereby clouding the accuracy of alliance ratings.

A sixth limitation is due to the sample size used in the present study. Apart from using a priori power analyses to determine the sample size needed for a study, it is sometimes recommended that samples used in regression analysis consist of at least five participants for every predictor variable, with the ideal size consisting of 10 to 20 participants per predictor (Field, 2005). Although the sample in the present study was based on a power analysis that indicated a minimum sample size of 43, the sample of 51 participants may still have been too small for statistical significance to be reached by
many of the predictor variables in the regression analysis. Moreover, small sample sizes are more prone to sampling error, thereby increasing the likelihood of executing a Type I error and determining that there is a relationship between variables when none actually exists (Glass & Hopkins, 1996). A larger sample size would have minimized this risk while maximizing the likelihood of detecting a predictive relationship between predictor variables and the criterion.

Seventh, as mentioned previously, the results of this study are limited to a conceptualization of the alliance that includes only the client’s perspective of it, essentially ignoring the perspective of the counsellor. Although the goal of the present study was to specifically elucidate the impact of the client’s perspective of counsellor behaviours on the alliance, research on the alliance that acknowledges its dyadic constitution and studies it from both perspectives (e.g., Grafanaki & McLeod, 2002; Kivlighan, 2007) is likely necessary to gain a full and complete understanding of its nature.

Eighth, as mentioned earlier, the interpretive component that is inherent in each of the counselling behaviours may influence the manner in which they are assessed. For example, the specific facial expression that a counsellor exhibits has the potential to be interpreted as a smile by one client but to be considered a scowl by another. This potentially confounding difference in interpretation may threaten the accuracy of measurement of counsellor behaviours in the present study and therefore adversely impact the results. The way in which different clients interpret the same behaviour should be assessed systematically in future research to establish the degree of influence that this interpretation may have on the results of the present study.
Lastly, the materials used to measure the constructs of interest in the present study create limitations for the results. For example, the Working Alliance Inventory, Short Form, Revised (WAI-SR; Hatcher & Gillaspy, 2006) is based on Bordin’s (1979) conceptualization of the alliance, and therefore measures a type of therapeutic alliance that closely matches his conceptualization. Given that the results are derived from the WAI-SR, they can only be extended to situations in which Bordin’s conceptualization of the alliance is an accurate reflection of the alliance developed (as mentioned previously, this conceptualization may not be appropriate for ethnic minority clients; see Vasquez, 2007). Moreover, the Therapeutic Alliance Critical Incident Questionnaire (TACIQ) asks participants to give general approximations of the frequency of occurrence of each behaviour (e.g., questions can be answered as “sometimes” or “very often”) rather than asking participants to specify the number of times that the behaviour occurred. The accuracy with which the frequency of the behaviour was actually measured is therefore uncertain, and the results must consequently be interpreted with caution.

**Future Directions**

Future research that replicates the present study using a much larger sample size (e.g., $N \sim 250$) will be better able to elucidate the degree to which the 15 behaviours investigated in this study are predictive of the alliance. Moreover, the use of a larger sample size will allow multiple correlational analyses and exploratory factor analyses to be conducted on data collected from the TACIQ, which can help identify underlying factors that may exist in the client’s perspective of the alliance. Indeed, findings from the present study suggest that factors related to validation and positive regard toward the
client may underlie the client’s perspective of helpful factors in alliance formation. However, future research is necessary to clarify this possibility.

Another possible study that would eliminate the issues that arise from the use of retrospective recall would be a longitudinal design in which the frequency of counsellor behaviours are reported by clients at the end of each session. To bolster the accuracy of these observations, trained observers could also rate the frequency of counsellor behaviours either through direct observation or the observation of videotaped sessions. Frequency ratings of clients and observers could be compared to assess for interrater agreement. Clients, counsellors, and observers could also make alliance ratings at the end of each session to track changes in the strength of the alliance across time. Use of this method would increase the precision with which the frequency of counsellor behaviours were assessed, as well as allowing the effect of each behaviour to be evaluated across each stage of counselling (i.e., early, mid, and late).

Given that clients in the present study had seen an average of three counsellors in their lifetime, it is also possible that these participants had wholly positive counselling experiences and therefore repeatedly returned to counselling for help. However, some clients do not have positive counselling experiences, and these clients may not be adequately represented by the present sample. To explore this possibility, it may be interesting to replicate the design of the present study but instead recruit clients who had poor counselling experiences and compare the results with those of the present study. Doing so may help to identify the nature and degree of a possible hindsight bias that may have influenced the present results, and identify any differences that exist in alliance formation with these clients.
Future research should also attempt to identify the direction of causal influence between counsellor behaviours and the therapeutic alliance. While some research has attempted to demonstrate the causal effect of alliance on outcome by controlling for participant characteristics and early therapeutic change (Barber, Connolly, Crits-Cristoph, Gladis, & Siqueland, 2000; Barber et al., 1999; Klein et al., 2003), and despite the present findings, it remains unclear whether the alliance is caused by certain counsellor behaviors, or that these behaviours are increased as a result of the development of the alliance, or that both alliance and these behaviours are reciprocally influenced by one another (as suggested by Fitzpatrick, Janzen, Chamodraka, & Park, 2006). Another possibility is that a third, unknown factor influences or causes the association between these behaviours and alliance. Research that attempts to establish this causal effect should be based on prospective designs, thereby eliminating the problem of retrospective and recall biases and lack of ability to assess causality encountered in the present study.

Moreover, as mentioned earlier, sound designs used to demonstrate this effect should use observer and counsellor ratings of alliance (in addition to client-rated alliance) as secondary and tertiary sources of alliance validation, thereby helping to control for participant report biases and allowing for the assessment of interrater agreement.

Given the application of the alliance concept to professions outside of counselling (e.g., Dore & Alexander, 1996; Hummelvoll, 1996; Kaplan, Greenfield, & Ware, 1989), the findings may also have implications for alliance research and praxis in other healthcare professions. For example, the finding that behaviours that communicate positive regard and attention to the client are related to the alliance is consistent with findings from the nursing literature, where the nurse’s attitude toward the client has been
shown to impact alliance development (Forchuck, 1994). Future research is needed that utilizes the methodology of the present study with clients from other healthcare fields (i.e., medicine, nursing, social work) to determine the relationship of these behaviours to the alliance in other healthcare professions.

As suggested by the American Psychological Association’s Division 29 Task Force on Empirically Supported Therapy Relationships (Steering Committee, 2002) and by others (e.g., Bohart, 2000; Kivlighan, 2007), future research should also attempt to investigate the dyadic nature of the alliance by investigating the alliance both from the perspective of the client and the counsellor simultaneously. The potential for this type of research has only been recently realized by the development of both qualitative (e.g., Grafanaki & McLeod, 2002) and quantitative (e.g., Kivlighan, 2007) methods developed for this purpose. Although research on the client’s perspective of the alliance is important to improving our understanding of the alliance, research from both perspectives is also essential to complete our understanding of the how the alliance emerges and impacts counselling and psychotherapy process and outcome.

Conclusion

The therapeutic alliance has been, and continues to be an important concept in counselling theory and practice. Much scholarship has been devoted to the theory, measurement, and correlates of the alliance, but little has sought the independent expertise of the client. This study is intended to build on current literature by highlighting the nuances of the client’s perspective on counsellor behaviours and examining the relationship between them and the quality of the alliance. Additional research is still necessary to help solidify our understanding of the alliance from the client’s perspective,
and to clarify the role that the client’s perspective plays in the dyadic construction of the alliance.
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APPENDICIES

Appendix A

Participate in counselling research...
You COULD WIN $100!

If you have seen a counsellor in the last 30 days and are at least 19 years of age, we want to hear about your experiences. In exchange for completing one 10 minute questionnaire online or in person, you will be entered to win one of four $100 cash prizes.

If you have any questions or would like to participate in the research study, please contact Carlton Duff from the University of Victoria by telephone at (780) 990-0612 or by email at counsellingstudy@gmail.com

This study is being conducted at the University of Victoria as part of a Master's thesis, and has received Human Ethics Research Board approval.
Appendix B

Participate in counselling research... You COULD WIN $100!

If you have seen a counsellor in the last 30 days and are at least 19 years of age, we want to hear about your experiences. In exchange for completing one questionnaire online or in person, you will be entered to win one of four $100 cash prizes.

If you have any questions or would like to participate in the research study, please contact Carlton Duff from the University of Victoria by telephone at (760) 990-0612 or by email at counsellingstudy@gmail.com

This study is being conducted at the University of Victoria as part of a Master's Thesis, and has received Human Ethics Research Board approval.

Participate in counselling research... You COULD WIN $100!

If you have seen a counsellor in the last 30 days and are at least 19 years of age, we want to hear about your experiences. In exchange for completing one questionnaire online or in person, you will be entered to win one of four $100 cash prizes.

If you have any questions or would like to participate in the research study, please contact Carlton Duff from the University of Victoria by telephone at (760) 990-0612 or by email at counsellingstudy@gmail.com

This study is being conducted at the University of Victoria as part of a Master's Thesis, and has received Human Ethics Research Board approval.
Appendix C

Screening Questionnaire

Read to prospective participant: Thank you for your interest in this study on counselling and psychotherapy. The study is being conducted at the University of Victoria. For this study, we are interested in your experience of counselling or psychotherapy and your impressions of your counsellor or therapist.

In exchange for completion of an online or pencil-and-paper questionnaire, you will be entered into a draw for one of four $100 gift certificates to the retailer of your choice. The online questionnaire can be completed anytime, and should take about 20 minutes to complete. The pencil-and-paper version of the same questionnaire requires that you meet the researcher in person, and should take about 30 minutes to complete.

Any information that we collect will be kept on a secure server, secure storage device, or locked filing cabinet that is only accessible to the researcher. If you are selected for our study, you will also be assigned a participant number to further protect your confidentiality.

In order to be eligible, we require that you meet a few criteria. Please let me know if these conditions apply to you by answering with either a yes or a no. If you are unsure, please ask me for clarification.

- Have you received individual counselling or psychotherapy within the last 30 days?
- Have you had at least 3 sessions with your last or current counsellor or psychotherapist?
- Are you at least 19 years of age?
- Have you completed a minimum of a grade 10 education?
- Are you willing and able to complete a 20-minute online questionnaire? If not, are you able and willing to travel to the University of Alberta to meet the researcher for one 30-minute interview?

A.) I’m sorry; you are not eligible for our study. Thank you for your time. Please feel free to let others know about our study.

B.) It sounds like you are eligible. Would you like to participate in the study by completing a questionnaire online, or would you prefer to schedule an appointment to complete the questionnaire in person?

Participant Contact Information:

Participant Name: ___________________________ Appointment Date and Time: __________________

Telephone: (hm/wk/cell) _________________ Telephone: (hm/wk/cell) _________________

Email Address: ____________________________

Participant Number: ______________________ Verification Code: __________________
Appendix D

Participant Consent Form

Therapist Contributions to the Therapeutic Alliance from the Client’s Perspective

You are invited to participate in a study entitled Therapist Contributions to the Therapeutic Alliance from the Client’s Perspective that is being conducted by Carlton T. Duff, MA candidate. Carlton T. Duff is a graduate student in the department of Educational Psychology and Leadership Studies at the University of Victoria. You may contact him if you have further questions by email or telephone at oduff@uvic.ca or (780) 990-0612.

As a graduate student, Carlton Duff is required to conduct research as part of the requirements for a Master of Arts degree in counselling psychology. His research is being conducted under the supervision of Dr. Robinder (Rob) P. Bedi. If you wish, you may contact Dr. Bedi directly at (250) 721-7827.

Purpose and Objectives
The purpose of this research project is to investigate how certain aspects of the relationship that clients have with their counsellor or psychotherapist relate to the behaviour of therapists.

Importance of this Research
Research of this type is important because it will help counsellors and researchers better understand how the therapist’s behaviour in counselling relates to the quality of the counselling relationship. This research may eventually lead to the development of guidelines for counsellors who wish to increase their chances of developing strong counselling relationships with clients.

Participant Selection
You are being asked to participate in this study because you have responded to an advertisement seeking participants for this study. In particular, you have recently received at least 3 sessions of counselling or psychotherapy, are at least 19 years of age, have completed a minimum of grade 10 education, and have stated that you are willing to participate.

What is involved?
If you agree to voluntarily participate in this research, your participation will include completing one questionnaire, either online (over the Internet) or in person at a time and location of your choice. The questionnaire should take you 20-30 minutes to complete.

Inconvenience
Participation in this study may cause some inconvenience to you, including the amount of time necessary to complete the questionnaire, finding the use of a computer that is connected to the Internet, or the amount of time necessary to meet with the researcher.

Risks
There are some potential risks to you by participating in this research, which may include remembering difficult emotional or psychological experiences that you had while in counselling or psychotherapy. While this risk is expected to be low, the researcher will provide you with a list of support services available in your community, should you require emotional or psychological support as a result of participating in this study.

Benefits
The potential benefits of your participation in this research include gaining a better understanding of your relationship with your counsellor or psychotherapist, contributing to the advancement of psychological knowledge, and helping counsellors and psychologists better understand how to build strong relationships with their clients.

Compensation
As a way to compensate you for any inconvenience related to your participation, you will be entered into a draw for one of four $100 cash gift prizes. If you agree to participate in this study, this form of compensation to you must not be coercive. It is considered unethical to provide undue compensation or inducements to research participants. If you would not participate if the compensation was not offered, then you should decline.
Voluntary Participation
Your participation in this research must be completely voluntary. If you do decide to participate, you may withdraw at any time without any consequences or any explanation. If you do withdraw from the study, your data will not be used in the final analysis and will be discarded. You will still be given the opportunity to enter into the draw for one of four $100 cash gift prizes if you choose to withdraw.

Anonymity
The data that you provide will not be connected in any way to your name or contact information. Only Carlton Duff will know your name, and the data you provide will only be published in aggregated form. Your personal information will never be shared with anyone, ever.

Confidentiality
Your confidentiality and the confidentiality of the data will be protected by secure data encryption and password protection that is only known by the researcher. Any paper questionnaires that are completed will be stored in a locked filing cabinet that is only accessible to the researcher.

Dissemination of Results
It is anticipated that the results of this study will be shared with others as a published thesis, a presentation at a scholarly meeting, and as a research article in an academic journal.

Disposal of Data
Data from this study will be disposed of approximately 6 months after the completion of the study. Data that is stored on computer media will be erased, and paper copies of the data will be shredded.

Contacts
Individuals that may be contacted regarding this study include the researcher, Carlton T. Duff (780-990-0612 or cduff@uvic.ca) or his supervisor, Dr. Robinder (Rob) P. Bedi (250-721-7827 or robb@uvic.ca).

In addition, you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Human Research Ethics Office at the University of Victoria (250-472-4545 or ethics@uvic.ca).

Consent
Your signature below indicates that you understand the above conditions of participation in this study and that you have had the opportunity to have your questions answered by the researchers.

<table>
<thead>
<tr>
<th>Name of Participant</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
</table>

A copy of this consent will be left with you, and the researcher will take a copy.
Appendix E

Therapist Contributions to the Therapeutic Alliance from the Client's Perspective

You are invited to participate in a study entitled "Therapist Contributions to the Therapeutic Alliance from the Client's Perspective" that is being conducted by Carlton T. Duff, MA candidate. Carlton T. Duff is a graduate student in the department of Educational Psychology and Leadership Studies at the University of Victoria. You may contact him if you have further questions by email or telephone at cduff@uvic.ca or (780) 932-5332.

As a graduate student, Carlton Duff is required to conduct research as part of the requirements for a Master of Arts degree in counselling psychology. His research is being conducted under the supervision of Dr. Robinder (Rob) P. Bedi. If you wish, you may contact Dr. Bedi directly at (250) 721-7827.

Purpose and Objectives
The purpose of this research project is to investigate how certain aspects of the relationship that clients have with their counsellor or psychotherapist relate to the behaviour of therapists.

Importance of this Research
Research of this type is important because it will help counsellors and researchers better understand how the therapist's behaviour in counselling relates to the quality of the counselling relationship. This research may eventually lead to the development of guidelines for counsellors who wish to increase their chances of developing strong counselling relationships with clients.

Participant Selection
You are being asked to participate in this study because you have responded to an advertisement seeking participants for this study. In particular, you have recently received at least 3 sessions of counselling or psychotherapy, are at least 19 years of age, have completed a minimum of a grade 10 education, and have stated that you are willing to participate.

What is involved?
If you agree to voluntarily participate in this research, your participation will include completing one questionnaire, either online (over the Internet) or in person at a time and location of your choice. The questionnaire should take you 20-30 minutes to complete.

Inconvenience
Participation in this study may cause some inconvenience to you, including the amount of time necessary to complete the questionnaire, finding the use of a computer that is connected to the Internet, or the amount of time necessary to meet with the researcher.

Risks
There are some potential risks to you by participating in this research, which may include remembering difficult emotional or psychological experiences that you had while in counselling or psychotherapy. While this risk is expected to be low, the researcher will provide you with a list of support services available in your community, should you require emotional or psychological support as a result of participating in this study.

Benefits
The potential benefits of your participation in this research include gaining a better understanding of your relationship with your counsellor or psychotherapist, contributing to the advancement of psychological knowledge, and helping counsellors and psychologists better understand how to build strong relationships with their clients.

Compensation
As a way to compensate you for any inconvenience related to your participation, you will be entered into a draw for one of four $100 cash gift prizes. If you agree to participate in this study, this form of compensation to you must not be coercive. It is considered unethical to provide undue compensation or inducements to research participants. If you would not participate if the compensation was not offered, then you should decline.
Voluntary Participation
Your participation in this research must be completely voluntary. If you do decide to participate, you may withdraw at any time without any consequences or any explanation. If you do withdraw from the study, your data will not be used in the final analysis and will be discarded. You will still be given the opportunity to enter into the draw for one of four $100 cash gift prizes if you choose to withdraw.

Anonymity
The data that you provide will not be connected in any way to your name or contact information. Only Carlton Duff will know your name, and the data you provide will only be published in aggregated form. Your personal information will never be shared with anyone, ever.

Confidentiality
Your confidentiality and the confidentiality of the data will be protected by secure data encryption and password protection that is only known by the researcher. Any paper questionnaires that are completed will be stored in a locked filing cabinet that is only accessible to the researcher.

Dissemination of Results
It is anticipated that the results of this study will be shared with others as a published thesis, a presentation at a scholarly meeting, and as a research article in an academic journal.

Disposal of Data
Data from this study will be disposed of 7 years after the completion of the study. Data that is stored on computer media will be erased, and paper copies of the data will be shredded.

Contacts
Individuals that may be contacted regarding this study include the researcher, Carlton T. Duff (780-932-5332 or cduff@uvic.ca) or his supervisor, Dr. Robinder (Rob) P. Bedi (250-721-7827 or robbed@uvic.ca).

In addition, you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Human Research Ethics Office at the University of Victoria (250-472-4819 or ethics@uvic.ca).

Please click the link below to print this page and keep it for your records.

Your unique Respondent ID# is: 629258
(click here to print this page)

Consent
By choosing "I AGREE" below, you indicate that you understand the above conditions of participation in this study and that you have had the opportunity to have your questions answered by the researchers.

If you do not wish to participate, choose "I DO NOT AGREE" or close your browser.

*1) Please chose one of the following:
☐ I AGREE  ☐ I DO NOT AGREE

Continue ONLY when finished. You will be unable to return or change your answers.

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Appendix F

Frequently Asked Questions

Q: How do I participate?
A: Please contact the researcher at counsellingstudy@gmail.com or (780) 990-0612 to participate.

Q: I do not have a Verification Code. Can I still participate?
A: No. You must obtain a Verification Code from the researcher in order to participate. If you do not have a Verification Code or have lost the one that was assigned to you, please contact the researcher at counsellingstudy@gmail.com or (780) 990-0612.

Q: What is the Verification Code used for?
A: The Verification Code is a unique identifier that allows the researcher to make sure that (a) the data collected online is from participants who have been screened to meet the inclusion criteria, (b) only one questionnaire is completed per participant, and (c) the identity of participants remains confidential. It is not used for any other purpose, and the Verification Code is never connected to any personal information nor shared with anyone other than the participants to whom it is given.

Q: How can I be sure that the information that I provide online remains confidential?
A: This website uses a security technology known as 128-bit Secure Sockets Layer (SSL) encryption to communicate with your computer. SSL encryption is a way of keeping information that is transmitted between your computer and this website private. When SSL encryption is used, the chance that the information that you provide while using this website will be intercepted is very low. Furthermore, you will never be asked for any identifying information (such as your name or address) while using this website.

To further increase the confidentiality of your participation, it is suggested that you use a personal computer that is connected to a physical (wired) network in your own home. Any other method of accessing the Internet increases the risk that the information you provide online may be intercepted. If you are concerned about online participation in this study, or have any questions about the security or confidentiality of the information that you provide, please contact the researcher at counsellingstudy@gmail.com or (760) 990-0612. If you prefer, you can complete a pencil and paper version of this questionnaire instead.

Q: Has this study received some kind of ethics review?
A: Yes. All research conducted at Canadian universities that uses human participants, this study was subjected to an ethical review by a Human Research Ethics Board. It was approved on April 8th, 2008, and was assigned Protocol Number 98 054. You may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Human Research Ethics Office at the University of Victoria (250-472-4545 or ethics@uvic.ca).

Q: How do I enter the draw?
A: All participants who are given a Verification Code are automatically entered into the draw.

Q: Can I complete the questionnaire more than once?
A: No.

Q: What are the odds of winning the draw?
A: There are 4 (four) gift prizes of $100 available to be won. The odds of winning are based on the number of participants, with a maximum of 120 participants in this study. Therefore, the odds of winning will be better than 1 in 30.

Q: How will I know if I am a draw winner?
A: Winners will be contacted at the conclusion of the study, on or before August 31, 2008.

Q: I closed my browser by accident before completing the study. How can I go back?
A: Please return to the beginning of the questionnaire, re-enter your Verification Code, and begin the questionnaire again. Your previous answers will be discarded.

Q: I need to change my answer, but I have already clicked “Continue”. How can I go back?
Frequently Asked Questions

10/05/08 7:24 PM

A: Please return to the beginning of the questionnaire, re-enter your Verification Code, and begin the questionnaire again. Your previous answers will be discarded.

Q: I have another question. How can I contact you?
A: Please feel free to contact the researcher, Canton Duff, at counsellingstudy@gmail.com or (780) 990-0612.

Q: I am feeling upset. What should I do?
A: A list of community support resources is available. Please click here for resources in the Edmonton Region, or click here for resources in the Victoria Region. If you do not live in either of these areas and would like a list of support services in your area, please contact the researcher at counsellingstudy@gmail.com or (780) 990-0612. For all emergencies dial 911 immediately.

Click the button below to return to the questionnaire.

Continue ONLY when finished. You will be unable to return or change your answers.

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Appendix G

Participant Resource List - Edmonton

Therapist Contributions to the Therapeutic Alliance from the Client’s Perspective

This resource list has been provided for you to use in the unlikely event that you experience emotional distress or other discomfort as a result of your participation in this study. Should you have any questions about your participation in this study, you may also contact the Principal Investigator, Carlton Duff at (780) 990-0612 or cdaff@uvic.ca.

For all emergencies: Dial 911 immediately.

Edmonton Resources

The Mobile Adult Mental Health Crisis Response Team provides mobile crisis assessment and referral services to all Edmonton residents. Call (780) 482-0222 for more information.

Edmonton Mental Health Services provides individual counselling, assessment and treatment. They are located on the 5th floor of 9942 108 St. You can also call (780) 427-4444.

The Support Network Community Referral Line is a community resource that connects you with information about community services, including support groups and counseling. Dial 211.

The Support Network also offers free walk-in single session counselling and referral services. They are located at #301 11456 Jasper Ave., or can be reached at (780) 482-4357 (HELP).

Edmonton YWCA Counselling Services offers sliding-scale individual counselling. Call (780) 423-9922.

The Family Centre provides in-home parent support, as well as sliding-scale individual counselling for adults. They are located at #20 9912 108 St., and can be called at (780) 423-2831.

The Psychologists’ Association of Alberta has an online self-serve referral service to match clients with psychologists. This service can be found at http://www.psychologistsassociation.ab.ca/pages/doctor_search_agreement

If you are a student at the University of Alberta, the U of A Student Services provides free counselling for students. They can be reached at (780) 492-5205 or in room 2-606 SUB.

The University of Alberta Clinical Services Counselling Centre provides individual counselling by counselling students to members of the general public for a one-time fee of $50. Call (780) 492-3746 to arrange an appointment.
Appendix H

Participant Resource List - Victoria

Therapist Contributions to the Therapeutic Alliance from the Client’s Perspective

This resource list has been provided for you to use in the unlikely event that you experience emotional distress or other discomfort as a result of your participation in this study. Should you have any questions about your participation in this study, you may also contact the Principal Investigator, Carlton Duff at (780) 990-0812 or cduff@uvic.ca.

For all emergencies: Dial 911 immediately.

Victoria Resources

The NEED Crisis Line is a community resource that provides emotional support, crisis support, and that can connect you with information about community services, including support groups and counseling. Call 24 hours: (250) 386-6323.

The Integrated Mobile Crisis Response Team provides mobile crisis assessment and referral services to all Edmonton residents. The team can be reached through the NEED crisis line at (780) 482-0222.

Citizen’s Counselling Centre provides individual, couples, and group counselling. Trained and professionally supervised volunteer counsellors provide counselling, and fees are sliding scale based on annual income, from $5-40 per session. Call (780) 384-9934 or visit them at 941 Kings Rd.

The Victoria Men’s Trauma Centre provides counselling and victim support services for men who have experienced trauma. They can be reached at (250) 381-MENS (6367).

The British Columbia Psychological Association has an online self-serve referral service to match clients with psychologists. This service can be found at http://www.psychologists.bc.ca/referral.html

If you are a student at the University of Victoria, the UVic Counselling Services provides free counselling for students. They can be reached at (250) 721-8341 or in Room 135 of the Campus Services Building, 3800 Finnerty Rd.

The Island Family Counselling Centre provides independent counselling for individuals, couples, and families by registered clinical counsellors and social workers. They are located at #130 – 1105 Pandora Ave., and can be reached at (250) 598-0544.
Appendix I

Demographic Questionnaire

Instructions: The following questions are intended to tell us about the type of people who seek counselling. For each question, you will be asked to either fill in a bubble ( ☐ ) or a blank ( _____ ).

Important: Please take your time to answer each question carefully and completely.

1. How did you find out about this research study? Please choose only one.
   - Through my counsellor/therapist.
   - Through a posted flyer (please specify where): ________________
   - Other (please specify where): ________________

2. What is your gender? Please choose only one.
   - Male
   - Female
   - Cross-gender
   - Transgender
   - Other (please specify): ________________

3. What is your birthdate? Please choose only one.
   _______ (month) _________ (day) __________ (year)

4. What is your present marital status? Please choose only one.
   - Never married
   - Married/common-law
   - Divorced/Separated
   - Widowed
   - Other (please specify): ________________

5. What is the highest level of education you have completed? Please choose only one.
   - Elementary School
   - High School
   - Diploma
   - Bachelor’s Degree
   - Master’s Degree
   - Doctoral Degree or MD

6. What is your current occupation?
   ______________________________________

7. What is your ethnicity? Please choose only one.
European
First Nations/Aboriginal
Asian Indian
Other Asian
Latin American
Biracial (please specify): __________________________
Multiracial (please specify): _______________________
Other (please specify): _________________________

8. Which of the following best describe your reason(s) for seeking counselling/psychotherapy? Please indicate all that apply.

- Anxiety/Stress issues
- Depression
- Relationship issues
- Post-traumatic Stress Disorder (PTSD)
- Addiction issues
- Anger issues
- Career issues
- Educational issues
- Other (please specify): _______________________

9. Approximately how many sessions have you had with your last (or current) counsellor/therapist?

__________ sessions

10. What date did you begin counselling with your last (or current) counsellor/therapist? If you do not remember specifically, please estimate the date.

__________ (month) __________ (day) __________ (year)

11. Approximately how many days has it been since your last session with your last (or current) counsellor/therapist?

__________ days

12. How many counsellors/therapists have you seen in your lifetime (including your last or current counsellor/therapist)?

__________ counsellors/therapists

13. How did you pay for the service provided by your last (or current) counsellor/therapist? Please choose only one.

- I paid for the service entirely with my own money
- Some of the cost was covered by my health care plan, and I paid the rest
- All of the cost was covered by my health care plan
- There was no charge for the service
- Other (please specify): _______________________


14. Where are you currently receiving (or did you last receive) counselling or psychotherapy? Please choose only one.
   - Private Practitioner
   - Community Agency
   - University/College Counselling Centre
   - Hospital or Clinic
   - Other (please specify): ____________________

15. What is your last (or current) counsellor/therapist’s highest level of education completed? Please choose only one.
   - Not sure/don’t know
   - Diploma
   - Bachelor’s Degree (e.g., BA, BEd, BSc)
   - Master’s Degree (e.g., MA, MEd, MSc)
   - Doctoral Degree or MD (e.g., PhD, EdD, MD)

16. What is your counsellor/therapist’s gender? Please choose only one.
   - Male
   - Female
   - Cross-gender
   - Transgender
   - Other (please specify): ____________________

Thank you. Please turn the page.
Appendix J

Demographic Questionnaire

Instructions: The following questions ask about various aspects of yourself and your counselling experience. For each question, you will be asked to either fill in a bubble (○) or a blank (______).

Important: Please take your time to answer each question carefully and completely.

*2) How did you find out about this research study?
- Through my counsellor/therapist
- Through a posted flyer
- Other (Please specify)

*3) What is your gender?
- Male
- Female
- Cross-gender
- Transgender
- Other (Please specify)

*4) What is your birthdate?

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*5) What is your present marital status?
- Never married
- Married/Common-law
- Divorced/Separated
- Widowed
- Other (Please specify)

*6) What is the highest level of education you have completed? Do not include education in progress.
- Elementary School
- High School
- Diploma
- Bachelor's Degree
- Master's Degree
- Doctoral Degree or MD

*7) What is your current occupation?

*8) What is your ethnicity?

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Page 1 of 3
Demographic Questionnaire

9) Which of the following best describe your reason(s) for seeking counselling/psychotherapy? Please select all that apply.
- Anxiety/Stress issues
- Depression
- Relationship issues
- Post-traumatic Stress Disorder (PTSD)
- Addiction issues
- Anger issues
- Career issues
- Educational issues
- Other (Please specify)

*10) Approximately how many sessions have you had with your last (or current) counsellor/therapist?

*12) Approximately how many days has it been since your last session with your counsellor or psychotherapist?

*13) How many counsellors/therapists have you seen in your lifetime (including your last or current counsellor/therapist)?

*14) How did you pay for the service provided by your last (or current) counsellor/therapist?
- I paid for the service entirely with my own money
- Some of the cost was covered by my health care plan, and I paid the rest
- All of the cost was covered by my health care plan
- There was no charge for the service
- Other (Please specify)

*15) Where are you currently receiving (or did you last receive) counselling or psychotherapy?
Demographic Questionnaire

- [ ] Private Practitioner
- [ ] Community Agency
- [ ] University/College Counselling Centre
- [ ] Hospital or Clinic
- [ ] Other (Please specify)

*16) What is your last (or current) counsellor/therapist’s highest level of education completed? Do not include education in progress.
- [ ] Not sure/don’t know
- [ ] Diploma
- [ ] Bachelor’s Degree (e.g., BA, BEd, BSc)
- [ ] Master’s Degree (e.g., MA, MEd, MSc)
- [ ] Doctoral Degree or MD (e.g., PhD, EdD, MD)

*17) What is your counsellor/therapist’s gender?
- [ ] Male
- [ ] Female
- [ ] Cross-gender
- [ ] Transgender
- [ ] Other (Please specify)

You have completed Part 1 of 2.

Please take a moment to review your answers to ensure that they are accurate.

You will not be able to return to this page after you continue

When you are ready to continue, click ‘Continue to Next Page’ below.

Continue ONLY when finished. You will be unable to return or change your answers.

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## Therapeutic Alliance Critical Incidents Questionnaire

**Instructions:** Below is a series of statements that describe some of the things that may happen during counselling. As you read the sentences, mentally insert the name of your therapist (counsellor) in place of ____ in the text. For each statement, please take your time to think carefully of your own experience over the last three sessions only with your therapist (counsellor) and then fill in the appropriate bubble.

**Important:** The rating scale is not the same for all the statements. PLEASE READ CAREFULLY!

1. ____ made eye contact with me.
   - Never
   - Sometimes
   - Fairly Often
   - Very Often
   - Always

2. ____ told me about similar experiences that he/she had.
   - Never
   - Sometimes
   - Fairly Often
   - Very Often
   - Always

3. ____ asked me questions.
   - Always
   - Very Often
   - Fairly Often
   - Sometimes
   - Never

4. ____ made encouraging comments.
   - Never
   - Sometimes
   - Fairly Often
   - Very Often
   - Always

5. ____ greeted me with a smile.
   - Always
   - Very Often
   - Fairly Often
   - Sometimes
   - Never

6. ____ identified and reflected back my feelings.
   - Always
   - Very Often
   - Fairly Often
   - Sometimes
   - Never

7. ____ referred to details we had discussed in previous sessions.
   - Never
   - Sometimes
   - Fairly Often
   - Very Often
   - Always

8. ____ let me decide what to talk about.
   - Never
   - Sometimes
   - Fairly Often
   - Very Often
   - Always

9. ____ was honest (i.e., he/she shared negative information truthfully).
   - Never
   - Sometimes
   - Fairly Often
   - Very Often
   - Always
10. _____ made positive comments about me.


11. _____ sat still (i.e., did not fidget).


12. _____ provided verbal prompts (e.g., “uh huh,” “hmm-mmm”).


13. _____ sat facing me (i.e., sat directly across from me).


14. _____ kept the administration (e.g., fees, scheduling of appointments, paperwork) outside of our sessions.


15. _____ validated my experience (e.g., he/she said that my reaction was understandable and reasonable, and that it was okay to feel this way).


Please turn the page.
Appendix L

TACIQ - Form A

Therapeutic Alliance Critical Incidents Questionnaire

Instructions: Below is a series of statements that describe some of the things that may happen during counselling. As you read the sentences, mentally insert the name of your therapist (counsellor) in place of ________ in the text. For each statement, please take your time to think carefully of your own experience over the last three sessions only with your therapist (counsellor) and then fill in the appropriate bubble.

Important: The rating scale is not the same for all the statements. PLEASE READ CAREFULLY!

*1) ______ made eye contact with me.
   (1) Never  (2) Sometimes  (3) Fairly Often  (4) Very Often  (5) Always

*2) ______ told me about similar experiences that he/she had.
   (1) Never  (2) Sometimes  (3) Fairly Often  (4) Very Often  (5) Always

*3) ______ asked me questions.
   (1) Always  (2) Very Often  (3) Fairly Often  (4) Sometimes  (5) Never

*4) ______ made encouraging comments.
   (1) Never  (2) Sometimes  (3) Fairly Often  (4) Very Often  (5) Always

*5) ______ greeted me with a smile.
   (1) Always  (2) Very Often  (3) Fairly Often  (4) Sometimes  (5) Never

*6) ______ identified and reflected back my feelings.
   (1) Always  (2) Very Often  (3) Fairly Often  (4) Sometimes  (5) Never

*7) ______ referred to details we had discussed in previous sessions.
   (1) Always  (2) Very Often  (3) Fairly Often  (4) Sometimes  (5) Never

*8) ______ let me decide what to talk about.
   (1) Never  (2) Sometimes  (3) Fairly Often  (4) Very Often  (5) Always

*9) ______ was honest (i.e., he/she shared negative information truthfully).
   (1) Always  (2) Very Often  (3) Fairly Often  (4) Sometimes  (5) Never

*10) ______ made positive comments about me.
    (1) Never  (2) Sometimes  (3) Fairly Often  (4) Very Often  (5) Always

*11) ______ sat still (i.e., did not fidget).
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[Image 108x115 to 576x720]

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TACIQ - Form A

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☐ (1) Never  ☐ (2) Sometimes  ☐ (3) Fairly Often  ☐ (4) Very Often  ☐ (5) Always

*12) ______ provided verbal prompts (e.g., ƛał̤ə̳n̤̜̕ə̳̬̕huh̤̜̕ə̳̬̕ ƛał̤̜̕ə̳̬̕t̤̜̕ə̳̬̕h̤̜̕m̤̜̕m̤̜̕ ƛał̤̜̕ə̳̬̕k̤̜̕mph̤̜̕).  
   ☐ (1) Always  ☐ (2) Very Often  ☐ (3) Fairly Often  ☐ (4) Sometimes  ☐ (5) Never

*13) _____ sat facing me (i.e., sat directly across from me).  
   ☐ (1) Never  ☐ (2) Sometimes  ☐ (3) Fairly Often  ☐ (4) Very Often  ☐ (5) Always

*14) ______ kept the administration (e.g., fees, scheduling of appointments, paperwork) outside of our sessions.  
   ☐ (1) Never  ☐ (2) Sometimes  ☐ (3) Fairly Often  ☐ (4) Very Often  ☐ (5) Always

*15) ______ validated my experience (e.g., he/she said that my reaction was understandable and reasonable, and that it was  
   okay to feel this way).  
   ☐ (1) Always  ☐ (2) Very Often  ☐ (3) Fairly Often  ☐ (4) Sometimes  ☐ (5) Never

You have completed Part 2 of 2.

Please take a moment to review your answers to ensure that they are accurate.

You will not be able to return to this page after you continue

When you are ready to continue, click “Continue to Next Page” below.

Continue ONLY when finished. You will be unable to return or change your answers.

Continue to Next Page

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Appendix M

Working Alliance Inventory – Short Form – Revised*

Instructions: Below is a series of statements about experiences people might have with their therapy or therapist. Some items refer directly to your therapist with an underlined space – as you read the sentences, mentally insert the name of your therapist in place of _______ in the text. For each statement, please take your time to consider your own experience and then fill in the appropriate bubble.

Important: The rating scale is not the same for all the statements. PLEASE READ CAREFULLY!

1. As a result of these sessions I am clearer as to how I might be able to change.
   
   Seldom  Sometimes  Fairly Often  Very Often  Always
   
2. What I am doing in therapy gives me new ways of looking at my problem.
   
   Seldom  Sometimes  Fairly Often  Very Often  Always
   
3. I believe _____ likes me.
   
   Always  Very Often  Fairly Often  Sometimes  Seldom
   
4. _____ and I collaborate on setting goals for my therapy.
   
   Seldom  Sometimes  Fairly Often  Very Often  Always
   
5. _____ and I respect each other.
   
   Always  Very Often  Fairly Often  Sometimes  Seldom
   
6. _____ and I are working towards mutually agreed upon goals.
   
   Seldom  Sometimes  Fairly Often  Very Often  Always
   
7. I feel that _____ appreciates me.
   
   Always  Very Often  Fairly Often  Sometimes  Seldom
   
8. _____ and I agree on what is important for me to work on.
   
   Seldom  Sometimes  Fairly Often  Very Often  Always
   
9. I feel _____ cares about me even when I do things that he/she does not approve of.
   
   Always  Very Often  Fairly Often  Sometimes  Seldom
   
10. I feel that the things I do in therapy will help me to accomplish the changes I want.

   Always  Very Often  Fairly Often  Sometimes  Seldom
11. ______ and I have established a good understanding of the kind of changes that would be good for me.

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<th>Seldom</th>
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<th>Fairly Often</th>
<th>Very Often</th>
<th>Always</th>
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12. I believe the way we are working with my problem is correct.

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<th>Always</th>
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Please check to ensure that you have completed all of the questions, and return the questionnaire to the researcher.

Thank you for your participation.
Appendix N

(WAI-SR - Form A)

Working Alliance Inventory - Short - Revised

Instructions: Below is a series of statements about experiences people might have with their therapy or therapist. Some items refer directly to your therapist with an underlined space – as you read the sentences, mentally insert the name of your therapist in place of _______ in the text. For each statement, please take your time to consider your own experience and then fill in the appropriate bubble.

Important: The rating scale is not the same for all the statements. PLEASE READ CAREFULLY!

*1) As a result of these sessions I am clearer as to how I might be able to change.
   (1) Seldom  (2) Sometimes  (3) Fairly Often  (4) Very Often  (5) Always

*2) What I am doing in therapy gives me new ways of looking at my problem.
   (1) Seldom  (2) Sometimes  (3) Fairly Often  (4) Very Often  (5) Always

*3) _______ and I collaborate on setting goals for my therapy.
   (1) Seldom  (2) Sometimes  (3) Fairly Often  (4) Very Often  (5) Always

*4) _______ and I respect each other.
   (1) Always  (2) Very Often  (3) Fairly Often  (4) Sometimes  (5) Seldom

*5) _______ and I are working towards mutually agreed upon goals.
   (1) Always  (2) Very Often  (3) Fairly Often  (4) Sometimes  (5) Seldom

*7) I feel that _______ appreciates me.
   (1) Always  (2) Very Often  (3) Fairly Often  (4) Sometimes  (5) Seldom

*8) _______ and I agree on what is important for me to work on.
   (1) Seldom  (2) Sometimes  (3) Fairly Often  (4) Very Often  (5) Always

*9) I feel _______ cares about me even when I do things that he/she does not approve of.
   (1) Always  (2) Very Often  (3) Fairly Often  (4) Sometimes  (5) Seldom

*10) I feel that the things I do in therapy will help me to accomplish the changes I want.
    (1) Seldom  (2) Sometimes  (3) Fairly Often  (4) Very Often  (5) Always

*11) _______ and I have established a good understanding of the kind of changes that would be good for me.
*12) I believe the way we are working with my problem is correct.
(1) Always  (2) Very Often  (3) Fairly Often  (4) Sometimes  (5) Seldom

Continue ONLY when finished. You will be unable to return or change your answers.

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From: "Robert Hatcher" <robehatch@umich.edu>
Subject: Re: Request for permission to use the WAI-SR
Date: July 17, 2007 8:23:00 AM MDT (CA)
To: "Carlton Duff" <cduff@uvic.ca>

Good morning, Carlton -- Dr. Horvath holds the copyright on the WAI, though he's usually asked people to get my permission to use the revised short form, which I'm glad to give you. You should contact Dr. Horvath about the copyright itself. I'd be delighted to learn of your results. Best wishes, Robert Hatcher

On 7/17/07, Carlton Duff <cduff@uvic.ca> wrote:

Hello Dr. Hatcher,

I am conducting research for my master's thesis on the effect of alliance type on the working alliance, and I would like to use your revised short version of the Working Alliance Inventory (Hatcher & Gillaspy, 2006) as a measure of early alliance. However, I'm not clear whether you or Dr. Horvath holds the copyright for the WAI-SR. If you are the copyright holder, I would be very grateful if you would grant me permission to use the WAI-SR as a research measure for the limited term of my thesis research (expected completion by September 2008). I would be happy to share my research proposal and future results with you at your request, and I would certainly acknowledge your permission in any published scholarship that results from this research.

I look forward to hearing from you!

Sincerely regards,

Carlton T. Duff
MA Student, Counselling Psychology
Dept. of Educational Psychology and Leadership Studies
University of Victoria
Victoria, BC
Canada

Tel: (250) 688-6339
Fax: (250) 721-6190
Lab. (250) 853-3210
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--

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Director, Institute for Human Adjustment
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From: Adam Horvath <horvath@sfu.ca>
Subject: Re: Request for permission to use the WAI-SR
Date: March 5, 2008 12:19:45 AM MST (CA)
To: Carlton Duff <cduff@uvic.ca>

"I authorize you to include in your thesis a copy of the Working Alliance Inventory, Short Revised Form. I am aware that you are granting an irrevocable non-exclusive license allowing the Library and Archives Canada to reproduce, loan, distribute or sell copies of this thesis/dissertation by any means and in any form or format to make it available to interested persons."

I think you should ask Prof. Hatcher also.

Adam O. Horvath Professor
Faculty of Education and Dept. of Psychology
Simon Fraser University
Ph: 778-782-3624
Fax: 778-782-3503

On 4-Mar-08, at 10:45 AM, Carlton Duff wrote:

"I authorize you to include in your thesis a copy of the Working Alliance Inventory, Short Revised Form. I am aware that you are granting an irrevocable non-exclusive license allowing the Library and Archives Canada to reproduce, loan, distribute or sell copies of this thesis/dissertation by any means and in any form or format to make it available to interested persons."
Appendix P

Human Research Ethics Board
Certificate of Approval

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<th>Principal Investigator</th>
<th>Department/School</th>
<th>Supervisor</th>
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<tr>
<td>Carlton T. Duff</td>
<td>EPLS</td>
<td>Robinder P. Bedi</td>
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Co-Investigator(s):

Project Title: Therapist Contributions to the Therapeutic Alliance: From the Client’s Perspective

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Certification
This certifies that the UVic Human Research Ethics Board has examined this research protocol and concluded that, in all respects, the proposed research meets the appropriate standards of ethics as outlined by the University of Victoria Research Regulations Involving Human Participants.

Signature digitally removed

Dr. Richard Keeler
Associate Vice-President, Research