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Trainee Willingness to Disclose in Supervision

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Trainee Willingness to Disclose in Supervision

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Abstract

The willingness of supervisees to disclose pertinent information to their supervisors plays a primary role in the eventual success of supervision (Ladany, Hill, Corbett, & Nutt, 1996). Yet, little is known about the factors that increase willingness to disclose in supervision. To that end, the primary purpose of this study was to utilize structural equation modeling to examine a proposed model of the relationships between trainee level of anxiety, perception of the supervisory working alliance, counseling self-efficacy, and willingness to disclose in supervision. The model did not meet the criteria for good fit, though it appears to be approaching good fit. The following hypothesized relationships were supported: (1) higher counseling self-efficacy predicts less anxiety in supervision, (2) trainee perception of a stronger alliance predicts less anxiety in supervision, and (3) perception of a stronger alliance predicts higher willingness to disclose. The following hypothesized relationship was not supported: (1) lower levels of anxiety in supervision predict higher willingness to disclose. An alternative model was also examined and did not achieve good fit. The one additional hypothesized relationship (i.e., higher counseling self-efficacy predicts higher willingness to disclose) in that model was not supported. Implications for practice and future research directions are discussed.

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Chapter I

Introduction

The willingness of supervisees to disclose pertinent information to their supervisors plays a primary role in the eventual success of supervision (Ladany, Hill, Corbett, & Nutt, 1996). Disclosure of clinical interactions, supervision experiences, and personal information must occur in order for supervisors to support the development of trainees' clinical competence (Blocher, 1983; Bordin, 1983; Loganbill, Hardy, & Delworth, 1982; Patterson, 1983; Schmidt, 1979; Stoltenberg, 1981; Wallace & Alonso, 1994). Although research has revealed that the content of trainee nondisclosure in supervision typically involves supervision-related issues, clinical issues, and personal concerns (Banks & Ladany, 2006; Hess et al., 2008; Ladany et al., 1996; Mehr, Ladany, & Caskie, 2010; Pisani, 2005; Yourman & Farber, 1996), the factors that contribute to trainees' willingness to disclose in supervision have remained understudied topics.

Nondisclosure research has primarily focused on the information that is concealed in the supervisor-trainee relationship in a single session or over the course of the supervision relationship (Banks & Ladany, 2006; Hess et al., 2008; Ladany et al., 1996; Mehr et al., 2010; Pisani, 2005; Yourman & Farber, 1996). Trainee willingness to disclose has been found to be related to a decrease in trainees' actual amount of nondisclosure in supervision (Mehr et al., 2010). However, little more is known about the factors that increase the extent to which trainees will divulge pertinent information in supervision (i.e., willingness to disclose). To that end, the primary purpose of this study was to examine a proposed model of the relationships between trainee level of anxiety in

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supervision, trainee perception of the working alliance, counseling self-efficacy, and willingness to disclose. Specifically, it was hypothesized that trainee counseling self-efficacy and perception of the supervisory working alliance predicts trainee anxiety in supervision, which in turn predicts trainee willingness to disclose in supervision. Additionally, it was hypothesized that trainee perception of the supervisory working alliance directly predicts willingness to disclose.

Trainee Anxiety

The supervision environment tends to raise anxiety for many trainees, particularly because of the novel situation that supervision offers and the evaluative nature of supervision (Dodge, 1982; Liddle, 1986), the personal and professional importance of supervision for trainees (Loganbill et al., 1982), and the inherent role conflict and ambiguity that occurs in supervision (Olk & Friedlander, 1992). In addition to evaluation concerns, the experience of anxiety in supervision stems from worries about one's own clinical competence (Dodge, 1982; Liddle, 1986). The management of anxiety is considered to be a primary task of supervision (Frantz, 1992; Lambert & Ogles, 1997), particularly because the experience of anxiety can influence the functioning of the supervisee by interfering with the trainee's learning process in supervision and with the quality of the supervisor-supervisee interactions (Loganbill et al., 1982). Although some research (cf. Chapin & Ellis, 2002) has found that beginning trainees are more likely to experience anxiety, other research has found no differences in anxiety with relation to the experience level of trainees (Mehr et al., 2010; Singh & Ellis, 2000). One manner in which trainee anxiety can affect supervisor-supervisee interactions is through its

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influence on what the trainee is willing to disclose to the supervisor (Bernard & Goodyear, 2009). For example, a trainee who is experiencing increased anxiety may disclose less, attempt to conceal their limitations and vulnerabilities (Liddle, 1986), and solely discuss positive clinical interactions and areas of strength (Ronnestad & Skovholt, 1993).

Prior research has found that trainee anxiety and willingness to disclose in supervision were negatively related (Mehr et al., 2010). Specifically, lower levels of anxiety in a single supervision session were found to be related to higher willingness to disclose in that session (Mehr et al., 2010). Furthermore, in other research, 57% of participants reported that level of worry about making a mistake or being judged was an important contributor to their willingness to disclose clinical mistakes to their supervisors (Walsh, Gillespie, Greer, & Eanes, 2002). Based on existing research, it was proposed in the current study that trainee anxiety in supervision predicts trainee willingness to disclose supervision. Specifically, it was hypothesized that a lower level of trainee anxiety in supervision predicts higher willingness to disclose.

Supervisory Working Alliance

The supervisory working alliance has been found to correlate with various supervision-related variables and in particular has demonstrated a significant influence on trainee disclosure (Gray, Ladany, Walker, & Ancis, 2001; Ladany, O'Brien, Hill, Melincoff, Knox, & Peterson, 1997; Ladany et al., 1996; Webb & Wheeler, 1998). For instance, a positive relationship has been found between rapport in the supervisory relationship and disclosure of clinical and supervision-related issues (Webb & Wheeler,

1998). Additionally, a supportive supervisory relationship was identified as the most salient predictor of trainee willingness to disclose clinical mistakes among pastoral counseling students (Walsh et al., 2002). The relationship between supervisor and trainee is commonly defined in terms of the supervisory working alliance, which encompasses the emotional bond between supervisor and trainee and their agreement on the tasks and goals of supervision (Bordin, 1983). The importance of the supervisory relationship in the disclosure process has been further supported by research findings that trainee perception of a stronger supervisory working alliance was related to higher willingness to disclose in a single supervision session (Mehr et al., 2010). Furthermore, relevant to this study are findings of a relationship between perception of the supervisory alliance and trainee anxiety in supervision (Mehr et al., 2010).

Based on the existing research (Mehr et al., 2010; Walsh et al., 2002; Webb & Wheeler, 1998), it was proposed in the current study that trainee perception of the supervisory alliance predicts willingness to disclose in supervision as well as trainee anxiety in supervision. Specifically, the perception of a stronger supervisory alliance predicts: (a) higher willingness to disclose in supervision and (b) less trainee anxiety. In addition to empirical support, these hypotheses possess heuristic support. For instance, a trainee who perceives the supervisor as emotionally supportive in their relationship would likely be more inclined to disclose about a difficult personal issue that is impacting his or her clinical work. Additionally, in a supervisory relationship in which mutual agreement has been established on the tasks and goals of supervision, the trainee will likely be able to anticipate what will happen in supervision and thus will experience less anxiety in the supervision environment.

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Counseling Self-Efficacy

Self-efficacy has been defined as one's belief in her or his capability to execute actions successfully in a particular domain (Bandura, 1977) and greatly influences the individual's feelings, thoughts, and behaviors in that domain (Bandura, 1982). Counseling self-efficacy encompasses the counselor's judgments about her or his ability to perform various counseling-related actions (Larson et al., 1992). For instance, counseling self-efficacy has been conceptualized by some authors as consisting of counselors' perceptions of their abilities to perform basic helping skills, organize and manage a counseling session, and handle challenging clinical situations and client presenting issues (Lent, Hill, & Hoffman, 2003).

Self-efficacy has been investigated as a predictor of both state anxiety, which has been defined as temporary anxiety in a specific situation, and trait anxiety, which has been defined as the general tendency to be anxious (Spielberger, Gorsuch, & Lushene, 1970). General self-efficacy, which is the perception of one's capability to perform across various different contexts (Judge, Erez, & Bono, 1998), has been found to negatively predict state anxiety (Chen, Gully, Whiteman, & Kilcullen, 2000; Endler, Speer, Johnson, & Fleet, 2001). Furthermore, negative relationships have been found between counseling self-efficacy and state anxiety (Friedlander, Keller, Peca-Baker, & Olk, 1986; Larson et al., 1992) and counseling self-efficacy and trait anxiety (Larson et al., 1992).

Based on the prior research of relationships between counseling self-efficacy and anxiety (Friedlander et al., 1986; Larson et al., 1992), it was proposed in the current study that counseling self-efficacy predicts trainee anxiety in supervision. Specifically, it was

hypothesized that higher levels of counseling self-efficacy predict lower levels of anxiety in supervision. For instance, a trainee who has high confidence in her or his clinical abilities will be less likely to feel anxious about the evaluative nature of supervision.

Currently, no research exists that either supports or refutes a relationship between counseling self-efficacy and willingness to disclose in supervision. Thus, this study also examined an alternative model that includes the additional hypothesis of a relationship between counseling self-efficacy and willingness to disclose in supervision. Specifically, it was hypothesized that higher counseling self-efficacy predicts higher willingness to disclose. Social cognitive theory, which proposes that self-efficacy beliefs are a contributing factor to an individual's reaction to threatening events, provides theoretical support this hypothesis. For example, if a supervisee has committed a clinical error, low self-efficacy may make the supervisee feel less inclined to disclose the mistake to the supervisor. The examination of the alternative model allowed us to determine whether the inclusion of this additional relationship enhances model fit, which would provide a better explanation of the factors influencing trainee willingness to disclose in supervision.

Hypotheses

The purpose of the current study was to examine a proposed model (*Figure 1*) of the relationships between trainee perception of the supervisory working alliance, counseling self-efficacy, level of anxiety in supervision, and willingness to disclose in supervision. As demonstrated in *Figure 1*, four paths were hypothesized in the model: (A) counseling self-efficacy→anxiety; (B) supervisory alliance→anxiety; (C) supervisory alliance→willingness to disclose; and (D) anxiety→willingness to disclose.

Path A: Counseling self-efficacy→anxiety. It was hypothesized that higher counseling self-efficacy predicts less anxiety in supervision.

Path B: Supervisory alliance→anxiety. It was hypothesized that perception of a stronger supervisory working alliance predicts less anxiety in supervision.

Path C: Supervisory alliance→willingness to disclose. It was hypothesized that perception of a stronger supervisory working alliance predicts higher willingness to disclose in supervision.

Path D: Anxiety→willingness to disclose. It was hypothesized that lower levels of anxiety in supervision predicts higher willingness to disclose in supervision.

An alternative model (*Figure 2*) was examined that includes paths A, B, C, and D, as well as an additional path: (E) counseling self-efficacy→willingness to disclose.

Path E: Counseling self-efficacy→willingness to disclose. It was hypothesized that trainee's higher counseling self-efficacy predicts higher willingness to disclose in supervision.

The primary purpose of this study was to replicate and extend prior research to establish a more complete understanding of the factors that influence trainee willingness to disclose in supervision. Although the relationships in the model have been examined in existing research, the current study was unique in that it examined the interrelationships among the combined set of these variables in an overarching model of the variables related to willingness to disclose. Furthermore, the alternative model allowed for examination of a relationship between counseling self-efficacy and willingness to disclose, which had yet to be examined in the existing research literature.

Chapter II

Literature Review

A unique feature of the mental health profession is the self-regulation process through which clinical skills are learned and the readiness of trainees to enter the profession is assessed. The principal aims of supervision are to promote the professional development of trainees and to ensure that clients receive appropriate and effective services (Bernard & Goodyear, 2009). In order for these purposes of supervision to be fulfilled, trainees must disclose to their supervisors. For instance, in order for supervisors to foster the development of trainees' therapy competence, disclosure about therapy interactions, supervision experiences, and personal information must occur (Blocher, 1983; Bordin, 1983; Loganbill et al., 1982; Patterson, 1983; Schmidt, 1979; Stoltenberg, 1981; Wallace & Alonso, 1994). Additionally, in order for supervisors to monitor client welfare, they must be made aware of clinical issues, as well as personal and supervisory issues that may be negatively influencing the therapeutic relationship. Furthermore, the failure of trainees to disclose pertinent information impacts the supervisor because the supervisor could be held responsible for unethical behavior of the trainee (Bernard & Goodyear, 2009).

Supervision and Client Outcome

In general, there has been a paucity of research that has examined the impact of supervision on client outcome. Overall, the findings of early research studies (e.g., Couchon & Bernard, 1984; Harkness, 1995; Harkness & Henley, 1991; Kivlighan et al., 1991; Triantafillou, 1997) support a positive influence of supervision on client outcome.

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However, these early studies have been critiqued (Freitas, 2002) for methodological flaws that complicate the interpretation of results. For instance, Couchon and Bernard (1984) found that trainees implement more effective therapy strategies when supervision occurs shortly before subsequent counseling sessions, but these findings are limited by neglecting to present psychometric data about the measures and by including participants who received multiple treatment conditions.

In another study, it was found that clients of therapists receiving client-focused supervision attained superior outcomes (i.e., depressive symptoms; satisfaction with therapy) than clients of therapists receiving administrative supervision (Harkness & Henley, 1991). In a subsequent study utilizing the same data, Harkness (1995) found that trainee ratings of supervisor empathy were related to client ratings of general life contentment, trainee ratings of supervisor problem solving were related to client ratings of therapy goal attainment, and trainee ratings of satisfaction with supervision were related to client ratings of therapy goal attainment and life contentment. Yet, both of these studies were limited by methodological flaws such as failing to control for Type I and Type II error, providing minimal psychometric data for the measures, and utilizing less suitable statistical analyses (Freitas, 2002).

However, recent research studies (i.e., Bambling, King, Raue, Schweitzer, & Lambling, 2006; Callahan, Almstrom, Swift, Borja, & Heath, 2009; Reese, Usher, Bowman, Norsworthy, Halstead, Rowlands, & Chisholm, 2009) that revealed a positive impact of supervision on client outcome have demonstrated greater methodological rigor. These methodological improvements include following Freitas' (2002) recommendations

of utilizing psychometrically sound measures, minimizing Type I and Type II error, studying supervisees with similar training experiences who are providing services to uniform clientele, using multiple measures of client outcome, and using a no-supervision condition as a comparison group.

It has been found that compared to clients receiving unsupervised therapy, clients receiving supervised therapy reported a greater reduction in depressive symptoms, stronger working alliances, and being more satisfied with therapy (Bambling et al., 2006). However, a limitation of this study is that due to sample size, there was not sufficient power to guarantee that Type II errors did not occur. Another recent study (Callahan et al., 2009) found a moderate effect size (Cramer's $V = .46$) for the influence of supervision on client outcome (i.e., score change on BDI-II), as well as found that although only nearing significance ($p = .08$), supervisors accounted for 16.4% of the variance in client outcome beyond that explained by symptom severity and therapist attributes. Yet, a potential limitation of this study is that because the archival data were collected from a CBT-oriented training clinic, the congruence of theoretical orientations between supervisors and trainees might have generated a larger-than-typical effect of supervisors on client outcome.

Unsurprisingly, other researchers (Reese et al., 2009) recently found that as compared to supervision in which client feedback was not utilized, superior client outcomes occurred for trainees receiving supervision that utilized continuous client feedback (i.e., client ratings of the therapeutic relationship and their own progress). However, a noted limitation of this study was that sample size did not permit utilization

of the preferred and more powerful analysis of hierarchical linear modeling. Although

further research is required, it is seems appropriate at this juncture to tentatively conclude

that supervision has a positive influence on client outcome.

Trainee Nondisclosure

Existing research with regards to trainee disclosure has primarily focused on the

information that is concealed (i.e., nondisclosure) in a single instance or over the course

of the supervision relationship. Overall, the research findings indicate that the content of

trainee nondisclosure typically involves supervision-related issues, clinical issues, and

personal concerns (Banks & Ladany, 2006; Hess et al., 2008; Ladany et al., 1996; Mehr

et al., 2010; Pisani, 2005; Yourman & Farber, 1996). For instance, common

nondisclosures include negative supervision experience (Hess et al., 2008; Ladany et al.,

1996; Mehr et al., 2010; Pisani, 2005), personal issues (Ladany et al., 1996; Mehr et al.,

2010), and clinical mistakes (Hess et al., 2008; Ladany et al., 1996). Common reasons for

nondisclosure include impression management (Banks & Ladany, 2006; Ladany et al.,

1996; Mehr et al., 2010), evaluation concerns (Farber, 2006; Hess et al., 2008; Ladany et

al., 1996), negative feelings (Hess et al., 2008; Ladany et al., 1996; Mehr et al., 2010),

and the existence of a poor supervisory alliance (Ladany et al., 1996; Mehr et al., 2010).

Overall, these research findings provide information on the content of and reasons

for trainee nondisclosure in supervision, as well as factors that contribute to

nondisclosure. However, the current literature does not provide a thorough understanding

of the factors that increase the likelihood that trainees will divulge pertinent information

in supervision. For instance, just because a trainee has not withheld information about a

particular topic does not necessarily mean that the trainee would be comfortable

disclosing about the topic; rather, it may be that the issue simply has not yet emerged in

the supervision experience. If a nondisclosure about an issue has not occurred, it should

not be assumed that the trainee would be willing to disclose about the issue. Instead, a

better understanding of the specific nature of willingness to disclose, and specifically the

factors that increase the likelihood of disclosure, needs to be obtained.

Willingness to Disclose

Willingness to disclose has been defined as how willing a trainee would be to

disclose a particular issue to a supervisor if it were relevant at the supervision session

(Mehr et al., 2010). For example, relevant issues include countertransference reactions to

a client, an unsuccessful therapy intervention, or dissatisfaction with the supervision

experience. The willingness of supervisees to disclose such pertinent information to their

supervisors plays a primary role in the eventual success of supervision (Ladany et al.,

1996). Specifically, in order for trainee professional growth to occur and for clients to

receive the most effective services, trainees must be willing to discuss personal, clinical,

and supervision-related information with their supervisors (Bernard & Goodyear, 2009).

Theoretically, willingness to disclose can be considered within the context of the

critical events model of supervision (Ladany, Friedlander, & Nelson, 2005). Although the

authors specifically describe seven common critical events (e.g., skill deficits), the model

provides a template (Marker-Task Environment-Resolution) to work through all

important issues that might arise in supervision. In this model, the Marker is "the

supervisee's statement, series of statements, or behavior signaling the need for a specific

kind of help" (Ladany et al., 2005, p. 14). Thus, the Marker that alerts the supervisor to the need to address a particular issue often involves disclosure by the trainee. Additionally, in order to identify the appropriate interaction sequences in which to engage, the Marker of the critical event must be fully understood. In order to address critical events adequately in supervision, supervisors often must rely on being alerted to such important issues by trainees. For instance, the willingness of the trainee to disclose about an unsuccessful therapy intervention to the supervisor allows for discussion of the therapeutic process and identification of interventions that are more appropriate to the client's needs and goals. Thus, the willingness of a trainee to disclose is usually a crucial antecedent to the utilization of this template to address significant issues in supervision.

Therefore, it is important to identify the factors that increase the likelihood that trainee disclosure will occur. However, little research has examined the factors that contribute to trainee willingness to disclose in supervision. A recent study (Mehr et al., 2010) specifically examined trainee willingness to disclose in the trainee's most recent supervision session and found that trainee perception of the supervisory working alliance and trainee anxiety in the supervision session predicted willingness to disclose. Similarly, Walsh et al. (2002) identified that a supportive supervisory relationship was the greatest contributor to pastoral counseling students' willingness to disclose clinical mistakes in supervision. The current study aimed to engage in replication and extension of existing research. Specifically, the primary purpose of this study was to examine a proposed model to obtain a better understanding of the relationships between the factors that have been found to contribute to trainee willingness to disclose in supervision.

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Trainee Anxiety

The supervision environment can be particularly anxiety-provoking for many trainees (Dodge, 1982; Liddle, 1986). A primary source of trainee anxiety in supervision is uncertainty regarding the process and consequences of evaluation (Bernard & Goodyear, 2009; Dodge, 1982; Liddle, 1986). Additionally, the importance of supervision for both personal and professional growth can provoke a situation of heightened anxiety for trainees (Loganbill et al., 1982). Furthermore, the role ambiguity and conflict that is intrinsic to supervision can provoke anxiety for trainees (Olk & Friedlander, 1992). In general, anxiety is viewed as a common feature of trainee development (Bernard & Goodyear, 2009).

The experience of anxiety in supervision stems from the trainee's evaluation concerns, as well as worries about one's own clinical competence (Dodge, 1982; Liddle, 1986). According to Dodge (1982), trainee anxiety in supervision is due to trainees wanting to be viewed positively by the supervisor. Essentially, the trainee judges his or her self-worth based upon the ability to obtain respect and approval from the supervisor and the ability perform competently (Dodge, 1982). When trainees worry that their desire to obtain approval and demonstrate competent performance will not be fulfilled, higher levels of anxiety tend to occur (Dodge, 1982). Others (Ellis, Dennin, DelGenio, Anderson-Hanley, Chapin, & Swagler, 1993) have proposed that evaluation anxiety and performance anxiety might contribute separately to the trainee's anxiety level in supervision. For instance, a trainee may feel competent in her or his clinical skills, but still be concerned about the supervisor's judgment. Similarly, a trainee might not be

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concerned with the supervisor's evaluation, but be worried about not being able to fulfill her or his own expectations in terms of therapy performance (Ellis et al., 1993).

Experiencing heightened anxiety can negatively impact the performance of the trainee in counseling and supervision (Loganbill et al., 1982). For instance, the supervisee's learning process in supervision can be impaired by anxiety (Bernard & Goodyear, 2009). The quality of the supervisor-supervisee interactions can also be impaired by trainee anxiety. A primary way in which these interactions can be affected is through the influence of anxiety on what the trainee discloses to the supervisor (Bernard & Goodyear, 2009). For example, in reaction to experiencing anxiety, trainees may attempt to conceal their limitations and vulnerabilities (Liddle, 1986) and may only talk about positive clinical interactions and areas of strength and development (Ronnestad & Skovholt, 1993).

Although one study (Chapin & Ellis, 2002) found that beginning trainees are more likely to experience anxiety, other research has found no differences in anxiety with relation to experience level of trainees (Mehr et al., 2010; Singh & Ellis, 2000). Therefore, it is likely that supervision-related anxiety has the potential to occur in trainees of all experience levels. Additionally, this factor is relevant for trainees of all levels because one primary task of supervision is to manage anxiety (Frantz, 1992; Lambert & Ogles, 1997). For instance, supervisors should encourage trainees to work through anxiety instead of avoiding it so that the dyad is able to explore the factors that contribute to the experience of anxiety (Bernard & Goodyear, 2009). Additionally, supervisors can help trainees to control anxiety to a level where it promotes, instead of hinders, optimal

supervision performance, as well as to a level where it promotes optimal clinical performance (Bernard & Goodyear, 2009). For instance, an optimal level of anxiety in supervision might motivate the trainee to engage more actively in conceptualization of client concerns without fear of supervisor feedback. Similarly, an optimal level of anxiety in counseling might motivate the trainee to be more spontaneous and implement an intervention outside of her or his typical repertoire. Various suggestions have been provided to reduce trainee anxiety, such as establishing structure in supervision, utilizing supportive and challenging behaviors, and engaging in role induction with the trainee (Bernard & Goodyear, 2009).

Trainee level of anxiety or worry has been identified in the literature as a factor that contributes to trainee willingness to disclose (Mehr et al., 2010; Walsh et al., 2002). For instance, higher levels of trainee anxiety in a supervision session were found to be related to lower willingness to disclose in the session (Mehr et al., 2010). Additionally, Walsh et al. (2002) found that 57% of participants reported that an important contributor to their willingness to disclose clinical mistakes to their supervisors was level of worry about making a mistake or being judged. Mehr et al. (2010) suggested that trainees would be more willing to disclose information if the supervision environment were less anxiety-provoking. Taken together, these results emphasize the importance of trainee anxiety during supervision as a factor that influences the disclosure process. Based on this existing research, it was proposed in the current model that trainee anxiety in supervision predicts trainee willingness to disclose supervision. Specifically, lower levels of trainee anxiety in supervision were hypothesized to predict higher willingness to disclose.

Supervisory Working Alliance

Within the supervisory relationship, the trainee is afforded opportunities for emotional support, learning experiences, and feedback to incorporate into his or her sense of identity (Bernard & Goodyear, 2009). The relationship between supervisor and trainee has often been described in terms of the supervisory working alliance, which encompasses the emotional bond between supervisor and trainee and their agreement on the tasks and goals of supervision (Bordin, 1983). Although initially explored in terms of the therapeutic setting, the working alliance is relevant in any situation in which a change process occurs (Bordin, 1979). According to Bordin (1979), the strength of the working alliance between an individual seeking change and an individual who is considered to be the "change agent" (p. 252) is the most important contributor to the change process. Bordin (1983) later extended his model of the working alliance to supervision and described various goals (e.g., developing skill competency and theoretical knowledge; increasing awareness of therapeutic process issues; maintaining the standards of the profession) and tasks (e.g., tape review; presentation of clinical issues; provision of feedback) of supervision.

Fostering a strong supervisory working alliance, as well as engaging in ongoing monitoring of the alliance, is considered to be a crucial task of the supervisor in supervision (Nelson, Gray, Friedlander, Ladany, & Walker, 2001). Furthermore, development of a strong supervisory working alliance is considered to be a fundamental factor in various supervision approaches. For instance, the supervisory working alliance has been identified as a key component in the systems approach to supervision

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(Holloway, 1995). In this model, the alliance is considered to be the core factor of the supervision process that interacts with the functions and tasks of supervision, as well as the contextual factors of the supervisor, trainee, client, and institution. Through the interpersonal interaction with their supervisors, the trainees become active participants in their professional development (Holloway, 1995). In the integrated developmental model (IDM; Stoltenberg, McNeill, & Delworth, 1998), the supervisory relationship is also considered to be an important factor. For instance, the model provides recommendations for the supervisor on how to navigate the relationship with trainees of various developmental levels (Ladany & Inman, 2008).

In the interpersonal model of supervision (Ladany et al., 2005), critical events are processed in supervision against the backdrop of a strong supervisory working alliance. In order to develop a strong alliance, it is crucial for the supervisor and supervisee to consistently negotiate their agreement on the tasks and goals of supervision, as well as for the supervisor to enhance the emotional bond through communicating understanding of the supervisee's concerns. The alliance is considered to be at the forefront of supervision in the initial stages of the relationship. Additionally, when a rupture occurs, examination of the working alliance becomes the focus of the supervision process (Ladany et al., 2005) so that the relationship can be repaired. Indeed, both the building and repair of a strong working alliance are considered to be fundamental to the amount of change that occurs through the relationship (Bordin, 1983). In addition to being the focus of supervision at times, the alliance is the backdrop upon which all other critical supervision activities take place. For instance, the strength of the alliance must be considered when

the supervisor identifies the need to challenge the trainee as well as when the potential for the supervisee to become distressed in supervision arises (Ladany et al., 2005).

The supervisory relationship has been found to have a significant influence on trainee disclosure (Gray et al., 2001; Ladany et al., 1997; Ladany et al., 1996; Webb & Wheeler, 1998). For instance, a positive relationship has been found between rapport in the supervisory relationship and disclosure of clinical and supervision-related issues (Webb & Wheeler, 1998). In another study that examined trainee willingness to disclose clinical mistakes among pastoral counseling students, a supportive supervisory relationship (e.g., feelings of mutuality in the relationship; supervisor interest in trainee achievements) was the most influential determinant of trainee willingness to disclose (Walsh et al., 2002). Additionally, in a study of counterproductive events in supervision, it was found that trainees tended to not disclose to the supervisor their reactions to the event due to negative feelings about the supervisory relationship (Gray et al., 2001).

Furthermore, it was found that trainees who disclosed in supervision about their sexual attraction to a client reported positive and supportive supervisory relationships, while the trainees who did not disclose about their attraction reported worries that the disclosure would not be met with a supportive response from the supervisor (Ladany et al., 1997). This is a particularly difficult topic of discussion in supervision and the quality of the supervisory relationship will influence the likelihood that trainees mention these feelings. For instance, from the perspective of the critical events model of supervision (Ladany et al., 2005), the strength of the relationship impacts trainees' expectations that they will be validated, receive support, and have their experiences normalized by the supervisor.

Taken together, the results of these various studies emphasize the influence that the strength of the supervisory relationship has on trainee willingness to disclose. Indeed, it appears that the supervisee is more inclined to disclose information to the supervisor if she or he experiences a relationship in which there is mutual trust, caring, and respect. Furthermore, establishing agreement on the primary aims of the supervision experience, as well as what activities should occur to accomplish these aims, also appear to contribute to the likelihood that the trainee will disclose information to the supervisor. These assumptions are supported by a research study that specifically examined the supervisory working alliance and found that perception of a strong supervisory alliance was related to lower amount of trainee nondisclosure in a single supervision session, as well as related to higher willingness to disclose in that supervision session (Mehr et al., 2010). Thus, in general, it seems that the development of a supervisory relationship characterized by respect for supervisees' concerns and needs, as well as their opinions of how supervision can be most beneficial to them is crucial to the disclosure process.

Based on the existing research (Mehr et al., 2010; Walsh et al., 2002; Webb & Wheeler, 1998), it was proposed in the current model that trainee perception of the supervisory alliance predicts willingness to disclose in supervision. Specifically, the perception of a strong supervisory alliance predicts higher willingness to disclose in supervision. Additionally, it was also hypothesized in the model that trainee perception of the supervisory alliance predicts trainee anxiety in supervision. Prior research findings (Mehr et al., 2010) of a relationship between trainee anxiety and perception of the working alliance support this hypothesis. Furthermore, a trainee who experiences a

positive relationship with the supervisor and perceives agreement on the tasks and goals of supervision will likely experience lower levels of anxiety in supervision.

Counseling Self-Efficacy

Self-efficacy, which has been defined as one's belief in his or her capability to effectively perform a particular action, is an important construct in social cognitive theory (Bandura, 1977). The theory proposes that an individual's feelings, thoughts, and behaviors in particular situation are influenced by the level of self-efficacy that he or she has for that particular situation (Bandura, 1982). Indeed, self-efficacy beliefs influence the actions that an individual selects and the effort, perseverance, and resilience that occur in relation to such actions, as well as the thought patterns and affective experiences that occur in reaction to environmental obstacles (Bandura, 1997). For instance, self-efficacy plays an important role in the occurrence and strength of negative emotional reactions, such as anxiety, because perceived capability and personal control contribute to interpretation of and reaction to perceived environmental threat (Bandura, 1997).

Counseling self-efficacy consists of a counselor's judgments about his or her ability to perform various counseling-related actions (Friedlander & Snyder, 1983; Ladany, Ellis, & Friedlander, 1999). For instance, counseling self-efficacy has been conceptualized as encompassing counselors' perceptions of their abilities to perform basic helping skills, organize and manage a counseling session, and handle challenging clinical situations and client presenting issues (Lent et al., 2003). A primary goal of professional training is for the trainee to acquire confidence in his or her counseling skills (Bernard & Goodyear, 2009); thus, the supervision setting is an appropriate context to

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consider self-efficacy. In the interpersonal model of supervision (Ladany et al., 2005), focusing on self-efficacy is considered to be an important interaction sequence to address various critical events in supervision. Mehr et al. (2010) suggest extending this model further by viewing the discussion of self-efficacy and competency concerns as a critical event itself in supervision. These authors recommend various interaction sequences to address low self-efficacy, such as normalizing the experience of low self-efficacy, exploring the trainee's feelings of inadequacy, highlighting clinical strengths, exploring areas of improvement, and focusing on the therapeutic process (Mehr et al., 2010).

Various measures of counseling self-efficacy have been developed, including the Counselor Activity Self-Efficacy Scales (CASES; Lent et al., 2003), the Counseling Self-Estimate Inventory (COSE; Larson et al., 1992), the Counselor Self-Efficacy Scale (CSES; Melchert, Hays, Wiljanen, & Kolocek, 1996), and the Self-Efficacy Inventory (Friedlander & Snyder, 1983). Despite some minor differences between the measures, they all assess the counselor's perceived sense of capability to effectively execute counseling activities. In fact, convergent construct validity has been established for many of these measures. For instance, the correlation between the CSES and the Self-Efficacy Inventory was found to be .83 (Melchert et al., 1996) and the correlation between the total scale score of the CASES and the COSE was found to be .76 (Lent et al., 2003).

Existing research has examined the relationship between self-efficacy and anxiety. General self-efficacy, or the belief in one's general capabilities across situations (Judge et al., 1998), has been found to predict state anxiety (Chen et al., 2000; Endler et al., 2001). Chen et al. (2000) proposed that individuals who have higher levels of general

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confidence in their abilities will be less likely to experience worries about not being successful on a specific task. The authors' hypothesis was confirmed in that a negative relationship was found between general self-efficacy and state anxiety. Endler et al. (2001) similarly found that general self-efficacy predicted state anxiety in a condition in which the individual perceived low control over the situation, as well as a situation in which the individual perceived high control over the situation.

A relationship between counseling self-efficacy and trainee anxiety has also been established. For instance, Friedlander et al. (1986) examined the influence of role conflict (i.e., supervisor disagreeing with trainee's work with a client) on the internal reactions of trainees. Utilizing the Self-Efficacy Inventory, the authors found a negative relationship between counseling self-efficacy and state anxiety. In another study designed to validate the COSE as a measure of counseling self-efficacy, a negative relationship was found between counseling self-efficacy and state anxiety as well as counseling self-efficacy and trait anxiety (Larson et al., 1992). Most of the existing research on counseling self-efficacy and anxiety has utilized the State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, & Lushene, 1970) to measure anxiety. In addition to utilizing this measure, the current study will also utilize the Trainee Anxiety Scale (Ladany, Walker, Pate-Carolan, & Gray, 2007) because it was developed specifically to assess trainee anxiety in counseling and supervision environments and was found to have strong internal consistency ($r = .954$) when utilized to measure trainee anxiety in supervision in a prior study (Mehr et al., 2010).

Based on prior research of relationships between counseling self-efficacy and state anxiety (Friedlander et al., 1986; Larson et al., 1992), it was proposed in the current model that counseling self-efficacy predicts trainee anxiety in supervision. Specifically, it was hypothesized that higher levels of counseling self-efficacy predict lower levels of anxiety in supervision. In addition to empirical support, this hypothesis is supported by social cognitive theory that proposes that self-efficacy is a determinant of an individual's interpretation of environmental threat (Bandura, 1997). For instance, if supervisees possess low beliefs in their counseling abilities, the supervision environment could be interpreted as threatening since this is a setting in which they are expected to provide evidence of competent performance.

Currently, no research exists that has investigated the relationship between counseling self-efficacy and willingness to disclose. Thus, because there is no evidence to support or refute the inclusion of this relationship in the model, a hypothesis was not included in the model in which counseling self-efficacy is a predictor of willingness to disclose in supervision. However, an alternative model was examined in which higher counseling self-efficacy predicts higher willingness to disclose in supervision. Despite the lack of empirical support, there may be theoretical support for this hypothesis from social cognitive theory which proposes that self-efficacy beliefs contribute to one's reaction to threatening events. For example, if a supervisee has committed a clinical error, low self-efficacy may make the supervisee feel less inclined to disclose the mistake to the supervisor.

Proposed Model & Hypotheses

Overall, the primary purpose of this study was to replicate and extend existing research on the factors that influence trainee willingness to disclose. Specifically, the study examined a proposed model (*Figure 1*) of the relationships between trainee perceptions of the working alliance, counseling self-efficacy, level of anxiety in supervision, and willingness to disclose. These variables are important to examine because they have been found to be important contributors to trainee willingness to disclose, as well as are fundamental aspects of the supervision process in general. For instance, primary goals of supervision are to lessen trainee anxiety and enhance trainee self-confidence (Lambert & Ogles, 1997). Additionally, the supervisory working alliance is considered to be the most vital component of effective supervision (Ladany et al., 2005).

It was hypothesized in the model that trainee counseling self-efficacy and perception of the supervisory working alliance predict trainee anxiety in supervision, which will predict trainee willingness to disclose in supervision. Additionally, it was hypothesized that trainee perception of the supervisory working alliance also directly predicts willingness to disclose. An alternative model (*Figure 2*) was also tested that includes all of the above hypotheses, as well as the hypothesis that higher levels of counseling self-efficacy will predict higher willingness to disclose in supervision. This study is unique in comparison to prior studies in that a more sophisticated statistical analysis, structural equation modeling, was utilized to examine the relationships among a set of variables. Thus, this study provides information on the overall fit of the model, as

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well as information on the specific relationships between variables. Furthermore, the

study investigated the relationship between counseling self-efficacy and willingness to

disclose, which has yet to be examined in the existing research literature.

Chapter III

Method

Participants

Two hundred and one therapists-in-training (171 women, 27 men, 3 unspecified), averaging 29.3 years in age ($SD = 6.7$), provided complete data and were utilized as participants in this study. Participants identified as European-American/White (165; 82.1%), African-American/Black (11; 5.5%), American Indian or Alaskan Native (2; 1.0%), Asian American or Pacific Islander (6; 3.0%), Hispanic/Latino (4; 2.0%), Multiracial (8; 4.0%), and 'Other' race (4; 2.0%). Participants were primarily in counseling psychology (29.4%) or clinical psychology (56.2%) programs and were receiving supervision in college counseling centers (23.9%), community mental health centers (17.9%), hospitals (23.4%), academic departments (15.9%), and private practices (7.5%).

Participants identified their training level as beginning practicum (27.4%), advanced practicum (28.4%), or internship (39.8%) and reported a median of 16 months ($M = 23.3$; $SD = 23.1$) of counseling experience. After removing two outlier data points, the median total number of clients seen was 30 ($M = 80$; $SD = 118.7$). One possible explanation for the discrepancy between the mean and median total number of clients is that there might be a cluster of experienced trainees within the participant pool. Another possible explanation is that some participants may have included their intake clients or group therapy clients in the total. The exact explanation for the discrepancy cannot be determined based on the existing data.

Participants primarily identified their theoretical orientations as cognitive

behavioral (27.9%), integrative (25.9%), psychodynamic (11.9%), and humanistic/

experiential (10.9%). At the time of the study, they had attended a median of 12

supervision sessions ($M = 23$; $SD = 41.4$). Supervisors were predominantly female

(59.7%) and identified as European American/White (169; 84.1%), African

American/Black (14; 7.0%), Asian American or Pacific Islander (7; 3.5%),

Hispanic/Latino (4; 2.0%), Multiracial (2; 1.0%), and 'Other' race (4; 2.0%). They were

employed in college counseling centers (18.4%), hospitals (17.9%), community mental

health agencies (13.9%), academic departments (23.4%), and private practice (9.5%).

Although 44.3% of participants videotape their counseling sessions, 13.4% solely

audiotape, and 41.3% do not tape at all. The majority (70.6%) of participants were being

evaluated in supervision.

Measures

     Trainee Disclosure Scale. The Trainee Disclosure Scale (TDS; Walker, Ladany,

& Pate-Carolan, 2007) is a 13-item self-report questionnaire developed based on the

findings of the Ladany et al. (1996) study on trainee nondisclosure in supervision. The

questionnaire assesses trainees' disclosure process in supervision (i.e., "For each

question, ask yourself how likely you would be to discuss issues of _____ with your

supervisor?"). Thus, this measure is utilized in the current study to assess trainee

willingness to disclose in supervision. Participants respond to items (e.g., "clinical

mistakes") on a 5-point Likert-type scale ranging from 1 (*not at all likely*) to 5 (*very

likely*). A single total score is calculated with higher scores signifying higher willingness

to disclose. In the current study, participants were asked to respond as if they were about to have a supervision session with their current supervisor. In terms of convergent validity, the TDS has been found to be positively related to supportive gender-related events (e.g., supervisor processing gender-related transference issues with trainees) in supervision (Walker et al., 2007) and positively related to trainee perception of the supervisory working alliance (Mehr et al., 2010). In terms of internal consistency reliability, previous estimates for the TDS have been .80 (Ladany, Mori, & Mehr, 2010), .89 (Walker et al., 2007), and .85 (Mehr et al., 2010). The internal consistency coefficient of the TDS for the current sample was .86.

Self-Disclosure Index. The Self-Disclosure Index is a modified version of the Supervisor Self-Disclosure Index (SSDI; Ladany & Lehrman-Waterman, 2001), which is a nine-item self-report questionnaire used to assess trainee perceptions of their supervisors' self-disclosure (e.g., "My supervisor discloses information related to her or his past experiences."). Participants respond to items on a 5-point Likert-type scale ranging from 1 (*not at all*) to 5 (*often*). A single total score is calculated with higher scores signifying higher self-disclosure. In the current study, the measure was modified to assess trainees' own self-disclosure in supervision (e.g., "I disclose information related to my past experiences."). Concurrent validity was established for the SSDI by a significant correlation (*p*<.01) between the measure and the number of self-disclosures reported on a qualitative questionnaire. In terms of convergent validity, it was found that scores on the SSDI were positively related to a stronger working alliance, as well as were positively related to an 'attractive' supervisory style. In terms of internal consistency reliability, an

estimate for the SSDI was found to be .88 (Ladany & Lehrman-Waterman, 2001). The internal consistency coefficient for the current sample using the modified version of the Self-Disclosure Index was .86.

Trainee Anxiety Scale. The Trainee Anxiety Scale (TAS; Ladany, Walker, Pate-Carolan, & Gray-Evans, 2007) is a 14-item self-report questionnaire used to assess trainee's level of anxiety in supervision. The scale was theoretically-derived and utilized in a large-scale study (*Lehigh University Psychotherapy and Supervision Research Project*; Ladany et al., 2007). Participants respond to items (e.g., "I feel worried") on a 7-point Likert scale ranging from 1 (*not at all true of me*) to 7 (*totally true of me*). A single total score is calculated with higher scores representing higher levels of anxiety. In the current study, participants were asked to respond as if they were about to have a supervision session with their current supervisor. In terms of convergent validity, the TAS has been found to be positively related to the congruency of supervisor-trainee interpersonal response modes (Crall & Ladany, 2007) and negatively related to trainee perceptions of the supervisory working alliance (Mehr et al., 2010). Further convergent validity was established in the current study by the significant ($p < .01$) correlation between the TAS and the State Anxiety Scale ($r = .65$) and the Trait Anxiety scale ($r = .35$). In terms of internal consistency reliability, previous estimates for the TAS have been .87 (Crall & Ladany, 2007) and .95 (Mehr et al., 2010). The internal consistency coefficient of the TAS for the current sample was .93.

State-Trait Anxiety Inventory. The State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983) is a 40-item self-report inventory

used to assess state and trait anxiety. The STAI State Anxiety Scale (STAI-S) contains 20 items (e.g., "I feel at ease") to which participants respond on a 4-point Likert-type scale ranging from 1 (*not at all*) to 4 (*very much so*). The STAI Trait Anxiety Scale (STAI-T) contains 20 items (e.g., I am a steady person") to which participants respond on a 4-point Likert-type scale ranging from 1 (*almost never*) to 4 (*almost always*). Higher scores reflect more state and trait anxiety. In this study, The STAI-S and the STAI-T are indicators of the "Trainee Anxiety" latent construct.

At each point in the test development process, individual items were required to meet validity criteria in order to be retained for further evaluation, thus demonstrating the content validity of the scales. In terms of concurrent validity, the STAI-T was found to be highly correlated with existing measures of trait anxiety, such as the IPAT Anxiety scale (Cattell & Scheier, 1963) and the Manifest Anxiety Scale (Taylor, 1953). Convergent validity has been established for both the STAI-T and the STAI-S through high correlations with measures of personality attributes (e.g., Minnesota Multiphasic Personality Inventory; Personality Research Form) that would be expected to be related to anxiety. Test-retest correlations ranged from .34 to .62 for STAI-S and .65 to .75 for the STAI-T. In terms of internal consistency reliability, averaging the data from working adults, high school students, college students, and military recruits, the median alpha coefficient was found to be .93 for the STAI-S and .90 for the STAI-T (Spielberger et al., 1983). The internal consistency coefficient of the STAI-S for the current sample was .93, and the internal consistency coefficient of the STAI-T for the current sample was .91.

Working Alliance Inventory/Supervision (Trainee Version). The Working

Alliance Inventory/Supervision (WAI/S; Bahrick, 1989) is a 36-item self-report

questionnaire used to assess trainees' perceptions of the supervisory working alliance

defined by Bordin (1983) as the bond between supervisor and trainee and their agreement

on the tasks and goals of supervision. The WAI/S is a modified version for supervision of

the Working Alliance Inventory (WAI; Horvath & Greenberg, 1989), an extensively

utilized measure of the alliance in therapy. The three subscales, which correspond to the

factors of the supervisory working alliance, each contain 12 items. Participants respond to

items (e.g., "We agree on what is important for me to work on") on a 7-point Likert scale

ranging from 1 (*never*) to 7 (*always*). Higher scores on the subscales reflect perception of

higher agreement on the tasks and goals of supervision and a stronger emotional bond

with the supervisor. In the current study, the three factors (i.e., Bond, Tasks, Goals) will

be the indicator variables of the supervisory working alliance latent variable.

In terms of validity, the WAI/S has been found to be positively related to trainee

satisfaction (Ladany, Ellis, & Friedlander, 1999), positively related to favorable

supervisory racial identity interactions (Ladany, Brittan-Powell, & Pannu, 1997),

positively related to goal setting and feedback processes in supervision (Lehrman-

Waterman & Ladany, 2001), and negatively related to trainee role ambiguity and role

conflict (Ladany & Friedlander, 1995). In terms of internal consistency reliability,

previous estimates for the WAI/S have been found to exceed .90 for all of the subscales

(Ladany et al., 1997; Ladany et al., 1999; Ladany & Friedlander, 1995; Ladany &

Lehrman-Waterman, 1999). The internal consistency coefficients for the current sample

of the Bond, Tasks, and Goals subscales of the WAI/S were .91, .92, and .93 respectively.

Counseling Activity Self-Efficacy Scales. The Counseling Activity Self-Efficacy

Scales (CASES; Lent, Hill, & Hoffman, 2003) is a 41-item self-report questionnaire used

to assess counselors' perceptions of their abilities within three "overlapping, yet

somewhat distinct" (p. 102) domains: (a) executing basic helping skills (15 items), (b)

organizing and managing a counseling session (10 items), and (c) handling difficult

clinical situations and client presenting issues (16 items). Participants respond to items

(e.g., help your client to set realistic counseling goals) on a 10-point Likert scale ranging

from 0 (*no confidence at all*) to 9 (*complete confidence*). Item responses are summed and

divided by the number of items on the scale, with higher scale scores signifying higher

perceived capability in the domain. In the current study, a single total score will be

calculated with a higher score representing higher counseling self-efficacy.

In terms of convergent validity, the total scale score of the CASES was found to

correlate highly ($r = .76$) with the total scale score of the Counseling Self-Estimate

Inventory (COSE; Larson et al., 1992), an existing measure of counseling self-efficacy

(Lent et al., 2003). Additionally, the CASES general version has been found to correlate

($r = .54$ to $r = .76$) with a client-specific form of CASES (Lent, Hoffman, Hill,

Treistman, Mount, & Singley, 2006). Furthermore, the CASES subscales were found to

correlate ($r = .55$ to $r = .79$) with the subscales of the Multicultural Counseling Self-

Efficacy Scale—Racial Diversity Form (MCSE-RD; Sheu & Lent, 2007), which

measures perceived ability to counsel racially diverse clients. Discriminant validity has

been demonstrated through a small and nonsignificant correlation ($r = .10$) between the

CASES total scale and a measure of social desirability. In terms of reliability, the internal consistency coefficient for the CASES total scale was found to be .97 and the 2-week test-retest correlation was found to be .75 (Lent et al., 2003). The internal consistency coefficient of the CASES total scale for the current sample was .96.

      Self-Efficacy Inventory. The Self-Efficacy Inventory (S-EI; Friedlander & Snyder, 1983) is a 21-item self-report questionnaire utilized to assess counseling self-efficacy, measuring confidence in the domains of assessment, individual counseling, group and family intervention, case management, and completion of academic requirements. Participants respond to items (e.g., "how confident are you in your ability to conceptualize or assess a case using clinical interview data") on a 5-point Likert scale ranging from 0 (*not very*) to 9 (*very*). A single total score is calculated with higher scores signifying higher counseling self-efficacy. Content validity was established through expert rating of the questions with regards to appropriateness and importance to counseling practice. In terms of convergent validity, the S-EI has been found to correlate highly ($r = .83$) with another measure of counseling self-efficacy (CSES; Melchert et al., 1996) as well as was found to have a negative relationship ($p = .007$) with a measure of state anxiety (STAI-S; Spielberger, 1983). In terms of internal consistency reliability, a previous estimate for the S-EI has been found to be .93 (Friedlander & Snyder, 1983). The internal consistency coefficient of the S-EI for the current sample was .91.

      Demographic questionnaire. A demographic questionnaire was utilized to obtain information about participants' age, gender, race, academic program, year in the program, level of clinical experience, months of counseling experience, total number of clients

seen, average number of clients per month, theoretical orientation, supervision setting,
amount of supervision sessions to date, hours of supervision per week, date supervision
began, total number of sessions that supervision will meet, time lapsed until next
supervision session, evaluation procedure, taping procedure, supervisor's race,
supervisor's gender, and supervisor's employment setting.

Procedure

Participants were recruited through contact with program directors of masters and
doctoral programs in counseling psychology, clinical psychology, and counselor
education, as well as with training directors of Association of Psychology Postdoctoral
and Internship Center (APPIC) internship sites. The information for the program directors
was acquired from the list of APA-accredited programs on the American Psychological
Association website, and the information from APPIC training directors was obtained
from the list of APA-accredited internship sites from the APPIC website. Program
directors and internship training directors were solicited to distribute electronic mail with
a link to the website where potential participants were able to access the questionnaire.
Approximately two weeks after the initial solicitation, a follow-up notification was sent to
program directors and internship training directors to forward to all potential participants
to remind them about the questionnaire. Recruitment also occurred by contacting potential
participants directly through listserves. In these e-mails, trainees were also invited to
forward the website link to fellow trainees who might be interested in participating.

The explanatory cover letter instructed participants to complete the questionnaire
as it relates to their current supervision experience. Participants with multiple supervisors

were asked to choose the one person considered to be the primary supervisor. Participants were told that completion of the questionnaire constitutes informed consent to participate in this study. Confidentiality, anonymity, potential benefits and risks, and the right to withdraw participation at any time were detailed. As an incentive, participants who completed the study had the option of either entering their name in a raffle for a $25 gift certificate to Barnes & Noble or choosing a charity (Susan G. Komen Breast Cancer Foundation or Autism Speaks[TM]) to receive a one dollar donation from the researcher. Seventy-eight participants chose to enter the raffle, while 74 opted for the donation to the Komen Foundation and 45 opted for the donation to Autism Speaks[TM]. The inclusion of these two different types of incentives allowed for control for the different motivations (e.g., self-serving versus altruistic) that one might have for participation. The incentive groups did not differ significantly with regards to the primary variables in the study.

Data Analysis

Structural equation modeling, with AMOS 18.0 software (Arbuckle, 2009), was utilized in the current study to examine how well the proposed target model (*Figure 1*) and alternative model (*Figure 2*) fit the sample data. The models contain four latent variables (i.e., Supervisory Alliance; Counseling Self-Efficacy; Trainee Anxiety; Willingness to Disclose). "Supervisory Alliance" has three indicators, which are measured by the three subscales of the Working Alliance Inventory/Supervision (WAI/S; Bahrick, 1989). "Counseling Self-Efficacy" has two indicators, which are measured by the Counseling Activity Self-Efficacy Scales (CASES; Lent et al., 2003) and the Self-Efficacy Inventory (S-EI; Friedlander & Snyder, 1983). "Trainee Anxiety" has three

indicators, which are measured by the Trainee Anxiety Scale (TAS; Ladany et al., 2007), the STAI State Anxiety Scale, and the STAI Trait Anxiety Scale (Spielberger, 1983). "Willingness to Disclose" has two indicators, which are measured by the Trainee Disclosure Scale (Walker et al., 2007) and the Self-Disclosure Index (Ladany & Lehrman-Waterman, 1999). The alternative model contains one additional hypothesized path (counseling self-efficacy predicts willingness to disclose) as compared to the target model.

To assess model fit, chi-square (and associated degrees of freedom) was examined, as well as the root-mean-square error of approximation (*RMSEA*), goodness-of-fit index (*GFI*), comparative fit index (*CFI*), and Tucker-Lewis index (*TLI*). Conclusions of good fit between the hypothesized models and the observed data will be determined by the following recommended criteria: a value of .95 or greater for the *GFI*, *CFI*, and *TLI* and a value equal to or less than .05 for the *RMSEA* (Hu & Bentler, 1999).

Chapter IV

Results

Preliminary Analyses

In terms of descriptive statistics, the means, standard deviations, and correlations of the primary variables in this study are displayed in *Table 1*. In order to test for the potential confounding influence of the demographic variables on the primary variables in this study, a series of multivariate regression analyses were conducted. In each analysis, the demographic variable served as the independent variable, while the primary variables served as the dependent variables. The per comparison alpha level was set to .001 to minimize Type I error, while maintaining a conservative estimate of potential confounding effects.

Prior to conducting the multivariate analyses, data transformation occurred using either the natural logarithm or square root transformation in order to normalize the distributions of those variables (i.e., months of counseling experience; total number of clients seen; average number of clients per month; supervision sessions to date; estimated number of sessions that supervision will meet; hours of supervision per week) for which the skewness and kurtosis values were not within the acceptable range of -2 to +2 (Lomax, 2001). The skewness and kurtosis values of the transformed variables were within the acceptable range, with the exception of kurtosis values of the hours of supervision per week (4.1), number of supervision sessions to date (3.3), and estimated number of sessions that supervision will meet (7.6). However, Curran, West, and Finch (1996) have also recommended that kurtosis values between -7 and +7 are acceptable,

which would only indicate a slight violation of univariate normality for one variable, the number of sessions that supervision will meet.

Results indicate that the participant's age, gender, race, academic program, year in the program, months of counseling experience (log transformed), average number of clients per month (square root transformed), total number of clients seen (log transformed), and theoretical orientation, as well as the gender, race, and employment setting of the supervisor were not significantly related to any of the primary variables. Additionally, the evaluation procedure, supervision setting, taping procedure, number of supervision sessions to date (log transformed), estimated total number of sessions that the supervision will meet (square root transformed), hours of supervision per week (log transformed), and time lapsed until next supervision session were not significantly related to the primary variables. However, level of clinical experience (e.g., beginning practicum, advanced practicum, internship) was significant, Pillai's trace = .289, F (40, 756) = 1.47, p = .032. Follow-up univariate analyses revealed that level of experience was positively related to both the score on the CASES (r = .34, $p < .001$) and the S-EI (r = .37, $p < .001$). These findings will be discussed as a limitation of the study.

Assumption of Multivariate Normality

In the utilization of structural equation modeling, the assumption of multivariate normality is assessed by examining univariate and bivariate normality. Skewness and kurtosis statistics were examined for all observed variables used in the structural equation model to assess for univariate normality. The statistics for skewness and kurtosis (Lomax, 2001) were both within the range of acceptable values ($< |\pm 2|$). Scatterplots were

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examined for each pair of variables to assess for bivariate normality. Scatterplots demonstrated a relatively elliptical shape. Overall, adequate univariate and bivariate normality suggest that the assumption of multivariate normality is supported.

Model Identification

Prior to testing the models, we must assess whether there is enough information in the sample covariance matrix to estimate the model parameters. The order condition, which is necessary but not sufficient to establish model identification, has been met in that there are fewer parameters to be estimated than elements in the covariance matrix. To establish identification, the two-indicator rule (Bollen, 1989), which is sufficient for model identification, is appropriate for use in this model because the exogenous measurement model and the endogenous measurement model each include a latent variable that has only two indicators. With regard to the exogenous measurement model, the conditions of the two-indicator rule (i.e., that the model include two or more latent variables, that each latent variable have at least two indicators, that each indicator load on only one latent variable, that the latent variables are correlated, and that no correlated errors be included) were met. Similarly, for the endogenous measurement model, these conditions were also met. In addition, to ensure model identification, the scale of each latent variable was set by fixing its variance to 1.0. Furthermore, empirical identification demonstrates that the model is indeed identified.

Measurement Model Fit

Although it has been recommended that exogenous and endogenous measurement models are estimated prior to estimation of the full structural equation model (Anderson

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& Gerbing, 1988), the measurement models were not able to be estimated separately in this study. The measurement models were not able to be estimated because the solutions were inadmissible due to negative estimates for error variances (i.e., Heywood cases). Although the true value of a variance cannot be negative, variance estimates that are negative can be generated by maximum likelihood estimation methods and can indicate that the true value of the population parameter is close to the boundary of admissible values (e.g., error variance near zero) and due to sampling fluctuations, the sample estimate emerged as negative (Bollen, 1989). Alternatively, it can indicate an "unlucky" sample and that admissible estimates would have occurred in a more usual sample (Bollen, 1989). Another option is that outliers altered the measurement of the observed variable, thus influencing the parameter estimates (Bollen, 1989). However, examination of the data (e.g., minimum; maximum; standard deviation; skewness; kurtosis) did not appear to reveal outliers or incongruent values for respondents.

Target Model

The unstandardized and standardized results of the target model are displayed in *Figure 3* and *Figure 4* respectively, as well as in tabular format in *Table 2*. In terms of factor loadings of the target model, the CASES and SE-I load significantly ($p < .001$) on the Counseling Self-Efficacy factor. The bond, goals, and tasks subscales load significantly ($p < .001$) on the Supervisory Alliance factor. The TAS, STAI-S, and STAI-T load significantly ($p < .001$) on the Supervisee Anxiety factor. The TDS and SDI load significantly ($p < .001$) on the Willingness to Disclose factor.

The results indicate that trainee perceptions of a strong supervisory alliance significantly ($p < .001$) predict lower levels of supervisee anxiety. Higher counseling self-efficacy is also a significant ($p < .001$) predictor of less supervisee anxiety. Trainee perceptions of a strong alliance also significantly ($p < .001$) predict higher willingness to disclose; however, supervisee anxiety is not a significant predictor ($p = .126$) of willingness to disclose. Thus, trainees who possess higher counseling self-efficacy experience less anxiety in supervision, and trainees who perceive a strong alliance with their supervisors experience less anxiety and are more willing to disclose in supervision. However, experiencing less anxiety does not seem to influence willingness to disclose.

The target model does not fit the data well ($\chi^2 (30) = 118.999$, $p < .001$; *GFI* = .903; *TLI* = .889; *CFI* = .926; *RMSEA* = .122). Because model fit was not acceptable, modification indices were examined for potential modifications that would improve model fit. One recommendation was the inclusion in the model of a covariance between the error terms of STAI-State Anxiety and STAI-Trait Anxiety. Because these are subscales of a single instrument and measure components of anxiety that likely overlap, it is possible that the error terms of these variables do indeed vary in a related manner. The modified model demonstrates significantly improved fit ($\Delta\chi^2 (1) = 21.583$, $p < .001$) over the target model. However, inclusion of this covariance resulted in model fit that was still below the specified criteria for good fit ($\chi^2 (29) = 97.416$, $p < .001$; *GFI* = .922; *TLI* = .912; *CFI* = .943; *RMSEA* = .109). No other recommended modifications make practical sense within the context of these variables.

Another option for modification is to eliminate non-significant paths from the model (Schumacker & Lomax, 2004). Despite the literature supporting a relationship between supervisee anxiety and willingness to disclose, this path is not significant in the target model ($p = .126$) or in the modified target model ($p = .155$). However, removal of this path from the modified target model does not result in a well-fitting model (χ^2 (30) = 99.457, $p < .001$; *GFI* = .918; *TLI* = .914; *CFI* = .942; *RMSEA* = .108). Additionally, removal of the path does not lead to significantly improved fit ($\Delta\chi^2$ (1) = 2.042, $p = .153$) over the modified target model. Furthermore, the relationship between supervisee anxiety and willingness to disclose appears to be approaching significance and may have been found to be significant if a larger sample size were utilized.

Alternative Model

The unstandardized and standardized results of the alternative model, which added a path from counseling self-efficacy to willingness to disclose, are displayed in *Figure 5* and *Figure 6* respectively, as well as in tabular format in *Table 2*. Within this model, all factor loadings were significant as in the target model. The four directional paths shared between the target model and the alternative model also showed the same patterns of significance. Specifically, supervisee anxiety is not a significant predictor of willingness to disclose ($p = .636$); trainee perceptions of a strong alliance significantly predict lower levels of supervisee anxiety ($p < .001$) and higher willingness to disclose ($p < .001$); and higher counseling self-efficacy was a significant ($p < .001$) predictor of less supervisee anxiety. However, in this model, counseling self-efficacy was not significantly ($p = .070$) related to trainee willingness to disclose. Thus, trainees who possess higher

counseling self-efficacy experience less anxiety in supervision, and trainees who perceive a stronger alliance with their supervisors are less anxious and more apt to disclose in supervision. However, neither self-efficacy nor anxiety appears to predict trainee willingness to disclose.

This alternative model does not fit the data well (χ^2 (29) = 115.559, $p < .001$; *GFI* = .902; *TLI* = .889; *CFI* = .928; *RMSEA* = .122). Furthermore, including the additional path in which counseling self-efficacy predicts trainee willingness to disclose did not significantly improve model fit ($\Delta\chi^2$ (1) = 3.439, $p = .064$) over the target model. Similar to the target model, examination of modification indices revealed the sensible recommendation to include a covariance between the error terms of STAI-State Anxiety and STAI-Trait Anxiety. Inclusion of the correlated error term did significantly improve fit over the initial alternative model ($\Delta\chi^2$ (1) = 21.761, $p < .001$). Yet, this modified alternative model still did not meet criteria for good fit (χ^2 (28) = 93.798, $p < .001$; *GFI* = .922; *TLI* = .912; *CFI* = .946; *RMSEA* = .108). In addition, the modified alternative model did not demonstrate significantly improved fit over the modified target model ($\Delta\chi^2$ (1) = 3.618, $p = .057$).

Another option for modification is to eliminate non-significant paths from the model (Schumacker & Lomax, 2004). Despite the literature supporting a relationship between supervisee anxiety and willingness to disclose, this path is not significant in the alternative model ($p = .636$) or the modified alternative model ($p = .795$). Removal of this path from the modified alternative model does not result in a well-fitting model (χ^2 (29) = 93.865, $p < .001$; *GFI* = .921; *TLI* = .917; *CFI* = .946; *RMSEA* = .106). Additionally,

removal of the path does not lead to significantly improved fit ($\Delta\chi^2$ (1) = .076, p = .796) over the modified alternative model. However, the relationship between counseling self-efficacy and willingness to disclose becomes statistically significant (p =.023) in this model, as compared to being non-significant in the initial alternative model (p = .070) and the modified alternative model (p = .062).

Model Conclusions

The fit indices of all examined models are contained in *Table 3*. Using the cutoff values specified for the fit criteria, neither the target nor alternative model demonstrate good fit to the data. Modified target and alternative models including a covariance between measurement error terms demonstrate significantly improved fit over the initial target and alternative models, respectively. Further modification of dropping non-significant paths occurred, but did not significantly improve fit over these modified models. The modified models had nearly identical fit indices to each other. However, the modified alternative model did not demonstrate significantly improved fit over the modified target model and included a relationship that has not been established yet in the empirical research literature.

Thus, I conclude that the best-fitting model, the results of which are shown in *Figure 7* and *Figure 8* and are tabled in *Table 4*, is the target model with the modification of including a covariance between the error terms of STAI-State Anxiety and STAI-Trait Anxiety. Though the fit indices (χ^2 (29) = 97.416, p < .001; *GFI* = .922; *TLI* = .912; *CFI* = .943; *RMSEA* = .109) did not meet the criteria for good fit, they are *approaching* good fit. Additionally, although the fit criteria utilized in this study have become the general

rule in the literature, some authors (e.g., Marsh, Hau, & Wen, 2004) believe that the

criteria are too strict. Indeed, earlier guidelines for acceptable fit included *CFI* values

greater than .90 (Hu & Bentler, 1995) and *RMSEA* values less than .10 (Browne &

Cudeck, 1993). Similarly, McDonald and Ho (2002) note that, in most of the studies that

they reviewed, values less than .08 for *RMSEA* and greater than .9 for the other indices

were considered to demonstrate "adequate" fit. In addition, utilizing more stringent

criteria can lead to inaccurate rejection of acceptable models when sample sizes are

smaller than $n = 500$ (Weston & Gore, 2006). However, at best, it only can be concluded

that the modified target model in the current study demonstrated adequate fit or is

approaching good fit.

Chapter V

Discussion

Hypotheses

The overall purpose of the current study was to obtain a better understanding of the factors influencing trainee willingness to disclose in supervision. To that end, an examination was conducted of the relationships between trainee perception of the supervisory working alliance, counseling self-efficacy, level of anxiety in supervision, and willingness to disclose in supervision. Structural equation modeling was utilized to examine the relationships among this set of variables, which provided information on both the overall fit of the model *and* the specific relationships between variables. As discussed previously, the target model did not meet the criteria for good fit, though a modified version of this model did approach good fit.

In terms of the relationships between the variables, many of the hypothesized relationships in the target model were supported. The following hypothesized relationships were found: (1) higher counseling self-efficacy predicts less anxiety in supervision, (2) trainee perception of a stronger supervisory working alliance predicts less anxiety in supervision, and (3) perception of a stronger supervisory working alliance predicts higher willingness to disclose. However, one hypothesized relationship (i.e., lower levels of anxiety in supervision predict higher willingness to disclose) was not supported. The alternative model included an additional hypothesized relationship (i.e., trainee's higher counseling self-efficacy predicts higher willingness to disclose in supervision), which was not supported.

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Supervisory Working Alliance

The results support the hypotheses that the perception of a strong supervisory working alliance is related to less anxiety related to supervision and a higher overall willingness to disclose in supervision. These findings concur with prior research findings that the supervisory relationship has an influence on trainee disclosure (Gray et al., 2001; Ladany et al., 1997; Ladany et al., 1996; Mehr et al., 2010; Webb & Wheeler, 1998). Additionally, the results offer additional support for prior research findings of a relationship between perception of the supervisory working alliance and trainee anxiety in supervision (Mehr et al., 2010). Overall, the results of this study provide further validation to the assertion that the supervisory working alliance is a fundamental component of supervision (Ladany et al., 2005). Indeed, it appears that cultivating a strong supervisory alliance creates a supervision environment in which the trainee experiences less anxiety and is more inclined to disclose important information.

These findings add to the extensive literature that exists regarding the central role that the alliance demonstrates in supervision, as evidenced by its relationship with a myriad of other variables, such as supervisor style (Ladany, Walker, & Melincoff, 2001), supervisor self-disclosure (Ladany & Lehrman-Waterman, 1999), trainee satisfaction with supervision (Ladany, Ellis, & Friedlander, 1999), trainee perception of effective evaluation (Lehrman-Waterman & Ladany, 2001), and supervisee role conflict and role ambiguity (Ladany & Friedlander, 1995). In addition, these findings fit within the primary theories of supervision (e.g., Holloway, 1995; Ladany et al., 2005; Stoltenberg et al., 1998), which all emphasize the alliance as a fundamental component of effective

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supervision. For instance, Ladany et al. (2005) conceptualize their critical events model as being "embedded" (p. 11) within the context of the supervisory relationship. In this model, the importance of the alliance at any given moment is akin to figure versus ground. The alliance is actively attended to in the early stages of the relationship, as well as when conflict emerges in the relationship. At other times, however, the alliance functions as the background against which all other activities of supervision take place.

Trainee Anxiety

Despite theoretical (Dodge, 1982; Liddle, 1986) and empirical (Mehr et al., 2010; Walsh et al., 2002) support for the hypothesized relationship between anxiety and disclosure, supervisee anxiety was not found to be a significant predictor of willingness to disclose. However, the relationship appears to be approaching significance, and dropping the path from the model did not improve model fit. It is possible that utilization of a larger sample size would have enabled a significant relationship between these variables to be revealed. It is also possible that trainee anxiety and willingness to disclose may have a nonlinear relationship. For instance, trainees experiencing low anxiety might feel comfortable enough in supervision to disclose, while trainees experiencing extremely high levels of anxiety might feel compelled to disclose in order to assuage their anxiety. Another issue to consider is the multifaceted nature of anxiety in that there are likely cognitive, physical, and affective components. Though all three of these components appear to be captured by the items in the current study's measures, it is possible that each component is not fully represented by each measure.

Furthermore, in addition to two measures of state anxiety (i.e., anxiety related specifically to supervision), one measure of trait anxiety (i.e., participant's general anxiety) was utilized in order to provide a more complete representation of trainee anxiety. Prior research studies have primarily focused on anxiety related to the supervision experience; thus, it is possible that including a measure that assessed supervisees' general anxiety may have altered the nature of the relationship. The base of empirical knowledge would be expanded by studies that specifically examine the relationship between trait anxiety and trainee disclosure. Various measures of trait anxiety, such as the Taylor Manifest Anxiety Scale (Taylor, 1953), the Neuroticism scale of the Revised NEO Personality Inventory (Costa & McCrae, 1992), and the Neuroticism scale of the Eysenck Personality Questionnaire (Eysenck & Eysenck, 1975), could be utilized so that a better understanding of the construct of supervisee anxiety can be obtained. Based on the findings of such studies, future structural equation modeling research might test competing models of the relationship between anxiety and disclosure; one in which measures of state and trait anxiety load on the same construct and one in which measures of trait anxiety load on a different latent variable than those of state anxiety.

An interesting side note is that the levels of anxiety did not differ amongst participants at different experience levels. This finding does not align with the developmental model of Ronnestad and Skovholt (2003), which claims that many beginning practitioners experience high levels of anxiety that lessen as the individual moves through the developmental process. Based on their findings of supervisees not

being differentiated on a variety of supervision variables, Ladany et al. (2010) raised similar questions about the hypotheses of the developmental models of supervision. Further research is warranted.

Counseling Self-Efficacy

The results support the hypothesis that higher counseling self-efficacy is significantly predictive of less anxiety in supervision. This finding is consistent with existing research evidence (Friedlander et al., 1986; Larson et al., 1992) and provides further support for social cognitive theory (Bandura, 1997). The alternative model was included in this study so as to examine one additional relationship (counseling self-efficacy→willingness to disclose) that had not been investigated empirically. Rather, this relationship was hypothesized based on the theoretical support from social cognitive theory, which proposes that self-efficacy beliefs contribute to one's reaction to threatening events (e.g., less disclosure). The results did not support the hypothesis that higher counseling self-efficacy would predict higher trainee willingness to disclose in supervision. However, the relationship appears to be approaching significance, and this may be another situation in which the utilization of a larger sample size would have permitted a significant relationship between these variables to be revealed.

It is also possible that self-efficacy and disclosure may be nonlinearly related. For instance, trainees with low self-efficacy might be less inclined to disclose in reaction to the evaluative nature of supervision, while trainees with high self-efficacy might believe themselves to be exceedingly competent as for disclosure to be unnecessary. The existence of a nonlinear relationship between trainees' counseling self-efficacy and

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willingness to disclose would provide an explanation for the lack of support for the hypothesized linear relationship between these two variables in the model.

A Note on Disclosure

It is important to note that, although it is necessary to be aware of the role of trainee willingness to disclose in the supervision relationship, it is not imperative that trainees disclose *everything* to their supervisors. After all, nondisclosure in supervision has been described as "normative", "unavoidable", and "inevitable" (Farber, 2006, p. 181). In fact, the conscious decision to not disclose information deemed irrelevant might actually signify attempts to form a mature professional identity. Rather, a more appropriate concern is whether trainees are disclosing critical information (i.e., that which influences the trainee-supervisor and trainee-client relationships) in supervision. Our understanding of the nature of trainee disclosure would be furthered by qualitative research that distinguishes which disclosures are indeed irrelevant and which are influential on these relationships. Another important consideration, which will be discussed further in a later section, is the consequences of trainee disclosure in supervision for their clients.

Future Research Directions

It is important to note that this model was not intended to be comprehensive of all of the factors that contribute to trainee willingness to disclose. Rather, I chose to examine the variables that have the most empirical support and are the most theoretically-linked to willingness to disclose. Thus, I intended for the model to examine the variables that I deemed as priorities for investigation, as well as to serve as a foundation on which future

research can build. Though some nondisclosure is expected in supervision, the disclosure process is influenced by various individual and contextual factors (Farber, 2005). Based on the unacceptable fit of the model, it appears that the model is incomplete and that further consideration into these personal and contextual variables in the context of the current model is warranted.

Supervisor Variables. One supervisor variable with potential influence on the variables in the current study is supervisor self-disclosure. Ladany and Walker (2003) propose that supervisor self-disclosure promotes trainee disclosure through the process of modeling, as well as by establishing an environment of trust in which disclosure is expected. For instance, it is likely that a trainee would be more willing to disclose a negative reaction to a client if the supervisor had previously discussed experiences in which he or she had negative feelings about clients. Indeed, it has been found that trainees' perceptions of the level of supervisor self-disclosure were significantly related to their own disclosure in supervision (Adair, 1999).

Another relevant supervisor variable is supervisory style. Prior research has found that the supervisory style variables (i.e., attractive, interpersonally sensitive, and task oriented) were related to the content of and reasons for nondisclosures (Ladany et al., 1996). Specifically, trainees reported more nondisclosures related to negative reactions to their supervisors when they viewed the supervisors as less warm and collegial (attractive subscale), less relationship-oriented (interpersonally sensitive subscale), and less goal-focused and structured (task oriented subscale). Furthermore, trainees reported holding back information considered especially important from supervisors whose style they

perceived as unattractive (Ladany et al., 1996). Therefore, we could tentatively hypothesize that if trainees perceive their supervisor's style as being *more* attractive, interpersonally sensitive, and task oriented, they will demonstrate higher willingness to disclose to these supervisors.

In a study by Ladany, Walker, and Melincoff (2001) that examined supervisor perceptions, significant positive relationships were found between the attractive, interpersonally sensitive, and task-oriented supervisory styles and the goals, tasks, and bond components of the working alliance. Additionally, it was found that supervisors who reported their style as being more attractive, interpersonally sensitive, and task oriented also reported engaging in more self-disclosure. Yet, it is important to note that the study in which these relationships were identified examined the perspective of the supervisors. However, when Ladany and Lehrman-Waterman (1999) examined trainee perceptions of these variables, similar findings emerged. Supervisors who were perceived as demonstrating a more attractive style (e.g.., warm and supportive) were perceived by trainees to have disclosed more frequently. Additionally, the more frequently that the supervisor was perceived to disclose, the trainee reported a stronger emotional bond and better agreement on the tasks and goals of supervision.

Overall, these studies (Adair, 1999; Ladany et al., 1996; Ladany & Lehrman-Waterman, 1999; Ladany et al., 2001) link together supervisor self-disclosure, the supervisory alliance, supervisor style, and trainee disclosure. Based on the findings of these studies, supervisory style could fit within the context of the current model as being predictive of trainee perceptions of the alliance, supervisor self-disclosure, and trainee

willingness to disclose, while supervisor self-disclosure could be predictive of the alliance and trainee willingness to disclose.

Trainee Variables. One variable of particular relevance to willingness to disclose is trainee shame. The supervision environment can be rather shame-inducing for trainees because it involves being a vulnerable novice in the presence of an experienced professional in an evaluator position (Farber, 2006; Hahn, 2001). Additionally, unlike other apprenticeship professions, in the psychotherapy field, "one's very self is the essential tool in the work" (Farber, 2006, p. 182). Thus, any confusion or difficulties that one has with the work can more easily become personalized and induce negative feelings about the self as a professional and a person (Farber, 2006). Hence, it is likely that the experience of shame impedes the trainee's willingness to disclose to the supervisor, especially about issues such as clinical difficulties or concerns about professional competence. In fact, Yourman (2003) found that trainees who experienced more shame also disclosed less as compared to those trainees who were less prone to shame. Therefore, shame could fit within the current model as a predictor of trainee willingness to disclose in supervision.

Another variable to consider with regards to trainee disclosure is that of personality. Certain aspects of personality are likely to facilitate the disclosure process, and others may hinder it. No current research has examined the influence of trainee personality on willingness to disclose; this direction would be a potentially fruitful line of research. For instance, the personality characteristics of the Revised NEO Personality Inventory (NEO PI-R; Costa & McCrae, 1992) could be examined in relation to trainee

willingness to disclose. Someone who is high in the Extraversion domain (i.e., social interest and involvement) might be more inclined naturally to share information with others. In particular, the assertiveness facet of this domain could facilitate disclosure of dissatisfaction with the supervision experience. Similarly, someone who is high in the Agreeableness domain (i.e., interpersonal amiability) is more likely to be trusting, straightforward, and compliant. A trainee possessing these characteristics would likely view the supervision environment as safe and would be frank in their interactions with the supervisor. Someone who is high in Conscientiousness (i.e., organization; self-discipline; dutifulness) may disclose more often because they feel compelled to meet expectations. However, it would be important to keep in mind that these domains are not viewed in isolation, but rather interact to form personality. Furthermore, as there is currently no existing empirical support, it would not be appropriate at this time to include these variables in any structural equation modeling analysis. Rather, this remains an interesting arena for future exploratory research.

Contextual Variables. One contextual factor that might affect willingness to disclose in supervision is the evaluation process, which consists of goal-setting and feedback (Lehrman-Waterman & Ladany, 2001). Trainees who perceive the evaluation in supervision to be effective will view the feedback processes as more unbiased and fair. It is probable that such trainees would be more apt to disclose issues such as clinical mistakes or dissatisfaction with supervision without fear of retaliation or negative consequences. Furthermore, relationships have been found between more effective goal-setting and feedback processes and a stronger supervisory working alliance (Lehrman-

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Waterman & Ladany, 2001). Thus, the evaluation variable could be a theoretically-sound addition to the model as predictive of both the alliance and trainee willingness to disclose.

Another contextual issue of importance is trainee satisfaction with supervision. Ladany et al. (1996) found a significant relationship between the content of and reasons for nondisclosure and satisfaction. Specifically, these authors found that trainees who reported less satisfaction with supervision also reported more nondisclosures involving negative feelings about supervision. Extending this finding, it is likely that a trainee who is dissatisfied with the supervision experience would be less inclined to disclose about issues related to the supervision, as well as clinical issues under the presumption that the supervisor's assistance would not be helpful. Another finding of the study was that trainees who were less satisfied more often reported a poor alliance as the reason for not disclosing. This is not surprising considering that another study (Ladany, Ellis, & Friedlander, 1999) found that changes in the three components of the alliance were positively related to changes in trainees' satisfaction with supervision. In a third study (Fernando & Hulse-Killacky, 2005), it was found that trainees who perceived their supervisors as demonstrating more attractive and interpersonally sensitive supervisor styles also reported being more satisfied with supervision. Thus, trainee satisfaction could fit within the current model as a predictor of trainee willingness to disclose, as well being predicted by the alliance and supervisor style.

The Consequences of Disclosure on Clients

Ultimately, the reason that it is important to examine the disclosure process in

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supervision, as well as the factors that influence the process, is because of the effect that it has on trainees and their clients. Whenever trainees omit or distort clinical material or their feelings about supervision, it is more likely that they will receive a "less than optimal learning experience" and that clients will receive "compromised treatment" (Yourman & Farber, 1996, p. 567). Yet, there is a scarcity of research that has examined the *specific* consequences of disclosure and nondisclosure on clients. Rather, much of the existing research, including the current study, has focused on the contributors to the disclosure process.

Future studies could examine the disclosure process amongst the supervisory triad (supervisor -- trainee/counselor -- client). Specifically, researchers could investigate the relationships between supervisor self-disclosure in supervision, trainee self-disclosure in supervision, trainee self-disclosure in therapy, and client self-disclosure in therapy. Two especially important issues are whether supervisor self-disclosure facilitates trainee disclosure in supervision and whether trainee disclosure in supervision is related to client disclosure in therapy. Empirical support exists for the first issue, and further evidence would be beneficial. The second issue possesses heuristic support. If trainees disclose in supervision, particularly about clinical issues, they obtain learning experiences that allow them to broaden their helping responses to a client. When trainees are able to communicate their understanding of clients, as well as demonstrate their ability to engage effectively with clients, it is likely that clients will respond by disclosing further. If it is determined that client disclosure in therapy can be influenced by supervisor and trainee behavior in supervision, then the parallel process can be utilized to benefit the client.

Future research could also examine whether, through a modeling process, supervisor self-disclosure promotes trainee self-disclosure in therapy. Of particular importance would be whether the appropriateness (i.e., in service of the trainee and client) of the supervisor's self-disclosure influences the trainee's ability to utilize self-disclosure appropriately (i.e., in service of the client) in therapy. An additional fruitful research question is whether trainees who engage in more disclosure in supervision are also more self-disclosing with clients. Such a relationship might be due to the personality characteristics of the trainee (i.e., more extraverted and talkative) or due to the process of learning how to utilize immediacy in supervision and therapy environments. Again, of particular importance would be the appropriateness of the self-disclosure with clients.

Another critically important issue is the influence of trainee disclosure in supervision on client outcome. Clients of trainees who withhold important information in supervision can receive "compromised treatment" (Yourman & Farber, 1996, p. 567); thus, it follows that disclosing in supervision allows for clients to receive optimal treatment, which should lead to better client outcome. It is recommended that future research investigate the influence of trainee disclosure in supervision on client outcome, as well as clients' views of the therapy relationship. A potential research study could utilize the Partners for Change Outcome Management System (PCOMS; Miller & Duncan, 2004), which is a continuous feedback assessment system that uses the Outcome Rating Scale (ORS; Miller & Duncan, 2004) and the Session Rating Scale (SRS; Miller & Duncan, 2004) to track outcome and the counseling relationship, respectively. The longitudinal study could be designed so that each week, trainees would report on their

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willingness to disclose in supervision, as well as actual disclosures and nondisclosures that occurred in the session. Then, at their subsequent therapy sessions, clients would report on their personal and interpersonal well-being (i.e., ORS) and their view of the therapeutic relationship (i.e., SRS). Ultimately, the data would be utilized to examine the influence of trainee disclosure, nondisclosure, and willingness to disclose on client outcome and view of the counseling relationship.

Implications for Practice

The findings of this study suggest that a supervision environment ripe for trainee disclosure would be one in which the trainee perceives a strong alliance with the supervisor. Additionally, when trainees perceive a strong alliance, they will experience less anxiety related to supervision. Those trainees with higher counseling self-efficacy will also experience less anxiety related to supervision. Though not fully supported by the findings, we might also argue that the experience of less anxiety will promote disclosure.

So, what can the supervisor do to create such an environment? First and foremost, the supervisor should actively attend to developing a strong alliance with the trainee through behaviors (e.g., empathy, respect, and collegiality) that demonstrate the desire to develop an emotional bond and attain mutual agreement on the tasks and goals of supervision. Another suggestion would be to utilize supervision as an opportunity to promote the growth of trainee self-efficacy; after all, developing confidence in one's abilities is a fundamental goal of professional training (Bernard & Goodyear, 2009). A third recommendation would be to openly discuss aspects (e.g., evaluative component; power differential) of supervision that are anxiety-provoking and actively work to

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assuage trainee worries. A final suggestion would be for supervisors to realize that they need not worry themselves with getting trainees to disclose *everything*; rather, through the creation of an open and supportive environment, they will be promoting the disclosure of important and relevant information in supervision.

Limitations

One limitation of this study is with regards to limited generalizability due to sample characteristics. As anticipated, the sample acquired in this study was predominantly female (85%), young ($M = 29$ years), and White (82%). Recent estimates (Morgan & Cohen, 2008) have found that both counseling and clinical psychology programs tend to admit more female students (68%). Additionally, in terms of race and ethnicity, the mean percentage of minority students is 32% in counseling psychology Ph.D. programs, 25% in clinical psychology Psy.D. programs, and 19% in clinical psychology Ph.D. programs. Yet, even as compared to these percentages, the sample in this study was particularly female and White. Therefore, potential limitations exist in terms of generalizability to men, older trainees, and trainees from racial and ethnic minority groups. Future studies should aim to better capture the perspectives of individuals from these demographic groups.

Another limitation of this study with regards to the sample is that, because of the data collection procedures, individuals self-selected to participate in this study. The individuals who volunteer to participate may not be fully representative of trainees in general. For instance, voluntary participants may be especially interested in supervision research or may have a particularly positive or negative current supervision experience.

Additionally, research suggests that volunteers differ from non-volunteers on various characteristics, such as being less authoritarian, more social, and higher in the need for approval (Rosenthal & Rosnow, 2009). Unfortunately, it is not possible to know whether individuals who opted to participate in the study differ in some way from those who did not participate.

A third limitation of this study is that trainees were asked to anticipate or predict their feelings of anxiety and their likelihood of disclosure as if they were about to attend a supervision session. It was expected that some trainees might not have had a supervision session directly after completing the questionnaire. Indeed, participants reported a median time lapse of 6 days ($M = 5.27$ days) until their next supervision session. Thus, because some participants imagined they were about to enter a supervision session, their responses may not be as accurate compared to as if they had an actual session immediately following the survey. In a future study of this topic, it might be beneficial to elicit participation first and then request that participants complete the survey directly before entering their next supervision session.

A fourth possible limitation of this study relates to the fact that many participants were alerted to the study by training directors or program directors. Despite assurances of anonymity and confidentiality, some participants may have been concerned that their supervisors would be aware that they were providing information about their behavior in supervision. Thus, the results could potentially be influenced by the fact that both the trainee and supervisor might be aware that the trainee may have participated in a study about their current supervision experiences.

A fifth limitation of this study is the possible confounding influence of participants' level of clinical experience. Level of experience was found to be significantly related to counseling self-efficacy. Specifically, those participants at higher levels of clinical experience (e.g., internship) reported higher counseling self-efficacy than participants at lower levels of clinical experience (e.g., beginning practicum). Though level of clinical experience did not correlate significantly with any other of the primary variables in this study, it is important to acknowledge that this extraneous variable may have a role of which we are not aware in the study.

A sixth limitation is the self-report nature of the various measures utilized in this study. For instance, the measures in this study assessed willingness to disclose from the self-reported perspective of the trainee. No studies to date have examined the correlation between self-reported disclosure and actual disclosure in supervision; thus, it is unknown whether self-report is an accurate reflection of the contents of the actual supervision session. Additionally, one of these measures contains an item (i.e., clinical mistakes) to which participants may have responded strongly. Participants may have been hesitant to indicate making clinical *mistakes*, which would affect the accuracy of their self-reported willingness to disclose. An alternative wording of the item, such as 'ineffective clinical interventions', might have elicited more accurate responses. Further related to the self-report nature of these measures is that the variables assessed in this study may or may not translate to actual clinical performance. For instance, a trainee who has high counseling self-efficacy and low anxiety could still be an incompetent clinician.

A seventh limitation relates to the possibility that trainees assume that their supervisors are already aware of ineffective interventions or other clinical issues because they are observing taped sessions. Thus, trainees might not feel that disclosure about these issues is necessary. However, 41.3% of participants reported not taping their counseling sessions. Although this study neglected to inquire about the use of two-way mirrors for observation, this finding reveals the possibility that numerous supervisors may not have direct access to their supervisees' clinical work. There are limitations to supervision that lacks direct observation, one of which is that the supervisor is not given the opportunity to make independent observations about the client and the therapy interactions. Indeed, Holloway (1988) questions the wisdom of a supervision model that does not include direct observation (e.g., videotape).

A final limitation to this study is not being able to establish causality due to not engaging in manipulation of the independent variables. Though the language of structural equation modeling utilizes 'prediction' to refer to relationships between variables, the statistical procedures do not allow for causal statements to be made. For instance, although it was found that trainee perception of the working alliance predicts willingness to disclose in supervision, it is not appropriate to conclude that a stronger alliance *causes* higher willingness to disclose.

Summary

The primary purpose of the current study was to replicate and extend previous research to establish a more thorough understanding of the factors that influence trainee willingness to disclose in supervision. The study's unique contribution was the utilization

of structural equation modeling to investigate the interrelationships among the combined set of variables in an overarching model of the variables related to willingness to disclose. The findings provide further empirical support for the relationships between higher counseling self-efficacy and less trainee anxiety, stronger supervisory working alliance and less trainee anxiety, and stronger alliance and higher willingness to disclose. However, empirical evidence was not found for the relationship between trainee anxiety and willingness to disclose or the relationship between counseling self-efficacy and willingness to disclose. Though the model identified in this study appears to be incomplete, it can serve as a solid foundation on which to build future research studies.

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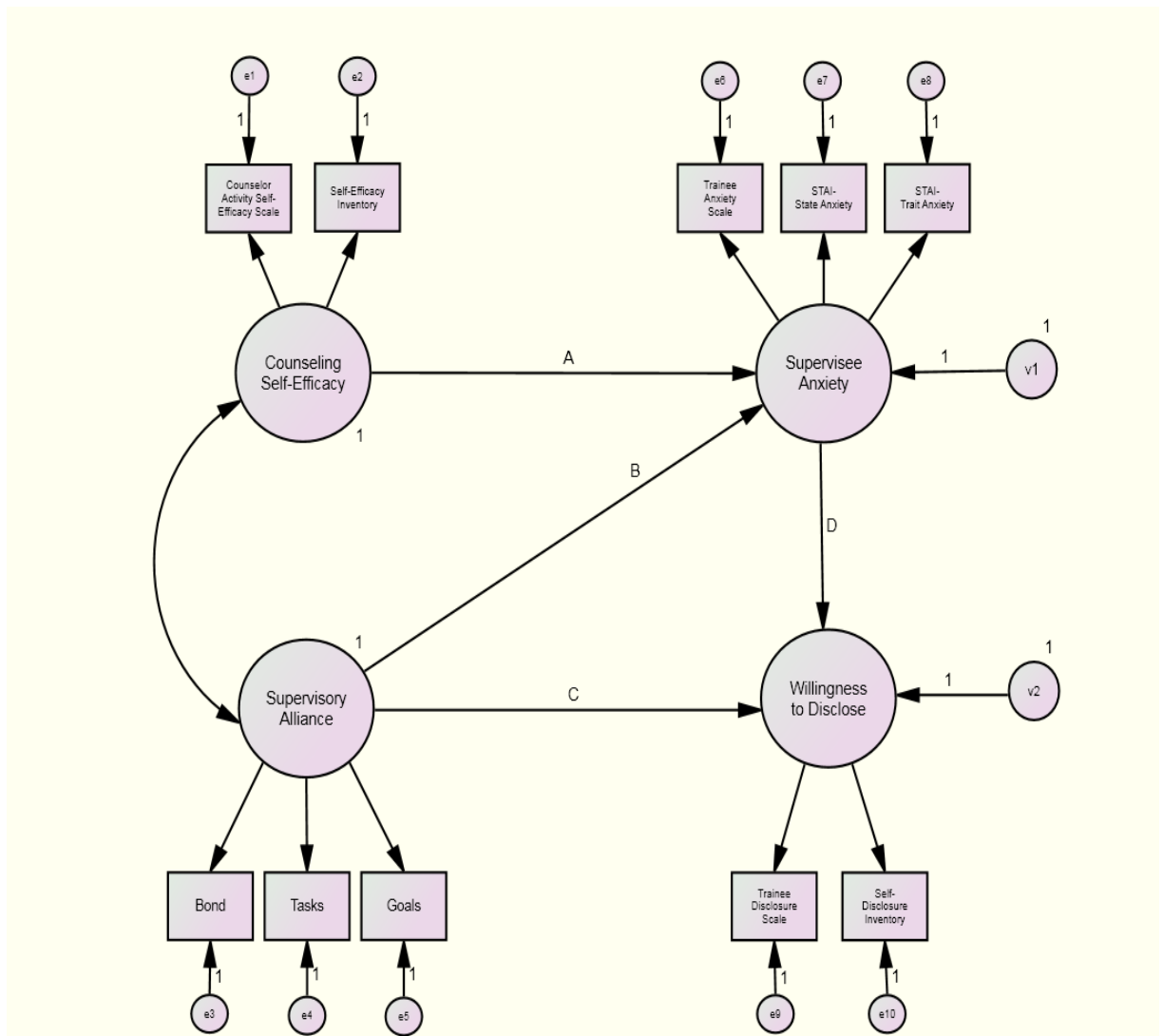
Figure 1

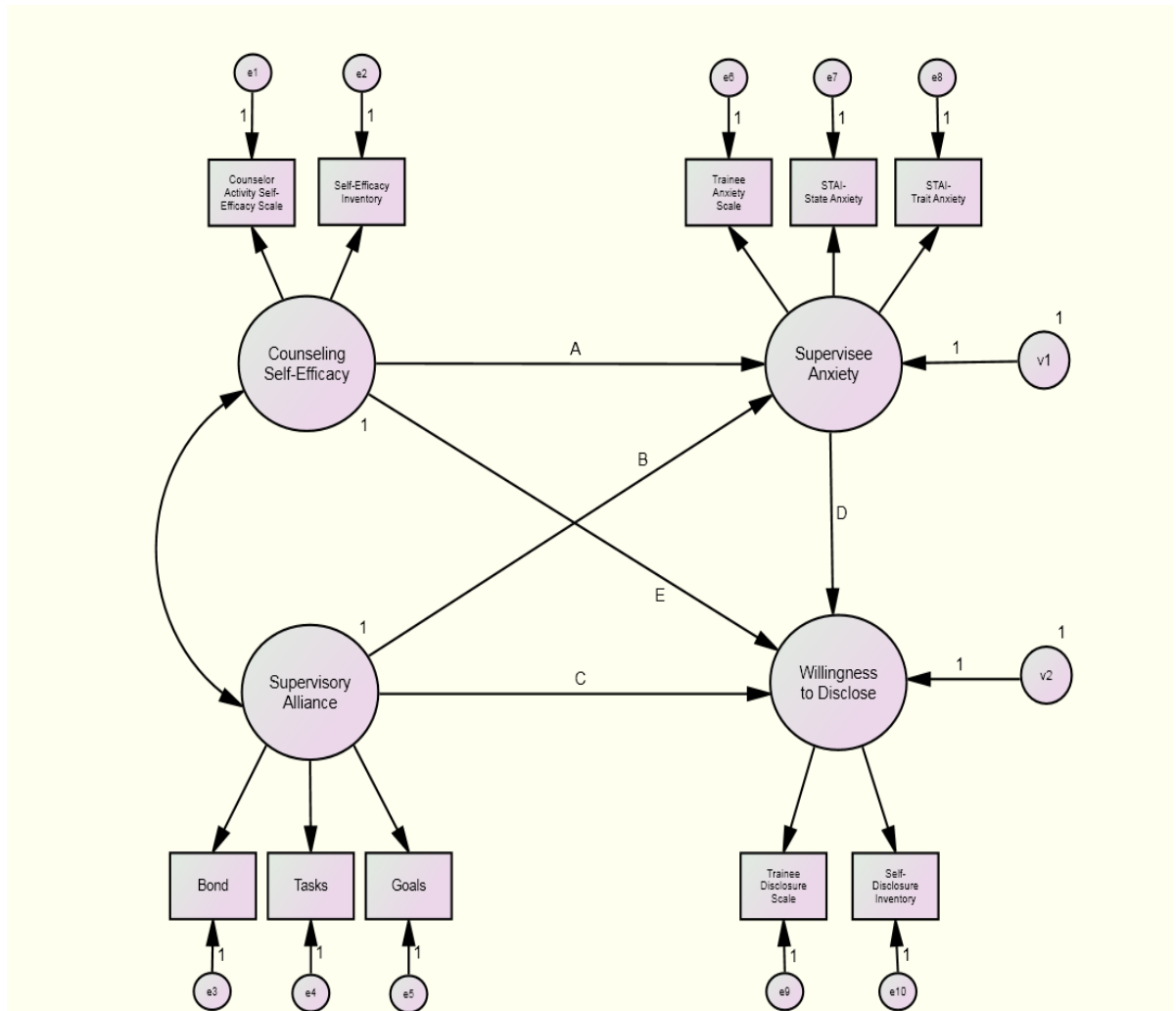*Target Model*

Figure 2

Alternative Model

Figure *3*

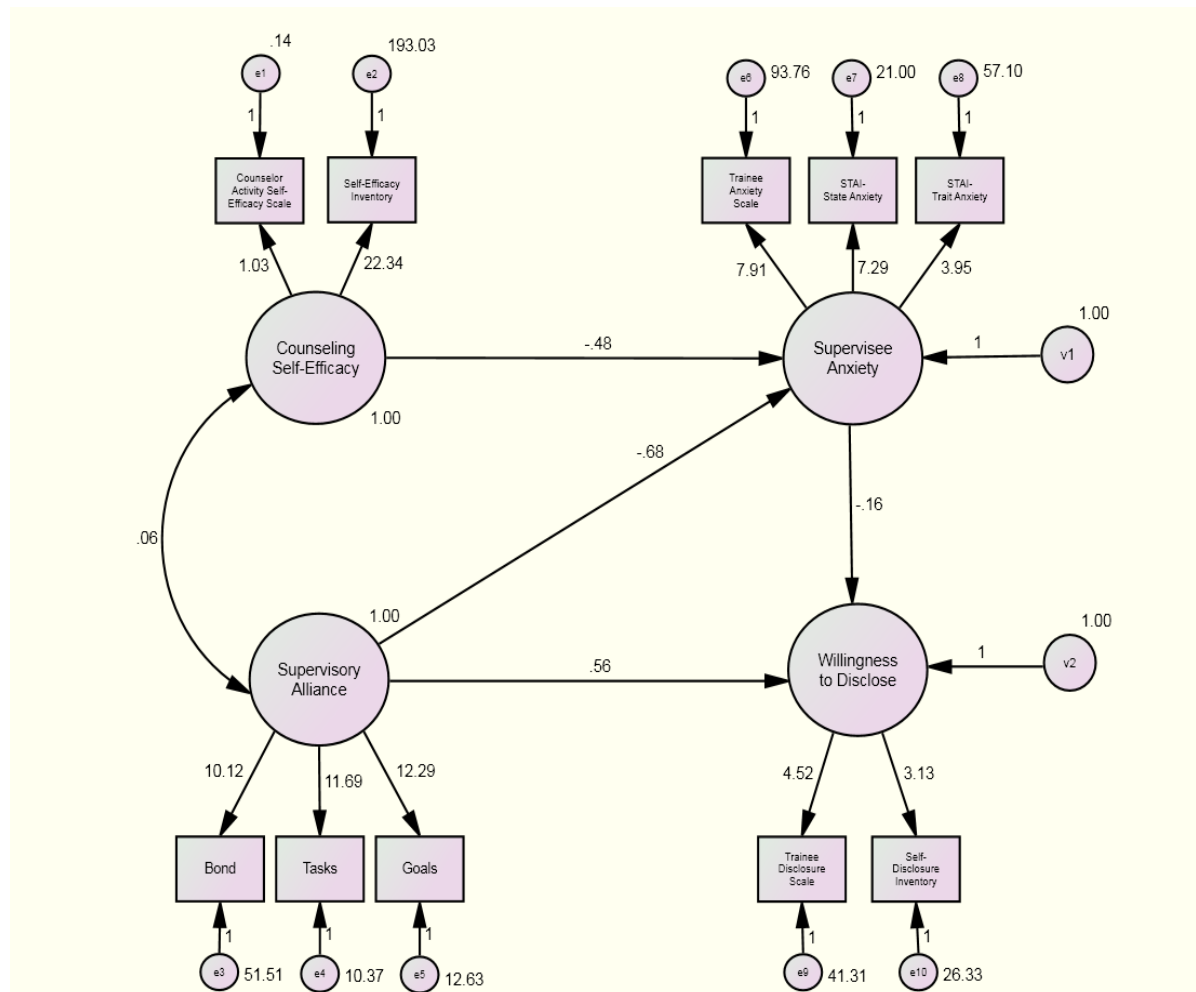*Target Model Results (Unstandardized)*

Figure 4

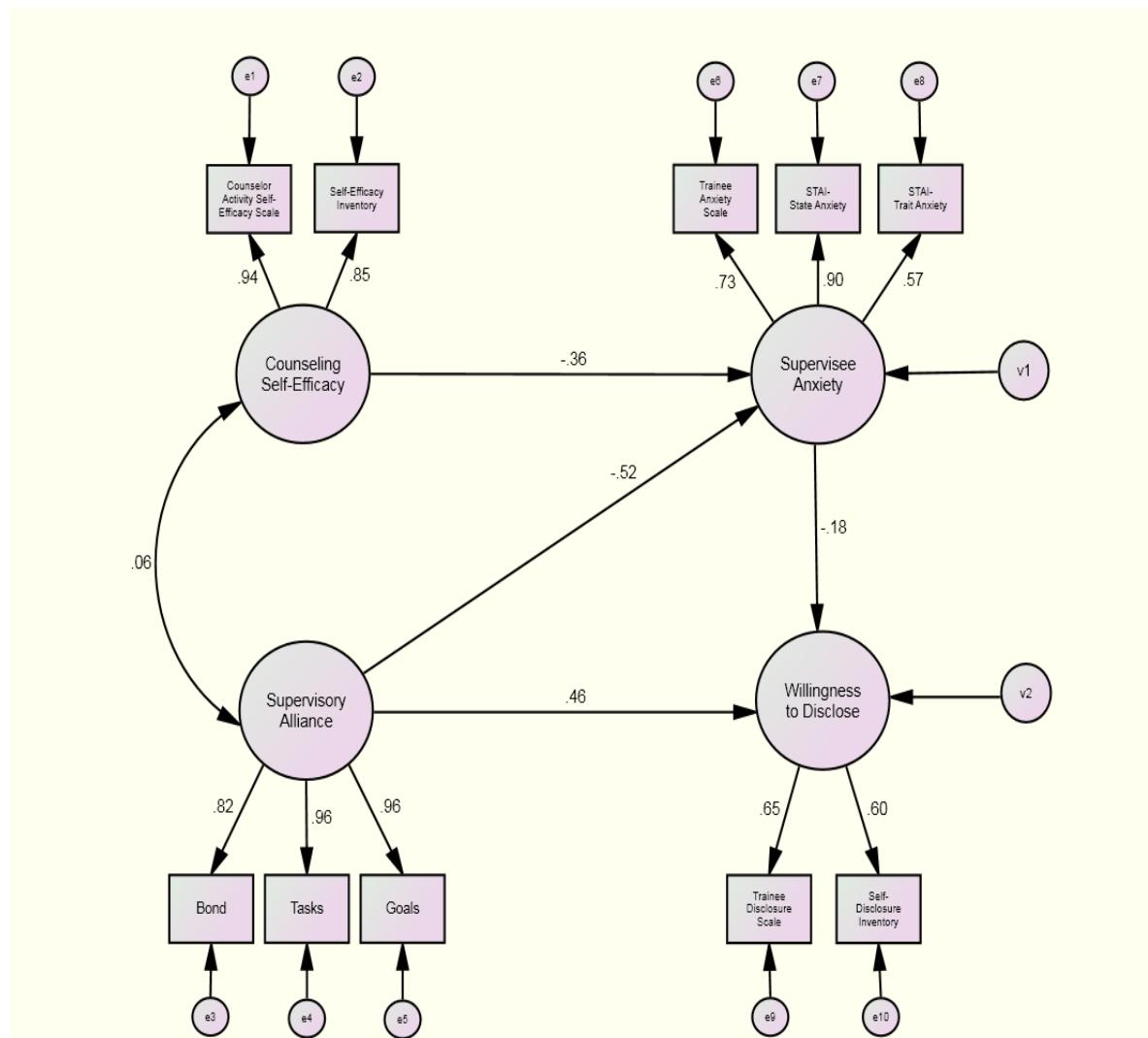*Target Model Results (Standardized)*

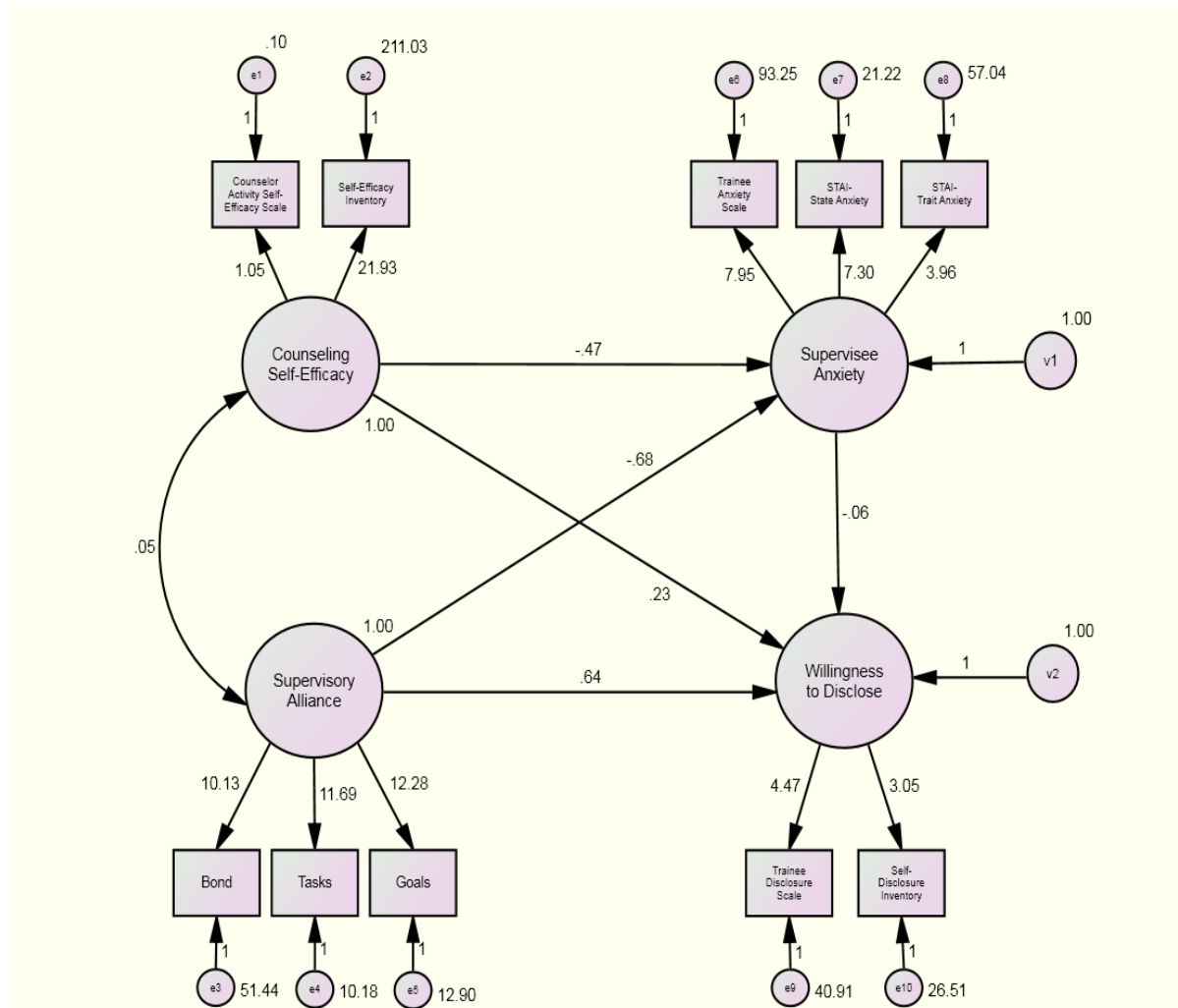*Figure 5*

Alternative Model Results (Unstandardized)

Figure 6
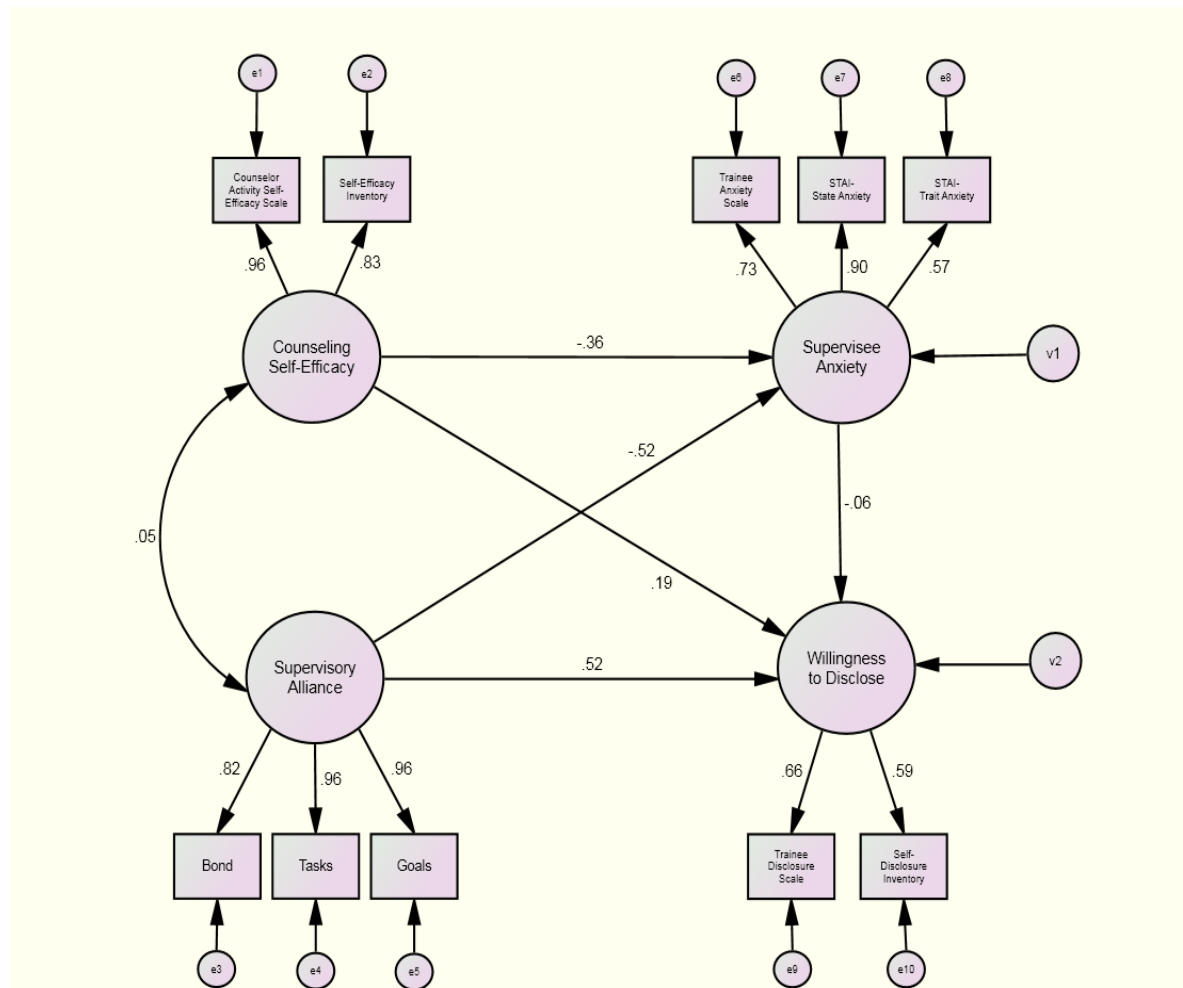
Alternative Model Results (Standardized)

Figure 7

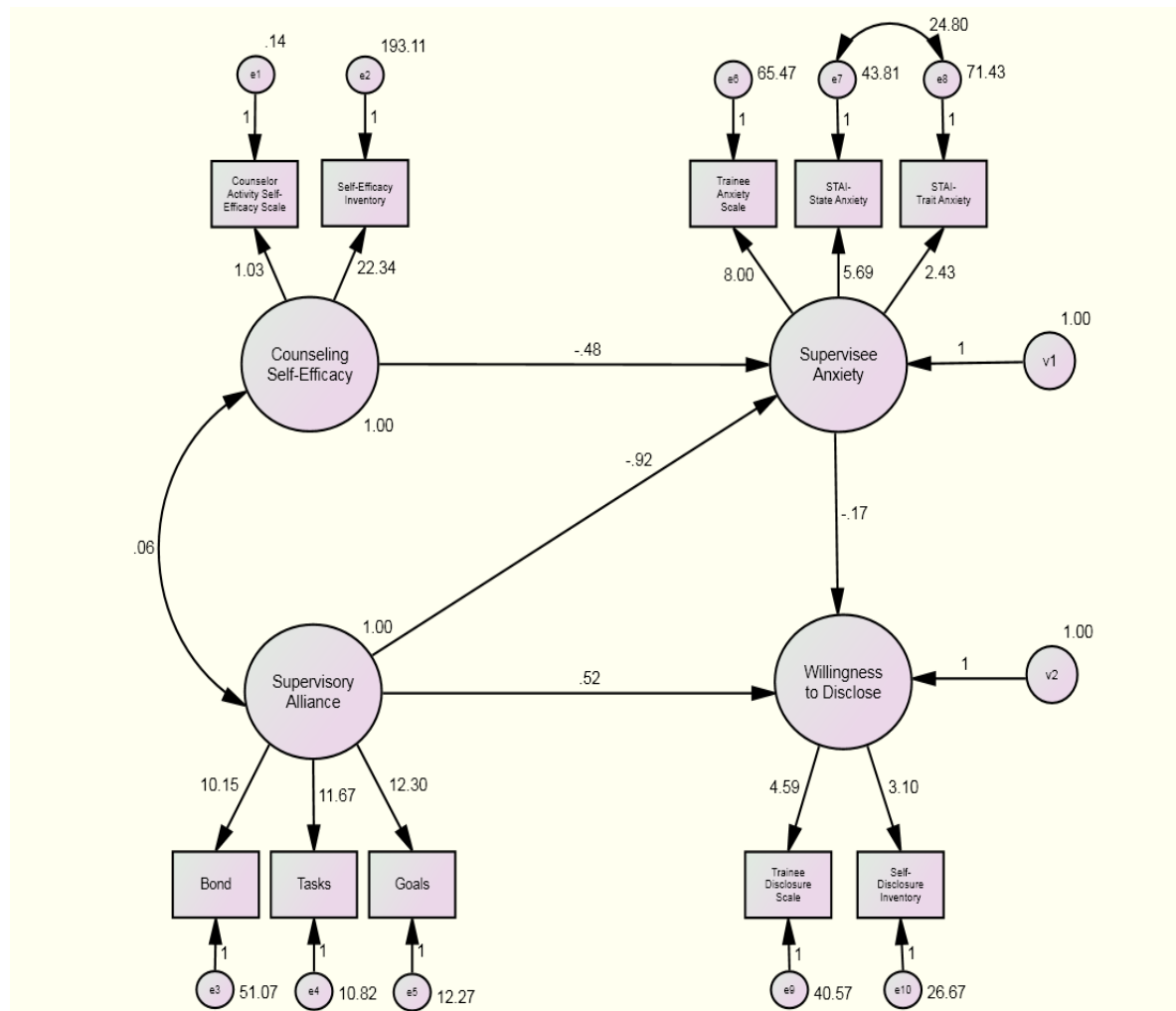*Best-Fitting Model Results (Unstandardized)*

Figure 8

Best Fitting Model Results (Standardized)
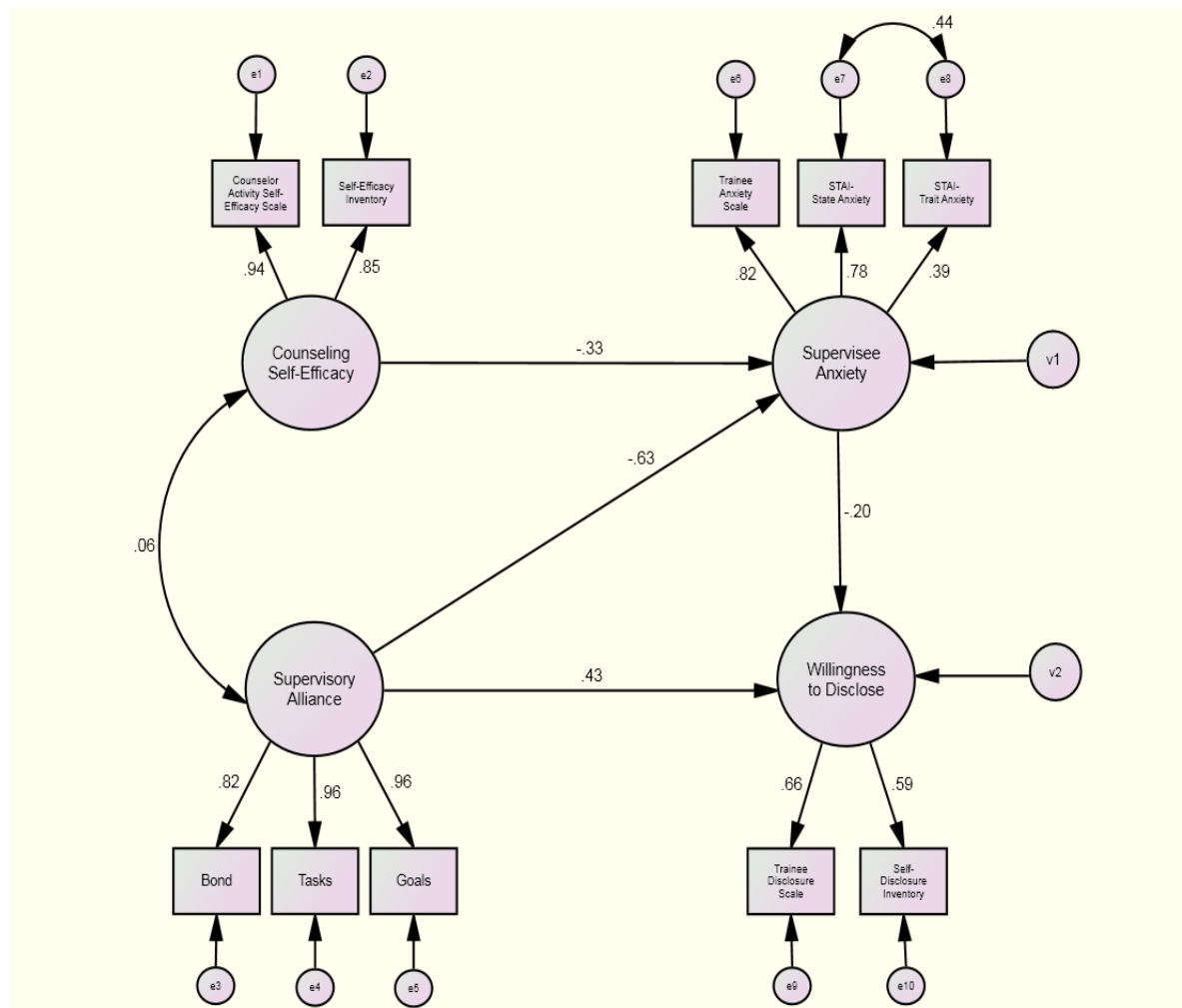
Table 1

Means, Standard Deviations, and Correlations Among Structural Equation Model Variables

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9
1. TDS	45.68	8.50									
2. TAS	35.40	14.25	-.246**								
3. SDI	30.34	9.19	.390**	-.180*							
4. STAI-S	34.37	10.65	-.215**	.648**	-.267**						
5. STAI-T	36.43	9.19	-.075	.350**	-.056	.557**					
6. Bond	65.54	12.44	.386**	-.541**	.468**	-.443**	-.063				
7. Tasks	67.04	12.15	.373**	-.533**	.306**	-.454**	-.132	.774**			
8. Goals	67.02	12.82	.321**	-.539**	.281**	-.426**	-.094	.787**	.928**		
9. CASES	7.29	1.09	.143*	-.228**	.143*	-.322**	-.290**	-.002	.022	.054	
10. S-EI	150.69	26.37	.133	-.224**	.118	-.327**	-.219**	.036	.093	.118	.799**

Note. N = 201.
* p < .05
** p < .01

Table 2

Target Model and Alternative Model Parameter Estimates

Parameters	Target Model				Alternative Model			
	S	*U*	*SE*	*p*	*S*	*U*	*SE*	*p*
CASES	.94	1.02	0.09	< .001	.96	1.05	0.08	< .001
SEI	.85	22.34	2.01	< .001	.83	21.93	1.97	< .001
Bond	.82	10.12	0.72	< .001	.82	10.13	0.72	< .001
Task	.96	11.69	0.64	< .001	.97	11.69	0.64	< .001
Goal	.96	12.29	0.67	< .001	.96	12.28	0.67	< .001
TAS	.73	7.91	0.75	< .001	.73	7.95	0.75	< .001
STAI-S	.90	7.29	0.61	< .001	.90	7.30	0.61	< .001
STAI-T	.57	3.95	0.50	< .001	.57	3.96	0.50	< .001
TDS	.65	4.53	0.75	< .001	.66	4.47	0.74	< .001
SDI	.60	3.13	0.52	< .001	.60	3.05	0.51	< .001
Alliance → Anxiety	-.52	-0.68	0.10	< .001	-.52	-0.68	0.10	< .001
Self-Efficacy → Anxiety	-.36	-0.48	0.10	< .001	-.38	-0.47	0.10	< .001
Alliance → Disclose	.46	0.56	0.15	< .001	.52	0.64	0.16	< .001
Anxiety → Disclose	-.18	-0.17	0.11	.126	-.06	-0.06	0.12	.636
Self-Efficacy → Disclose	-	-	-	-	.19	0.24	0.13	.070
Alliance ↔ Self-Efficacy	-	0.06	0.08	.418	-	0.05	0.07	.488
e1	-	0.14	0.13	.291	-	0.10	0.13	.452
e2	-	193.03	63.37	.002	-	211.03	59.85	< .001
e3	-	51.51	5.57	< .001	-	51.44	5.56	< .001
e4	-	10.37	2.75	< .001	-	10.18	2.74	< .001
e5	-	12.63	3.09	< .001	-	12.90	3.09	< .001
e6	-	93.76	12.37	< .001	-	93.25	12.38	< .001
e7	-	21.00	6.84	.002	-	21.22	6.88	.002
e8	-	57.10	6.21	< .001	-	57.04	6.21	< .001
e9	-	41.31	7.73	< .001	-	40.91	7.56	< .001
e10	-	26.33	4.10	< .001	-	26.52	3.98	< .001

Note. *S* refers to standardized estimates. *U* refers to unstandardized estimates. *SE* refers to standard error.

Table 3

Model Fit Indices

Model	χ^2	df	GFI	TLI	CFI	RMSEA
Target Model	118.999	30	.903	.889	.926	.122
Modified Target Model	97.416	29	.922	.912	.943	.109
Modified Target Model with non-significant path from Supervisee Anxiety to Willingness to Disclose removed	99.457	30	.918	.914	.942	.108
Alternative Model	115.559	29	.902	.889	.928	.122
Modified Alternative Model	93.798	28	.922	.912	.946	.108
Modified Alternative Model with non-significant path from Supervisee Anxiety to Willingness to Disclose removed	93.865	29	.921	.917	.946	.106

Table 4

Best Fitting Model Parameter Estimates

Parameters	Best Fitting Model			
	S	*U*	*SE*	*P*
CASES	.94	1.03	0.09	< .001
SEI	.85	22.34	2.11	< .001
Bond	.82	10.15	0.72	< .001
Task	.96	11.67	0.64	< .001
Goal	.96	12.30	0.67	< .001
TAS	.82	8.00	0.81	< .001
STAI-S	.78	5.69	0.58	< .001
STAI-T	.39	2.43	0.51	< .001
TDS	.66	4.59	0.77	< .001
SDI	.59	3.10	0.52	< .001
Alliance → Anxiety	-.63	-0.92	0.13	.002
Self-Efficacy → Anxiety	-.33	-0.48	0.11	< .001
Alliance → Disclose	.43	0.52	0.17	< .001
Anxiety → Disclose	-.20	-0.17	0.12	.155
Self-Efficacy → Disclose	-	-	-	-
Alliance ↔ Self-Efficacy	-	0.06	0.08	.415
e1	-	0.14	0.14	.338
e2	-	193.10	69.33	.005
e3	-	51.07	5.52	< .001
e4	-	10.82	2.69	< .001
e5	-	12.28	3.01	< .001
e6	-	65.47	12.95	< .001
e7	-	43.81	7.17	< .001
e8	-	71.43	7.56	< .001
e9	-	40.57	7.88	< .001
e10	-	26.67	4.08	< .001

Note. *S* refers to standardized estimates. *U* refers to
unstandardized estimates. *SE* refers to standard error.

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- Internship end date: July 31st, 2011

May, 2009 to July, 2009

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Partial Hospitalization Program
Lenape Valley Foundation, Doylestown, Pennsylvania
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- 14 hours per week were spent on-site including 1 hour of individual supervision.

August, 2007 to May, 2009	**Counseling Practicum Student** Counseling Center Lafayette College, Easton, Pennsylvania 　▪ Conducted intake interviews and provided individual 　　and group (process-oriented) psychotherapy. 　▪ 15-17 hours per week were spent on-site including 1 　　hour of individual supervision.
August, 2006 to May, 2007	**Counseling Practicum Student** Counseling Services Kutztown University, Kutztown, Pennsylvania 　▪ Conducted intake interviews and provided individual 　　psychotherapy. 　▪ 15 hours per week were spent on-site including 1 ½ 　　hours of individual supervision.
February, 2006 to May, 2006	**Online Counselor** Teen Central.Net, Kids Peace, Fountain Hill, Pennsylvania 　▪ Provided online counseling to help adolescents face 　　and overcome crisis and life's challenges.

SUPERVISION EXPERIENCE

February, 2011 to Present	**Primary Supervisor** University of Delaware, Newark, Delaware 　▪ Supervise a student in the Masters of Arts program 　　in Counseling in Higher Education.
September, 2007 to April, 2008	**Secondary Supervisor** Lehigh University, Bethlehem, Pennsylvania 　▪ Supervised for two students in the Masters program 　　in Counseling and Human Services.

TEACHING EXPERIENCE

January, 2009 to May, 2009	**Teaching Assistant** Helping Skills Professor: Carol Richman, Ph.D. Lehigh University, Bethlehem, Pennsylvania 　▪ Graduate-level course in counseling skills. 　▪ Lecture, discussion, and role plays.
July, 2007 to August, 2007	**Teaching Assistant** Counseling and Therapeutic Approaches Professor: Bruce Sharkin, Ph.D. Lehigh University, Bethlehem, Pennsylvania 　▪ Graduate-level course in counseling theories. 　▪ Lecture, discussion, and experiential activities.

RELATED WORK EXPERIENCE

August, 2006
to April, 2009

Study Skills Consultant
Center for Academic Success
Lehigh University, Bethlehem, Pennsylvania
- Met individually with students to assist with time management and provide effective study strategies.
- Developed and presented study skills workshops to student organizations.

August, 2005
to August, 2006

Project Achieve Data Collector
Lehigh University, Bethlehem, Pennsylvania
- Data collection for community-based preschool intervention for ADHD funded through the NIMH.
- Responsibilities included conducting observations of behavior, administering and scoring achievement assessments and rating scales, and data entry.

RESEARCH EXPERIENCE

August, 2008
to December 2010

Doctoral Dissertation (Defended)
Lehigh University, Bethlehem, Pennsylvania
Co-Chairs: Nicholas Ladany, Ph.D. & Grace Caskie, Ph.D.
Topic: Structural equation modeling was utilized to examine the relationships between trainee's counseling self-efficacy, perception of the supervisory working alliance, level of anxiety, and willingness to disclose in supervision.

April, 2009
to March, 2010

Student Representative of IRB Committee
Lehigh University, Bethlehem, Pennsylvania
Duties: Reviewed protocols involving human subjects.

April, 2009
to June 2009

Data Coder
Lehigh University, Bethlehem, Pennsylvania
Primary Researcher: Ryan Weatherford, M.Ed.
Duties: Coded qualitative data to identify participants' multicultural case conceptualization abilities.

September, 2006
to September 2008

Doctoral Qualifying Project
Lehigh University, Bethlehem, Pennsylvania
Advisor: Nicholas Ladany, Ph.D.
Topic: Qualitative investigation of the content of and reasons for trainee nondisclosure in supervision. The study also quantitatively examined the influence of trainee anxiety and perception of the working alliance on the amount of nondisclosure and overall willingness to disclose in a single supervision session.

September, 2005   **Research Team Member**
to October, 2007   Department of Education and Human Services
                       Lehigh University, Bethlehem, Pennsylvania
                       Primary Researcher: Nicholas Ladany, Ph.D.
                       Topic: Qualitative investigation of trainee perceptions of supervisor behaviors that facilitated or hindered trainee's professional growth. Behaviors were examined in relation to the supervisory working alliance, supervisor style, trainee nondisclosure, supervisor disclosure, and evaluation.

September, 2004   **Research Assistant**
to May, 2005   Department of Psychology
                       Loyola College in Maryland, Baltimore, Maryland
                       Primary Researcher: Kerri Goodwin, Ph.D.
                       Topic: Influence of encoding strategy on false memories.

September, 2003   **Research Assistant**
to May, 2004   Department of Psychology
                       Loyola College in Maryland, Baltimore, Maryland
                       Primary Researcher: Jon Mohr, Ph.D.
                       Topic: Sexual orientation bias in counseling

PUBLICATIONS

Mehr, K. E., Ladany, N., & Caskie, G. I. L. (2010). Trainee nondisclosure in supervision: What are they not telling you? *Counselling and Psychotherapy Research, 10,* 103-114.

Ladany, N., Mori, Y., & **Mehr**, K. E. (in progress).   Effective and ineffective supervision. Manuscript submitted for publication.

CONFERENCE PRESENTATIONS

Mori, Y., **Mehr**, K., & Ladany, N. (2009, August). Evidence for an Expanded Conceptualization of the Supervisory Working Alliance. Symposium presented at the 117th Annual Convention of the American Psychological Association, Toronto, Canada.

Mori, Y., **Mehr**, K., & Franco, J. (2009, March). Beyond Multiculturalism: Moving Toward International Collaboration. Structured discussion presented at the 34th Annual Conference of The Association for Women in Psychology, Newport, Rhode Island.

Klinger, B., **Mehr**, K., Kaduvettoor, A., & Mori, Y. (2009, March). Negotiating Feminist Principles within Supervision. Structured discussion presented at the 34th Annual Conference of The Association for Women in Psychology, Newport, Rhode Island.

Mehr, K., Ladany, N., & Caskie, G. I. L. (2008, August). Trainee Nondisclosure: Influence of the Working Alliance and Trainee Anxiety. Poster presented at the Division 17 Student Poster Session, American Psychological Association Convention, Boston, Massachusetts.

Mori, Y., **Mehr**, K., & Ladany, N. (2006, August). Effective vs. Ineffective Supervisor Interventions: Trainees' Perspectives. Poster presented at the Division 17 Student Poster Session, American Psychological Association Convention, New Orleans, Louisiana.

Ladany, N., **Mehr**, K., & Mori, Y. (2006, July). Effective and Ineffective Approaches to Psychotherapy Supervision. Poster presented at the 26th International Congress of Applied Psychology. Athens, Greece.

Ladany, N., Mori, Y., & **Mehr**, K. (2006, June). Dr Jekyll and Mr. Hyde: The Best and Worst of Supervisors. Poster presented at the 37th Annual Conference of the Society for Psychotherapy Research. Edinburgh, Scotland.

Mori, Y., **Mehr**, K., & Ladany, N. (2005, October). Trainees' Perceptions of Effective and Ineffective Supervision. Poster presented at the Mid-Atlantic Conference of the Society for Psychotherapy Research, St. Mary's College of Maryland, Maryland.

HONORS & AWARDS

August, 2006 **APA Student Research in Supervision and Training Award**
Society of Counseling Psychology, Section on Supervision and Training, American Psychological Association Conference 2006

September, 2004 **Kolvenbach Service to the Greater Community Award**
Loyola College, Baltimore, Maryland

September, 2004 *Magis* **Scholar-Leader Award**
Loyola College, Baltimore, Maryland

May, 2004 **Junior Psychology Achievement Award**
Loyola College, Baltimore, Maryland

PROFESSIONAL AFFILIATIONS

January, 2009 The Association for Women in Psychology, Student Member
September, 2005 American Psychological Association, Student Affiliate
May, 2005 Phi Beta Kappa Society, Member
May, 2004 Psi Chi, National Honor Society in Psychology, Member