

# Detecting Alliance Ruptures and Rupture Repair with the Segmented Working Alliance Inventory—Observer Form (S-WAI-O)

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**ABSTRACT:** A series of studies have shown the quality of the therapeutic alliance to be a strong predictor of outcome across a wide range of modalities (Castonguay, Constantino & Holtforth 2006; Martin, Garske, & Davis, 2000; Horvath & Symonds, 1991) and demonstrated that when therapists can work through negative process and repair ruptures in the alliance, their patients may have better treatment outcomes (Bordin, 1994; Henry & Strupp, 1994; Horvath, 1995; Safran, Muran & Eubanks-Carter, 2011). This paper presents a study that used the Segmented Working Alliance Inventory-Observer Form (S-WAI-O), an observer-based method of detecting ruptures and their repair, and provides psychometric validity and reliability for the measure. Observers applied the S-WAI-O coding method to therapy sessions from 22 therapeutic dyads, whose therapists underwent specialized rupture resolution training. The S-WAI-O was used to detect changes in the quality of the therapeutic alliance before and after this specialized training. While no differences were found between the pre- and post-training phases of therapy, the S-WAI-O was found to be a valid and reliable measure. This paper is broken down into two parts: (1) a review of the principal theoretical concepts surrounding the study, and (2) the empirical study itself.

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Segmented Working Alliance Inventory—Observer Form  
(S-WAI-O)

by

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## **DEDICATION**

I would like to dedicate this dissertation to my family, who have always supported me in whatever interests I have wanted to pursue. I am especially indebted to my fiancé Jake, who at the very least has earned an associates degree in psychology for all that he has learned through helping me to study, editing my papers and supporting me through the entire process of graduate school.

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# Chapter 1: Theoretical Basis

## I. The Therapeutic Alliance

"At last the Dodo said, 'Everybody has won, and all must have prizes.'"

-Lewis Carroll, Alice in Wonderland

Rosenzweig's (1936) Dodo bird verdict was a proposition that all psychotherapies, regardless of theoretical orientation or technique, are basically equally effective—all psychotherapies have "won," so comparisons of different treatment modalities are meaningless. Luborsky, Singer and Luborsky (1974) provided empirical support for the Dodo bird verdict with one of the first large-scale comparative studies, which revealed few significant differences in outcome between treatment types. Subsequent research has shown therapy to be an effective form of treatment, but there is little evidence to support the superiority of one type of therapy or technique over another (Lambert & Bergin, 1994; Stiles, Shapiro & Elliot, 1986). While some researchers are still concerned with comparing types of treatment, there has been a shift in psychotherapy research toward studying the process of therapy and thereby discovering common mechanisms of change across psychotherapies (Rice & Greenberg, 1984).

One of the most widely investigated common factors is the therapeutic working alliance, a psychoanalytic concept popularized in psychotherapy research by Bordin (1979). A large body of research has consistently shown a positive relationship between therapeutic alliance and treatment outcome (Hartley & Strupp, 1983; Horvath & Symonds, 1991; Martin, Garske & David, 2000). For example, Hartley and Strupp's (1983) research at Vanderbilt University found that

an early establishment of a therapeutic alliance (i.e., by the third session) predicted success in treatment. Horvath and Symonds (1991) completed the first meta-analysis comparing the therapeutic alliance and outcome. Their analysis included 24 studies and found a moderate effect size (0.26) linking the quality of the alliance and outcome. In 2000, Martin et al. completed a similar meta-analysis with an additional 55 studies; as in previous studies, their results confirmed the presence of a moderate and consistent relationship between alliance and outcome. This body of research indicates that the alliance is a critical mechanism of change in psychotherapy (Safran & Muran, 2000). Researchers are now turning their attention to the way an alliance develops and is maintained.

The first origins of the therapeutic alliance come from Freud (1912, 1913), who described the patient's attachment to the analyst as "effective transference" and believed the analyst's first goal in treatment was to "attach" the patient to himself by showing consistent sympathy and interest, clearing away early resistance and avoiding mistakes. While Freud considered the patient's positive reactions and transference towards the analyst necessary components of a successful analysis, he also regarded this attachment as almost inevitable, requiring little work from the therapist.

Although often attributed to Zetzel, Sterba (1934) first introduced the term "therapeutic alliance." Like Freud, Sterba focused on the patient's contributions to the therapeutic alliance and saw the analyst's role as mostly passive. Unlike Freud, however, Sterba believed the patient's alliance with the analyst emerged from the rational part of the patient's ego, which could overcome resistances and instinctual



drives to form a pact with the analyst and engage in treatment; the patient's motivation for treatment was not a libidinal drive, but a rational desire for health. For Sterba, this rational desire allowed the patient to maintain a "split in the ego" that preserved the alliance with the therapist in the face of negative transference.

Zetzel (1956), an ego psychologist, later built upon both Sterba and Freud's ideas about the therapeutic alliance, defining it as the patient's identification or positive transference with the therapist. For Zetzel, as for Freud and Sterba before her, the therapeutic alliance was a necessary component of therapy that enabled the patient to work collaboratively with the analyst in the face of conflictual feelings about the analyst and the process. However, in contrast to both Freud and Sterba, Zetzel promoted a more active role for the therapist, and believed that the analyst must sometimes actively intervene to bolster reality testing and ego resources and to contain regressive transference manifestations (Zetzel, 1970). In Zetzel's conception, the alliance requires a:

Capacity to tolerate anxiety and frustration, to accept certain reality limitations, and to differentiate between mature and infantile aspects of mental life. This relationship acts, on the one hand, as a barrier to significant ego regression, and, on the other, as a fundamental feature of the analytic situation against which the fantasies, memories and emotions evoked by the transference neurosis can be measured and contrasted (Zetzel, 1956, p. 185).

Zetzel also differentiated between positive transference, which contributes to a therapeutic alliance and is necessary for effective analytic treatment, and a transference neurosis, which is part of the patient's resistance and requires further analysis.

In 1965, Greenson gained more attention for the working alliance, defining it as "the relatively non-neurotic, rational rapport which the patient has with his analyst" (p. 157). While he did not discount the effect of transference entirely, and acknowledged that it may have some influence on the development of the therapeutic relationship, Greenson agreed with Sterba that the core of the working alliance is the patient's rational desire to cooperate with his analyst, to utilize the analyst's interventions and interpretations, and ultimately to become healthy (Greenson, 1967). Like Zetzel, Greenson believed that the therapist actively contributes to the formation and maintenance of the working alliance; however, he emphasized that the role of the therapist is not to promote reality testing and ego functions, but to act with an appropriate level of "humanness," which he defined as "understanding and insight conveyed in an atmosphere of serious work, straightforwardness, compassion, and restraint" (Greenson, 1965, p. 179). This attitude of humanness is a balance between gratification and neutrality and helps build the "real" relationship that Greenson considered the key mediating factor in the therapeutic process.

Bordin (1979), drawing from the work of both Zetzel and Greenberg, argued that the working alliance is central to therapeutic change in all types of therapies. Concerned about the growing number of theoretical orientations and psychotherapies, Bordin identified the working alliance as a change agent that is common across treatment models; while each kind of therapy makes different demands of the patient and therapist, they all have "embedded" working alliances. Bordin proposed that the success of therapy is due, possibly entirely, to the strength

of the working alliance, and that this strength is determined by the goodness of fit between the demands of the working alliance required by a particular kind of therapy and the personal characteristics of the patient and therapist. He also broke down the working alliance into three distinct but interrelated components: "An agreement on goals, an assignment of tasks or a series of tasks, and the development of a bond" (Bordin, 1979, p. 253). The goals of therapy are what the patient and therapist want to achieve through the therapy (e.g., better self-understanding or a reduction in panic attacks), and the tasks of therapy are the means by which these goals are achieved (e.g., transference interpretations or thought records). A bond is an affective relationship established between the patient and therapist that makes therapeutic work possible. Unlike some of his predecessors, Bordin argues that both the patient and therapist contribute to the establishment and maintenance of a working alliance.

## **II. Ruptures in the Alliance**

As mentioned above, there is a great body of research dedicated to the therapeutic alliance, which has shown that the quality of the alliance is one of the best predictors of psychotherapy outcome (see, e.g., Hartley & Strupp, 1983; Horvath & Symonds, 1991; Martin, Garske & David, 2000). Over the last twenty years, a second wave of therapeutic alliance research has emerged, with an emphasis on exploring the factors that establish and maintain an alliance (Safran, Muran & Eubanks-Carter, 2010). This research has been particularly devoted to examining the processes involved in identifying and repairing strains or ruptures in the alliance (Bordin, 1980; Safran, Muran, Samstag & Stevens, 2002).

Safran and Muran (1996) defined a rupture in the therapeutic alliance as a deterioration in the relationship between the patient and the therapist or a difficulty in establishing such a relationship; ruptures are unavoidable events in therapy and can range from explosive blowouts to minor, almost imperceptible shifts. The most severe ruptures may lead to premature termination, while mild ruptures may never be addressed during the course of treatment. Safran and Muran (2000), drawing from relational psychoanalytical theory, stated that both the patient and therapist contribute to the development of a rupture. In other words, a rupture is not caused exclusively by a patient's neuroses or a therapist's actions; it is an interactive, dynamic process with contributions from both the patient and the therapist. Ruptures are often important opportunities to work through problems, strengthen the alliance and correct maladaptive interpersonal processes (Safran, Crocker, McMain & Murray, 1990; Safran & Muran, 1996).

One can conceptualize ruptures as a disturbance in one or more of Bordin's (1979) three components of the alliance: goals, tasks and the therapeutic bond. The tasks and goals of therapy are in a constant state of negotiation, and this negotiation allows for interpersonal conflicts and ruptures. For instance, the task and bond may be interrupted when a therapist brings up a topic that the patient is unwilling to discuss (i.e., a task) and the patient responds with hostility (thus disturbing the bond).

Harper (1989a, 1989b) conceptualized ruptures in the therapeutic alliance as being divided into two types of markers: withdrawal and confrontation. While she did not discount therapists' contributions to ruptures, her manual for identifying

ruptures focused on patient behaviors. In Harper's model, a withdrawal rupture occurs when the patient disengages from the therapist, the therapy or his own internal experience; confrontation ruptures occur when the patient moves against the therapist or some aspect of the therapeutic process in an aggressive, hostile manner by expressing resentment or dissatisfaction. While confrontation markers are usually less subtle and can be easily imagined, withdrawal markers are sometimes harder to detect and define. A wonderful example of a withdrawal rupture comes from an interview with a therapist at the Brief Psychotherapy Research Program in New York City.

Interviewer: Have you experienced any moments of conflicts, disagreements, misunderstandings, or tension in your relationship with your patient?

Therapist: Yes there is a level at which it is still below the surface in some ways, and it tends to come up around this issue of control and my asking her about her felt experience and then her being uncomfortable with that and moving away from it and then my trying to pull her back. And initially it felt like we were trying to smooth things over and not looking at that. We've never had a conflict that was a really clear confrontation where she was openly angry or anything of that nature but its more this sense of her having reactions to things I've said and I've asked about it directly and we've explored it but it feels like there is more.

Interviewer: But there hasn't been a salient moment kind of moment where she has rejected something you've said.

Therapist: No there have been, we've had conversations where she has acknowledged feeling pushed by me and controlled in some ways but I can't say that there was a moment that there was a clear conflict. More that there were these little ripples that happen fairly regularly.

This example shows how withdrawal ruptures can subtly affect the therapeutic process and alliance throughout the course of treatment.

### **III. The Resolution of Alliance Ruptures**

A number of studies have shown that alliance ruptures present an opportunity for psychological transformation because they allow a therapist to repair a patient's maladaptive interpersonal schemas (Safran & Muran, 2000; Safran, Muran, Samstag & Stevens, 2002; Safran & Segal, 1990). Resolving ruptures may also help prevent early termination from treatment (Martin et al., 2000; Samstag, Batchelder, Muran, Safran, & Winston, 1998).

To further understand the process of rebuilding the alliance after a rupture, Safran and Muran (1996) created a rupture resolution model that explains the process of resolution. Drawing from Harper's (1989a, 1989b) paradigm, they created two models of resolution: one for resolving confrontation ruptures and one for resolving withdrawal ruptures (Safran et al., 1990; Safran & Muran, 1996; 2000). When a withdrawal rupture occurs, the resolution process involves addressing interpersonal fears, expectations and internalized criticism that impede the patient's ability to directly express negative feelings; the therapist slowly encourages the patient to self-assert and express underlying hopes and wishes. When a confrontation rupture occurs, the resolution process involves exploring the fears of self-criticism that create aggressive and assertive feelings towards the therapist or therapy and impede the expression of underlying needs. The therapist's task is to encourage the patient to express vulnerable feelings. Although Safran and Muran defined two different resolution models, they acknowledge that elements of both types of ruptures are usually present in a rupture episode, so the therapist may utilize both models of resolution in one rupture episode.

#### **IV. Detecting Ruptures and their Repair**

Given the importance that maintaining a strong alliance and repairing ruptures has for treatment outcome and retention, researchers should strive to create methodologies and instruments for detecting ruptures and rupture repair episodes. Once rupture and repair episodes are successfully identified, researchers can then begin to study how ruptures are successfully and unsuccessfully resolved. A number of methods have been employed to study these events. In the naturalistic method of observing ruptures, researchers observe the natural occurrence of ruptures and rupture resolution in psychotherapy and examine their relationship with outcome (Eubanks-Carter, Muran & Safran, 2010). There are three methods for identifying ruptures and rupture resolution in a naturalistic way: direct patient or therapist self-report of ruptures and resolution, indirect self-report based on measures of the alliance, and observer-based measures of ruptures and resolution.

#### **V. Direct Self-Report**

Eames and Roth (2000) compared patient and therapist report of rupture and patient and therapist alliance scores to patients' attachment styles, and hypothesized that an insecure attachment style may hinder the early formation of the alliance and contribute to more ruptures in later therapy. After each session, they administered the Post Session Questionnaire (PSQ; Muran, Samstag & Winston, 1992) to 30 patients and the 11 therapists in the study. The PSQ has self-report measures of the alliance as well as questions relating to the occurrence of ruptures, rupture intensity and the extent to which ruptures were resolved. Overall, therapists reported twice as many ruptures as their patients. The researchers

conceded that this discrepancy between patient and therapist report of rupture could not be accounted for in their study, but theorized that it may have been due to differences in awareness of tension, differences in attribution, or reporting bias (i.e., that the therapists knew the researchers were studying ruptures and therefore focused more on their presence than they would have otherwise. They also found that a patient's Preoccupied attachment style was associated with more frequent report of ruptures by the therapist, whereas a Dismissing attachment style was associated with fewer therapist-reported ruptures. They did not find a significant relationship between attachment style and patient-reported ruptures.

Muran et al. (2009) studied the relationship of early alliance ruptures and their resolution to process and outcome measures in a sample of 128 patients in three time-limited therapies. They also used the PSQ to measure alliance, rupture presence, rupture intensity and resolution, and found frequent report of ruptures in the first six sessions of therapy from both patients (37% of sessions) and therapists (56% of sessions). High rupture intensity, as reported by both the patient and therapist, was associated with poor outcome on measures of interpersonal functioning. However, successful resolution of these ruptures was associated with higher treatment retention rates.

There are several problems with direct self-report of ruptures and rupture repair episodes. Regan and Hill (1992) exposed one such problem when they asked patients and experienced therapists about the thoughts and feelings that they were unwilling or unable to express in treatment. They found that for both patients and therapists, most of these unsaid things were negative. They also found that



therapists were only aware of 17% of the things patients had left unsaid. In a subsequent study, Rhodes, Hill, Thompson and Elliot (1994) found that patients who felt uncomfortable discussing misunderstandings with their therapists were able to conceal these feelings and the misunderstandings were left unaddressed, which often led to early treatment termination. Patients and therapists are therefore not equally aware of or willing to admit to problems in the relationship. This is reflected in the discrepant reports of ruptures between patient and therapist that are found in many studies (e.g., Muran et al., 2009, Eames & Roth, 2000). Patients may also be unwilling to report problems with the relationship because they have the perception that it will negatively impact their therapist in some way or that their therapists may view these ratings even when patients are assured that this is not the case.

## **VI. Indirect Self-Report**

Because patients and therapists have such a discrepancy in reporting ruptures, some researchers question the utility of direct self-report as a method for identifying ruptures and have developed indirect methods of identifying ruptures as an alternative. These indirect methods involve collecting patient and therapists' measures of the overall alliance and then using fluctuations in the alliance scores to detect ruptures and rupture repair episodes.

An early example of this method comes from Safran et al. (1990, 1994), who asked patients to answer six questions from the Working Alliance Inventory (WAI; Horvath & Greenberg, 1986) after each session. Patients were instructed to answer these questions for the beginning, middle and end of the therapy session. The

researchers chose sessions that showed a lower alliance score in the middle of the session and higher scores at the beginning and end, which they identified as rupture and repair sequences. They then used these segments to complete a task analysis of the rupture and repair process. This relatively simple investigation within single therapy sessions has sparked more complicated and sophisticated attempts to indirectly measure rupture and repair episodes across the course of a treatment.

For example, Kivlighan and Shaughnessy (2000) used patient alliance ratings collected after each therapy session in a time-limited treatment to determine patterns in the alliance and associate these patterns with outcome. They identified three distinctive patterns: a stable alliance pattern, a linear growth pattern and a quadratic growth or "U-Shaped" pattern. They found that patients with the quadratic growth pattern (i.e., high alliance in early sessions, then a lower alliance in the middle of treatment, then a return to high alliance in final sessions) had significantly better outcome than the other two growth patterns. This suggests that an early high alliance, with subsequent problems and repairs in the alliance, is associated with greater change in the patient's outcome than a stable or linear growth pattern.

Stiles et al. (2004) tried to replicate this work by using patient-rated alliance scores on the Agnew Relationship Measure (ARM; Agnew-Davies, Stiles, Hardy, Barkham & Shapiro, 1998). They studied 79 patients who were being treated in either a cognitive or psychodynamic therapy for depression. The researchers found four distinctive patterns of alliance development, only two of which matched

Kivlighan and Shaughnessy's. They did not find the U-shaped quadratic growth pattern to be associated with better outcome; instead, they identified a "V-shaped" pattern, with smaller, more discrete rupture and repair episodes, that was associated with higher outcome. While both Stiles et al. and Kivlighan and Shaughnessy found an association between rupture repair episodes and higher outcome, the U-Shaped pattern was not associated with good outcome in both studies. Therefore the results of these studies cannot be generalized.

Strauss et al. (2006) developed yet another method for detecting rupture and repair episodes by examining changes in alliance scores over the course of therapy for 30 patients with Avoidant and Obsessive-Compulsive Personality Disorders. Researchers measured alliance scores by administering the California Psychotherapy Alliance Scale (CALPAS; Marmar, Weiss & Gaston, 1989) to patients after each session. They then devolved criteria to define sessions where rupture and resolution occurred. For example, a session's alliance score had to differ by at least one standard deviation (as calculated across the entire data set) from the patient's other alliance scores in order to be considered a rupture and resolution session. The researchers found that patients whose therapy included rupture repair episodes experienced greater symptom reduction than those who did not.

Stevens, Muran, Safran, Gorman and Winston (2007) developed a similar system for finding fluctuations in patient-rated WAI scores, using a sample of 44 patients with cluster C personality disorders. They defined ruptures as decreases by at least one point on the WAI, and deemed these ruptures resolved if the alliance score rose to within 0.25 points of the pre-rupture score in three to five sessions.

While rupture-repair episodes were found to be common, appearing in 50% of the cases, these episodes were not related to treatment outcome.

Eubanks-Carter, Gorman and Muran (2012) borrowed methods from a number of fields, including epidemiology, manufacturing, climatology and economics, to detect changes in the alliance as measured by patient-rated WAI scores. They identified four methods for detecting ruptures: criterion-based methods, control chart methods, partitioning methods and regression methods. They illustrated these methods and discussed the strengths and weaknesses of each one using a case example. While none of the methods produced identical results with respect to demarcating ruptures, there were a number of points where all methods identified a weakness in the alliance. The researchers identified Shewhart control charts as the most useful, pragmatic way to identify ruptures because this method does not require a large number of data points, can be used in common statistical software and can track the alliance in real-time, which may be useful for informing therapists of problems in the relationship. Future research with larger samples sizes would help to clarify the utility of these different methods.

While indirect methods of detecting rupture and rupture repair episodes are able to combat the problems associated with direct patient and therapist self-report of ruptures, there are a number of limitations to these methods. One such limitation is that most of these methods provide global ratings over the course of a therapy, and therefore do not add to the understanding of the in-session process of rupture and repair. Another issue is that each study produces a different method for

detecting ruptures and repair episodes, and the results from each method have not been adequately replicated.

## **VII. Observer Report**

Because of the above-mentioned problems using direct and indirect self-report methods of detecting rupture and rupture repair episodes, researchers have begun to develop observer-based methods for detecting these events with the hopes of mitigating problems with the other methods.

Lansford (1986) did an exploratory study of "weakenings" in the therapeutic alliance by reviewing the audiotapes of six cases of time-limited dynamic therapy and assigning researchers to code the sessions for different criteria related to weakenings in the patient-therapist relationship. Lansford described weakenings as "A negative response to therapy, fear of the therapist's critical judgment or disapproval, problems with coming to or talking in therapy, or problems with termination" (p. 364). He reported a 75% to 100% reliability between coders, but did not note how this was calculated. The results of the study were that successfully resolved weakenings were associated with better overall outcome (although, again, Lansford did not explain how outcome was determined). This early study was an important investigation into the relationship between ruptures and outcome, but many of the methods used in the study were not adequately described, so the results must be interpreted with caution.

Sommerfeld, Orlach, Zim and Mikulincer (2008) compared observer-rated ruptures to patient report of ruptures and patient Core Conflictual Relationship Themes (CCRTs). To accomplish this, the researchers first identified ruptures by

having two graduate students code transcripts using the withdrawal and confrontation rupture markers identified by Harper (1989a, 1989b). The coders' reliability was fair to good; they had an average reliability of 0.45 for confrontation markers and 0.59 for withdrawal markers, though their study does not note how reliability was calculated. After the transcripts were coded, each session was assigned a separate "Yes" or "No" value for the presence of withdrawal and confrontation markers. Observer-rated ruptures were found in 77% of all sessions. After each session, patients filled out the Post-Session Questionnaire, which includes two Likert-rated questions about the presence of ruptures (Samstag, Batchelder, Muran, Safran & Winston, 1998). When researchers compared the observer ratings of ruptures to patient ratings, they did not find a relationship; however, they found that the emergence of ruptures was associated with the emergence of CCRTs directed at the therapist. These findings suggest that ruptures occur when patients' dysfunctional interpersonal schemas are activated, and are thus an important opportunity for working on patients' maladaptive interpersonal patterns. One major limitation for this study is the use of transcripts instead of audio or video recordings: Transcripts are costly and time consuming to produce, and they omit subtle interactions between the patient and therapist, including body language and tone, which are important clues to the interpersonal process.

Colli and Lingardi (2009) also used transcripts to identify in-session ruptures and resolution with a measure that they created, the Collaborative Interaction Scale (CIS). Drawing from the work of Safran and Muran, (Safran et al., 1990; Safran, Muran & Samstag, 1994, etc.) they divided the scale into patient and

therapist contribution, with three subscales for the patient (the collaborative processes scale, direct rupture markers scale and indirect rupture markers scale) and two subscales for the therapist (the positive intervention scale and the negative intervention scale). In this study, coders rated in pairs and achieved good reliability, with an average reliability of 0.68-0.76 per scale as measured with an Intraclass Correlation Coefficient (ICC). They found a significant correlation between therapist negative interventions and patient alliance ruptures. They also found a significant correlation between therapist positive interventions, patient collaborative processes and indirect rupture markers. While they found good reliability and interesting correlations, the researchers did not validate their measure by comparing it to other measures of the alliance, ruptures or outcome. Another shortcoming of the study is that the measure is very time consuming: Each session has to be transcribed, then broken down into speech utterances, then each utterance rated by two independent observers. As noted above, the use of transcripts is problematic because many interpersonal cues are lost.

Citing problems with the use of transcripts and highly trained coders, Eubanks-Carter, Muran and Safran (2009) developed a coding system that can be used by beginning graduate students with videotaped sessions. This system, The Rupture Resolution Rating System (3RS) draws on Harper's (1989a, 1989b) manual for coding confrontation and withdrawal ruptures and the Rupture Resolution Scale developed by Samstag, Muran and Safran (2004). 3RS scores give each session an overall Likert rating for confrontation ruptures, withdrawal ruptures, resolution attempts and the success of resolution attempts. This measure is still in

development, but a preliminary study found a large discrepancy between patient-reported ruptures (reported in 35% of sessions) and observer-rated ruptures (reported in 75% of sessions); this discrepancy is similar to Sommerfeld, et al.'s (2008) findings. One potential problem with the measure is that it gives an overall rating for the session instead of defining where in the session ruptures occurred, which could be useful information for examining rupture and repair episodes in more detail.

While past research has found interesting links between ruptures, repair episodes and patient outcome, the studies' methods for detecting ruptures were often problematic. Many of these studies are limited by a very small sample size. Most of the existing observer-based measures (Lansford, 1986; Sommerfeld, et al., 2008; Colli & Lingardi, 2009) use transcripts, which are time-consuming to produce and lose many subtle interpersonal cues. The patient and therapist's tone of voice (e.g., whether a statement was made in a hostile, sarcastic or warm tone) and body movements (e.g., avoiding eye contact or turning away from each other) can be important clues about the interpersonal processes between them. Another problem with some of the measures (e.g., Sommerfeld et al.; Eubanks-Carter, Safran & Muran, 2009) is that the coding yields a global score for the session instead of demarcating where in the session the rupture occurred. If other researchers wanted to study the session, there might be a lot of "noise" in the session from non-rupture material, which could skew their results. Future researchers should concentrate on making an easy-to-use observer-based measure that can be used with videotaped sessions to demarcate rupture and repair episodes within sessions.



### **VIII. Concluding Remarks**

Because there has been strong evidence to suggest that a good alliance is positively associated with outcome, alliance research has shifted from comparing the alliance and outcome to studying the process by which the alliance is created, repaired and maintained. One area of particular interest is ruptures and rupture repair episodes. There has been evidence to suggest that repairing alliance ruptures is associated with more gains in therapy and higher treatment retention. While many methods have been employed to detect ruptures and rupture repair episodes, none are without their limitations. Direct report of ruptures from the patient and therapist are limited by patient awareness and willingness to disclose information about ruptures. Indirect methods for reporting ruptures combat problems with direct report of rupture, but are limited by the large number of methods and inability to replicate results. Observer-based methods for detecting ruptures and rupture repair episodes are limited by the common use of transcripts and the inability to determine where the rupture occurs within the session. The following empirical article reviews the development and validation of an observer-based method of detecting rupture and rupture repair episodes, the Segment Working Alliance Inventory—Observer Form (S-WAI-O), that attempts to combat the issues laid out in this literature review.

## **Chapter 2: The Empirical Study**

### **I. Literature Review**

#### **a. The Working Alliance**

The relationship between a patient and his therapist has been conceptualized in a number of ways. One of the most popular models of this relationship is Bordin's (1979) working alliance, which has been widely accepted across treatment modalities. Bordin's pan-theoretical model of the working alliance comprises three parts: bond, tasks, and goals. He defines bond as the affective connection between patient and therapist, goals as the long-term objectives for treatment, and tasks as the specific activities that the dyad engages in to gain benefits from treatment and work toward the patient's goals. While the focus of these three components is on the patient's experience and desires, Bordin emphasized that both the patient and therapist contribute to the formation and quality of the working alliance.

A number of meta-analyses have shown the therapeutic working alliance to be a robust predictor of outcome in psychotherapy across a variety of treatment modalities (Castonguay, Constantino & Holtforth 2006; Martin, Garske, & Davis, 2000; Horvath & Symonds, 1991). Several studies have suggested that a strong alliance is a necessary element for positive change in psychotherapy (Safran, Muran, Samstag, & Stevens, 2002; Hartley & Strupp, 1983), while a poor therapeutic alliance predicts patient dropout from treatment (Martin et al., 2000; Samstag, Batchelder, Muran, Safran, & Winston, 1998). Because the quality of the alliance is such a strong predictor of outcome and dropout rate, researchers have begun to focus on the

process of building a strong alliance and working through impasses (See Eubanks-Carter, Muran & Safran, 2010 for a review of such studies).

### **b. Ruptures in the Therapeutic Alliance**

The therapeutic alliance is in a constant state of negotiation. Patients and therapists must work together to ensure that tasks and goals are appropriate, all while maintaining an affective connection. A rupture in the therapeutic alliance occurs when negotiation breaks down or there is tension in the relationship (Safran, Muran, & Eubanks-Carter, 2011). Ruptures range in intensity from minor tensions to explosive blowouts, and are most likely present in all therapeutic relationships. For example, in a 2009 study by Muran et al., 37% of patients and 56% of therapists across a range of treatment modalities reported ruptures in the first six sessions. In this study, over half the therapists reported ruptures early on in the treatment, and one also imagines additional ruptures of which patients and therapists were either unaware or unwilling to report. Hill et al. (1996) found that therapists are often not aware of patients' dissatisfaction with treatment; when therapists do not effectively address or resolve this dissatisfaction, patients are more likely to terminate treatment (Rhodes, Hill, Thompson & Elliot, 1994). Given the importance of the alliance to treatment outcome and retention, it is crucial that therapists be able to identify, negotiate and repair ruptures in the therapeutic relationship.

A number of studies have suggested that ruptures in the alliance *per se* are not detrimental to the therapeutic relationship, as the process of resolving them provides an opportunity for exploration and modification of a patient's maladaptive interpersonal schemas (Muran, 2001, Muran & Safran, 2002). Therefore, ruptures

and their successful resolution may be an important part of the change process in psychotherapy.

Safran and Muran (2000) created a rupture resolution model that explains the process of rebuilding the alliance after a rupture. The model includes two types of ruptures: confrontation and withdrawal (Harper, 1989a; Harper, 1989b; Safran & Muran, 2000). A confrontation rupture is characterized by a patient taking a hostile, angry, or accusatory stance toward the therapist or some aspect of the therapeutic process. By contrast, a withdrawal rupture manifests when the patient disengages from the therapist, the therapy process, or his own internal experience. Although a given patient may be more likely to present with one type of rupture than another, both types are likely to emerge over the course of treatment. Resolving a confrontation rupture involves exploring the patient's fears of criticism from the therapist and/or self-criticism, which get in the way of expressing underlying needs, and moving gradually toward the patient expressing more vulnerable feelings. The process of resolving a withdrawal rupture involves noting the withdrawal behavior and exploring interpersonal fears and internalized criticism, which get in the way of expressing negative feelings. This process builds slowly toward self-assertion and the expression of underlying wishes and hopes.

Brief Relational Therapy (BRT) was developed according to Safran and Muran's model of rupture resolution (Safran & Muran, 1996). BRT is an experientially and relationally based modality with an intensive focus on the "here and now" of therapy. This focus allows patient and therapist to explore and examine the patient's maladaptive emotions as they occur over the course of a

rupture, which in turn helps to repair the rupture and create a stronger relationship between the patient and therapist.

Safran, Muran and Eubanks-Carter (2011) recently conducted a meta-analysis examining the relationship between rupture-repair episodes and outcome. They found that the presence of successful rupture-repair episodes was positively correlated with good outcome. However, only three studies were included in their meta-analysis, suggesting that research on rupture-repair episodes and treatment outcome is still sparse.

### **c. Detection of Ruptures in the Therapeutic Alliance**

Because ruptures may be subtle interpersonal interactions, of which either the patient or therapist may not be fully aware, researchers have employed several methods for detecting ruptures and rupture-repair episodes (Safran, Muran, & Eubanks-Carter, 2011). The three main methods for identifying ruptures are direct self-report, indirect self-report, and observer-based methods.

One method of identifying ruptures is through direct self-report by patients or therapists. For example, at the Brief Psychotherapy Research Program at Beth Israel Medical Center in New York City, immediately following a session, patients and therapists are administered session impact questionnaires, which require them to rate the quality of the alliance, the presence of ruptures, and the degree of resolution (PSQ; Muran, Safran, Samstag, & Winston, 2004). However, there are a number of limitations to self-report of ruptures. Patients' and therapists' reports of rupture seldom coincide; therapists often report more ruptures than their patients (Muran et al., 2009). Also, patients and therapists may have reservations about

directly reporting ruptures. Patients may avoid or deny problems in the alliance, because these problems threaten the hope that the therapist can help him or her; therapists may be self-conscious of their abilities and therefore deny any problems in the relationship. Because ruptures, especially withdrawal ruptures, may be subtle, patients and therapists may not report these ruptures because they are not even aware of them.

One way to counter the problems associated with direct report of ruptures is to indirectly measure problems in the relationship through repeated post-session patient ratings of the alliance. Researchers tend to use patient ratings of the alliance because they are more predictive of outcome than therapist ratings (Horvath & Symonds, 1991). For example, Stiles et al. (2004) tracked changes in patient post-session alliance ratings over the course of treatment. They found that patients whose alliance ratings had V-shaped patterns, in which the alliance ratings dropped and then quickly returned to their baseline, made the greatest gains in treatment. Patients with U-shaped patterns, in which alliance ratings took many sessions to return to baseline, made fewer gains in treatment. However, there are limitations to this methodology as well. Patients may still hesitate to rate the therapeutic relationship negatively, even if they are not asked directly about problems within the therapeutic dyad. In a meta-analytic review of 79 studies, Martin, Garske, and Davis (2000) found that patients tend to rate the alliance as stable across treatment, while therapists and observers note more change in the alliance. Thus it is more difficult to observe changes in the alliance over time through patient ratings. Another limitation of this methodology is that sessions in which ruptures have been

successfully resolved may be rated as having a high alliance by patients, because they were able to successfully work through difficulties. Researchers using this methodology may therefore miss these important rupture-repair episodes altogether.

The last method for detecting ruptures in the alliance is through observer-based measures. This approach addresses the problem of patients and therapists underreporting ruptures because of discomfort or lack of awareness. However, observer-based methodologies often require the use of session transcripts, which miss subtle interpersonal cues, and may also require the use of highly experienced clinicians as raters (e.g. Colli & Lingiardi, 2009; Harper, 1989a, 1989b). One exception is The Rupture Resolution Rating System (3RS; Eubanks-Carter, Muran & Safran, 2009), which follows Harper's (1989a, 1989b) unpublished manual for coding withdrawal and confrontation ruptures. 3RS uses video data instead of transcripts, and graduate students (as opposed to highly trained clinicians) can become reliable coders. This coding system denotes the presence of both types of ruptures and the intensity of these markers, but cannot detect where in a session ruptures have occurred or whether they were successfully resolved.

To address the above-mentioned methodological problems, a new measure was created: The Segmented Working Alliance Inventory—Observer Form, or S-WAI-O (S-WAI-O; Berk, Safran, Muran & Eubanks-Carter, 2010). Based on previous observer forms of the Working Alliance Inventory, the S-WAI-O is an observer-based coding system which tracks changes in the alliance over the course of a single session. S-WAI-O codes can then be used to detect ruptures and rupture repair

episodes. An initial pilot study for the S-WAI-O found good inter-rater reliability (ICC=.83), and S-WAI-O's detection of rupture correlated moderately with patient report of rupture ( $\chi^2(1)=4.02, p=.05$ ) (Berk, Safran, Muran, Eubanks-Carter, 2010).

The primary purpose of this study was to validate the S-WAI-O as a measure of in-session variations in the working alliance. In light of the importance of negotiating and repairing ruptures in the therapeutic alliance, this study also aimed to investigate the impact of specialized Rupture Resolution (RR) training on therapists' ability to successfully negotiate alliance ruptures and increase the therapeutic alliance over the course of treatment. Ruptures, rupture resolution and the working alliance were measured using the Segmented Working Alliance Inventory—Observer Form (S-WAI-O), which was designed to track changes in the quality of the working alliance over the course of a single psychotherapy session (Berk, Safran, Muran & Eubanks-Carter, 2010).

## **II. Hypotheses**

The aim of this study was to establish psychometric validity and reliability for the S-WAI-O. The two corollary hypotheses were that therapists who undergo Rupture Resolution Training (RR) would be more able to successfully resolve alliance ruptures than those who have not undergone this training, and that working alliance ratings would increase after therapists undergo rupture resolution training.

## **III. Method**

### **a. Data Collection**

All data for this study was collected from archival data at the Brief Psychotherapy Research Program at Beth Israel Medical Center in New York City.



The research program, which has been running continuously since the 1980's and has received National Institute of Mental Health (NIMH) funding, studies outcome and process variables related to the therapeutic relationship within short-term treatments with adults with personality disorders. The research program also serves as a training site for psychology externs and interns and psychiatry residents.

### **b. Participants**

This study comprised 22 therapeutic dyads ( $n=22$  patients and  $n =22$  therapists) sampled from therapy cases at the Brief Psychotherapy Research Program.

### **c. Therapists**

The therapists used for this study included 7 males and 15 females ranging in age from 24 to 38 ( $M=29.5$ ,  $SD=3.41$ ). All therapists were psychology externs at the Brief Psychotherapy Research Program at the time of therapy. Of the therapists, 81.8 % were Caucasian, 9.1 % were Asian, and 9.1 % were Latino. Clinical experience averaged 1.7 years. The therapists provided informed consent with respect to the parameters of the research protocol.

### **d. Patients**

The patients used for this study included 10 men and 12 women, ranging in age from 26 to 69 ( $M=45.13$ ,  $SD=10.23$ ). Of the patients, 72.72% were Caucasian, 9.09% were Asian, and 9.09% were African American. Most of the patients (95.92%) attended some college or had a degree. Patients presented with a variety of difficulties related to depression, anxiety, and interpersonal functioning and were assessed with the Structured Clinical Interview for DSM-IV (SCID), Axis I & II to

establish a diagnosis (First, Spitzer, Gibbon Williams, 1995). With respect to Axis I disorders, 63.63% met for a primary Mood Disorder diagnosis, while another 27.27% met for an Anxiety Disorder; 9.09% did not meet for a disorder on Axis I of the DSM-IV-TR (American Psychological Association, 2000). Patients also met for a Cluster C Personality Disorder or Personality Disorder Not Otherwise Specified (PDNOS) on Axis II of the DSM-IV-TR; 31.81% met criteria for a primary diagnosis of PD NOS, 31.8% for Avoidant PD, 22.72% for Obsessive-Compulsive PD, and 4.54% for Dependent PD. Approximately 50% of patients met for multiple Axis II diagnoses.

Exclusion criteria included evidence of psychosis, mania, an organic brain syndrome, mental retardation, impulse control and/or compulsive disorders, as well as any current substance abuse disorders or active suicidal behavior. Patients must have been stabilized on psychiatric medications for at least three months prior to their intake assessment, and patients had to agree not to begin medications during the treatment.

Patients were recruited primarily through newspaper advertisements, hospital referrals, doctor referrals, and the program's website. They provided informed consent to the parameters of the research protocol and paid a nominal per-session fee based on an income-sensitive sliding scale, but were not assessed a fee for the initial diagnostic evaluation.

### **e. Diagnostic Assessment**

Patient eligibility for the study was established through an intensive intake process, including an initial phone screen and the administration of the Structured

Clinical Interview for DSM-IV, Axis I & II, which was used to determine diagnostic status (First, Spitzer, Gibbon Williams, 1995). Research assistants, who are first- to fourth-year graduate students in clinical psychology, administered the interview. Training for the research assistants included attending a one-day training seminar, viewing a training video, role-playing, observation of a live demonstration, and completion of an inter-rater reliability test. This test consisted of rating various videotaped samples of previous interviews conducted by trained interviewers; the standard for completing training was an intraclass coefficient of  $> .70$  on both the Axis I & II sections of the reliability test.

#### **f. Treatment Model and Therapist Training Procedure**

Dyads participated in a 30-session, one-session-per-week format. All sessions were videotaped per the requirements of the research protocol, and all sessions were conducted at Beth Israel Medical Center or The New School in New York City. The cases used in this study were sampled from those cases that began in Cognitive Behavioral Therapy (CBT) and switched into Rupture Resolution Training (RR) at a predetermined midpoint.

#### **g. Cognitive Behavioral Therapy**

The central tenant of CBT is that distorted or dysfunctional thinking affects a person's mood and their behavior; the goal of therapy is to correct this distorted way of thinking (Beck, 1995). Thinking realistically and rationally will in turn change a person's behavior and mood, thus decreasing psychiatric symptoms. The two specific tasks of therapy are cognitive restructuring (i.e. changing thinking patterns) and behavior activation (i.e. participating in new or pleasurable activities).

Therapists at the Brief Psychotherapy Research Program participated in a yearlong CBT didactics seminar, which explored the basic tenets of CBT and focused more specifically on adapting those tenets to patients with Personality Disorders. Therapists were taught a variety of CBT techniques including the use of thought records, in-session role-playing, exposure therapy and homework tasks. Each therapist then completed a 30-session CBT treatment case. During this case, therapists attended weekly group supervision with a highly experienced CBT supervisor. Therapists' sessions were regularly monitored for adherence to the CBT model.

#### **h. Rupture Resolution Training**

RR training focuses on the ongoing, collaborative exploration and negotiation of the therapeutic alliance, with a specific emphasis on attending to and repairing ruptures in the therapeutic alliance (Safran & Muran, 2000). Therapists are trained to focus on the here-and-now of the therapeutic relationship and to consider their own contributions to interactions with patients.

Once therapists completed their first CBT case and established their adherence to the CBT model, they were given a second case, which also began in the CBT modality. At a predetermined midpoint (after either session eight or session 16), therapists stopped attending CBT supervision and switched into RR supervision for the remainder of the 30 sessions. RR group supervision was led by one of three highly experienced supervisors, who were very familiar with the RR model. Therapists' adherence to both the CBT and RR treatment model was assessed through regular adherence checks.

RR supervision is designed to help therapists foster an awareness of their own feelings and reactions so that they can use them to develop personally and as therapists (Safran, Muran, Stevens & Rothman, 2007). RR supervision includes four main components: explicitly establishing an experiential focus, active self-exploration on the part of the trainee, focusing on the relational context of supervision and the supervisory working alliance, and using the supervisor as a model for the trainees.

A typical RR supervision begins with a mindfulness exercise, which helps to set the tone for supervision, and, with time, helps to increase trainees' awareness of subtle thoughts, feelings and fantasies that arise while working with the patient. Increasing mindfulness also helps trainees to become more tolerant and accepting of a full range of emotions and internal experiences, which can then be used to guide the treatment. Next, a trainee will present a moment or moments in a specific case where he felt unsure or confused. At the Brief psychotherapy Research Program, all sessions are video recorded, so these moments are presented to the group by watching the tape. While watching these moments, the supervisor encourages the trainee to reconstruct his feelings during the session. Other members of the group provide feedback about the patient's impact on them (e.g., I felt very bored when the client started to tell this story), and the supervisor models his technique by imagining he is in the therapeutic situation and talking about what his thoughts, feelings and intuitions might be during this moment in therapy. After discussing the videotape, the trainee engages in an awareness-oriented role-play to promote emotional self-awareness and to ground the training at an experiential level. The

supervision session ends with a group debriefing to allow the group to give final impressions and to check in with the presenting trainee.

### **i. Process Measures**

In addition to the administration of measures of global outcome of treatment, the Post Session Questionnaire (PSQ; Muran, Safran, Samstag, & Winston, 2002) was administered and completed by therapists and patients following each session (see Appendix A, Figures 9 and 10). The PSQ consists of several self-report scales assessing session impact and the therapeutic relationship, including the Session Evaluation Questionnaire (SEQ; Stiles & Snow, 1984), the Working Alliance Inventory (WAI; Horvath & Greenberg, 1989), and the Rupture Resolution Questionnaire (RRQ; Winkelman, Safran, & Muran, 1996). The PSQ also includes six global questions designed to assess rupture and resolution within each session: (1) whether the rater experienced any “tension, problems, misunderstandings or conflicts” with the other in the dyad; (2) to what extent the rater was “overly accommodating or overly protective,” “making nice or smoothing things over,” or “holding back;” (3) a brief description of the problem; (4) the extent to which the problem was addressed; (5) the degree to which the problem was resolved; and (6) a brief description of what contributed to the resolution of the problem. Questions 1, 2, 4, and 5 were assessed on a five-point Likert Scale.

**The Working Alliance Inventory** (WAI; Horvath & Greenberg, 1989; WAI-12; Tracey & Kokotovic, 1989) is a well-established psychotherapy self-report research measure of the therapeutic alliance between patient and therapist. It is conceptually based on Bordin’s (1979) trans-theoretical model of the working

alliance and comprises three subscales, which measure bond, agreement on task, and agreement on goals. This study will use a 12-item version of the WAI, which is completed by both patient and therapist. The 12 items are rated on a seven-point Likert-type scale, where 1 = “never” and 7 = “always.”

**The Session Evaluation Questionnaire** (SEQ; Stiles & Snow, 1984) is a self-report measure that assesses the impact of a psychotherapy session on two subscales, Depth and Smoothness. The SEQ consists of 12 bipolar adjective scales presented in 7-point semantic differential format that yields the two subscales. The Depth subscale measures how powerful or weak a particular session was; the Smoothness subscale measures how relaxed or tense the session was.

**The Segmented Working Alliance Inventory—Observer Form** (S-WAI-O; Berk, Safran, Muran & Eubanks-Carter, 2010) is an observer-based measure designed to identify rupture and resolution events within a psychotherapy session (See Appendix A, Figure 11). It consists of 12 items, which make up two subscales: task and bond. The S-WAI-O is based on the fourth revision of the Working Alliance Inventory-Observer Form (WAI-O) (Darchuk, Wang, Weibel, Fende, Anderson & Horvath, 2000). The items and anchors for the S-WAI-O were sampled directly from Darchuk et al.’s measure and modified to suit the nature of this coding system. Items were retained for the S-WAI-O if they showed good variance in a pilot study (Berk, Safran, Muran & Eubanks-Carter, 2010). This particular version of the WAI-O was selected because of its unique coding guidelines: typically, observer-based WAI coding systems instruct the coders to assume a good alliance and to subtract from their scores only when evidence of a rupture is present, but Darchuk et al. included

more detailed anchors for each item and instructions for coders to assume an average alliance and deviate from this score only when there is evidence for or against an item. These alterations counter the ceiling effect often seen in observer versions of the WAI (Raue, Goldfried & Barkham, 1997).

The S-WAI-O is unique from other versions of the WAI-O because it was developed to measure change in the quality of the working alliance over the course of a therapy session. To accomplish this, S-WAI-O ratings are made by coders every five minutes throughout the therapy session. During initial coding with items from the task, bond, and goal sections of the WAI-O, very little variation was found in the goal items. Further investigation revealed that coders were consistently coding “No Evidence” because the client and therapist are not likely to address goal-related issues every five minutes. Because task and goal items are traditionally very highly correlated and the concepts tend to overlap, the goal items were removed from the measure. This left S-WAI-O with 12 items, six for task and six for bond.

A pilot study was conducted to establish initial reliability and validity (Berk, Safran, Muran & Eubanks-Carter, 2010). In this study the S-WAI-O was used to code 23 CBT sessions from eight therapeutic dyads. Coders were able to establish good reliability per segment with an average intraclass correlation coefficient (ICC) of 0.82. S-WAI-O’s detection of ruptures had a moderate and significant correlation with patient report of rupture ( $\chi^2(1)=4.02, p=0.05$ ), but did not correlate with therapist report of rupture.

### *Procedure*



**j. Case and Session Selection**

The dataset ( $N=22$ ) comprised CBT/RR cases with sufficient PSQ and video data. Half of the cases ( $n=11$ ) switched from CBT to RR supervision after session 8 was completed, and the other half ( $n=11$ ) switched to RR supervision after session 16. All cases had to have video data from sessions 5-8, 14-16 and 22-24 to be selected. Six sessions were selected from each case: two sessions from the early phase of treatment, two from the middle phase of treatment, and two from the later phase of treatment. Sessions were selected to take advantage of the multiple baseline design of the study, which accounts for the effects of time and maturation.

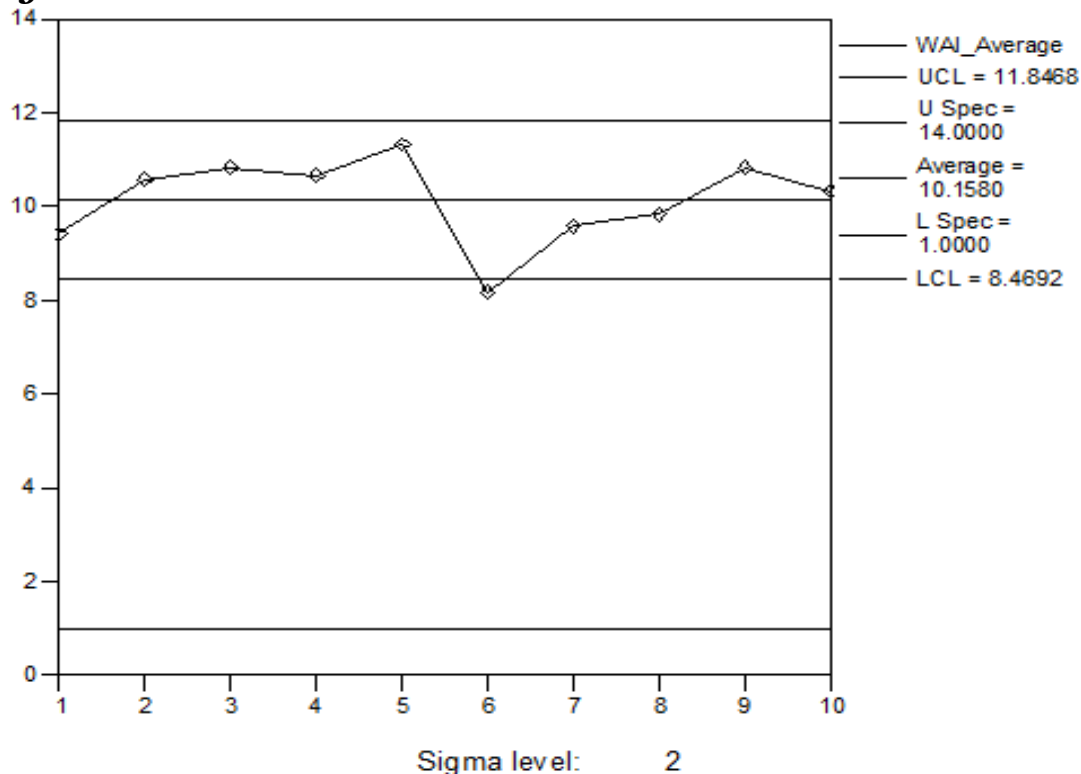
**k. S-WAI-O Coding and Scoring**

To measure ruptures and their resolution within each session, coders were trained by the primary author until they reached a group reliability of 0.70 or higher as measured by a single measures intraclass correlation coefficient (ICC) on all segments for three consecutive sessions. Once the coders reached reliability, two coders coded each session independently, and their reliability for each segment was monitored. If coders' reliability was below 0.60, a third coder was added and the two most reliable coders' scores were used. A third coder was added for six sessions; reliability was usually low for these sessions because there was little variance.

After a session was coded, S-WAI-O scores for each segment were averaged, creating a global working alliance score. The S-WAI-O scores were then analyzed using a method called control charting. Walter Shewhart (1931) developed control charting as an engineer at Western Electric, a manufacturing arm of the Bell

Telephone Company. Shewhart designed the control chart to distinguish between normal, predictable variation and unpredictable variation, which would signal a need for intervention. Control charts are still used today in manufacturing and are part of the Six Sigma quality control movement that began at Motorola Corporation (Pande, Neuman, & Cavanagh, 2000). Eubanks-Carter, Gorman & Muran (2010) demonstrate how Shewhart control charts can be used to detect changes in patient ratings of the alliance over a 30-session treatment. Their work was the inspiration for using control charts with the S-WAI-O.

The Shewhart control chart is a line graph with the independent variable (time) on the X-axis and the dependent variable (in this case the S-WAI-O average) on the Y-axis (see Figure 1 as an example). A horizontal line represents the mean of the dependent variable; additional horizontal lines are placed equidistantly above and below the mean to represent the upper control limit (UCL) and lower control limit (LCL), respectively. These control limits describe a statistically defined confidence interval, in this case two standard deviations from the mean in each direction (a 95% confidence interval). Although industry commonly uses three standard deviations (99.7% confidence interval), two standard deviations are recommended when there are fewer than 20 observations, as is the case in this study (Wild & Seber, 2000).

**Figure 1. Control Chart**

As noted above, control charts are used to detect significant variation from the mean. Several rules have been established to determine whether variation is significant or “out of control”; the most commonly cited rules are based on Western Electric Company’s, and can be remembered as “ones, runs and trends” (Western Electric, 1956). Western Electric defined *ones* as any data point that falls either above or below the control limits; *runs* as seven consecutive points above or below the mean; and *trends* as seven or more consecutive points, moving up or down, that bisect the mean.

These rules have been modified for specific datasets in previous studies (e.g., Wheeler & Chambers, 1992). Because the sessions coded in this dataset typically have only 10 data points, specific rules were developed to fit this study as well. In this study a negative deviation from the mean, as detected by control charting,

constitutes a rupture in the therapeutic alliance. The, “ones, runs and trends” that demarcate a rupture are:

*Ones*: any data point that falls below the lower control limit

*Runs*: three or more consecutive points below the mean

*Trends*: three or more consecutive points moving down that bisect the mean

A rupture is considered resolved once the ones, runs or trends are corrected (in other words, when the following point returns within the control limits, moves to or above the mean, or begins to ascend, respectively). An entire session may be considered a rupture session if the S-WAI-O scores are all below 4, which indicates a poor alliance, even if there are no ones, runs or trends present. Also, if the first segment of the session falls below the control limits, the total S-WAI-O score must be below four, as four constitutes no evidence, which is often selected when the patient and therapist are beginning a session.

## **IV. Results**

### **a. Psychometric Validity of S-WAI-O**

An exploratory, principle components factor analysis with a forced, two-factor solution and a varimax rotation was run to establish the Task and Bond subscales (See figure 2). The results yielded two factors with most of the items loading onto their theoretical components. However, Bond item seven (There is a sense of discomfort in the relationship) loaded highly onto both components and more strongly onto the Task component.

**Figure 2. S-WAI-O Factor Analysis**

Item	Component 1: Task	Component 2: Bond
Task 1	0.76	0.43
Task 2	0.82	0.36
Task 3	0.81	0.33
Task 4	0.85	0.34
Task 5	0.81	0.34
Task 6	0.81	0.39
Bond 7	0.64	0.58
Bond 8	0.47	0.76
Bond 9	0.34	0.86
Bond 10	0.47	0.79
Bond 11	0.29	0.88
Bond 12	0.47	0.76

To ensure that the S-WAI-O is a psychometrically sound instrument, both reliability and validity needed to be established. In other words, the measure should be consistent and should measure the constructs it is intended to measure. In this study, good segment inter-rater reliability was established (Average ICC  $M=0.79$ ,  $SD=0.07$ , range=0.64-1.00) (See Figure 3 for descriptive statistics). A dependent samples t-test found no significant differences in reliability scores for CBT and RR sessions ( $t(1307)=1.39$ ,  $p=0.67$ ). Construct validity for the measure was established by finding evidence of convergent and divergent validity. Convergent validity was found by comparing the S-WAI-O's report of rupture and resolution to that of the patient and therapist on the PSQ; comparing S-WAI-O scores to patient and therapist report of the working alliance; and comparing S-WAI-O scores to the smoothness index of the SEQ.

To establish a relationship between S-WAI-O, patient report of rupture and therapist report of rupture, both the S-WAI-O and the patient and therapist PSQs' report of rupture and resolution were converted to a binary variable (either "Yes, there was" or "No, there was not" a rupture) and a chi-square regression was run. There was a significant, positive relationship between S-WAI-O's report of rupture and patient report of rupture ( $\chi^2(1) = 9.08, p = 0.003, \Phi = 0.23$ ). (Note: the phi coefficient ( $\Phi$ ) is used to detect effect size for chi-square tests and can be interpreted as follows: 0.1-0.2 is a weak association, 0.2-0.4 is a moderate association, 0.4-0.6 is a relatively strong association, 0.6-0.8 is a strong association, and 0.8-1.0 is a very strong association (Rea & Parker, 2005)). There was not a significant relationship between S-WAI-O and therapist report of rupture ( $\chi^2(1) = 1.72, p = 0.19, \Phi = 0.13$ ) or between patient and therapist report of rupture ( $\chi^2(1) = 0.04, p = 0.43, \Phi = 0.22$ ). These results are consistent with the S-WAI-O pilot study. Interestingly, when the two rupture questions on the PSQ were compared between the patient and the therapist, there was a significant association between patient and therapist report of the first rupture question, which asks about problems or tension ( $\chi^2(1) = 11.54, p = 0.001, \Phi = 0.29$ ) but no association between patient and therapist report of the second rupture question, which asks about accommodation or "holding back" ( $\chi^2(1) = 0.02, p = 0.88, \Phi = -0.01$ ). This finding makes sense, given that these behaviors, which one might associate with withdrawal ruptures, are often very subtle, so either the patient or therapist might not be aware of them.

Similarly, for ratings of resolution, S-WAI-O, patient and therapist report of resolution was converted to a binary variable (either “Yes, there was” or “No, there was not” resolution) and a chi-square regression was run. Again, there was a significant relationship between S-WAI-O’s detection of resolution and patient report of resolution ( $\chi^2(1) = 7.01, p = 0.008, \Phi = 0.23$ ), and no significant relationship between S-WAI-O’s report of resolution and therapist report of resolution ( $\chi^2(1) = 1.78, p = 0.18, \Phi = 0.12$ ) or patient and therapist report of resolution ( $\chi^2(1) = 0.75, p = 0.38, \Phi = 0.08$ ).

To further establish convergent validity, a simple regression was run between the S-WAI-O session average and patient and therapist report of the working alliance as measured by the WAI-S. Since the S-WAI-O is based on the WAI, there should be some relationship between the measures. However, this relationship has not been studied thoroughly; Tichenor and Hill (1989) did not find a relationship between client and therapist versions of the WAI and an observer version of the WAI. Because the S-WAI-O measures changes in the alliance and is not just an overall measure of the alliance, the correlations were not expected to be exceptionally high. To run this comparison, S-WAI-O segment scores were averaged to create a single score for each session and then a correlation was run. There was a moderate to high, significant correlation between the S-WAI-O session average and patient ( $r = 0.49, p < 0.001, d = 0.78$ ) and therapist ( $r = 0.50, p < 0.001, d = 0.05$ ) reported WAI-S scores. There was also a significant correlation between patient and therapist WAI scores ( $r = 0.58, p < 0.001, d = 0.78$ ).

The final test of convergent validity was to examine the relationship between the Smoothness subscale of the SEQ and the presence of ruptures as measured by the S-WAI-O. Smoothness scores were expected to drop as ruptures were detected. A point-biserial correlation was run, resulting in a significant, negative relationship between S-WAI-O's report of rupture and patient ( $r_{pb}=-0.29$ ,  $p=0.01$ ) and therapist ( $r_{pb}=-0.20$ ,  $p=0.01$ ) report of session smoothness.

To establish divergent validity, a point-biserial correlation was run between the S-WAI-O's report of rupture and patient and therapist ratings of Depth on the SEQ. This variable was chosen to demonstrate divergent validity because, while some ruptures may initiate greater session depth and exploration, others may be dealt with in a very superficial manner. Therefore, the concepts overlap but should not correlate significantly; this hypothesis was confirmed as there was not a significant relationship between S-WAI-O's report of rupture and patient ( $r_{pb}=0.005$ ,  $p=0.98$ ) and therapist ( $r_{pb}=0.04$ ,  $p=0.69$ ) report of session depth.

Interestingly, when the relationship between S-WAI-O's report of resolution and patient and therapists' ratings of Smoothness and Depth were examined, there was a significant, negative relationship between rupture repair and Smoothness for both the patient ( $r_{pb}=-0.28$ ,  $p=0.002$ ) and the therapist ( $r_{pb}=-0.21$ ,  $p=0.01$ ). However, there was no relationship between S-WAI-O ratings of repair and Depth for either the patient ( $r_{pb}=0.03$ ,  $p=0.76$ ) or therapist ( $r_{pb}=0.05$ ,  $p=0.59$ ).



**Figure 3. Descriptive Statistics**

	CBT	RR	Entire Therapy
S-WAI-O Session Average, Mean (SD)	5.12 (0.65)	5.00 (0.85)	5.05 (0.76)
Rupture Frequency			
S-WAI-O	62.1%	63.6%	62.9%
Patient	19.7%	19.7%	19.7%
Therapist	30.3%	47%	38.6%
Resolution Frequency			
S-WAI-O	54.5%	48.5%	51.5%
Patient	13.6%	19.7%	16.7%
Therapist	16.7%	24.2%	20.5%
SEQ Smoothness, Mean (SD)			
Patient	4.69 (1.30)	4.47 (1.23)	4.58(1.27)
Therapist	4.09 (0.98)	4.09 (1.11)	4.09 (1.04)
SEQ Depth, Mean (SD)			
Patient	5.26 (1.04)	5.22 (1.17)	5.24 (1.09)
Therapist	4.46 (0.88)	4.66 (1.06)	4.56 (0.98)

### **b. The Effects of Rupture Resolution Training**

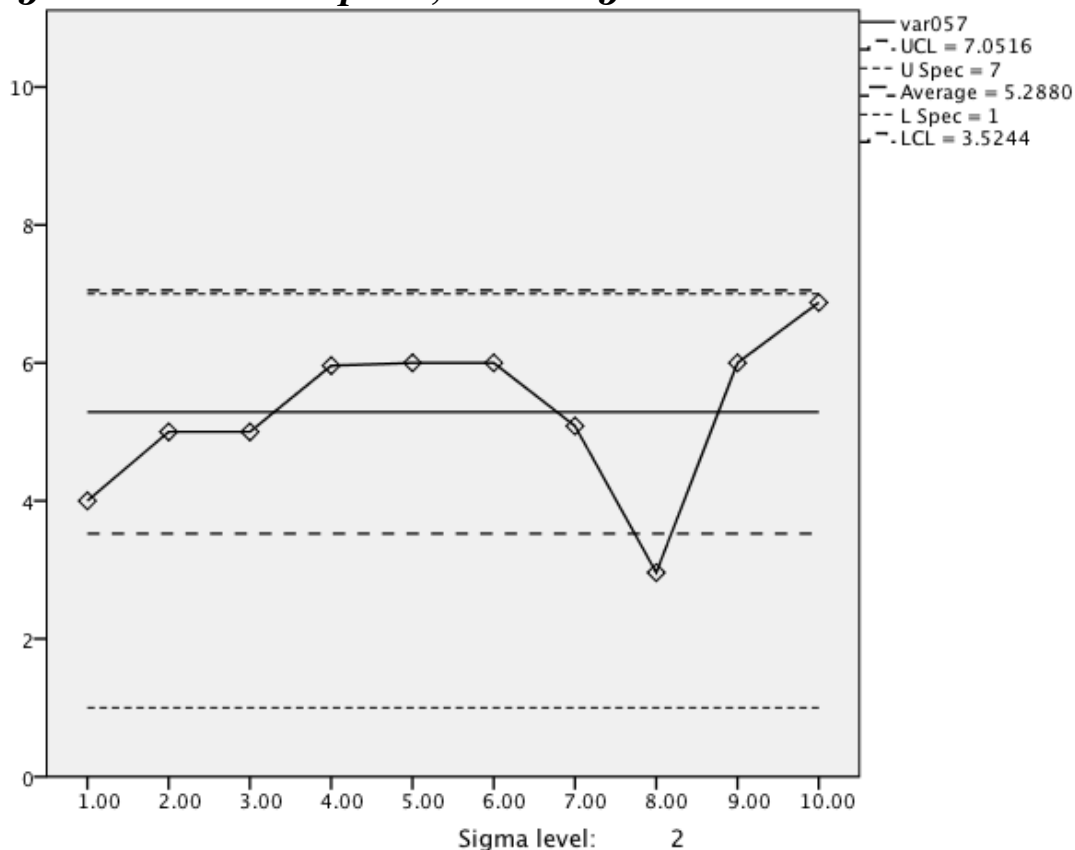
After establishing the psychometric validity of the S-WAI-O, two corollary hypotheses were tested: (1) that therapists who undergo Rupture Resolution Training (RR) will be more able to successfully resolve alliance ruptures than those who have not undergone this training, and (2) that S-WAI-O ratings will increase after therapists undergo rupture resolution training. To test these hypotheses, a Generalized Estimating Equation (GEE) was run with S-WAI-O ratings of rupture and repair, and overall session S-WAI-O scores as the dependent variables. Modality (CBT or RR) and the time of the switch to RR training (either session 8 or 16) were the independent variables. It was expected that reports of rupture would decrease immediately after RR training was introduced and that working alliance ratings would increase after RR training was introduced, because the training emphasizes repairing ruptures and creating a stronger therapeutic alliance. There were no significant differences between the two modalities (See figure 4 for results).

**Figure 4. Changes in Ratings by Modality and Time of Switch**

Variable	Wald Chi-Square (df)	Significance
S-WAI-O Rupture	0.01 (1)	0.91
S-WAI-O Repair	0.01 (1)	0.90
S-WAI-O Average	0.40 (1)	0.53

## V. Control Chart Examples

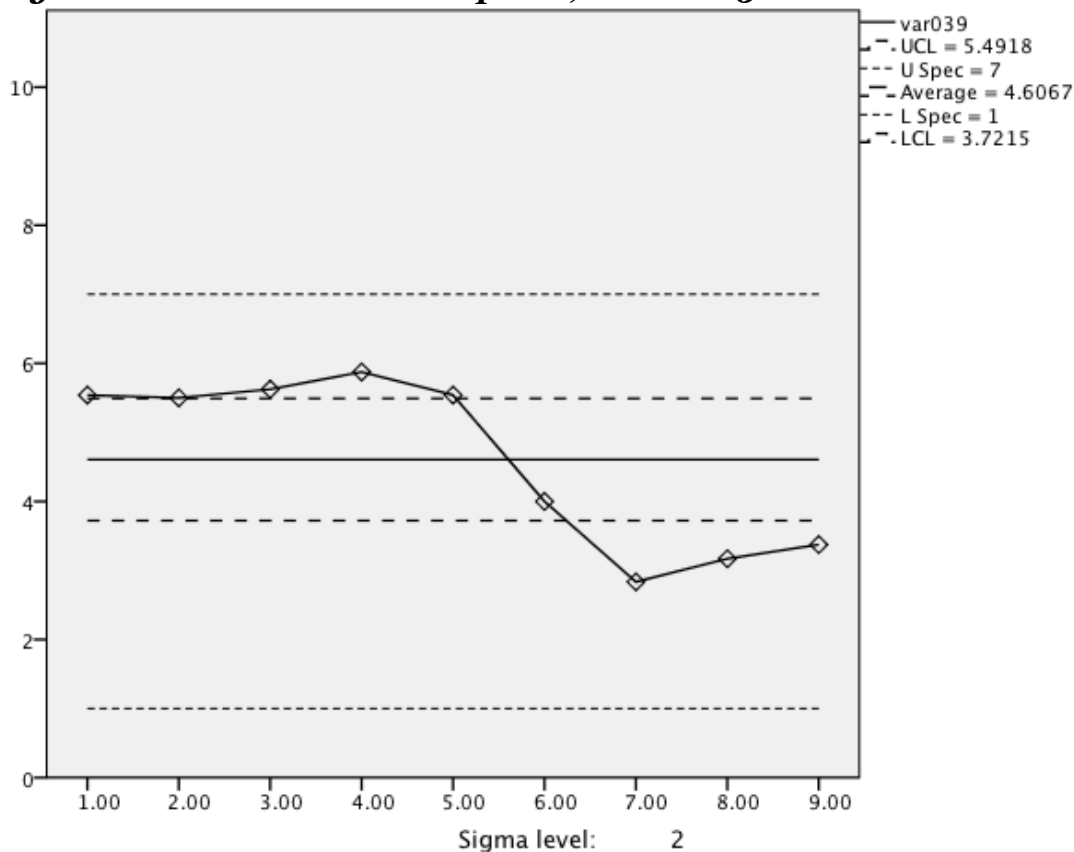
The following section will describe the content of four rupture sessions by using the sessions' control charts to illustrate an unresolved and resolved rupture from the CBT portion of therapy and the RR portion of therapy.

**Figure 5. Resolved CBT Rupture, Session 15**

Although neither the patient nor the therapist reported a rupture in this CBT session, S-WAI-O detected a resolved rupture beginning in segment seven and

continuing into segment eight (see Figure 5). In the beginning of the session, the dyad is discussing planning a party for his fiancé. At the end of segment six, the therapist notes that the patient does not like discussing his relationship with his fiancé, and that thoughts related to his fiancé bring up angry feelings. The therapist then attempts to examine the relationship between these thoughts and feelings. The patient responds that there is nothing he can do about his fiancé; he cannot change her, so why discuss her. In segment seven, the therapist continues to focus on the patient's relationship, telling him that she has only heard the negative aspects of their relationship and is not quite sure why he is marrying her, so the patient begins to list the positive aspects of his fiancé. In segment eight, the therapist tells the patient that his reasons for loving his fiancé are very abstract. The patient replies, "Of course they are!" and gets defensive, saying there does not need to be a concrete reason and that he loves her. He attempts to end the conversation. In segment nine, which is when S-WAI-O detects a repair to the rupture, the therapist takes responsibility for her comment, telling the patient that he might be getting annoyed because she does not quite get it. She then explains her rationale for her earlier comment and tells the patient that he only seems to talk about the negative aspects of his fiancé. The patient agrees and the rest of the session is spent doing a thought record and discussing the patient's negative view of the world.

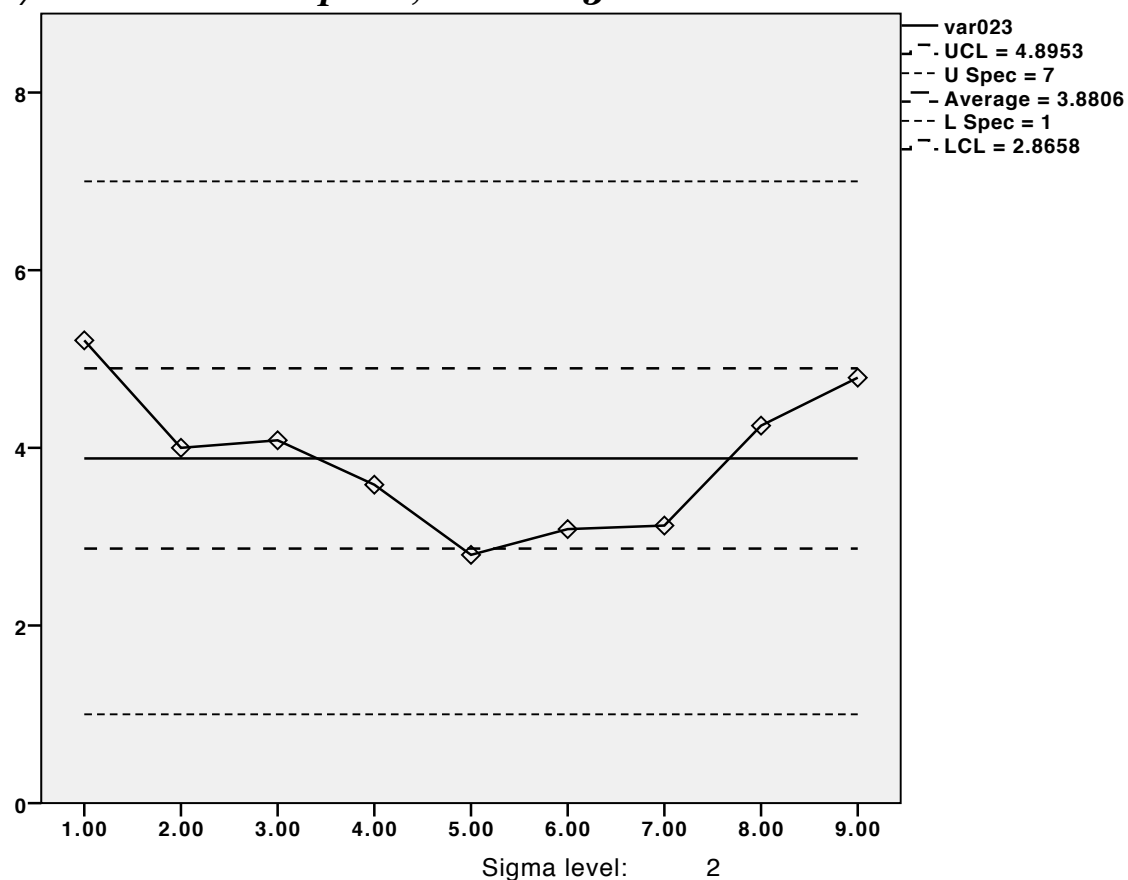
**Figure 6. Unresolved CBT Rupture, Session 15**



Neither the patient nor the therapist reported a rupture in this CBT session, but S-WAI-O detected a rupture beginning in segment six and continuing for the rest of the session (See Figure 6). During the first half of the session, the dyad is discussing the patient's lack of a social life. In the beginning of segment six, the therapist begins suggesting methods for finding activities to the patient. At first, the patient passively agrees with his therapist, but does not seem actively engaged in the task. When the therapist asks if anything might get in the way of the homework she planned for him, he sarcastically remarks, "If I win the lottery." In segment seven, the therapist asks if the patient can bring a homework assignment in next week and the patient responds, "No," without further comment. The therapist

continues to make suggestions to the patient in the next segment, but the patient is very quiet and responds with one-word answers. In the final segment, the patient admits to having a bad attitude and says he really does not want to do anything this week for homework. The patient and therapist then end the session on this note.

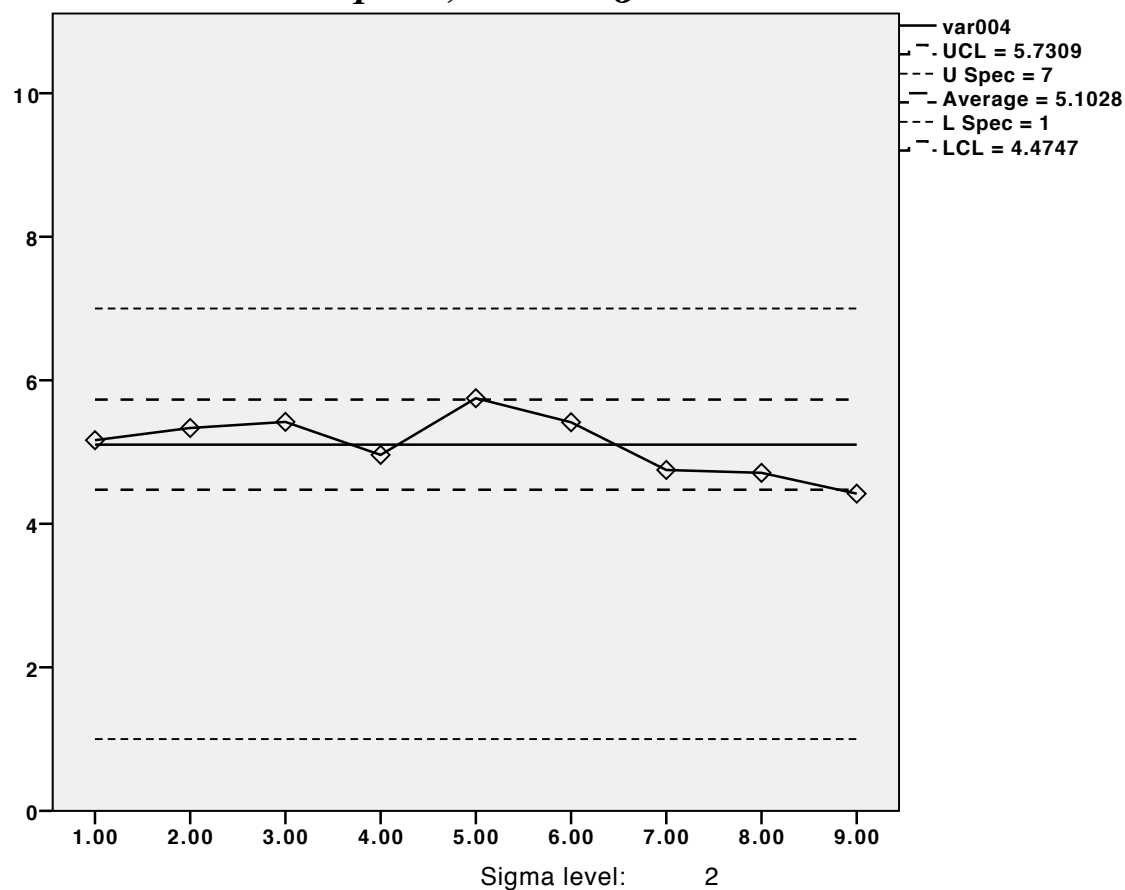
**Figure 7. Resolved RR Rupture, Session 23**



In this resolved rupture RR session, the patient reported a resolved rupture; the therapist did not report a rupture (See Figure 7). S-WAI-O detected a rupture beginning in segment four and continuing into segment seven. The beginning of the session is spent discussing the patient's inability to sleep and her worries about interactions at work. In segment four, where the rupture begins, the patient worries

that her anxiety symptoms may be getting worse. In segments five through seven, the therapist addresses the patient's concerns and relates them back to the therapy, asking if the patient feels dissatisfied with her progress in treatment or with the therapist herself. The patient is visibly uncomfortable during these segments, avoiding eye contact and wrapping her arms around herself. She gives very brief answers and denies that the therapy or the therapist is unhelpful. The therapist continues to probe the patient gently, saying she knows it is hard for the patient to speak up and perhaps it is hard to confront the therapist directly. In segment eight, the therapist acknowledges that she has been challenging the patient and is making her uncomfortable. The patient eventually agrees with the therapist and says that she really does find the therapy helpful, but she found it difficult to stand up to the therapist and convince her that she is happy in therapy. The session ends with the patient and therapist discussing the progress that the patient has made thus far.

**Figure 8. Unresolved RR Rupture, Session 15**



In this unresolved rupture RR session, the patient reported an unresolved rupture and the therapist reported a resolved rupture (See Figure 8). S-WAI-O detected an unresolved rupture that begins in segment six and continues to the end of the session. Segments one through five are spent discussing the patient's recent attendance of his high school reunion. He discusses several interactions and memories that were brought up at the event. In segment six, when the rupture begins, the therapist notes that the patient's descriptions seem muted, intellectualized and lack emotional content. The patient agrees with a one-word answer. The therapist then attempts to explore this emotional distancing, but the patient remains distant. The patient eventually changes the topic to discuss the

yearbook picture and summary of a friend who left out the bad things that had happened in his life. The therapist attempts to connect an emotion to the patient's description, eventually getting to admit that he gets some pleasure out of his friend's failures, but the patient's exploration ends there. Towards the end of the session, the therapist says that feels like the patient will sometimes agree with him just to shut down the conversation because the patient is uncomfortable. The patient says, "The topic is covered, I guess," and continues to distance himself emotionally, giving one word answers to the therapist's questions and observations.

## **VI. Discussion**

The results of this study show that S-WAI-O is an easy-to-use, reliable and valid measure of within-session rupture and rupture repair episodes. Good convergent and divergent validity were found for the measure. For example, S-WAI-O's report of rupture and repair had a significant relationship with patient report of rupture and repair. There was not a significant relationship between S-WAI-O and therapist report of rupture or between patient and therapist report of rupture. Because patient report of rupture is more strongly associated with outcome, the results of this analysis are promising (Horvath & Symonds, 1991). This sample did not have adequate outcome data to do an analysis, so future studies using the S-WAI-O should examine this relationship.

Consistent with past findings (e.g., Muran et al., 2009; Eames & Roth, 2000) patients in the study reported fewer ruptures (19.7% of sessions) than their therapists (38.6% of sessions). Consistent with the literature on observer-based



measures of rupture detection (e.g., Sommerfeld et al.; Eubanks-Carter, Safran & Muran, 2009), S-WAI-O detected the highest frequency of ruptures (62.9% of all sessions). While a few rupture sessions were examined for content for illustrative purposes, a full qualitative examination of rupture sessions was not completed. Future researchers could use the S-WAI-O to examine the process by which ruptures occur and are either repaired or not repaired. In addition, researchers could study what happens in sessions that are reported as ruptures by one or more party to see what processes are occurring in sessions with overlapping and discrepant reports of ruptures. This information could help to increase therapists' awareness of ruptures.

This study did not find differences in the amount of rupture, repair or the quality of the working alliance between the CBT and RR training modalities. There are a number of possible explanations for these results. Perhaps the S-WAI-O is not a sensitive enough measure to detect change in the process. The measure is relatively gross, measuring in five-minute segments as opposed to examining moment-by-moment interactions. The processes that occur during RR training may be more subtle and gradual, and they may not happen within a single session. Additionally, the measure does not evaluate the interpersonal content of the ruptures and does not evaluate what type of ruptures occurs (withdrawal and/or confrontation) in the different phases of treatment. While an equal amount of rupture may occur throughout the course of treatment, perhaps one would see a change in to more adaptive interpersonal processes once the switch to RR occurs.

Another possible explanation is that the therapists in the study were not highly adherent to the CBT and RR models. To examine this possibility, two cases

with low adherence scores were removed from the data set and the GEE was rerun. Unfortunately, there still were not any significant differences between CBT and RR sessions.

An additional explanation for the non-significant findings is that the therapists were not yet competent in the RR model. Therapists participated in a yearlong CBT didactics seminar and then had a 30-session CBT case before starting their CBT/RR case, but were only introduced to the RR model at a midpoint in their CBT/RR case. And while therapists were trained to adherence, they were not necessarily skilled. One such example comes from an RR session that was coded as a rupture by the S-WAI-O but was not rated as a rupture by the patient or therapist. In this session, the therapist reveals her internal experience, a technique of RR training, but does it in a way that is accusatory and harsh. She tells her patient, "It really irritates me when you do that. You really need to stop doing that." Delivered in a softer tone or worded slightly differently, this intervention could have opened up a discussion on the patient's relational style and effect on others. However, she shut down the conversation with her critical style. Perhaps once these therapists in training get more experience, one would be able to see the hypothesized differences in ruptures, rupture repair and the working alliance. Future studies could compare therapists who have had more experience with RR training and who are considered competent and not just adherent to the model.

Overall, the S-WAI-O is a promising observer-based instrument that resolves many of the problems of other observer-based rupture measures. The S-WAI-O can be used with inexperienced coders, uses video data and demarcates where in the

session ruptures and resolution has taken place. Initial descriptive analysis on a small subset of the sample revealed that the ones, runs and trends in the S-WAI-O detect rupture and rupture repair processes in both CBT and RR sessions. In the future, S-WAI-O could be used in conjunction with other process measures to examine what happens during these critical events in psychotherapy, so that researchers can come closer to answering the question: What makes psychotherapy effective?

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## APPENDIX A

**Figure 9. The Post-Session Questionnaire, Patient Version**

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PATIENT POST-SESSION QUESTIONNAIRE – Version 2006			
<i>Please complete immediately after session (or as close as possible) so that your memory of the session remains fresh.</i>			
Your initials:	Your therapist initials:	Session number:	Date of session:

**SECTION A:** Please circle the appropriate number.

1. How helpful or hindering for you was this session overall?

1	2	3	4	5	6	7	8	9	
<b>Extremely hindering</b>			<b>Neutral</b>			<b>Extremely helpful</b>			

2. To what extent are your presenting problems resolved?

1	2	3	4	5	6	7	8	9	
<b>Not at all</b>			<b>Moderately</b>			<b>Completely</b>			

**SECTION B:** Please circle the appropriate number to show how you feel about this session.

Bad	1	2	3	4	5	6	7	Good
Safe	1	2	3	4	5	6	7	Dangerous
Difficult	1	2	3	4	5	6	7	Easy
Valuable	1	2	3	4	5	6	7	Worthless
Shallow	1	2	3	4	5	6	7	Deep
Relaxed	1	2	3	4	5	6	7	Tense
Unpleasant	1	2	3	4	5	6	7	Pleasant
Full	1	2	3	4	5	6	7	Empty
Weak	1	2	3	4	5	6	7	Powerful
Special	1	2	3	4	5	6	7	Ordinary
Rough	1	2	3	4	5	6	7	Smooth
Comfortable	1	2	3	4	5	6	7	Uncomfortable

**SECTION C:** Please circle the appropriate number to indicate how you felt about your working relationship with your therapist based on this session..

	1	2	3	4	5	6	7
	<b>Not at all</b>		<b>Somewhat</b>			<b>Completely</b>	
1. My therapist and I agree about the things I need to do in therapy to help improve my situation.	1	2	3	4	5	6	7
2. What we are doing in therapy gives me new ways of looking at my problem.	1	2	3	4	5	6	7
3. I believe that my therapist likes me.	1	2	3	4	5	6	7
4. My therapist does not understand what I am trying to accomplish in therapy.	1	2	3	4	5	6	7
5. I am confident in my therapist's ability to help me.	1	2	3	4	5	6	7
6. My therapist and I are working toward mutually agreed upon goals.	1	2	3	4	5	6	7
7. I feel that my therapist appreciates me.	1	2	3	4	5	6	7
8. We agree on what is important for me to work on.	1	2	3	4	5	6	7
9. My therapist and I seem to trust one another.	1	2	3	4	5	6	7
10. My therapist and I seem to have different ideas on what my problems are.	1	2	3	4	5	6	7
11. We have established a good understanding of the kind of changes that would be good for me.	1	2	3	4	5	6	7
12. I believe the way we were working with my problem is correct.	1	2	3	4	5	6	7
13. My therapist and I respect each other.	1	2	3	4	5	6	7
14. I feel that the things I do in therapy will help me accomplish the changes that I want.	1	2	3	4	5	6	7
15. My therapist and I collaborate on setting goals for my therapy.	1	2	3	4	5	6	7
16. I feel my therapist cares about me even when I do things that he/she does not approve of.	1	2	3	4	5	6	7
17. As a result of these sessions, I am clearer as to how I might be able to change.	1	2	3	4	5	6	7

**SECTION D:** *Please circle the appropriate number.*

	Not at all	Occasionally	Constantly		
1. a) Did you experience any tension or problem, any misunderstanding, conflict or disagreement, in your relationship with your therapist during the session?	1	2	3	4	5
	<b>Mildly</b>		<b>Moderately</b>		<b>Extremely</b>
b) If yes, please rate how tense or upset you felt about this during the session.	1	2	3	4	5
	<b>Not at all</b>		<b>Somewhat</b>		<b>Very much</b>
2. a) To what extent did you find yourself and your therapist overly accommodating or overly protective of each other? Or to what extent did you feel you were making nice or smoothing things over? Or to what extent did you feel you were holding back or avoiding something?	1	2	3	4	5
	<b>Mildly</b>		<b>Moderately</b>		<b>Extremely</b>
b) If yes, please rate how tense or upset you felt about this during the session.	1	2	3	4	5

3. Please describe the problem:

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	Not at all	Somewhat	Very much		
4. To what extent was this problem addressed in this session?	1	2	3	4	5
5. To what degree do you feel this problem was resolved by the end of the session?	1	2	3	4	5

6. What do you think contributed to the resolution of the problem? Please describe:

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**SECTION E:** *If you experienced any problems with your therapist during this session (any tension, misunderstanding, conflict, disagreement, over-accommodation or avoidance), please rate the extent to which the following statements reflect your experience in this session.*

	Not at all	Somewhat	Definitely		
1. I felt a closer connection with my therapist.	1	2	3	4	5
2. I discovered feelings toward my therapist that I had not been fully aware of.	1	2	3	4	5
3. My therapist and I were able to work through a conflict and connect in a stronger way.	1	2	3	4	5
4. I saw how I was contributing to the difficulties my therapist and I were having.	1	2	3	4	5
5. I acted in a way that felt more authentic or genuine for me.	1	2	3	4	5
6. I recognized and accepted my therapist's limitations.	1	2	3	4	5
7. I felt freer to make mistakes with my therapist.	1	2	3	4	5
8. I became aware of ways in which I avoid creating conflicts and misunderstandings with my therapist.	1	2	3	4	5
9. I saw that I can expose risky feelings and not be rejected or criticized by my therapist.	1	2	3	4	5
10. I began to get the sense that I don't have to protect my therapist.	1	2	3	4	5
11. I felt more comfortable with expressing vulnerability or anger towards my therapist.	1	2	3	4	5
12. I told my therapist something I had been hesitant to say.	1	2	3	4	5
13. I felt able to disagree with my therapist.	1	2	3	4	5
14. I began to accept a part of myself, which I had not fully acknowledged before.	1	2	3	4	5
15. I said something to my therapist that I had felt for a while and it left me with a sense of relief.	1	2	3	4	5
16. I saw that I was doing something to distance myself from my therapist or push him/her away.	1	2	3	4	5
17. I felt more trusting of my therapist.	1	2	3	4	5
18. I was afraid something I said would upset or hurt my therapist but I found out that it did not.	1	2	3	4	5

## Figure 10. Post-Session Questionnaire, Therapist Version

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THERAPIST POST-SESSION QUESTIONNAIRE – Version 2006			
Please complete immediately after session (or as close as possible) so that your memory of the session remains fresh.			
Your initials:	Your patient's initials:	Session number:	Date of session:

**SECTION A:** Please circle the appropriate number.

1. How helpful or hindering to your patient this session was overall?

1	2	3	4	5	6	7	8	9	
<b>Extremely hindering</b>					<b>Neutral</b>				<b>Extremely helpful</b>

2. To what extent are your patient's presenting problems resolved?

1	2	3	4	5	6	7	8	9	
<b>Not at all</b>					<b>Moderately</b>				<b>Completely</b>

**SECTION B:** Please circle the appropriate number to show how you feel about this session.

Bad	1	2	3	4	5	6	7	Good
Safe	1	2	3	4	5	6	7	Dangerous
Difficult	1	2	3	4	5	6	7	Easy
Valuable	1	2	3	4	5	6	7	Worthless
Shallow	1	2	3	4	5	6	7	Deep
Relaxed	1	2	3	4	5	6	7	Tense
Unpleasant	1	2	3	4	5	6	7	Pleasant
Full	1	2	3	4	5	6	7	Empty
Weak	1	2	3	4	5	6	7	Powerful
Special	1	2	3	4	5	6	7	Ordinary
Rough	1	2	3	4	5	6	7	Smooth
Comfortable	1	2	3	4	5	6	7	Uncomfortable

**SECTION C:** Please circle the appropriate number to indicate how you felt about working relationship with your patient based on this session.

	1	2	3	4	5	6	7	<b>Not at all</b>	<b>Somewhat</b>	<b>Completely</b>
1. My patient and I agree about the things he/she needs to do in therapy to help improve his/her situation.	1	2	3	4	5	6	7			
2. My patient and I both feel confident about the usefulness of our current activity in therapy.	1	2	3	4	5	6	7			
3. I believe my patient likes me.	1	2	3	4	5	6	7			
4. I have doubts about what we are trying to accomplish in therapy.	1	2	3	4	5	6	7			
5. I am confident in my ability to help my patient.	1	2	3	4	5	6	7			
6. We are working toward mutually agreed upon goals.	1	2	3	4	5	6	7			
7. I appreciate my patient as a person.	1	2	3	4	5	6	7			
8. We agree on what is important for him/her to work on.	1	2	3	4	5	6	7			
9. My patient and I have built a mutual trust.	1	2	3	4	5	6	7			
10. My patient and I have different ideas on what his/her problems are.	1	2	3	4	5	6	7			
11. We have established a good understanding of the kind of changes that would be good for him/her.	1	2	3	4	5	6	7			
12. My patient believes the way we were working with his/her problem is correct.	1	2	3	4	5	6	7			
13. My patient and I respect each other.	1	2	3	4	5	6	7			
14. I feel confident that the things we do in therapy will help my patient to accomplish the changes that he/she desires.	1	2	3	4	5	6	7			
15. My patient and I have collaborated on setting goals for these sessions.	1	2	3	4	5	6	7			
16. I respect my patient even when he/she does things that I do not approve of.	1	2	3	4	5	6	7			
17. As a result of these sessions, my patient is clearer as to how he/she might be able to change.	1	2	3	4	5	6	7			
18. I am genuinely concerned for my patient's welfare.	1	2	3	4	5	6	7			
19. My patient and I have a common perception of his/her goals.	1	2	3	4	5	6	7			

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**SECTION D:** Please circle the appropriate number.

	Not at all	Occasionally	Con:
1. a) Did you experience any tension or problem, any misunderstanding, conflict or disagreement, in your relationship with your patient during the session?	1	2 3	4
	<b>Mildly</b>	<b>Moderately</b>	<b>Ext</b>
b) If yes, please rate how tense or upset you felt about this during the session:	1	2 3	4
	<b>Not at all</b>	<b>Somewhat</b>	<b>Very</b>
2. a) To what extent did you find yourself and your patient overly accommodating or overly protective of each other? Or to what extent did you feel you were making nice or smoothing things over? Or to what extent did you feel you were holding back or avoiding something?	1	2 3	4
	<b>Mildly</b>	<b>Moderately</b>	<b>Extrem</b>
b) If yes, please rate how tense or upset you felt about this during the session.	1	2 3	4 5

3. Please describe the problem:

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	Not at all	Somewhat	Very
4. To what extent was this problem addressed in this session?	1	2 3	4
5. To what degree do you feel this problem was resolved by the end of the session?	1	2 3	4
6. What do you think contributed to the resolution of the problem? Please describe:			

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**SECTION E:** If you experienced any problems with your patient during this session (any tension, misunderstanding, conflict, disagreement, over-accommodation or avoidance), please rate the extent to which the following statements reflect your experience in this session.

	Not at all	Somewhat	Defir
1. I felt a closer connection with my patient.	1	2 3	4
2. I found myself talking about feelings I didn't know I had.	1	2 3	4
3. My patient and I were able to work through a conflict and connect in a stronger way.	1	2 3	4
4. I saw how I was contributing to the difficulties my patient and I were having.	1	2 3	4
5. I acted in a way that felt more authentic or genuine for me.	1	2 3	4
6. I recognized and accepted my patient's limitations.	1	2 3	4
7. I felt freer to make mistakes with my patient.	1	2 3	4
8. I became aware of ways in which I avoid creating conflicts and misunderstandings with my patient.	1	2 3	4
9. I saw that I can expose risky feelings and not be rejected/criticized by my patient.	1	2 3	4
10. I began to get the sense that I don't have to protect my patient.	1	2 3	4
11. I felt more comfortable with expressing vulnerability or anger towards my patient.	1	2 3	4
12. I told my patient something I had been hesitant to say.	1	2 3	4
13. I felt able to disagree with my patient.	1	2 3	4
14. I began to accept a part of myself, which I had not fully acknowledged before.	1	2 3	4
15. I said something to my patient that I had felt for a while and it left me with a sense of relief.	1	2 3	4
16. I saw that I was doing something to distance myself from my patient or push him/her away.	1	2 3	4
17. I felt more trusting of my patient.	1	2 3	4
18. I was afraid something I said would upset or hurt my patient but I found out that it did not.	1	2 3	4





**Figure 11. Segmented Working Alliance Inventory—Observer Form**

**SWAI-O Scoring Sheet**

Patient Acronym\_\_\_\_\_ Patient Number\_\_\_\_\_ Coder\_\_\_\_\_

Session Number \_\_\_\_\_ Session Date \_\_\_\_\_ Date Coded \_\_\_\_\_

**Segment #**\_\_\_\_\_ **Segment Time Span**\_\_\_\_\_

*Task:*

1. Within this segment, there is agreement about the steps taken to help improve the client's situation.

1      2      3      **4**      5      6      7

2. Within this segment, there is agreement about the usefulness of the current activity in therapy (i.e., the client is seeing new ways to look at his/her problem).

1      2      3      **4**      5      6      7

3. There is a perception that the time spent in this segment is not spent efficiently.

1      2      3      **4**      5      6      7

4. The therapy process does not make sense to the client in this segment.

1      2      3      **4**      5      6      7

5. There is agreement about what client's role or responsibilities are in this segment.

1      2      3      **4**      5      6      7

6. The client is frustrated with what he/she is being asked to do in this segment.

1      2      3      **4**      5      6      7

*Bond:*

7. There is a sense of discomfort in the relationship.

1      2      3      **4**      5      6      7

8. There is good understanding between the client and therapist.

1      2      3      **4**      5      6      7

9. The client and the therapist respect each other.

1      2      3      **4**      5      6      7

10. There is mutual trust between the client and therapist.

1      2      3      **4**      5      6      7

11. The client is aware that the therapist is genuinely concerned for his/her welfare.

1      2      3      **4**      5      6      7

12. Both the client and therapist see their relationship as important to the client

1      2      3      **4**      5      6      7