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The Impact of Therapist Self-Disclosure on Client-Perceived Working Alliance amongst Psychiatrist Inpatients

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THE IMPACT OF THERAPIST SELF-DISCLOSURE ON CLIENT-PERCEIVED WORKING
ALLIANCE AMONGST PSYCHIATRIC INPATIENTS

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The Department of Psychology

by

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ABSTRACT

Working alliance has been shown to predict positive psychotherapy treatment outcomes. Past research focuses on therapist characteristics that correlate with working alliance after multiple therapy sessions (e.g., warmth, trustworthy) rather than employing experimental designs examining specific techniques that quickly improve working alliance. Specific techniques that have been empirically shown to improve working alliance quickly may be particularly beneficial today in the age of managed care wherein clinicians often face constraints limiting the amount of time they can spend with clients. Therapist self-disclosure (TSD) of information about a clinician's personal life, when used appropriately, may have the potential to quickly improve working alliance. Prior research has demonstrated a positive relationship between TSD and working alliance; however, most studies examining TSD are methodologically unsound. The present study employed a methodologically rigorous design in which psychiatric inpatients participated in a highly structured assessment as part of standard intake procedures. After the intake interview, participants completed a baseline working alliance measure, which was followed by the clinician making one personal TSD statement to half of the participants. Shortly after the TSD statement (or non-TSD statement for the control group), participants completed a second working alliance questionnaire. As hypothesized, participants in the TSD group exhibited significantly higher scores than controls on the Bond subscale of the post-manipulation working alliance measure, and paranoia was negatively correlated with baseline working alliance. Contrary to what was expected, paranoia did not moderate the effects of TSD on working alliance. Implications for clinical applications and future research directions are discussed.

INTRODUCTION

The present study examined if the use of therapist self-disclosures of personal information can be used to improve working alliances between clinicians and psychiatric inpatients during brief, highly structured intake evaluations. Additionally, this study examined how paranoia impacts the effects of therapist self-disclosure on the working alliance. In the following sections, I review prior studies examining working alliance, therapist self-disclosure, and the influence of paranoia on these variables. Next, I outline the purpose for, and hypotheses of, the present study. I then describe the methodology and analyses used in the present study followed by the results of these analyses. Finally, I discuss the findings and their implications.

Working Alliance

Working alliance (also referred to as “therapeutic alliance” or “rapport”) between clinicians and clients refers to the perception of a positive, therapeutic interpersonal relationship held by the client and/or the clinician. Bordin’s (1979) conceptualization of the working alliance is one of the more commonly used models in the field, and this model has guided research since it was first published over three decades ago (Elvin & Green, 2008). Bordin posits that a working alliance consists of three primary components: agreement between the therapist and clinician about the types of tasks or activities that should occur during treatment, agreement between the therapist and clinician regarding the goals of treatment, and the emotional bond between the client and the clinician.

Working alliance is clearly an important aspect of clinical work that warrants attention in light of prior findings suggesting that better working alliance is related to better treatment outcomes (Martin, Garske, & Davis, 2000). According to a meta-analysis by Martin et al. (2000) that examined 79 studies related to working alliance and treatment outcomes, higher working

alliance ratings have been consistently linked to quicker and larger symptom improvement. A different meta-analysis of over 200 studies found a mean correlation between working alliance and positive treatment outcomes (broadly defined) of $r = .275$ (Horvath, Del Re, Flückiger, & Symonds, 2011). Another meta-analysis (Sharf, Primavera, & Diener, 2010) found that poorer working alliance predicted an increase in early terminations (i.e., dropouts).

Most studies that have found a relationship between symptom improvement and working alliance only provide evidence of a correlational relationship between these two variables. There is some debate over whether or not these two variables are causally related (i.e., it is possible that a third variable, such as theoretical orientation or diagnosis, causes both increased symptom improvement and better working alliance), and, if a causal relationship does exist, which variable causes which. Recently, Falkenström, Granström, and Holmqvist (2013) examined this issue by measuring outpatient psychotherapy clients' symptom levels and client-rated at the end of one session and again at the beginning of the subsequent therapy sessions a week later. Their results supported a reciprocal causal relationship model wherein working alliance during the first session predicted subsequent symptom improvement (i.e., better working alliance ratings from the first session predicted better symptom improvement a week later), and better symptom improvement between the two sessions predicted better working alliance ratings during the second session. The authors argue that symptom improvement increases working alliance, and working alliance facilitates symptom improvement. Based on these findings, it stands to reason that interventions aimed at facilitating working alliance may be therapeutic in and of themselves.

Unfortunately, few studies have examined specific techniques that help develop a strong working alliance, and even fewer have employed experimental designs, which makes it difficult to infer causality. Most studies that examine which variables impact working alliance are

correlational studies, and they tend to focus on broad therapist variables rather than specific techniques. For example, working alliance has been shown to positively correlate with therapists appearing supportive and understanding (Price & Jones, 1998), warm (Mohl, Martinez, Ticknor, Huang, & Cordell, 1991), flexible (Kivlighan, Clements, Blake, Arnzen, & Brady, 1993), confident (Saunders, 1999), and respectful (Bachelor, 1995). Although some studies have explored how the use of specific techniques aid in building working alliance, most of these studies used less than ideal methodological designs, such as observer-based ratings (Luborsky, Crits-Christoph, Alexander, Margolis, & Cohen, 1983) as opposed to client-based ratings, or they focus on how specific techniques facilitate positive perceptions of the therapist/therapeutic environment and how those perceptions affect working alliance (Ackerman & Hilsenroth, 2003) instead of directly measuring the impact of the technique itself.

Additionally, prior studies do not address how to quickly establish a working alliance when meeting with a client for a short period of time (e.g., during brief assessments). Researchers have been primarily interested in the effects of working alliance in therapy (as opposed to single-session assessments), which may explain why past studies have focused less on specific techniques (e.g., specific actions a therapist can take, such as TSD) for building a working alliance, and instead focused on the role of broader therapist variables and clients' perceptions of therapists that are formed over the course of multiple therapy sessions (Horvath et al., 2011). Unfortunately, these studies do not address how to develop a working alliance during brief assessments when clinicians only meet with the client once for a short period of time, and may not have enough time to focus on developing a strong working alliance. This becomes even more difficult during brief assessments that are highly structured and/or standardized, which may make clinicians appear less personable and make it more difficult to convey any number of

therapist attributes that may help build a working alliance. In these types of scenarios it may be more useful to focus on specific interventions/techniques targeted at quickly developing a working alliance. The strategic use of therapist self-disclosures, for example, may be a potential technique for quickly and effectively building a working alliance with clients in these types of situations wherein time constraints and testing protocol may make establishing a working alliance exceptionally difficult.

Therapist Self-Disclosure

Therapist self-disclosure (TSD) has been described in the literature in a variety of ways with considerable inconsistency in how researchers operationally define the term (Hanson, 2005). Some researchers have broadly defined TSD as encompassing any means by which a client learns any information about the therapist's thoughts, feelings, or personal/professional life (Zur, Williams, Lehavot, & Knapp, 2009), whereas other researcher use more precise definitions such as Weiner (1983) who defines TSD as consisting of verbal statements made by a therapist that intentionally discloses information about their personal life that is unrelated to their professional expertise. Moreover, other researchers do not clearly state how they define the construct at all. Overall, this has resulted in a body of literature that is inconsistent and ambiguous with regard to what precisely is being studied.

Another problem with this area of research is that most articles published on this topic tend to be methodologically subpar (e.g., few well-controlled experimental designs), qualitative studies, and/or primarily theoretical in nature, which makes it difficult to draw meaningful, empirically-based conclusions; however, over the past several years research in this area appears to have become more organized and focused towards producing more methodologically rigorous studies. One major shift in the literature that aided in the advancement of these empirical studies

relates to researchers operationally defining TSD, although there are still a large number of studies that do not explicitly define TSD making it difficult to know what exactly is being examined.

Farber (2006) notes that in most studies TSD generally refers to verbal statements made by a clinician to a client in which the clinician intentionally discloses a piece of information. Farber goes on to explain that TSD studies tend to focus on two primary types of TSD: self-involving statements and self-disclosing statements. Self-involving (SI) statements involve a therapist describing their personal reaction to the client or to events that occur within a therapy session. Self-disclosing (SD) statements involve information about a therapist's personal life or experiences that do not directly pertain to the client and/or therapy (McCarthy & Betz, 1978). An example of a SI statement would be if a therapist told a client that they felt disrespected and hurt when the client used a derogatory word in describing the therapist. A SD statement, in this scenario, would be if the therapist disclosed that they were particularly sensitive to this word because a childhood bully used to call them this word.

In a review of the literature examining TSD, Henretty and Levitt (2010) note that most studies comparing SI statements to personal SD statement found that clients (or observers in the case of analogue studies) rated SI statements more favorably than personal SD statements. For example, in an analogue study in which participants were asked to listen to an audio recordings of therapy interviews in which the therapists engaged in either SI statements or SD statements, McCarthy and Betz (1978) found that the therapist that engaged in SI statements were rated as more expert and trustworthy compared to the therapist that made SD statements. McCarthy (1979) built upon these findings by employing a similar methodology except that participants listened to one of eight, instead of two, recordings (four therapists making SI statements and four

making SD statements), and found that participants rated the therapists making SI statements as more expert, attractive, and trustworthy compared the therapists making SD statements.

Reynolds and Fischer (1983) employed a similar observer-rated analogue design and found that therapists making SI statements were rated as more professional than those making SD statements.

It should be noted, however, that not all studies support the notion that SI statement are preferable to personal SD statement. Two analogue studies found that observers rated therapists making SI statements similarly to those making SD statements with regard to the therapists' expertness, trustworthiness, and attractiveness (Dowd & Boroto, 1982; McCarthy, 1979).

Similarly, Hanson (2005) found that participants who had received therapy in the past described both SI statements and personal SD statements as being similarly helpful, and that when their therapists made a helpful TSD (of either kind) the clients believed that the disclosure improved the therapeutic alliance about 66% of the time. Nilsson, Strassberg, and Bannon's (1979) analogue study found that therapists who made personal SD statements were viewed as being more likeable and understanding than therapists who made SI statements.

Although most, but not all, studies suggest that using SI statements is preferable to using personal SD statements, this does not mean that making personal SD statements is unhelpful, nor does it necessarily indicate that therapists should avoid using personal SD statements as a therapeutic tool in some situations. In fact, strategic use of personal SD statements appears to be preferable to not using any personal SD statements at all according to several studies that compared the use of personal SD statements to control conditions in which no personal SD (or SI) statements were made. This notion is evidenced by five such studies (described below) including two observer-rated analogue studies (Fox, Strum, & Walters, 1984; VandeCreek &

Angstadt, 1985), two interviewee-rated studies (Davis & Skinner, 1974; Mann & Murphy, 1975), and a fifth analogue study that examined how the frequency of personal TSD statements impacted observers' ratings of therapist variables (Myers & Hayes, 2006).

Two analogue studies examined how personal SD statements impacted participants' perceptions of therapists after the participants read a transcript of a fictitious therapy session (Fox et al., 1984), or watched a 10-minuted video of a scripted therapy session (VandeCreek & Angstadt, 1985). In both studies, healthy college students read or watched one of two therapy sessions, which were identical except that in the experimental condition the therapist made personal self-disclosures. In the study conducted by Fox et al. (1984), compared to those in the control condition, the participants that read the script in which the therapist made a personal self-disclosure (that he had once been in therapy himself) rated the therapeutic relationship more favorably, and they rated the therapist as appearing more intelligent, likeable, cooperative, easygoing, mature, responsible, flexible, unselfish, sincere, stronger, reasonable, courteous, warmer, stable, and better adjusted. VandeCreek and Angstadt (1985) found that after watching the video in which the therapist made six personal SD statements to the fictional client, participants rated the therapist as appearing more trustworthy, attractive (i.e., likeable), and more expert (i.e., knowledgeable/professional) compared to participants in the control condition.

Davis and Skinner (1974) and Mann and Murphy (1975) took a different approach to examining the effects of using personal SD statements by conducting interviews with the participants themselves during which time the interviewer did or did not make personal SD statements. This approach allows for an added degree of ecological validity in that it examines how making SD statements affects the individual at which these statements are directed rather than the previously mentioned studies, which only assessed the reactions of participants who

took the role of external observers to a social interaction between two people that the participants had no interpersonal or emotional ties with. The downside of both Davis and Skinner's (1974) and Mann and Murphy's (1975) studies is that both employed methodologies in which participants spoke to "interviewers" who were not identified as being anything other than an interviewer or researcher. For this reason, the personal SD statements made by the interviewers are not technically therapist self-disclosures, but rather "interviewer self-disclosures". The concern being that it is possible that participants might have different reactions to personal SD statements made by therapists compared to personal SD statements made by "interviewers" who participants may be more likely to perceive as a peer or a nonprofessional. Additionally, participants in both studies were healthy college students, not therapy clients, meaning that these studies provide us with information about how interviewees tend to respond to personal SD statements made by interviewers (not necessarily how clients would respond to personal SD statements made by therapists); however, although neither study labeled the interviewer as a clinician, both employed interview questions that addressed personal and potentially emotional topics similar to what might be discussed during an initial therapy session.

Davis and Skinner (1974) discovered that compared to the control condition (i.e., no personal SD statements), in the condition in which the interviewer made personal SD statements related to the interview questions (prior to prompting the participant to answer the question) participants tended to engage in more in-depth self-disclosures themselves. In Mann and Murphy's (1975) study, interviewers made personal SD statements 0, 4, or 12 times during a 40-minute interview with healthy college students. Overall, the 4-disclosure condition had more favorable outcomes than both the 0-disclosure and 12-disclosure conditions. Specifically, participants in the 4-disclosure condition made significantly more self-disclosing statements

themselves, and they rated the interviewer as being more empathic, more genuine, and warmer compared to participants in the other two conditions with effect sizes in the large range for all three dependent variables. Overall, these findings suggest that taking an all-or-nothing approach to the use of personal self-disclosures may be problematic. Instead of an all-or-nothing approach, the strategic use of personal self-disclosing statements, when used in moderation, may be more effective.

Similarly, Myers and Hayes (2006) found that although the use of personal SD statements can be beneficial, this technique is only advisable in certain situations. In their analogue study, healthy undergraduates viewed 10-minute videos of simulated therapy sessions in which the therapist made three personal SD statements (TSD condition) or engaged in no TSD (control condition). Additionally, prior to watching the video participants read one of two brief introductions to the video, which were identical except that one described the client-therapist working alliance as being positive, and the other described the working alliance as being negative. Compared to participants in the control condition (i.e., no TSD), participants in the TSD condition rated the therapist as appearing more expert and described the therapy session as being “deeper”, but these findings only occurred amongst participants who read the positive working alliance introduction. When participants read the negative working alliance introduction, those in the TSD condition perceived the therapist as appearing less expert and the therapy session as shallower compared to participants in the control condition. These results suggest that personal self-disclosing statements can be useful under specific conditions, particularly when there is already a strong working alliance, but they also have the potential to be harmful in other situations (at least from the perspective of an outsider observing a therapy session). Just as importantly, this experiment is distinct from the vast majority of TSD research

in that it examines the differing effects of TSD as a function of another variable. That is to say that while most studies simply ask the question “is TSD helpful?” this study asks “in what situations is TSD helpful?”

The present study specifically examined personal TSD statements (rather than SI statements) in which a therapist reveals information about their personal lives. This type of TSD has received little attention by researchers (Henretty & Levitt, 2010) in spite of findings that the majority psychologists report self-disclosing personal information to their clients at times (Mathews, 1988), and the notion that personal TSD statements can arguably be used more easily than SI statements during brief, highly structured assessments. Gelso and Palma (2011) note that research in TSD needs to start examining more specific research questions about TSD. Specifically, they argue that researchers should begin asking the “who, what, when, why, how” questions: with whom (what types of clients) should a therapist disclose, what should they disclose, when and why should they disclose, and how should they go about making disclosures? Although the present study addresses all five “who, what, when, why, how” questions to some extent, this study specifically focuses on asking if a relatively personal SD statement (“what”) can improve the working alliance (“why”) during a brief structured assessment (“when”). Moreover, this study examines the question “with whom should a therapist disclose?” by examining whether the effects of TSD on working alliance are stronger amongst psychiatric inpatients with elevated paranoia compared to those with lower levels of paranoia.

Developing a Working Alliance with Paranoid Patients

Paranoia, which refers to a tendency of being suspicious of others and/or having false beliefs that one is being harassed, mistreated, or plotted against (American Psychiatric Association, 2013, p. 819), is a symptom of several severe mental illnesses including

schizophrenia, major depressive disorder, and bipolar disorder (Lake, 2008). Paranoia ranges in severity from more rigid paranoid delusions, in which an individual maintains a belief despite irrefutable proof that the belief is false, to more flexible paranoid ideations, in which the belief is held with less conviction and may be changed when presented with convincing evidence that the belief is incorrect (American Psychiatric Association, 2000, p. 820). Paranoid delusions have been estimated to occur in approximately 50% of schizophrenia patients (Sartorius et al., 1986), 28% of individuals with bipolar I disorder (Goodwin & Jamison, 1990), and about 7% of individuals with major depressive disorder (Frangos, Athanassenas, Tsitourides, Psilolignos, & Katsanou, 1983; Johnson, Horwath, & Weissman, 1991).

The current body of research examining working alliance with clients that have psychotic-spectrum disorders, particularly those experiencing paranoia, is extremely small (Hewitt & Coffey, 2005), and consists almost exclusively of correlational studies; however, there is considerable consistency across these studies finding a strong relationship between working alliance and more favorable treatment outcomes for clients with schizophrenia-spectrum disorders including fewer hospitalizations, better medication adherence, improved quality of life, better social and global functioning, and symptom reduction (Frank & Gunderson, 1990; Gehrs & Goering, 1994; McCabe et al., 2012; Priebe, Richardson, Cooney, Adedeji, & McCabe, 2011; Svensson & Hansson, 1999). Unfortunately, building a working alliance with this population can be difficult, especially when clients present with paranoia, which has been shown to moderately correlate ($r = .32$) with poorer client-rated working alliance ratings amongst psychiatric inpatients (Cookson, Daffern, & Foley, 2012).

Experts in the field have recommend using a therapeutic approach called “befriending” to develop working alliances with paranoid patients (Beck, Rector, Stolar, & Grant, 2009; Kingdon

& Turkington, 2005). Befriending involves forming a friendly relationship with the client by engaging them in casual social interactions and discussing benign topics (e.g., television shows, sports, the weather) without directly discussing their mental health (Kingdon, Turkington, Collis, & Judd, 1989). Beck et al. (2009) describes befriending as "...trying to connect with the patient in the way one would with a colleague or a new neighbor" (p. 193). Kingdon and Turkington (2005) argue that befriending plays a vital role in developing a working alliance during the initial phase of treatment, and it can also be used throughout the course of treatment as needed, especially with paranoid patients who are resistant to, or ambivalent about, therapy and/or therapists. Kingdon and Turkington also recommend using TSD when employing a befriending approach with clients.

Although experts in the field have described general recommendations for developing a working alliance with paranoid patient, little is known regarding the degree to which these suggestions are empirically supported. In fact, to the author's knowledge, no prior studies have focused on examining a specific technique (e.g., TSD) aimed at quickly improving working alliances amongst paranoid psychiatric inpatients using an experimental design. The current study examined if TSD improves working alliances amongst psychiatric inpatients during a brief, highly structured assessment, and if the effect TSD has on working alliance differs as a function of paranoia.

PURPOSE AND HYPOTHESES

In the age of managed care, when more and more mental health professionals are being forced to meet with clients for shorter and shorter periods of time, building a strong working alliance with clients can be difficult. Developing a strong working alliance can become even more challenging when clinicians are asked to conduct assessments under restrictive time constraints, and spend the vast majority of their time with the client completing standardized or highly structured assessments. In these types of situations, even very personable therapists may find it difficult to convey the characteristics that are generally thought to strengthen a working alliance such as warmth and flexibility (Castonguay, Constantino, & Holtforth, 2006). Clinicians facing these challenges would likely benefit from employing specific techniques targeted at developing a working alliance quickly and effectively. The present study addresses this problem by examining whether the use of TSD might be a beneficial technique for building a working alliance in brief, highly structured assessments.

Additionally, this study addresses the knowledge gaps and limitations of prior studies in this area of research. For example, despite prior findings that most clinicians report using personal self-disclosing statements with clients (Mathews, 1988), few studies have examined how working alliance is affected by clinicians using personal self-disclosing statements. Rather, the majority of TSD studies focus on self-involving statements (Henretty & Levitt, 2010). This knowledge gap is of particular clinical interest when considering its potential use during single-session assessments wherein the use of self-involving statement may be more difficult or appear insincere. Moreover, the present study addresses the largely unexamined topic of how to establish a working alliance with psychiatric inpatients, especially those experiencing paranoia.

This study also aimed to employ a more methodologically rigorous experimental design to address the methodological limitations of prior studies. Although psychologists have been writing about TSD for decades, the vast majority of these publications are theoretical papers and/or qualitative studies. Of the small minority of the publications employing quantitative designs, most have methodological shortcomings that limit the generalizability of their findings. Specifically, most were analogue studies wherein participants read (or watched) scripted therapy sessions, and were asked to describe their perception of the therapist and the therapeutic relationship. These types of designs lend themselves to criticism regarding their ecological validity.

Aside from the contrived nature of these studies, it is problematic when working alliance – an interpersonal dynamic between the therapist and the client – is rated by an individual outside of the interpersonal dyad between whom the working alliance exists. One could argue that more meaningful and generalizable data could be derived from having the working alliance rated by the client or therapist considering that they are the ones actually experiencing the interpersonal dynamic. The client’s perception might be particularly meaningful based on prior studies linking client-perceived working alliance to better treatment outcomes (Horvath et al., 2011), and in light of prior findings suggesting that therapists’ ratings tend to overestimate the quality of the client-perceived working alliance as demonstrated by the relatively small correlations between therapist and client ratings (e.g., Bachelor & Salamé, 2000; Mallinckrodt & Nelson, 1991; Meier & Donmall, 2006). In addition to these empirical findings, major contributors to this area of research have published theory-based suggestions arguing that clients’ perceptions of working alliance are more accurate and meaningful than the therapists’ (Horvath, 2000; Tryon & Kane, 1993). Informed by empirical findings and theoretical suggestions, the

present study was designed to address this issue by employing a client-rated measure of working alliance rather than a therapist-rated measure.

Although there have been several prior studies wherein working alliance ratings were obtained from participants after interacting with an interviewer who self-disclosed a personal statement, these studies were conducted with healthy participants (not clients) and “interviewers” (i.e., they were not identified as clinicians). As such, the generalizability of these findings is unclear, and it is conceivable that the effects observed in interviewee-interviewer dyads might differ from client-therapist dyads. The present study addresses this issue by employing a more methodological rigorous design in which, without sacrificing internal reliability, ecological validity is a strength, not a weakness. This was achieved by making minor modifications to preexisting intake procedures already in use at a psychiatric inpatient unit in order to make the assessment more standardized and well controlled. In sum, this study advances the existing body of literature examining TSD by employing methodology that produces more reliable, meaningful, and generalizable results.

The primary aims of this study were to examine the effect of TSD on working alliance amongst psychiatric inpatients during a brief intake evaluation, and to explore how paranoia impacts the effect TSD has on working alliance by using a single-blind randomized controlled trial experimental design. The current study made minor changes the protocol already in place at a local psychiatric hospital for conducting intake assessments with newly admitted. The original intake procedures consisted primarily of standardized measures, such as the Brief Psychiatric Rating Scale-Expanded (BPRS-E; Lukoff, Nuechterlein, & Ventura, 1986), with the exception of an unstructured introduction/background interview at the beginning of the assessment. The current study replaced the unstructured introduction/background interview portion with a

scripted introduction/background interview essentially making the entire assessment scripted. Additionally, a baseline measure of working alliance (referred to as “the WAI-A”) was administered after which time the participants were asked about their treatment goals. After the participants described their treatment goals, the interviewer read one of two scripted statements, which were identical except that the statement used with participants in the TSD condition included a personal self-disclosure. Participants were randomly assigned to the TSD group or control group. The interviewer was blind to the each participant’s group status until immediately prior to the experimental manipulation (i.e., reading the TSD/non-TSD statement) at which time the interviewer opened a sealed envelope containing the participant’s group assignment. Immediately after reading the TSD/non-TSD statement, participants were asked to complete a second set of questions assessing working alliance (referred to as “the WAI-B”), which included the 12 items from the Working Alliance Inventory-Short (WAI-S; Tracey & Kokotovic, 1989).

The present study examined three hypotheses:

- 1) Participants in the TSD condition will exhibit significantly higher scores on the Bond subscale of the WAI-S compared to participants in the control group.
- 2) A significant negative correlation will be observed between paranoia and baseline working alliance (i.e., higher ratings on Item 9 of the BPRS-E will correlate with lower scores on the WAI-A).
- 3) Paranoia will significantly moderate the effects of TSD on the Bond subscale of the WAI-S such that stronger effects will be observed as paranoia increases when controlling for baseline working alliance scores and other relevant covariates (i.e., participants in the TSD group will exhibit higher scores on the

WAI-S Bond subscale compared to controls, and this group effect will be even larger amongst participants with higher paranoia ratings).

METHOD

Participants

Participants were recruited from an inpatient psychiatric hospital in Louisiana that houses men and women over the age 18 who were recently considered to be gravely disabled and/or an imminent threat to themselves or others. Patients typically receive treatment from this facility for between one to four weeks, and they are generally discharged to outpatient mental health clinics. Participants in the present study were civilly committed patients between the ages of 18 to 65 years old. Participants were excluded if there was evidence of current alcohol or substance dependence, current suicidal or homicidal ideations, intellectual disability, or severe head trauma resulting in loss of consciousness and/or requiring medical attention. Additionally, participants were excluded if they were pregnant, reported any current or unresolved legal issues, or had a Global Assessment of Function (GAF) score below 30. Of the 83 patients asked to be part of the study, 68 agreed to be participants. Eight participants were excluded due to missing data. The final sample consisted of 60 participants with 29 participants in the TSD group and 31 controls. There were 36 Caucasian participants, 23 African American participants, and one American Indian participants. Eighteen participants identified as male and 42 identified as female.

Measures

Paranoia. The Brief Psychiatric Rating Scale-Expanded (BPRS-E; Lukoff et al., 1986) is a 24-item interview-based and observation-based rating scale that is used to assess the severity of psychotic-spectrum disorders using a 1 (absence of symptom) to 7 (extremely severe) scale. Item 9 (Suspiciousness) of the BPRS-E was used in the present study in order to quantitatively measure paranoia. Item 9 is rated by examining the degree to which the participant exhibits “expressed or apparent belief(s) that other persons have acted maliciously or with discriminatory

intent... includ[ing] persecution by supernatural or other non-human agencies (e.g., the devil)".

The BPRS-E has demonstrated good inter-rater reliability with prior studies reporting intra-class correlation coefficient scores as high as 0.85 (Burlingame et al., 2006) to .90 (Docherty, Strauss, Dinzeo, & St-Hilaire, 2006), adequate internal consistency ($\alpha = .75$; Thomas, Donnell, & Young, 2004), and Item 9 of the BPRS-E has been shown to demonstrate good convergent validity with similar constructs (Simonds, Handel, & Archer, 2008).

All participants were assessed by the same interviewer (the author), and weekly consensus rating meetings were held with a different graduate student to establish inter-rater reliability for Item 9. Both the interviewer and the consensus rater have received extensive training in BPRS-E administration and scoring procedures. During the consensus meetings, the interviewer briefly described each participant and their responses to the Item 9 probes, and the consensus rater independently rated Item 9 based on the information provided. If the rating differed between the consensus rater and interviewer, the case was discussed in depth until an agreement was reached. The present study exhibited good inter-rater reliability for Item 9 (kappa values = 0.83).

Working Alliance. The Working Alliance Inventory, Short Form (WAI-S; Tracey & Kokotovic, 1989) is a 12-item self-report questionnaire designed to assess psychotherapy clients' perceptions of the strength of the working alliance they have with their psychotherapist. The WAI-S is an abbreviated version of the 36-item Working Alliance Inventory (WAI; Horvath & Greenburg, 1986, 1989), which was designed to assess Bordin's (1979) conceptualization of a working alliance. The WAI-S instructs participants to rate the extent to which each item describes their experience with a specified mental health professional using a 7-point Likert scale (1 = never, 7 = always). Items fall into one of three subscales (with each subscale consisting of

four items): Bond (the intensity of the emotional connection between the client and the clinician), Tasks (the degree to which the client and clinician agree on what should occur during treatment), and Goals (the extent to which the client and clinician agree on the purpose or desired outcome of treatment). A total score can be calculated by finding the sum of all items after reverse-scoring the negatively phrased items such that higher total scores reflect better working alliance ratings. Additionally, subscale scores can be calculated by adding together the responses to the four items that make up each subscale. The WAI-S has demonstrated good psychometric properties with test retest-reliability scores ranging from .73 to .83 (Horvath, 1994; Martin et al., 2000), internal consistency ranging from .91 to .93 (Busseri & Tyler, 2003), and it has demonstrated good concurrent validity (Busseri & Tyler, 2003; Parish & Eagle, 2003).

Both versions of the WAI were originally created to be used with clients that were attending regular psychotherapy appointments with a psychotherapist. As a result, several of the items were not necessarily applicable to the present study wherein the participants only meet with the clinician once for an assessment (not psychotherapy). Roberts and Penn (2009) addressed this issue by creating a modified version of the WAI that consists of 8 items from Bond subscale of the 36-item version of the WAI. Specifically, Roberts and Penn selected the items that were most applicable to an interviewer-participant dyad (rather than a therapist-client dyad) and reworded these items to make them more appropriate for an interviewer-participant dyad. The authors reported that this measure demonstrated adequate internal consistency ($\alpha = .85$).

In the present study, a baseline working alliance score (i.e., the WAI-A) was obtained shortly before the experimental manipulation (i.e., the TSD or non-TSD statement) in order to establish a pre-manipulation working alliance score. Immediately after the experimental

manipulation, additional working alliance measures were administered (i.e., WAI-B). The WAI-A consisted of items 5, 20, 28, 29, and 36 from the full 36-item version of the WAI (Horvath & Greenburg, 1986, 1989). These items were selected because they were the five remaining items from the Bond subscale of the full 36-item WAI that were most relevant to this study, and not already used in the WAI-B measures. The WAI-A demonstrated good internal reliability in the present study's sample ($\alpha = .83$).

The WAI-B consisted of 20 items. The first 12 items of the WAI-B consisted of the 12 items from the WAI-S (Tracey & Kokotovic, 1989). The remaining 8 items consisted of Roberts and Penn's (2009) modified working alliance items (described above). Participants in the present study were given identical instructions for both the WAI-A and WAI-B, which included the original instructions from the WAI-S as well as several additional instructions that were relevant to the present study (see Appendix A). The main analyses in the present study used the WAI-A total score for a baseline measure of working alliance, and the Bond subscale of the WAI-S (items 3, 5, 7, and 9 of the WAI-B) to examine post-manipulation working alliance score. The Bond subscale was selected because it is the subscale most conceptually relevant to the present study, and it is anticipated that a personal TSD statement is more likely to impact the sense of emotional closeness with the clinician (i.e., "bond") rather than the other two aspects of working alliance measured by the WAI-S (i.e., task and goal agreement).

Procedure

As part of a standard intake process at the psychiatric hospital where the data was collected for this study, patients complete a standard battery of assessments after being admitted into the hospital. After reviewing the patients' medical records, a typical intake screening begins with a brief discussion about confidentiality and the main purposes of the intake assessment,

which includes aiding in diagnostic clarification, examining how the patient is adjusting to the hospital environment, and clarifying the patient's treatment goals. Next, basic demographic and background information is collected, and the patient is asked to briefly describe any past psychiatric treatment, legal problems, and the circumstances leading to their hospitalization. Next, the Mini-Mental State Examination (MMSE; Folstein, Folstein, & McHugh, 1975) is administered followed by the Wechsler Abbreviated Scale of Intelligence – Second Edition (WASI-II; Wechsler, 2011) Two-Subtest Form. Then, the BPRS-E (Lukoff et al., 1986) is completed with the patient. The intake battery concludes by asking the patient if there are any treatment goals that they would like to work towards while they are at the hospital (e.g., decrease suicidal ideations, stress management, make arrangements for housing following discharge). The entire intake process takes approximately 90 to 120 minutes, including a review of the patient's medical record. All assessments were conducted in a testing room located on the inpatient unit, and were conducted by a graduate student under the supervision of a licensed psychologist, Dr. David Hale, Ph.D. Although the vast majority of the preexisting assessment protocol remained the same, several minor modifications were made for the purpose of this study.

First, several changes were made to the assessment protocol in order to make it more standardized and ensure that all participants experienced similar testing conditions. Instead of an unstructured introduction/background interview, a script (Appendix A) was used at the beginning of the assessment in which the interviewer introduced himself, explained the purpose and structure of the assessment, discussed confidentiality, and asked several demographic and background questions. The script was read verbatim with minor deviations made only when necessary to clarify or follow-up on participants' responses (e.g., "can you tell me more about that"). After completing the introduction and demographic/background questions, several

standardized measures were administered (i.e., MMSE, Folstein et al., 1975; BPRS-E, Lukoff et al., 1986; WASI-II, Wechsler, 2011). Following the completion of these standardized measures, the remaining portion of the assessment (up to and including the informed consent procedures and the experimental manipulation described below) was scripted. At the end of the assessment (after all study-related data had been collected) unscripted follow-up questions were asked when additional information for the intake report was needed.

All assessments were conducted by the same interviewer (the author) who wore similar clothing (dress slacks, a collared shirt, and a black jacket) during all assessments in order keep this aspect of testing consistent across participants. Testing was conducted in one of two rooms located on the male and female units. Both rooms were essentially identical and consisted of a small table and two chairs, which were about four feet apart. Patients were selected for the intake assessment in the order in which they arrived at the hospital. Each patient was greeted in one of the three common areas where patients are allowed to spend their free time, and asked to follow the interviewer to the testing room to complete a brief intake assessment. Nonverbal communication was kept as neutral and consistent as possible, and any unnecessary use of body language was kept to a minimum (i.e., minimal eye contact, smiling, nodding, hand gestures, etc.). In order to avoid being viewed as cold or aloof, participants were told, “this assessment is standardized; I’ll be reading you a list of questions from this form. I might not look up from my notebook too much because I’ll be reading you the questions or taking notes, but I assure you that I am listening.”

The second modification made to the original intake screening protocol for this study occurred after completing the BPRS-E (Lukoff et al., 1986) at which time patients were offered the chance to participate in this study (see Appendix A for more information). Participants were

provided with written and oral information regarding their rights as patients and as potential participants in the study, and they were assured that participation in the study was completely voluntary and would have absolutely no impact on their psychiatric treatment and/or discharge status. Due to the nature of inpatient psychiatric settings wherein many, if not most, patients are committed against their will, informed consent procedures were conducted in an especially conscientious manner such that there was considerable assurance that the participants fully understood that choosing not to participate in this study would not result in any negative consequences. To further avoid any potential concerns about unintentional coercion, participants were not offered any reimbursement or rewards for participating in the study.

The third change to the original assessment procedures occurred after informed consent had been obtained at which time participants were handed the WAI-A with a participant identification number written on it and an envelope to place the completed questionnaire in. Written and oral instructions were provided (Appendix A). Participants were told that their responses would be entered into a database by a different clinician, and that the data would be linked to a participant identification number (not their name) effectively making their responses anonymous. As such, they should feel comfortable being as honest and accurate as possible. They were then asked to leave the testing room to complete the questionnaire in the adjacent day room, place the completed questionnaire in an envelope, seal it, and give it to one of the nurses at the nursing station. While participants completed the questionnaire, the interviewer stayed in the testing room to ensure that the participants' responses were not influenced by the interviewer's presence. During this time the interviewer opened a sealed envelope, which indicated whether the participant had been randomly assigned to the TSD condition or the control condition. After

the participant completed the WAI-A, they returned to the testing room to complete the assessment.

The fourth change to the original testing protocol occurred after participants completed the WAI-A and returned to the testing room during which time the experimental manipulation occurred. At this time participants were asked if there were any treatment goals that their treatment team could help them work toward while they were in the hospital (see Appendix A). After participants responded, the interviewer read one of two statements depending on which condition the participants had been assigned to. Participants in both conditions were told: “I know that being here might feel really upsetting or difficult at times. If there is anything (else) you can think of that we might be able to help you with while you are here, I’d like to try to help you reach those goals. Is there anything (else) you think we could work on while you are here?” However, for participants in the TSD condition, this statement was prefaced by the following TSD statement: “A person very close to me once spent some time in a facility like this one, and I know how hard it was for them...”

Lastly, after the TSD statement (or control statement) was read and participants were given the chance to provide additional treatment goals, they were then asked to complete the WAI-B. The same instructions and protocol used when administering the WAI-A were used for the WAI-B. After completing the questionnaire, participants returned to the testing room for debriefing, and for any follow-up interview question needed to complete the intake assessment.

ANALYSES

Three main sets of analyses were conducted in order to test the three hypotheses. First, a t-test was conducted to test the first hypothesis that the Bond subscale of the WAI-S would be higher amongst participants in the TSD condition compared to those in the non-TSD (control) condition. Second, a correlational analysis was conducted to test the hypothesis that higher paranoia ratings would predict lower baseline working alliance ratings (i.e., WAI-A). Third, a hierarchical linear regression was conducted to test the hypothesis that paranoia would moderate the effects of TSD on the Bond subscale of the WAI-S using the steps outlined by Baron and Kenny (1986), and further clarified by Frazier, Tix, and Barron (2004). All variables were normally distributed (skew >1.5 ; kurtosis > 1.5), except for two variables (duration of assessment, skew = 1.56, kurtosis = 3.10; number of prior hospitalizations, skew = 2.59, kurtosis = 7.20), which were transformed with a square root transformation.

RESULTS

Demographics

Participants in the TSD group were not significantly different than controls with regard to gender, ethnicity, age, and education level (Table 1).

Group Differences in Clinical Variables

Participants in the TSD group were similar to controls with regard to the number of days spent in the hospital prior to being assessed, the length of the assessment, and the number of prior psychiatric hospitalizations. Additionally, no group differences were found for the paranoia rating, WAI-A, WAI-S Total Score, WAI-S Task subscale, WAI-S Goal subscale, or for Roberts and Penn's (2009) modified WAI items (Table 1). Supporting the first hypothesis, participants in the TSD group exhibited significantly higher scores on the Bond subscale of the WAI-S ($M = 23.34$, $SD = 4.99$) compared to participants in the control group ($M = 20.70$, $SD = 6.58$), $t(58) = -1.75$, $p = .04$, one-tailed. The effect size of this group difference is in the small range, Cohen's $d = .45$ (Cohen, 1992).

The Relationships Between Paranoia, Working Alliance, TSD, and Other Clinical and Demographic Variables

Pearson's r correlations were computed to explore the relationships between demographic variables and clinical variables (Table 2). As was hypothesized, a significant negative correlation was observed between paranoia and the WAI-A total scores (baseline working alliance), $r = -.23$, p (one-tailed) = .04. Additionally, the number of days that the participants had spent in the hospital at the time of the assessment was negatively correlated with the WAI-A total scores, $r = -.39$, p (two-tailed) = .002, and positively correlated with paranoia, $r = .30$, p (two-tailed) = .02. All of the working alliance measures' total scores and subscale scores exhibited significant and large positive correlations with each other (see Table 2).

Table 1
Means and Standard Deviations for Demographic and Clinical Variables for Participants in the TSD ($n = 29$) and Control ($n = 31$) Groups

| Variable | TSD | Controls | χ^2 or t | p |
|------------------------|---------------|---------------|---------------------|------|
| | $M(SD)$ | $M(SD)$ | | |
| % Female | 68.97 | 70.97 | .03 | .87 |
| % Caucasian | 68.97 | 51.61 | 1.88 | .17 |
| Age | 32.41 (9.64) | 33.35 (11.23) | .35 | .73 |
| Education Level | 11.21 (2.32) | 11.73 (1.88) | .97 | .34 |
| Days in Hospital | 6.18 (2.99) | 7.47 (4.73) | 1.27 | .21 |
| Duration of Assessment | 34.90 (15.94) | 35.90 (19.05) | 446.50 ^a | .97 |
| Prior Hospitalizations | 1.78 (1.95) | 2.93 (4.03) | 417.50 ^a | .63 |
| % Involuntary | 82.76 | 87.10 | .22 | .64 |
| Paranoia | 2.66 (1.54) | 3.00 (1.61) | .85 | .40 |
| WAI-A Total | 28.86 (6.06) | 26.10 (5.33) | -1.88 | .07 |
| WAI-S Bond | 23.34 (4.99) | 20.70 (6.58) | -1.75 | .04* |
| WAI-S Task | 24.44 (3.89) | 21.90 (6.67) | -1.82 | .08 |
| WAI-S Goal | 22.15 (4.59) | 20.90 (4.71) | -1.05 | .30 |
| WAI-S Total | 69.78 (11.55) | 64.57 (15.40) | -1.47 | .15 |
| WAI-Roberts and Penn | 48.24 (6.86) | 45.19 (9.79) | -1.39 | .17 |

Note. WAI-A = Baseline working alliance, WAI-S = Working Alliance Inventory-Short Form, WAI-Roberts and Penn = Roberts and Penn's (2009) modified version of the WAI.

^a Mann Whitney U

* $p < .05$ (one-tailed)

Table 2
Pearson's Correlations Between Demographic and Clinical Variables

| | Paranoia | WAI-A Total | WAI-S Bond | WAI-S Task | WAI-S Goal | WAI-S Total | WAI-Roberts |
|---------------------|----------|-------------|------------|------------|------------|-------------|-------------|
| Age | -.01 | -.08 | -.03 | .09 | .00 | -.03 | .01 |
| Education Level | -.01 | .09 | .02 | -.03 | .08 | -.01 | .13 |
| Days in Hospital | -.30** | -.39** | -.36 | -.34 | -.20 | -.24 | -.14 |
| Duration of Assess. | .22 | -.20 | -.23 | -.14 | -.16 | -.23 | -.20 |
| Prior Hospital. | -.05 | .00 | -.12 | -.16 | .02 | -.02 | -.03 |
| Paranoia | - | -.23* | -.14 | -.08 | -.04 | -.08 | -.03 |
| WAI-A Total | -.23* | - | .70** | .66** | .69** | .78** | .65** |
| WAI-S Bond | -.14 | .70** | - | .86** | .61** | .90** | .65** |
| WAI-S Task | -.08 | .66** | .86** | - | .55** | .85** | .57** |
| WAI-S Goal | -.04 | .69** | .61** | .55** | - | .82** | .67** |
| WAI-S Total | -.08 | .78** | .90** | .85** | .82** | - | .73** |
| WAI-Roberts | -.03 | .65** | .65** | .57** | .67** | .73** | - |

Note. Duration of Assess. = Duration of assessment (in minutes), Prior Hospital. = Number of prior psychiatric hospitalizations, WAI-A = Baseline working alliance, WAI-S = Working Alliance Inventory-Short Form, WAI-Roberts = Roberts and Penn's (2009) version of the WAI.

* $p < .05$ (one-tailed)

** $p < .01$ (two-tailed)

Male and female participants were compared on clinical and demographic variables to examine if gender effects were present (Table 3). Female participants exhibited significantly higher scores on the baseline measure of working alliance ($M = 28.57$, $SD = 5.83$) than male participants ($M = 24.78$, $SD = 4.97$), $t(58) = 2.41$, $p = .02$, two-tailed. Female participants also exhibited significantly higher scores on the WAI-S Bond subscale ($M = 22.95$, $SD = 5.53$) than

Table 3

Means and Standard Deviations for Demographic and Clinical Variables for Female ($n = 42$) and Male ($n = 18$) Participants

| Variable | Female | Male | χ^2 or t | p |
|------------------------|---------------|---------------|---------------------|--------|
| | $M(SD)$ | $M(SD)$ | | |
| % Caucasian | 64.29 | 50.00 | 1.07 | .30 |
| % in TSD Condition | 47.62 | 50.00 | .03 | .87 |
| Age | 32.29 (9.30) | 34.33 (12.84) | -.61 | .55 |
| Education Level | 11.71 (1.90) | 10.94 (2.48) | 1.30 | .20 |
| Days in Hospital | 5.92 (2.96) | 9.01 (5.24) | -2.35 | .03* |
| Duration of Assessment | 35.36 (16.93) | 35.55 (19.18) | 369.50 ^a | .89 |
| Prior Hospitalizations | 2.18 (2.73) | 2.82 (4.22) | 358.00 ^a | .74 |
| % Involuntary | 83.33 | 88.89 | .31 | .58 |
| Paranoia | 2.48 (1.42) | 3.67 (1.64) | -2.84 | .006** |
| WAI-A Total | 28.57 (5.83) | 24.78 (4.97) | 2.41 | .02* |
| WAI-S Bond | 22.95 (5.53) | 19.71 (6.48) | 1.98 | .05* |
| WAI-S Task | 23.71 (5.43) | 21.77 (5.94) | 1.24 | .22 |
| WAI-S Goal | 22.13 (4.76) | 20.04 (4.15) | 1.62 | .11 |
| WAI-S Total | 68.68 (13.34) | 63.37 (12.07) | 1.37 | .18 |
| WAI-Roberts and Penn | 47.56 (9.18) | 44.56 (6.68) | 1.25 | .22 |

Note. WAI-A = Baseline working alliance, WAI-S = Working Alliance Inventory-Short Form, WAI-Roberts and Penn = Roberts and Penn's (2009) modified version of the WAI.

^a Mann Whitney U

* $p < .05$ (two-tailed)

** $p < .01$ (two-tailed)

male participants ($M = 19.71$, $SD = 6.48$), $t(58) = 1.98$, $p = .05$, two-tailed. Paranoia ratings were significantly higher for males ($M = 3.67$, $SD = 1.64$) than females ($M = 2.48$, $SD = 1.42$), $t(58) = -2.84$, $p = .006$, two-tailed. Medium effect sizes were observed for baseline working alliance (Cohen's $d = .70$), the WAI-S Bond subscale (Cohen's $d = .54$), and paranoia (Cohen's $d = .78$).

Lastly, the impacts of ethnicity on clinical and demographic variables were examined (Table 4). Caucasian participants exhibited significantly higher scores on the baseline measure of working alliance ($M = 29.22$, $SD = 5.27$) compared to non-Caucasian participants ($M = 24.75$, $SD = 5.64$), $t(58) = -3.12$, $p = .003$, two-tailed, with an effect size falling in the large range, Cohen's $d = .82$. Additionally, Caucasian participants exhibited significantly higher scores on the WAI-S Bond subscale ($M = 23.50$, $SD = 4.83$) than non-Caucasian participants ($M = 19.70$, $SD = 6.84$), $t(58) = -2.36$, $p = .02$, two-tailed, with an effect size falling in the medium range, Cohen's $d = .64$. Significant differences in paranoia were not observed between Caucasian ($M = 2.75$, $SD = 1.50$) and non-Caucasian ($M = 2.96$, $SD = 1.71$) participants, $t(58) = .50$, $p = .62$, two-tailed.

The Moderating Role of Paranoia on TSD and the Bond Subscale of the WAI-S

In order to examine whether paranoia moderated the relationship between TSD and the Bond subscale of the WAI-S a hierarchical linear regression was computed using the procedures described by Barron and Kenney (1986), and further clarified by Frazier et al. (2004). The hierarchical linear regression was conducted in three blocks (Table 5). The first block was used to control for the WAI-A score (i.e., baseline working alliance) and several variables (duration of assessment, number of days since being admitted, gender, and ethnicity) that have been shown to be covariates (Cookson et al., 2012; Farber & Doolin, 2011; Horvath et al., 2011; Johansen, Iversen, Melle, & Hestad, 2013; Kvirgic, Cavelti, Beck, Rüschi, & Vauth, 2012). The second block included the dummy coded predictor variable (TSD/Control condition) and the centered

Table 4
Means and Standard Deviations for Demographic and Clinical Variables for Caucasian ($n = 36$) and Non-Caucasian ($n = 24$) Participants

| Variable | Caucasian | Non-Caucasian | χ^2 or t | p |
|------------------------|---------------|---------------|---------------------|---------|
| | $M(SD)$ | $M(SD)$ | | |
| % Female | 75.00 | 62.50 | 1.07 | .30 |
| % in TSD Condition | 55.56 | 37.50 | 1.88 | .17 |
| Age | 32.56 (9.16) | 33.42 (12.25) | .31 | .76 |
| Education Level | 11.88 (2.12) | 10.88 (1.96) | -1.85 | .07 |
| Days in Hospital | 6.15 (3.56) | 7.88 (4.47) | 1.66 | .10 |
| Duration of Assessment | 35.83 (19.48) | 34.79 (14.31) | 419.50 ^a | .85 |
| Prior Hospitalizations | 2.63 (3.53) | 1.98 (2.73) | 355.50 ^a | .24 |
| % Involuntary | 80.56 | 91.67 | 1.39 | .24 |
| Paranoia | 2.75 (1.50) | 2.96 (1.71) | .50 | .62 |
| WAI-A Total | 29.22 (5.27) | 24.75 (5.64) | -3.13 | .003** |
| WAI-S Bond | 23.50 (4.83) | 19.70 (6.84) | -2.36 | .02* |
| WAI-S Task | 24.14 (4.70) | 21.62 (5.56) | -1.62 | .11 |
| WAI-S Goal | 23.37 (3.87) | 18.69 (4.36) | -4.35 | <.001** |
| WAI-S Total | 70.88 (12.30) | 61.40 (14.25) | -2.74 | .008** |
| WAI-Roberts and Penn | 49.42 (6.19) | 42.53 (10.02) | -3.01 | .005** |

Note. WAI-A = Baseline working alliance, WAI-S = Working Alliance Inventory-Short Form, WAI-Roberts and Penn = Roberts and Penn's (2009) modified version of the WAI.

^a Mann Whitney U

* $p < .05$ (two-tailed)

** $p < .01$ (two-tailed)

Table 5
Hierarchical Linear Regression Analysis Examining the Moderating Effect of Paranoia on the Relationship between TSD and Working Alliance Amongst All Participants

| Predictor | ΔR^2 | F_{inc} | df | β | t | p |
|--------------------------------|--------------|-----------|------|---------|-------|--------|
| Dependent Variable: WAI-S Bond | | | | | | |
| Step 1 | .508 | 11.170 | 54 | | | <.001* |
| WAI-A Total | | | | .627 | 5.555 | <.001* |
| Ethnicity | | | | .059 | .562 | .576 |
| Days in Hospital | | | | -.071 | -.633 | .529 |
| Gender | | | | -.029 | -.276 | .783 |
| Duration of Assessment | | | | -.079 | -.767 | .447 |
| Step 2 | .007 | .384 | 52 | | | .683 |
| TSD Condition | | | | .063 | .616 | .541 |
| Paranoia | | | | .073 | .679 | .500 |
| Step 3 | .00 | .008 | 51 | | | .927 |
| TSD Condition X Paranoia | | | | .013 | .092 | .927 |

Note. WAI-A = Baseline working alliance, WAI-S = Working Alliance Inventory-Short Form
* $p < .001$

moderator variable (paranoia). These two variables were then used to create an interaction term (TSD/Control condition X paranoia), which was entered into the third block. Contrary to what was hypothesized, the addition of the interaction term did not significantly improve the model, $\Delta R^2 = .00$, $\Delta F(1, 51) = 0.01$, $p = .93$.

Post Hoc Analyses

To follow up on the significant gender differences in baseline working alliance, the WAI-S Bond subscale, and paranoia (Table 3), two additional moderator analyses were conducted for males and females, separately. These two moderator analyses employed identical steps as those used in the original moderator analysis, except gender was not entered as one of the covariates in the first block of the hierarchical linear regression. Significant moderator effects were not observed in the moderator analysis conducted amongst males, $\Delta R^2 = .01$, $\Delta F(1, 10) = 0.11$, $p = .75$, or the analysis conducted amongst females, $\Delta R^2 = .00$, $\Delta F(1, 34) = 0.01$, $p = .93$.

Additional moderator analyses were also conducted to follow up on the effects of ethnicity on baseline working alliance, the WAI-S Bond subscale, and paranoia (Table 4). Two separate moderator analyses were conducted for Caucasian participants and non-Caucasian participants by employing identical steps as those used in the original moderator analysis, except ethnicity was not entered as one of the covariates in the first block of the hierarchical linear regression. Amongst Caucasian participants, the addition of the interaction term significantly improved the model explaining an additional 9.1% of the variance, $\Delta R^2 = .09$, $\Delta F(1, 28) = 5.93$, $p = .02$, indicating that paranoia significantly moderated the relationship between TSD condition and working alliance amongst Caucasian participants (Table 6). The effect size of the interaction term is in the medium range, $f^2 = .21$ (Cohen, 1992). In order to examine the nature of this interaction, regression equations were calculated to depict how working alliance changes as a function of TSD condition amongst Caucasian participants using the methodology described by Holmbeck (2002). Separate simple slopes (Figure 1) were calculated for low paranoia (1 *SD* below the mean) and high paranoia (1 *SD* above the mean). Post hoc probing of the interaction

Table 6
Hierarchical Linear Regression Analysis Examining the Moderating Effect of Paranoia on the Relationship between TSD and Working Alliance Amongst Caucasian Participants

| Predictor | ΔR^2 | F_{inc} | df | β | t | p |
|--------------------------------|--------------|-----------|------|---------|-------|---------|
| Dependent Variable: WAI-S Bond | | | | | | |
| Step 1 | .477 | 7.058 | 31 | | | <.001** |
| WAI-A Total | | | | .710 | 5.059 | <.001** |
| Days in Hospital | | | | .047 | .279 | .782 |
| Gender | | | | .103 | .732 | .470 |
| Duration of Assessment | | | | -.085 | -.555 | .583 |
| Step 2 | .002 | .058 | 29 | | | .944 |
| TSD Condition | | | | .015 | .107 | .916 |
| Paranoia | | | | .052 | .323 | .749 |
| Step 3 | .091 | 5.927 | 28 | | | .022* |
| TSD Condition X Paranoia | | | | .468 | 2.435 | .022* |

Note. WAI-A = Baseline working alliance, WAI-S = Working Alliance Inventory-Short Form

* $p < .05$

** $p < .001$

revealed that the simple slope for high paranoia ($t = 1.35, p = .19$) and the simple slope for low paranoia ($t = -1.66, p = .11$) were both not significant.

For the moderator analysis conducted amongst non-Caucasian participants, the addition of the interaction term improved the model by explaining an additional 8.1% of the variance, $\Delta R^2 = .08, \Delta F(1, 16) = 3.70, p = .07$ (Table 7). Although this moderating effect only approached significance with a trend-level p-value, the actual effect size of the interaction term is in the

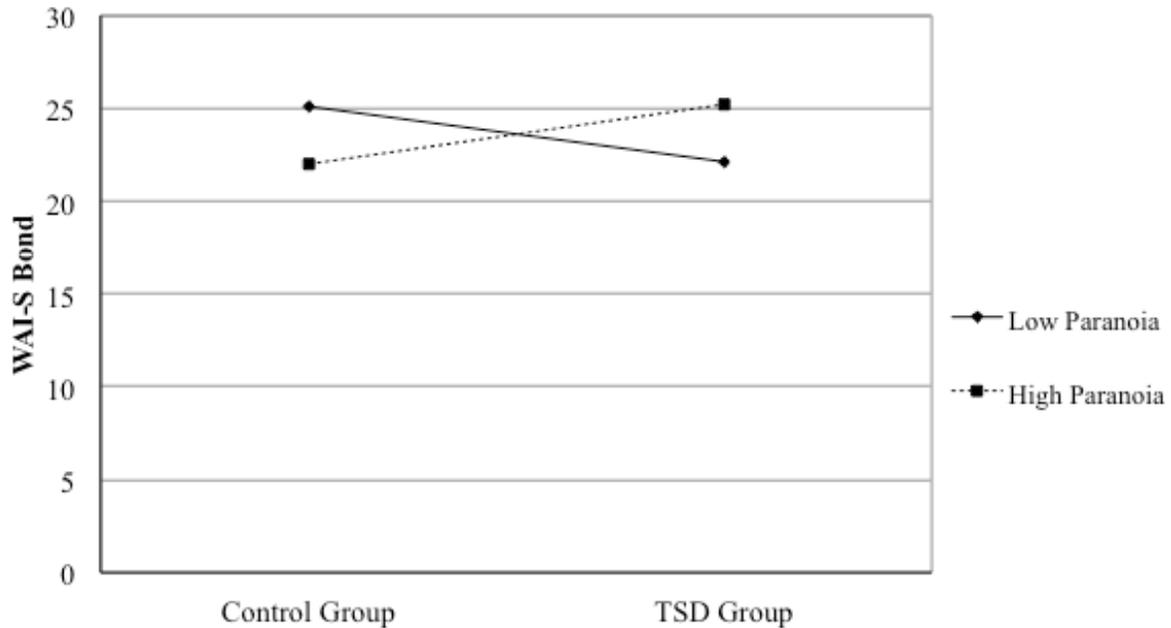


Figure 1. Interaction effects of paranoia (low paranoia = 1 *SD* below the mean; high paranoia = 1 *SD* above the mean) and TSD condition on WAI-S Bond amongst Caucasian participants.

medium range, $f^2 = .23$ (Cohen, 1992) suggesting that the trend-level significance may have been primarily due to a lack of power caused by the small sample size used in this analysis. In order to examine the nature of this interaction, separate simple slopes (Figure 2) were calculated for low paranoia (1 *SD* below the mean) and high paranoia (1 *SD* above the mean) for non-Caucasian participants. Post hoc probing of the interaction revealed that the simple slope for high paranoia ($t = -.49, p = .63$) was not significant, and the simple slope for low paranoia ($t = 1.99, p = .06$) exhibited a trend-level significance.

When examining the nature of the interaction effects observed in the Caucasian sample compared to the interaction effects observed in the non-Caucasian sample, the directionality of the simple slopes for the Caucasian sample were shown to be in the opposite directions of the simple slopes for the non-Caucasian sample. Amongst low paranoia participants, the Caucasian sample exhibited a negative simple slope ($t = -1.66$) whereas the non-Caucasian sample exhibited

Table 7
Hierarchical Linear Regression Analysis Examining the Moderating Effect of Paranoia on the Relationship between TSD and Working Alliance Amongst Non-Caucasian Participants

| Predictor | ΔR^2 | F_{inc} | df | β | t | p |
|--------------------------------|--------------|-----------|------|---------|--------|-------------------|
| Dependent Variable: WAI-S Bond | | | | | | |
| Step 1 | .530 | 5.358 | 19 | | | .005** |
| WAI-A Total | | | | .448 | 2.321 | .032* |
| Days in Hospital | | | | -.186 | -1.064 | .301 |
| Gender | | | | -.188 | -1.068 | .299 |
| Duration of Assessment | | | | -.217 | -1.216 | .239 |
| Step 2 | .041 | .822 | 17 | | | .456 |
| TSD Condition | | | | .207 | 1.176 | .256 |
| Paranoia | | | | .144 | .796 | .437 |
| Step 3 | .081 | 3.704 | 16 | | | .072 ^t |
| TSD Condition X Paranoia | | | | -.398 | -1.925 | .072 ^t |

Note. WAI-A = Baseline working alliance, WAI-S = Working Alliance Inventory-Short Form

^t $p < .10$

* $p < .05$

** $p < .01$

a positive simple slope ($t = 1.99$). Conversely, amongst high paranoia participants, the Caucasian sample exhibited a positive simple slope ($t = 1.35$) whereas the non-Caucasian sample exhibited a negative simple slope ($t = -.49$).

Using the same post hoc probing methodology described above, the simple slopes for low paranoia ($t = .34, p = .74$) and high paranoia ($t = .43, p = .67$) were calculated for the combined

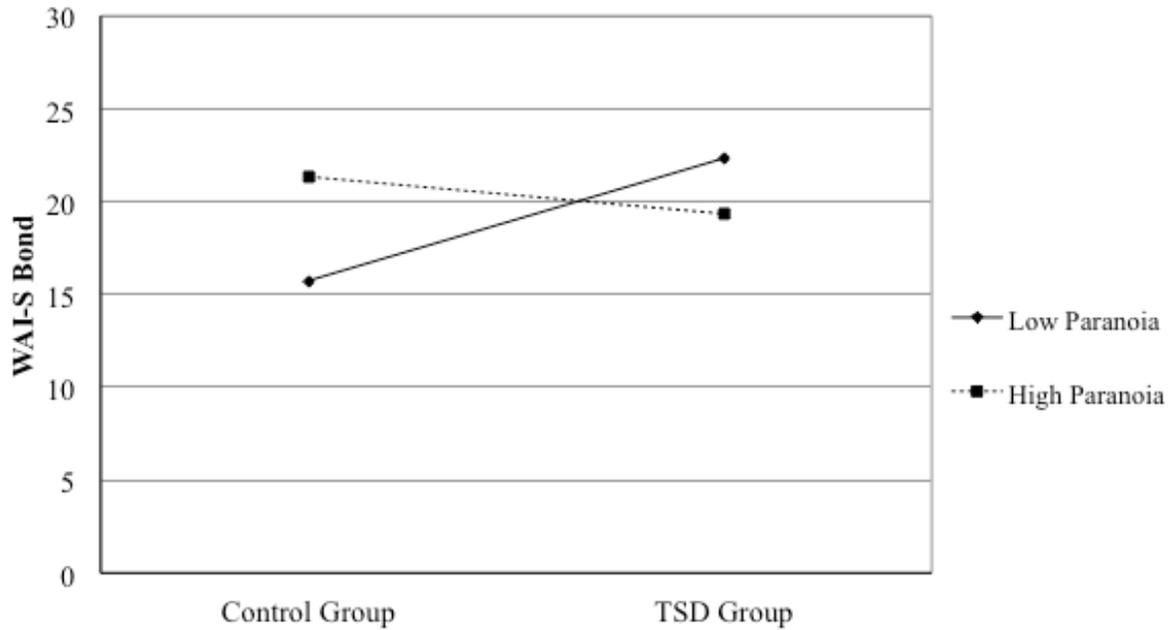


Figure 2. Interaction effects of paranoia (low paranoia = 1 *SD* below the mean; high paranoia = 1 *SD* above the mean) and TSD condition on WAI-S Bond amongst non-Caucasian participants.

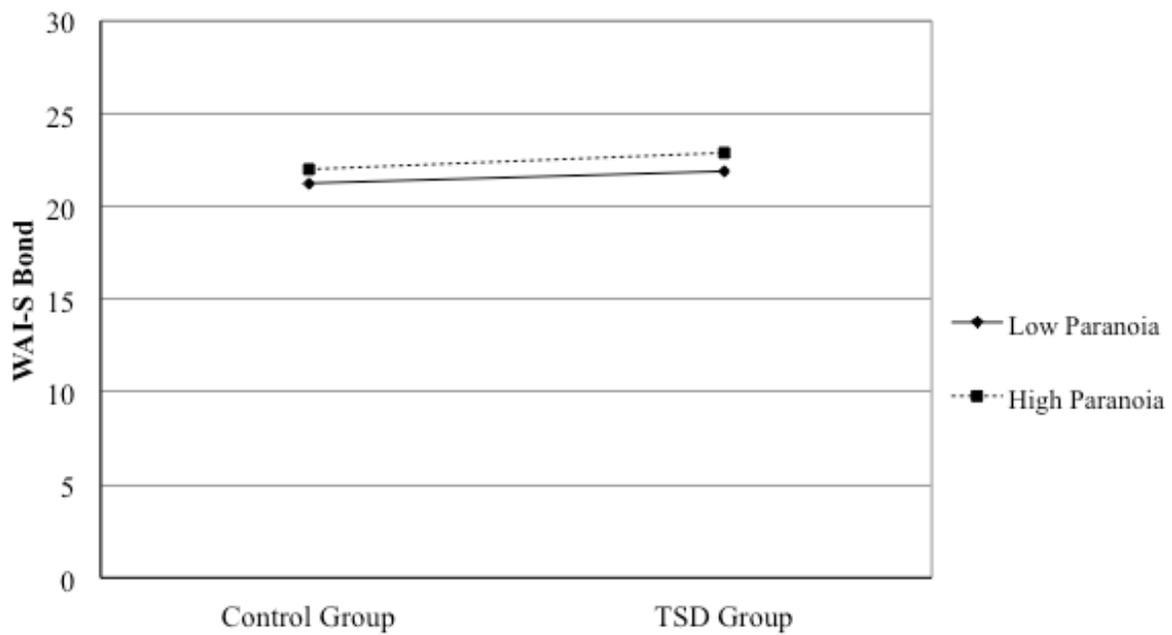


Figure 3. Interaction effects of paranoia (low paranoia = 1 *SD* below the mean; high paranoia = 1 *SD* above the mean) and TSD condition on WAI-S Bond amongst all participants.

sample including both Caucasian and non-Caucasian participants (Figure 3). These post hoc procedures were not previously conducted after the first moderator analysis was completed during the a priori hypothesis testing phase since there was not a significant interaction effect warranting post hoc probing, and they were conducted in the later phases of data analysis solely to provide a visual point of comparison for Figures 1 and 2.

DISCUSSION

The present study examined the impact of TSD on working alliance ratings amongst psychiatric inpatients during a highly structured intake assessment, and it explored how paranoia influences the effects of TSD on working alliance ratings. This experiment was designed to advance this area of research by employing a more methodologically rigorous experimental design than prior studies, which allowed for a higher degree of ecological validity and generalizability without sacrificing internal reliability. Moreover, to the author's knowledge, this study is the first of its kind to examine a specific technique aimed at improving working alliance ratings from psychiatric inpatients (particularly those experiencing varying levels of paranoia) using a rigorous experimental design.

Working Alliance and TSD

Consistent with the first hypothesis, participants in the TSD condition exhibited significantly higher scores on the Bond subscale of the WAI-S than those in the control group. This is consistent with prior research demonstrating a link between TSD and improved working alliance ratings (e.g., Fox et al., 1984; Hanson, 2005) and other variables associated with working alliance (Mann & Murphy, 1975; Myers & Hayes, 2006; VandeCreek & Angstadt, 1985).

The present study furthers the body of research examining working alliance by employing an experimental design that addressed a number of the limitations commonly found in studies exploring this topic. Past studies have provided substantial evidence that a strong working alliance is an important factor for positive treatment outcomes (e.g., Falkenström et al., 2013; Horvath et al., 2011; Martin et al., 2000); however, few studies have employed methodologically rigorous experimental designs to examine specific techniques that improve

working alliance. Instead, much of past research has focused on exploring correlates of working alliance, rather than employing experimental designs. These studies provided evidence that relationships between working alliance and several variables exist, but they did not necessarily provide evidence of causal relationships (e.g., Bachelor, 1995; Kivlighan et al., 1993; Mohl et al., 1991; Price & Jones, 1998; Saunders, 1999). Moreover, of the few studies that did employ experimental designs, most used problematic methodologies that limited the meaningfulness and ecological validity of their findings (e.g., Fox et al., 1984; Luborsky et al., 1983). Additionally, very few studies have examined specific techniques that can improve working alliance with clients in a short period of time (e.g., during a brief assessment), and instead have focused on examining working alliance over the course of multiple therapy sessions (e.g., Horvath et al., 2011). The present study provides compelling evidence that specific techniques aimed at improving working alliance can be studied with a methodologically rigorous experimental design without sacrificing ecological validity by making minor modifications to already existing structured intake procedures used amongst psychiatric inpatients. This design allowed for more meaningful and generalizable findings wherein a causal relationship between a specific technique and an increase in working alliance could be demonstrated. Moreover, by assessing the impact of a specific technique during a brief assessment (rather than across multiple therapy sessions) this study demonstrated that it is possible to efficiently research specific techniques that may serve to rapidly establish stronger working alliances, while still using ecologically valid and cost-effective methodological procedures.

The present study also builds upon past studies examining the use of personal TSD statements, which is rife with numerous methodological limitations similar to those seen in the working alliance literature. Compared to the pool of research examining working alliance, there

is a substantial lack of quantitative studies exploring the impact of personal TSD amongst clinical populations. Of the few quantitative studies examining personal TSD, most had less than ideal methodological designs in which external validity was sacrificed in order to create a well-controlled experimental design. Conversely, other studies employed methodologies that demonstrated adequate ecological validity, but did not use true experimental designs. Many of these studies were analogue studies with observer-rated (rather than client-rated) measures (Fox et al., 1984; Myers & Hayes, 2006; VandeCreek & Angstadt, 1985), used healthy participant/interviewer dyads rather than client/clinician dyads (Davis & Skinner, 1974; Mann & Murphy, 1975), or relied primarily on correlational analyses (e.g., Hanson, 2005). Moreover, only a handful of these studies assessed how personal TSD impacts working alliance or related variables. The present study shows that TSD research can be successfully conducted with a well-controlled, methodologically rigorous experimental design without sacrificing ecological validity. To the author's knowledge, no other study has employed a methodologically rigorous experimental design such as this in order to examine how the use of a personal TSD impacts working alliance with psychiatric inpatients.

In the present study, the use of a personal TSD produced a significant increase in working alliance with an effect size falling in the small range (Cohen, 1992). Although only a small effect was observed, any increase in working alliance at all that can be caused by such a minor and easily implemented technique has substantial clinical implications warranting additional research. Mann and Murphy (1975) observed a curvilinear relationship between the number of times an interviewer made personal self-disclosing statements during an interview with healthy participants and the number of reciprocal self-disclosures made by the participants themselves. They found that making too few or too many self-disclosures from the interviewer resulted in

fewer reciprocal self-disclosures from the participants. A similar curvilinear relationship was found between the numbers of personal self-disclosing statements made by the interviewer and the participants' ratings of several variables related to working alliance (i.e., how empathic, genuine, and warm the interviewer appeared). If similar effects are present in clinical populations, it may suggest that the effects observed in the present study (which used only one TSD statement) might be enhanced by using multiple TSD statements. Moreover, it may indicate that using TSD statements could increase reciprocal self-disclosures from clients, which would be enormously beneficial both for assessments as well as therapy. Of course, this is only speculation at this point, and future research that directly measures client self-disclosures would be necessary before drawing any firm conclusions.

Considering the bulk of evidence suggesting a link exists between stronger working alliance ratings and better treatment outcomes in multiple domains (Horvath et al., 2011) ranging from fewer early terminations (Sharf et al., 2010) to larger decreases in symptom severity (Falkenström et al., 2013), it is conceivable that the use of personal TSD may improve treatment outcomes as a result of it enhancing working alliance. Furthermore, although the present study's findings have important implications for a wide range of clinical settings, they may be most relevant to situations wherein clinicians have a short amount of time to establish a working alliance (e.g., primary care behavioral health, assessment, etc.). In the age of managed care, the use of TSD may be a cost-effective way to quickly establish a stronger working alliance during clinical encounters wherein time constraints may have otherwise made doing so difficult.

In spite of evidence suggesting that most clinicians do use personal TSD with clients (Mathews, 1988), the impacts of personal TSD on working alliance has gone largely unstudied. The finding that even a single personal TSD can significantly impact working alliance suggests

that this frequently used technique has the ability to impact treatment in a meaningful way, and it warrants additional research to better understand how and when to use TSD. Additionally, these findings have implications for the training and education of mental health practitioners. As more research is conducted on the effects of personal TSD, training should focus on providing students and practitioners with empirically-supported guidelines for how and when to use TSD rather than relying solely on theory-driven guidelines or clinical intuition.

The Role of Paranoia

Supporting the second hypothesis, a significant negative correlation was observed between paranoia and baseline working alliance ratings (i.e., WAI-A) indicating that more paranoid participants tended to exhibit poorer baseline working alliance ratings. The third hypothesis was not supported by the results of the first moderator analysis (conducted with the entire sample), which did not find a significant moderator effect for paranoia on the relationship between TSD and the Bond subscale of the WAI-S.

These findings shed some light on an important area of research that has gone largely unstudied. Although paranoia is often considered to be a significant hindrance to building a healthy working alliance (Kingdon & Turkington, 2005), few methodologically sound studies have examined the precise nature of how working alliance relates to paranoia and other schizophrenia-spectrum symptoms (Hewitt & Coffey, 2005). The lack of robust research on this topic is surprising considering the numerous studies demonstrating that amongst individuals with schizophrenia-spectrum disorders, there is a strong link between stronger working alliance ratings and better treatment outcomes such as a larger decrease in symptom severity, fewer hospitalizations, increased medication adherence, and a better quality of life (Frank & Gunderson, 1990; Gehrs & Goering, 1994; McCabe et al., 2012; Priebe et al., 2011; Svensson &

Hansson, 1999). The present study adds to the small body of literature examining this topic in a diverse inpatient population, and has produced results consistent with past research demonstrating an inverse relationship between working alliance and paranoia (Cookson et al., 2012).

Post Hoc Analyses and the Role of Ethnicity

Although the results of the original moderator analysis did not support our hypothesis that paranoia would moderate the relationship between TSD condition and working alliance, post hoc analyses revealed fascinating effects of ethnicity on the relationships between paranoia, TSD, and working alliance. Two additional moderator analyses, which were essentially identical to the first moderator analysis, were conducted amongst Caucasian participants and non-Caucasian participants, separately. Although a significant moderating effect was not observed in the combined sample, paranoia did significantly moderate the relationship between TSD and working alliance when a moderator analysis was conducted amongst only Caucasian participants, and a trend-level moderating effect was observed when the analysis was conducted amongst only non-Caucasian participants.

Post hoc probing of these interactions revealed that the directionality of the effects observed amongst Caucasian participants were essentially reversed for non-Caucasian participants. Amongst low paranoia participants, Caucasian participants in the TSD group tended to have lower working alliance scores than controls, whereas non-Caucasian participants in the TSD group tended to have higher working alliance scores than controls. Amongst high paranoia participants, Caucasian participants in the TSD group tended to have higher working alliance scores than controls, whereas non-Caucasian participants in the TSD group tended to have lower working alliance scores than the controls. The effects observed amongst Caucasian participants

almost appear to be mirror images of the effects observed amongst non-Caucasian participants with the directionality of the effects flipped. It is possible that in the first moderator analysis (conducted with the combined sample of both Caucasian and non-Caucasian participants) a significant moderating effect was not observed because the moderating effects present amongst Caucasian participants were essentially reversed or cancelled out by the moderating effects present amongst non-Caucasian participants. A visual representation of this can be observed by comparing Figure 1 and 2 (which display effects for Caucasian participants and non-Caucasian participants, separately) to Figure 3 (which displays the effects for the combined sample).

Although significant moderator effects were observed in the Caucasian sample and trend-level moderator effects occurred within the non-Caucasian sample, the only simple slope that even approached significance was for low paranoia non-Caucasian participants. This may be explained by these analyses being underpowered due to the small sample sizes that were employed in each analysis. This study had an adequate sample size to be appropriately powered to test the original hypotheses; however, each of the two post hoc moderator analyses included data from about half of the original number of participants, and the simple slopes were calculated with an even smaller subset of those participants. As such, it is not surprising that most of the simple slopes were not significant, and interpretations of these simple slopes should be approached with caution; however, based on the significant interaction effects that were observed, some preliminary conclusions can be drawn.

These findings suggest the effects that TSD has on the Bond subscale of WAI-S are impacted by paranoia, and the type of impact that paranoia produces varies between Caucasian and non-Caucasians. Cashwell, Shcherbakova, and Cashwell (2003) found that compared to dyads where the therapist's ethnicity was the same as the client's, clients responded more

favorably to TSD's when the therapist's ethnicity differed from the client's, possibly because in the cross-cultural dyads the use of TSD caused clients to view the "different" therapists as more similar, relatable, and likeable. Additionally, theoretical literature has suggested that when working with clients whose ethnicity differs from the clinician's, it is especially important for Caucasian clinicians to be aware of the sociopolitical variables and historical factors that may make it even more difficult to establish trusting relationships with clients from historically oppressed minority groups (Sue & Sue, 1999). In the present study, non-Caucasian participants tended to report lower baseline working alliance scores compared to Caucasian participants; however, the use of TSD amongst low paranoia non-Caucasian participants resulted in post-manipulation working alliance ratings similar to those observed amongst Caucasian participants. It is possible that with low paranoia non-Caucasian participants the use of TSD caused the interviewer (who is Caucasian) to appear more relatable (i.e., less different), and it may have implicitly communicated a sense of trust and decreased these participants' perception of a power imbalance.

These findings clearly suggest that TSD can serve as a useful therapeutic technique, and that ethnicity and paranoia both appear to play important roles in how helpful the use of TSD can be. It also demonstrates the need for further research examining how TSD and paranoia impact working alliance, and how these effects may differ across various ethnic groups and with various types of client-therapist dyads.

Limitations and Future Research

The current study has several limitations worth noting. First, there is some question regarding how generalizable the findings are to broader clinical populations. This study specifically examined psychiatric inpatients at one state hospital in Louisiana. It is conceivable

that different results may have been obtained if this study was conducted amongst clients at an outpatient treatment setting for a number of reasons (e.g., less severe symptomology, more clients voluntarily seeking treatment, etc.). Future research may consider attempting to replicate our findings in different treatment settings (e.g., private inpatient hospitals, primary care settings, private outpatient clinics, and nonprofit outpatient clinics) to explore whether or not these findings are generalizable to a broad range of clinical settings.

Additionally, it is possible that the present study may be impacted by the specific staff members at this particular hospital, and that different results may be found at hospitals with different staff members. For example, at a hospital where staff members tend to interact with clients in a disrespectful, controlling, or demeaning manner, it is conceivable that the clients may experience the highly-standardized (but polite) interaction with the interviewer as an enjoyable social interaction simply because the interviewer treated them more respectfully than the other staff members. In contrast to the rude staff members, they may perceive the interviewer as friendlier, warmer, and more respectful, which may result in higher working alliance ratings. Conversely, if the same clients were surrounded by exceptionally kind staff members, they may view the highly-standardized assessment more negatively and perceive the interviewer as being colder, robotic, or uncaring, which would likely lower working alliance ratings. One possible way to examine this potential issue would be to use an approach similar to that used by Cookson et al. (2012) who used a modified version of the WAI-S (Tracey & Kokotovic, 1989) that asked participants to answer each item as it pertained to their interactions with the entire treatment team as a whole (e.g., “I believe the *treatment staff* like me”). Future studies may consider measuring participants’ perception of their working alliance with the staff as a whole, and examine how this impacts their working alliance ratings with the interviewer.

Another limitation of this study involves the possibility that the highly-standardized, scripted interaction with the participants may have caused them to rate the working alliance lower than they would have during an unscripted, “normal” intake assessment. It is conceivable that all participants may have experienced a weaker working alliance as a result of the study’s protocol making the interview appear robotic or uncaring, and that these negative effects may have been ameliorated for the participants in the TSD group who may have perceived the interviewer as being “more human” after hearing the TSD statement. If this is the case, it may suggest that the use of TSD does not necessarily improve working alliance, but instead repairs the damage caused by adhering to a scripted intake protocol. This potential issue is fairly unlikely considering that the present study obtained working alliance scores comparable to those found in prior studies that employed more naturalistic designs that did not use scripted or highly-standardized procedures that might decrease working alliance ratings (Johansen et al., 2013; Kvrjic et al., 2012).

Regardless, even if it were true that the use of TSD only repaired the damage caused by the standardized intake procedures, these findings would still have clinical applications for settings where intake assessments are so standardized and/or time constraints are so restrictive that intake procedures are already essentially scripted. Unfortunately, this may very well be the case at the many understaffed and underfunded mental health facilities. Our findings may suggest that incorporating a TSD statement (even a pre-scripted one) in these situations may be able to ameliorate the negative consequences adhering to highly structured or time-limited clinical interactions. Future research extending this study would benefit from including a third group in which the interviewer is able to deviate from the intake procedures in a more natural manner (akin to a treatment as usual condition), and compare working alliance scores from

participants in this third group to those from the TSD and control groups; however, this approach would be less well-controlled and it would be impossible for the interviewer to be totally blind to group condition.

The present study used only one interviewer to assess all the participants, which raises the question of how generalizable these findings are to other clinicians. Despite exhaustive attempts to standardize as much of the interaction as possible, it is conceivable that working alliance ratings may have been partially impacted by aspects specific to the interviewer (e.g., ethnicity, physical appearance, voice, gender, etc.). Although the present study obtained working alliance ratings similar to those found in other studies that used multiple clinicians (Johansen et al., 2013; Kvrđic et al., 2012), future studies may benefit from employing a research design that includes multiple therapists that differ widely in terms of gender, ethnicity, physical appearance, and other relevant characteristics.

It would also be interesting to examine if working alliance is impacted by the number of TSD statements made or the content of the TSD statements. The present study examined the impact of one specific TSD statement, which was moderately personal in nature. Future studies could attempt to identify the ideal number of TSD statements to use to increase working alliance the most. Additionally, it would be worth examining how working alliance relates to how personal the content of the TSD statement is by comparing the impacts of several different TSD statements ranging from extremely personal content (e.g., “Even though I am a therapist, I have had occasional thoughts about killing myself”) to less personal, fairly generic TSD statements (e.g., “Even I have been sad on occasion”).

Lastly, future studies would benefit from further investigating how the moderating effects of paranoia differ across various ethnic groups. This study was not designed to detect moderating

effects in smaller subsets of the sample, and it is likely that this study was not adequately powered for the post hoc probing conducted on the moderator analyses amongst the Caucasian sample and the non-Caucasian sample. Additionally, the non-Caucasian sample in this study was predominantly African American, and a Caucasian interviewer conducted all of the assessments. As a result, it is unclear if the different effects observed between the non-Caucasian sample and the Caucasian sample were related to differences/similarities between the interviewer's and the participants' ethnicities, cultural difference in participants' preferences for TSD, or both. Moreover, if the effects were related to cultural difference in participants' preferences for TSD, it is unclear if the effects observed in the non-Caucasian sample, which was predominantly African American, would also be observed in other populations. Future studies could address these limitations by collecting data from a larger number of participants from various ethnic groups, and have multiple interviewers with varying ethnic backgrounds conduct the assessments.

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APPENDIX A: ASSESSMENT PROTOCOL, SCRIPT, AND INTERVIEW QUESTIONS

Participant ID #: _____

CHART REVIEW

Before meeting with the patient, review the patient's chart. Make sure to note to following items:

Date of Assessment:

Date Admitted to EAU:

Age:

Gender:

Ethnicity:

Education Level (may not be in file):

Admission Status (voluntary vs. involuntary):

Most recent diagnoses (preferably from EAU psychiatrist):

Date of PEC and any symptoms/info described in PEC:

Other notes from chart:

***** WRITE Participant ID # (see above) on BOTH WAI forms (WAI-A and WAI-B)**

GENERAL INSTRUCTIONS FOR INTERVIEWER

- Do not deviate from the script unless absolutely necessary. If this happens make notation of the deviation and consider excluding that participant from the study.
- If participants endorse yes/no questions, but do not provide details, ask:
 - “Can you tell me a little bit about that?”
- If patient's responses are not sufficiently detailed or additional probing is needed, ask:
 - “Can you tell me more about that?”
 - If additional follow-up questions need to be asked, wait until the end of the assessment after the WAI-S has been completed to ask any additional questions
- If patient asks an irrelevant question, or begins talking about an irrelevant question, respond:
 - “Let's finish the assessment first, and then we can talk about that (question) at the end.”
- ***Instructions for the interviewer are bold and/or in italics, these should not be read out loud.*** Everything else written in a normal font should be read out loud to the participant.

Time assessment began: _____

Introduction

- “Hi, my name is Sean Morrison, I’m a psychology intern. I’m doing psychological screenings as part of standard hospital protocol to see how you’re doing, and to assess things like you memory and attention span. It takes about an hour to complete. This assessment is standardized; I’ll be reading you a list of questions from this form. I might not look up from my notebook too much because I’ll be reading you the questions or taking notes, but I assure you that I am listening.
- “After we’re done, I’ll write up a short report for your chart. Besides your treatment team, I won’t discuss your case with anybody without your permission. The only times I would break confidentiality would be if there were concerns about you harming yourself or others, if a court mandated it, or if there were concerns about child or elder abuse.”
- "Do you have any questions before we begin?"
- “Alright, let’s start off with some basic background questions.”

Background Interview

- How old are you?
- What’s the highest grade level you completed?
- What is your ethnicity (race)?
- Where were you living before you came to the hospital? (Were you living with anyone else?)
- Do you currently have a job? (When was the last time you were employed? Where at?)
- Do you currently have any legal problems?
- In the past, have you ever had any legal problems or been arrested?
- So, how have you been doing since you first got here?
- Can you tell me a little bit about what events led up to you being hospitalized? (Why were you hospitalized)?

- Do you think you needed to be hospitalized?
- Prior to being admitted, did you ever smoke cigarettes or use any tobacco products?
 - **If yes:** About how much did you smoke (use) on average?
- What kinds of illicit drugs have you used?
 - **For each drug:**
 - About how many times have you used _____?
 - When did you first use _____?
 - When was the last time you used _____?
 - **If used recently:**
 - Lately, how much do you use on average?
 - Has using _____ gotten you into any trouble or cause any problems for you?
 - Has there ever been a time in the past when you were using _____ more often or using a lot more of it than you are now?
 - **If not used recently, but used excessively/problematically in the past:**
 - When were you were using _____ most heavily or frequently?
 - On average, how much were you using?
 - Did using _____ get you into any trouble or cause any problems for you?
- On average, about how many days a week do you drink alcohol?
- About how many drinks do you usually consume at a time?
- Has drinking ever caused you any problems (medically, legally, caused you to get into fights)?
- Has there ever been a time in the past when you were drinking more heavily than you are currently?

*****IF THERE IS EVIDENCE OF CURRENT ALCOHOL/SUBSTANCE DEPENDENCE, THEY ARE INELLIGIBLE. BREAK FROM THE SCRIPT TO ASSESS MORE THOROUGHLY.*****

- Have you ever been in a psychiatric hospital before? If so, how many times and when? Why were you there?

- Have you ever received any type of psychological, psychiatric, or mental health services before (i.e., seen a counselor or psychiatrist)? If so, when and for what reasons?

- Have you ever been emotionally, physically, or sexually abused?

- Have you ever had any thoughts about wanting to hurt yourself? **If yes:**
 - When was the last time you thought about it?
 - How often do you think about it?
 - Any idea about how you would do it?
 - Do you think that you might ever act on these thoughts?

- Have you ever had any thoughts about wanting to hurt someone else? **If yes:**
 - When was the last time you thought about it?
 - How often have you thought about it?
 - Did you have any idea about how you would do it?
 - Do you think that you might ever act on these thoughts?

*****IF THEY HAVE ACTIVE S.I./H.I., THEY ARE INELLIGIBLE FOR THE STUDY & YOU SHOULD BREAK FROM THE SCRIPT TO DO A MORE THOROUGH ASSESSMENT.*****

- “Alright, thanks for answering those questions. Let’s move on to the next section.”

Administer the MMSE

- “Great! We’ve finished that section. Let’s move on to the next task.”

Administer the WASI-II (Two Subtest)

- “Good job! Now I’m going to ask you some more questions about different types of symptoms you may or may not be experiencing.”

Administer the BPRS

- ***Make sure to ask every question/prompt on the BPRS; do not deviate/skip any questions.***
- ***Have Item 9 (Suspiciousness) scored before moving on to next portion of the assessment (all other items can be scored later). See below for the scoring criteria created for the BPRS-E (Lukoff et al., 1986).***
- ****** CIRCLE ONE OF THE SCORES (BELOW)*** FOR THE PATIENT.***

Item 9 – Suspiciousness

Expressed or apparent belief that other persons have acted maliciously or with discriminatory intent. Include persecution by supernatural or other non-human agencies (e.g., the devil).

- ***1 Not Present***
- ***2 Very mild*** = *Seems on guard. Reluctant to respond to some 'personal' questions. Reports being overly self-conscious in public.*
- ***3 Mild*** = *Describes incidents in which others have harmed or wanted to harm him/her that sound plausible. Individual feels as if others are watching, laughing or criticizing him/her in public, but this occurs only occasionally or rarely. Little or no preoccupation.*
- ***4 Moderate*** = *Says other persons are talking about him/her maliciously, have negative intentions or may harm him/her. Beyond the likelihood of plausibility, but not delusional. Incidents of suspected persecution occur occasionally (less than once per week) with some preoccupation.*
- ***5 Moderately Severe*** = *Same as 4, but incidents occur frequently, such as more than once per week. Individual is moderately preoccupied with ideas of persecution OR individual reports*

persecutory delusions expressed with much doubt (e.g., partial delusion).

- **6 Severe** = *Delusional - speaks of Mafia plots, the FBI or others poisoning his/her food, persecution by supernatural forces.*
- **7 Extremely Severe** = *Same as 6, but the beliefs are bizarre or more preoccupying. Individual tends to disclose or act on persecutory delusions.*

Informed Consent Procedures

- “Would you mind completing a short questionnaire for a research project? It takes about 5 minutes to complete. Participation is completely voluntary, and will have no impact on your treatment or any services you receive here. Would you be willing to fill out the questionnaire?”
- ***If they are interested in participating in the study, give them a copy of the consent form and say:***
 - “Here’s some information about the study, and your rights are as a participant. Take a few minutes to look it over.”
 - “Let’s look at items 9 and 10. I’ll read those items out loud, and you can follow along.”
 - “9. Risks/Discomfort: Participants will be asked to complete a brief questionnaire that may be considered inconvenient in that it will take approximately 5 to 10 minutes of their own time to complete. Additionally, there is a risk that sensitive information collected during the study will be inadvertently released.”
 - “10. Right to Refuse: Participation in this study is voluntary, I may refuse to answer any questions or discontinue any test I am taking without any penalty or loss of any benefit to which I might otherwise be entitled. Further, I can change my mind and withdraw from this study at any time without risking my relationship with the East Louisiana State Mental Health System, Louisiana State University, or any treatment clinic or group home.”
- “Do you have any questions about anything we’ve talked about or about the consent form?”
 - ***Answer any questions.***
- “If you’re still agreeable to participating in this study, sign and date on the back page.”
 - ***Take the signed consent form for our records, and hand them a new consent form to keep.***
- “Thank you. Here’s a copy of the same consent form for you to keep.”

ADMINISTER WAI-A

- “Alright, here’s the first part of the questionnaire.”
 - ***Hand participants: the WAI-A (the 5-item version), a pencil, & an envelope.***
 - ***Make sure you wrote the ID # on the WAI-A (should have done this during chart review).***

- “The instructions say: ‘On the following pages there are sentences that describe some of the different ways a person might think or feel about his or her therapist As you read the sentences mentally insert the name of your therapist in place of the blank spot in the text.’”
- “So as you read each sentence, mentally insert my name, Sean, in the blank spot.”
- “Below each statement there is a seven point scale. If the statement describes the way you always feel (or think) circle the number 7; if it never applies to you circle the number 1. Use the numbers in between to describe the variations between these extremes.”

- “This was originally created for clients who are receiving weekly therapy sessions, so some of the questions may not apply to us since we’ve only met once. Answer ALL of the questions. If you’re not sure how to answer a question, just try your best.”

- “In a few months a researcher will enter everybody’s answers into a database. Your answers will not be linked to your name in any way; your responses will be totally anonymous. Please answer as honestly as possible.”
- “Also, there will be no way to tell which therapists received which ratings, and these ratings will have no effect on me whatsoever. Since this is for a research project it is important that you answer each item as honestly as possible.”

- “In a moment I will ask you to finish this questionnaire in the other room while I stay in here so you can have some privacy. When you’re done, put the questionnaire in the envelope, seal it, and give that envelope to someone at the nurses’ station so they can put it with the other questionnaires filled out by other patients.”

- “Do you have any questions before you go into the other room to fill this out?” (***Answer questions***)

- “After you’ve given them the envelope, come check back with me so we can finish up. Just knock on the door when you’re ready.”

While participant is filling out WAI-A:

- ***Open the stapled piece of paper stating whether the participant is in the TSD condition or the non-TSD condition. Indicate which group the participant was assigned to by marking “X” in one of the spaces below.***

_____ ***Control group (non-TSD)***

_____ *TSD group*

Goals and TSD

- “Alright, we’re almost finished. I’d like to know if there are any specific goals you would like to work on while you are here? Any goals that your treatment team could help you with while you are here?”
 - *Write down their response(s) verbatim in the space below:*

- *Read notecard*
 - *If in TSD condition, say:*
 - “A person very close to me once spent some time in a facility like this one, and I know how hard it was for them. I know that being here might feel really upsetting or difficult at times. If there is anything (else) you can think of that we might be able to help you with while you are here, I’d like to try to help you reach those goals. Is there anything (else) you think we could work on while you are here?”
 - *If in CONTROL condition, say:*
 - “I know that being here might feel really upsetting or difficult at times. If there is anything (else) you can think of that we might be able to help you with while you are here, I’d like to try to help you reach those goals. Is there anything (else) you think we could work on while you are here?”

- *Write down their response(s) verbatim in the space below:*

- ****If participants ask any specific questions regarding this self-disclosure, say:*

- “If we have extra time at the end of this session we might be able to get back to that, but for now let’s focus on you.”
 - *If, after the assessment is completely finished, the patient asks again tailor your response according to what is appropriate on a case-by-case basis.*

ADMINISTER WAI-B

- “Great, I’ve got one more questionnaire for you to fill out.”
 - *Hand participants: the WAI-B (the 20-item version), a pencil, & an envelope.*
 - *Make sure you wrote the ID # on the WAI-B (should have done this during chart review).*
- “This is just like the one you filled out a moment ago, just a little longer. The instructions are exactly the same. When you finish, do the same thing as before. Put in in the envelope, seal it, and drop it off at the nurses’ station.”
- “Do you have any questions before you go into the other room to fill this out?” (*Answer questions*)
- “Remember, this is totally anonymous, and your answers will not affect you or me in any way whatsoever. This is just for a research project. Since this is for a research project it is important that you answer each item as accurately as possible. Don’t mark an item as 7 unless that item really ALWAYS applies to you, and don’t mark an item as 1 unless that item really NEVER applies to you.”
- “After you’ve given them the envelope, come check back with me so we can finish up. Just knock on the door when you’re ready.”

- **Time Assessment Ended:** _____
- **GAF:** _____

- *After they complete the WAI-B, debrief participant and answer any questions they have.*
- *If you need to ask the patient additional interview questions for the intake report, do so now.*

APPENDIX B: LSU IRB APPROVAL

ACTION ON PROTOCOL CONTINUATION REQUEST



Institutional Review Board
Dr. Dennis Landin, Chair
130 David Boyd Hall
Baton Rouge, LA 70803
P: 225.578.8692
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irb@lsu.edu | lsu.edu/irb

TO: Alex Cohen
Psychology

FROM: Dennis Landin
Chair, Institutional Review Board

DATE: February 9, 2015

RE: IRB# 3367

TITLE: Therapeutic Alliance in Inpatient Psychiatric Settings

New Protocol/Modification/Continuation: Continuation

Review type: Full Expedited **Review date:** 2/6/2015

Risk Factor: Minimal Uncertain Greater Than Minimal

Approved **Disapproved**

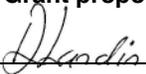
Approval Date: 2/6/2015 **Approval Expiration Date:** 2/5/2016

Re-review frequency: (annual unless otherwise stated)

Number of subjects approved: 200

LSU Proposal Number (if applicable): _____

Protocol Matches Scope of Work in Grant proposal: (if applicable) _____

By: Dennis Landin, Chairman 

PRINCIPAL INVESTIGATOR: PLEASE READ THE FOLLOWING –

Continuing approval is **CONDITIONAL** on:

1. Adherence to the approved protocol, familiarity with, and adherence to the ethical standards of the Belmont Report, and LSU's Assurance of Compliance with DHHS regulations for the protection of human subjects*
2. Prior approval of a change in protocol, including revision of the consent documents or an increase in the number of subjects over that approved.
3. Obtaining renewed approval (or submittal of a termination report), prior to the approval expiration date, upon request by the IRB office (irrespective of when the project actually begins); notification of project termination.
4. Retention of documentation of informed consent and study records for at least 3 years after the study ends.
5. Continuing attention to the physical and psychological well-being and informed consent of the individual participants, including notification of new information that might affect consent.
6. A prompt report to the IRB of any adverse event affecting a participant potentially arising from the study.
7. Notification of the IRB of a serious compliance failure.
8. SPECIAL NOTE:

**All investigators and support staff have access to copies of the Belmont Report, LSU's Assurance with DHHS, DHHS (45 CFR 46) and FDA regulations governing use of human subjects, and other relevant documents in print in this office or on our World Wide Web site at <http://www.lsu.edu/irb>*

VITA

Sean Cameron Morrison was born in Texas in 1988. He graduated from Baylor University with a Bachelor of Arts degree in psychology in 2008. In 2009, he began his graduate studies at Louisiana State University under the supervision of Dr. Alex Cohen, and received a Master of Arts degree in clinical psychology in 2012. His research interests include examining social cognition, emotional expression, cognitive functioning, and working alliance in individuals with severe mental illnesses, and individuals who are at risk for developing schizophrenia.