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The Effects of Supervisory Style and Supervisory Working Alliance on Supervisee Disclosure in Supervision: A Moderated Mediation Analysis

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THE EFFECTS OF SUPERVISORY STYLE AND SUPERVISORY WORKING ALLIANCE ON SUPERVISEE DISCLOSURE IN SUPERVISION: A MODERATED MEDIATION ANALYSIS

by

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A Dissertation Submitted to the Faculty of Old Dominion University in Partial Fulfillment of the Requirements for the Degree of DOCTOR OF PHILOSOPHY COUNSELOR EDUCATION AND SUPERVISION

OLD DOMINION UNIVERSITY
February 2019

Approved by:

Gülşah Kemer (Chair)
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ABSTRACT
THE EFFECTS OF SUPERVISORY STYLE AND SUPERVISORY WORKING ALLIANCE ON SUPERVISEE DISCLOSURE IN SUPERVISION: A MODERATED MEDIATION ANALYSIS

Chi Li
Old Dominion University, 2019
Chair: Dr. Gülşah Kemer

Supervisee disclosure in supervision is considered as a critical factor influencing the effectiveness of supervision (Spence et al., 2014). Despite previous researchers’ efforts to understand the concept (e.g., Knox, 2015; Yourman & Farber, 1996), a consensus over the definition for what is considered as supervisee disclosure is missing, posing threats to the construct validity of existing supervisee disclosure measures (e.g., Gunn & Pistole, 2012; Mehr, Ladany, & Caskie; 2015). Therefore, based on a summative definition (e.g., Ladany et al., 1996; Hess et al., 2008; Walsh, Gillespie, Greer & Eanes, 2003), Li and Kemer (under review) developed and provided initial validation for the Supervisee Disclosure in Supervision Scale (SDSS), a 20-item measure assessing the likelihood of supervisee disclosure regarding counseling and supervision experiences in supervision. One of the main purposes of current study was to provide further validation for the SDSS. Furthermore, it is also necessary to determine what factors facilitate more supervisee disclosure (Knox, 2015). Scholars reported both supervisory working alliance and supervisory style as significant contributors of supervisee disclosure (e.g., Karpenko & Gidycz, 2012; Kreider, 2014; Gunn & Pistole, 2012). However, there is evidence that the relationships between supervisory style, supervisory working alliance, and supervisee disclosure in supervision are complex (e.g., Hess et al., 2008; Kreider, 2014). Thus, in the current study, I also examined the potential relationships between supervisory style, supervisory working alliance, and supervisee disclosure in supervision. Using a non-probability
sampling method, I recruited participants who are currently receiving supervision, whether they are currently enrolled in the practicum or internship in the counseling or related programs in the U.S or graduated but currently working toward getting licensed. In a cross-sectional, non-experimental design, the data of the study was examined via Structural Equation Modeling (SEM), including Confirmatory Factor Analysis (CFA) of the SDSS as well as mediation and moderated mediation models involving the variables of concern. The results showed that the SDSS’s dimensionality was confirmed with a cross-validation sample, the supervisory working alliance significantly mediated the relationships among all three types of supervisory styles and supervisee disclosure in supervision, and the task-oriented supervisory style also significantly moderated the mediation relationship among task-oriented supervisory style, supervisory working alliance, and supervisee disclosure in supervision. I discussed the major results and implications for counselor education and supervision as well as future research.
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This dissertation is dedicated to my deceased maternal grandma.
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inspired me to know what kind of mentor I want to be for my future students…

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CHAPTER 1

Introduction

Background of the Problem

As an implicit requirement in supervision, supervisees are expected to update or inform their supervisors with the encountered issues or struggles in their counseling sessions (Bernard, 1979; Blocher, 1983; Hess, 1980; Littrell, Lee-Borden, & Lorenz, 1979; Patterson, 1983; Schmidt, 1979; Stoltenberg, 1981). Many of the supervision models also suggest that supervisee disclosure is an inherent expectation that supervisees need to disclose information regarding their clients and themselves as well as their working alliance with those clients and their supervisors (e.g., Stoltenberg & Delworth, 1987; Bordin, 1983; Loganbill, Hardy, & Delworth, 1982). Unlike the other three types of disclosure (i.e., client to counselor, counselor to client, supervisor to supervisee), supervisee disclosure in supervision has not been extensively studied. Among the limited number of studies conducted mainly in 90s, the common research focus has been on supervisee nondisclosure (e.g., Ladany, Hill, Corbett, & Nutt, 1996; Yourman & Farber, 1996; Yourman, 2003). Therefore, our understanding of supervisee disclosure in supervision still appears to be limited.

In the literature, researchers have studied and offered slightly different definitions for the concept of supervisee disclosure (e.g., Hammes, 2014; Knox, 2015; Yourman & Farber, 1996). Yourman and Farber (1996) discussed three components of supervisee disclosure: information about the events in the therapy sessions, supervisees’ feelings toward their clients, and supervisees’ feelings toward their supervisors. Hammes (2014) defined supervisee disclosure as “an act of communicating information, that is, in the trainee’s opinion, relevant to his or her clinical work and supervisory experience” (p. 13). In a complementary approach, Knox (2015) considered supervisee disclosure in supervision as sharing information related to supervisees’...
reactions or responses to the supervisor during supervision. Given all these different perspectives, a consensus over the definition for what is considered as supervisee disclosure is still missing. As a result, supervisees may not be sure about what they are supposed to disclose or not disclose in supervision (Knox, 2015). Additionally, due to the lack of a comprehensive definition, the instruments measuring supervisee disclosure have psychometric issues that may affect the research development in supervision (Inman & Ladany, 2008; Milne, 2009).

To meet this gap, Li and Kemer (under review) offered a summative definition for supervisee disclosure in supervision based on an extensive review of previous literature (e.g., Ladany et al., 1996; Yourman & Farber, 1996; Hammes, 2014; Hess et al., 2008; Knox, 2015; Walsh, Gillespie, Greer & Eanes, 2003). Specifically, supervisee disclosure in supervision refers to supervisees’ voluntary and accurate expression of relevant experience regarding their counseling and supervision experiences (e.g., past and present, opinions or thoughts, emotions or reactions or concerns, behaviors). Based on this definition, Li and Kemer (under review) developed and provided initial validation for the Supervisee Disclosure in Supervision Scale (SDSS), a 20-item measure assessing the likelihood of supervisee disclosure in supervision. The SDSS is composed of two subscales representing supervises’ counseling-related and supervision-related disclosure. Although Li and Kemer (under review) obtained good psychometric properties for the SDSS, it is necessary to further validate the instrument in a separate sample. Therefore, the first part of this study focused on the further examination of the SDSS through Confirmatory Factor Analysis (CFA).

Knox (2015) pointed out the need to determine what factors facilitate more supervisee disclosure in supervision. Besides supervisory working alliance, though, we do not have a clear picture of what other factors contribute to supervisee disclosure in supervision (Mehr et al.,
Based on two qualitative studies, supervisory styles appear to be related to supervisee disclosure in supervision. Kreider (2014) reported that supervisees were more willing to disclose when their supervisors were authentic in sharing their opinions of supervisees’ performances in counseling. Gunn and Pistole (2012) noted that supervisors who had an exclusive focus on supervisees’ skills development were more likely to encounter supervisee nondisclosure in supervision. Therefore, both supervisory style and supervisory working alliance appear to be related to supervisee disclosure in supervision (Gunn & Pistole, 2012; Mehr et al., 2010; 2015).

There is evidence, however, that these relationships are complex. For example, supervisees who reported their supervisors as not attractive or interpersonally sensitive also tended to have problematic relationships with them and resisted to disclose their experiences (Hess et al., 2008). Due to their focus on the tasks of supervision, those supervisors perhaps may not have recognized supervisees’ discomfort and struggles with trust and failed to address the tension on time (Ladany, Friedlander, & Nelson, 2005). As a result, the development of supervisory relationship was hindered and supervisees tended to disclose less in supervision (Hess et al., 2008). Based on the findings from these studies, supervisory working alliance appears to explain or mediate the relationship between different supervisory styles (i.e., attractive, interpersonally sensitive and task-oriented styles) and supervisee disclosure in supervision. In other words, certain supervisory styles (e.g., attractive or interpersonally sensitive style) may lead to stronger supervisory working alliance. A strong supervisory working alliance, in turn, promotes more supervisee disclosure in supervision. Although researchers have continuously examined the relationship between supervisory working alliance and supervisee disclosure in supervision (e.g., Mehr et al., 2010; Ofek, 2013; Walker et al., 2007; Webb & Wheeler, 1998), we do not know whether the strength of this relationship changes upon different
conditions, such as different supervisory styles; specifically, whether different supervisory styles (i.e., attractive, interpersonally sensitive, and task-oriented) may also moderate the effect supervisory working alliance has on the supervisee disclosure in supervision. For example, attractive or interpersonally sensitive supervisors’ supervisory working alliance may have a stronger impact on the supervisee disclosure than supervisors of the task-oriented style. Therefore, potential mediation and moderation might simultaneously happen among these three variables, which could be represented in a moderated mediation model. In other words, the mediation relationship among the supervisory working alliance, supervisory style, and supervisee disclosure may be conditional on the supervisory style.

**Purpose of the Study**

It is critical to understand what factors will enhance supervisee disclosure in supervision (Walsh et al., 2003), because it is important not only for the supervisees, but also supervisors as well as for the clients (e.g., (Hammes, 2014; Ladany et al., 1996; Knox, 2015). Moreover, a clear understanding of contributing factors of supervisee disclosure in supervision may assist counselor educators and supervisors to use appropriate supervision strategies for supervisees from different developmental levels. Therefore, to broaden our understanding of supervisee disclosure in supervision, the purpose of the current study was to provide further validation for the Supervisee Disclosure in Supervision Scale (SDSS) and also examine the potential relationships between supervisory style, supervisory working alliance, and supervisee disclosure in supervision.

**Research Design**

In the current study, I utilized a cross-sectional, non-experimental design and Structural Equation Modeling (SEM) to analyze the data. As a pioneer in this line, current research study
provided further validation for the SDSS and also test the proposed mediation and moderated mediation models. The research questions and hypotheses were as follows:

RQ1: Is the dimensionality of the SDSS confirmed with a cross-validation sample?

H1: The dimensionality of the SDSS is confirmed with a cross-validation sample.

RQ2: Does supervisory working alliance mediate the relationship between supervisory style and supervisee disclosure in supervision?

   RQ2a: Does supervisory working alliance mediate the relationship between attractive supervisory style and supervisee disclosure in supervision?

   RQ2b: Does supervisory working alliance mediate the relationship between interpersonally sensitive supervisory style and supervisee disclosure in supervision?

   RQ2c: Does supervisory working alliance mediate the relationship between task-oriented supervisory style and supervisee disclosure in supervision?

H2: Supervisory working alliance mediates the relationship between supervisory style and supervisee disclosure in supervision.

   H2a: Supervisory working alliance mediates the relationship between attractive supervisory style and supervisee disclosure in supervision;

   H2b: Supervisory working alliance mediates the relationship between interpersonally sensitive supervisory style and supervisee disclosure in supervision;

   H2c: Supervisory working alliance mediates the relationship between task-oriented supervisory style and supervisee disclosure in supervision.

RQ3: Does supervisory style moderate the mediation effect in RQ2?

   RQ3a: Does attractive supervisory style moderate the mediation effect in R2a?
RQ3b: Does interpersonally sensitive supervisory style moderate the mediation effect in R2b?

RQ3c: Does task-oriented supervisory style moderate the mediation effect in R2c?

RQ3d: If 3a, 3b, or 3c is yes, which supervisory style (e.g., attractive, interpersonally sensitive and task-oriented style) is the strongest moderator?

H3: Supervisory style moderates the mediation effect in H2.

H3a: Attractive supervisory style moderates the mediation effect in H2a, specifically, the conditional indirect effect will be statistically stronger when supervisees perceive their supervisors demonstrate higher attractive supervisory style.

H3b: Interpersonally sensitive supervisory style moderates the mediation effect in H2b, specifically, the conditional indirect effect will be statistically stronger when supervisees perceive their supervisors demonstrate higher interpersonally sensitive supervisory style.

H3c: Task-oriented supervisory style moderates the mediation effect in H2c, specifically, the conditional indirect effect will be statistically stronger when supervisees perceive their supervisors demonstrate lower task-oriented supervisory style.

H3d: Interpersonally sensitive supervisory style is the strongest moderator.

I used a non-probability sampling method to recruit participants who (1) are currently receiving supervision as part of the practical components of their counseling program (i.e., practicum, internship) or (2) graduated from a counseling program in the U.S. I contacted the directors of the counseling and related programs and also used different professional platforms, such as online listservs (e.g., CESNET, student/alumni listservs of counseling programs), to collect the data.
Data collection instruments included a demographic information form (e.g., age, gender, counseling and supervision experience) and three instruments to measure supervisee disclosure in supervision [Supervisee Disclosure in Supervision Scale (SDSS, under review)], supervisory style [Supervisory Style Inventory – Trainee (SSI-T; Friedlander & Ward, 1984)], and supervisory working alliance [Working Alliance Inventory-Supervisee Form (WAI/S; Bahrick, 1989)].

I first cleaned (e.g., remove mistaken entry and recode certain variables) and screened the data set (e.g., check missing data, univariate and multivariate outliers). For the preliminary analyses, researcher reported descriptive statistics (i.e., mean and SD) and Pearson bivariate correlation results for the variables. For the main analyses, controlling training level as a covariate variable, researcher utilized SEM to address research questions 1-4. Specifically, research question 1 was addressed in the measurement model through CFA. In the structural model, Research Questions 2a-c were examined through the mediation analyses, whereas Research Questions 3a-d were tested through the moderated mediation analyses. In the current analyses, the endogenous variable was the supervisee disclosure in supervision and the exogenous variables was the different supervisory styles (i.e., attractive, interpersonally sensitive and task-oriented) and supervisory working alliance.

**Operational Definitions**

**Supervisee disclosure in supervision.** To develop a framework for our definition of supervisee disclosure in supervision, we used the suggestions of supervision scholars for supervisee disclosure in some of the seminal articles of supervision (Bernard, 1979; Bordin, 1983; Hess, 1980; Loganbill, Hardy, & Delworth, 1982; Stoltenberg & Delworth, 1987). Thus, our definition of supervisee disclosure in supervision refers to supervisees’ voluntary and
accurate disclosures of relevant information regarding their past and present counseling and supervision experiences (e.g., thoughts/opinions, feelings/reactions and behaviors; Li & Kemer, under review).

**Supervisory working alliance.** According to Bordin (1983), supervisory working alliance consists of supervisor’s and supervisee’s mutual agreements on the goals and tasks of supervision, as well as the shared emotional bond between the supervisor and the supervisee.

**Supervisory style.** Friedlander and Ward (1984) described supervisory style as “different approaches that supervisors use in combination with their distinctive manner of responding to trainees in supervision” (p. 263) and offered three main supervisory styles: attractive, interpersonally sensitive, and task-oriented style.
CHAPTER 2
Literature Review

Disclosure in Counseling and Supervision

As a process of sharing information about oneself with others, the concept of disclosure has received attention of the scholars from both counseling and supervision fields (Walsh et al., 2003). Pivotal to both counseling and supervision fields, disclosure has been studied from various perspectives: counselor to client, client to counselor, counselor trainee/supervisee to supervisor, and supervisor to counselor trainee/supervisee (e.g., Farber, 2003; Farber, Berano, & Capobianco, 2004; Ladany et al., 1996; Ladany & Walker, 2003; Knox, Burkard, Edwards, Smith, & Schlosser, 2008; Stricker & Fisher, 1990; Zane & Ku, 2014). Clients’ disclosures on their struggles with the counselors immensely contributes to the effectiveness of counseling (Stricker & Fisher, 1990). Similarly, counselors’ disclosures may also benefit the client and counseling outcomes (Stickler & Fisher, 1990; Watkins, 1990), as appropriate disclosures by counselors promote trust and more disclosures on the clients’ part as well as a stronger therapeutic relationship (Miller, 1983). In the same line, Farber (2006) noted that the focus of supervisor disclosure in supervision must be on strengthening the supervisory working alliance and improving supervisees’ growth areas, learning, and awareness. Scholars have also highlighted the necessity of supervisees’ disclosures on both apparent and hidden issues in supervision (as cited in Yerushalmi, 1992).

There are similarities and differences between the concepts and functioning of disclosures by the receiving end of the processes (i.e., clients, supervisees) in counseling and supervision. For example, researchers found that 50% of clients did not disclose important information to their counselors (e.g., relationship difficulties or things they do not like about
themselves; Farber et al., 2004). Similarly, counselor trainees/supervisees may also hide information from their supervisors, given the fact that supervisees are required to receive supervision and evaluation (Ladany et al., 1996). Bernard and Goodyear (2009), in fact, suggested that supervisees may hide even more information in supervision than clients do in counseling. For example, supervisees may not mention their sexual attraction towards their clients in supervision, but clients are more likely to talk about their sexual attraction to the counselors/supervisees or others during the counseling sessions (Kaplan, 1977). Furthermore, there may be a parallel process between disclosure or nondisclosure in counseling and supervision (Yourman & Farber, 1996). For example, clients usually do not disclose their negative reactions toward the counselors/supervisees (e.g., the client doubts the supervisees’ abilities to help) and similarly, supervisees might also conceal their negative reactions toward their supervisors (Friedlander, Siegel, & Brenock, 1989; McNeil & Worthen, 1989; Russell, Crimmings, & Lent, 1984). However, by discussing the negative reactions with their supervisors during supervision, the supervisees may find ways to encourage their clients to talk about the potential negative reactions their clients have toward themselves (Ladany et al., 1996). Similarly, if the supervisees themselves cannot figure out the reasons for their resistance to confront the supervisors (e.g., power differentials), they might not be able to provide a supportive environment for the clients (Ladany et al., 1996).

As opposed to a wealth of research on disclosure in counseling (Farber, 2003), there are few studies on supervisee disclosure in supervision. In fact, most of the seminal studies on this subject area are mainly about supervisee nondisclosure and were conducted in 90s (Ladany et al., 1996; Yourman & Farber, 1996).

**Supervisee Nondisclosure in Supervision**
Prior to presenting the literature on supervisee disclosure in supervision, the review of the literature on supervisee nondisclosure could offer insights for the reader and rationale behind the current study. Researchers reported that 97.2% of supervisees had nondisclosure in supervision (Ladany et al., 1996) and 84.3% of supervisees concealed information from their supervisors (Mehr et al., 2010). The common things supervisees frequently did not disclose in supervision included supervisees’ negative reactions toward supervisors or supervisory relationship, personal issues, mistakes made in counseling sessions, concerns about evaluation, observations of clients, negative reactions or feelings toward clients, countertransference issues, attractions between counselors and clients, positive reactions toward supervisors, concerns about supervision settings, supervisors’ appearance, attractions between supervisors and supervisees, and positive reactions toward clients (Ladany et al., 1996).

Scholars presented various reasons for supervisee nondisclosure in supervision. First, most supervisees think the issues they do not disclose in supervision are unimportant to the supervision process or too personal (Banks & Ladany, 2006; Ladany et al., 1996). As Ladany, Friedlander, and Nelson (2005) noted importance of acknowledging the influence of supervisees’ personal issues on their counseling performances while the goal is not solving supervisees’ personal issues as their counselor. However, as supervision literature extensively discussed boundary management in supervision (Allstetter & Nelson, 1999), supervisees may worry about crossing the boundaries of supervision (i.e., turning supervision sessions into counseling sessions or making their supervisors become their counselors); thus, they may refrain from talking about personal issues.

Second, the power differentials between supervisors and supervisees, as well as the evaluable nature of supervision process and supervisory relationship, also lead to supervisee
nondisclosure (Farber, 2006). As the gatekeepers of counseling profession, supervisors possess an evaluative power that puts supervisees in a vulnerable position in supervision (Hess et al., 2008). Ladany et al. (1996) noted that because evaluation is unavoidable in required supervision, supervisees may use their nondisclosure to gain some power during supervision. They also reported that 90% of supervisees did not disclose their negative reactions to their supervisors (e.g., my supervisor is disorganized and my supervisor is obnoxious), due to the fear of “political suicide” (p. 13). Supervisees may be afraid of experiencing retaliation after they share what they truly think and also their anxiety may rise, which may prevent them from disclosing to their supervisors (Rønnestad & Skovholt, 2003).

Third, shame has been identified as a significant factor contributing to nondisclosure in supervision (Hall, 1993; Yerushalmi, 1992). When not getting a positive response from others or suddenly realizing his/her imperfection (i.e., not as smart or competent as he/she had thought), an individual’s positive feelings may be replaced by feeling of shame (Yourman, 2003). For example, a supervisee feels excited about what s/he did in a counseling session, but if his/her supervisor disagreed, the supervisee may suddenly experience shame. Shame has been reported as a common feeling among novice counselors (Ruttan, 1988; Yerushalmi, 1992). Yourman and Farber (1992) noted that as supervisees grow, they learn to tolerate feelings of confusion, shame, and ignorance. In order to improve their learning, they “must expose this confusion and ignorance at the risk of losing their supervisors’ approvals” (p. 568). However, supervisees may resist disclosure in order to avoid the feeling of shame (Yourman & Farber, 1996). When not being addressed appropriately, shame may prevent people from further communication, and it may evolve into other feelings such as anger or resentment (Yourman, 2003). Along with shame, other negative feelings, such as anxiety and doubt may also occur when supervisees want to
show their competencies (Harvey & Katz, 1985). These feelings may decrease their self-efficacy, preventing them from disclosing in supervision (Hess et al., 2008). To minimize harm to clients and maximize both professional and personal growth for supervisees, supervisors need to address shame adequately and appropriately (Hess et al., 2008; Kaiser, 1997; Stoltenberg & Delworth, 1987).

Fourth, Mehr et al. (2010) also found that 20.6% of the supervisees did not disclose because they care how their supervisors view them both as professionals and people. About 14% of the supervisees were worried about appearing professionally incompetent to their supervisors. In addition, in order to create a positive impression (i.e., clinically competent) and obtain good evaluations, about 44% of the supervisees did not disclose clinical mistakes to their supervisors, perhaps posing direct risks to their clients (Ladany et al., 1996). Some supervisees also intentionally only disclosed certain issues in order to minimize both the negative impressions they left on their supervisors (Ladany et al., 1996) and the negative influence their disclosure had on the evaluations (Hess et al., 2008; Ladany et al., 1996; Mehr et al., 2010; Karpenko & Gidycz, 2012; Bernard & Goodyear, 2009).

Fifth, supervisors may also contribute to supervisee nondisclosure. For example, certain supervisor behaviors (e.g., overly reacting to the things supervisees said in supervision, not appropriately addressing supervisees’ previous disclosures in supervision, mainly focusing on supervisees’ skill development rather than the supervisory relationship) may hamper supervisee disclosure in supervision (Sweeney & Creaner, 2014; Gunn & Pistole, 2012). Given the power differentials, a supervisee may behave differently and present a certain client’s case differently to different supervisors (Gardner, Nelson, & Walker, 1989; Holloway, 1995). Despite being one of the most effective supervision interventions, using video recordings may still not prevent
supervisees from nondisclosure (Wallace & Alonso, 1994; Yourman & Farber, 1996). Supervisors may observe the video recordings of supervisees’ counseling sessions, but the supervisors may not watch the whole sessions and even they are able to do that, the video recordings also will not give supervisors access to supervisees’ critical internal feelings and thoughts (Yourman & Farber, 1996). Additionally, Yourman (2003) claimed that it is harder for supervisees to process their negative feelings with whom causes them at the present moment (i.e., supervisors), so they may prefer opening up to an outsider with no evaluative role.

Sixth, supervisees’ developmental level or training stage may also influence their disclosure in supervision (Sweeney & Creaner, 2014; Hess et al., 2008). For example, especially beginning supervisees may not have developed awareness toward certain issues in their counseling practices (e.g., shame and fear to confront conflict); thus, they may not talk about these issues during supervision (Yourman & Farber, 1996). Supervisees developed greater self-efficacy and confidence through training reported more comfort with disclosing in their post-training supervision sessions when compared to their earlier sessions (Sweeney & Creaner, 2014). In other words, supervisee nondisclosure may be considered as a developmentally expected unconscious/unintentional behavior.

Therefore, it appears that there are two types of nondisclosure in supervision: unintentional and intentional. Although the thoughts, feelings, and behaviors that a supervisee usually hide may be the most important things to disclose in supervision (Gabbard, 1996; Ladany et al., 1996), Farber (2006) suggested that it is normal and unavoidable for supervisees to hide information from their supervisors. Many supervisees may start supervision without a clear understanding of how the process works (Berger & Buchholz, 1993), may not know what to do to have effective supervision (Sweeney & Creaner, 2014), and may be assigned to supervisors
with whom they may not like to work (Webb & Wheeler, 1998). As a result, they may not know what they should and should not disclose to their supervisors (Knox, 2015). In addition, due to the complexity of the counseling process, supervisees may not be able to communicate everything to their supervisors. Therefore, these nondisclosures end up being more unintentional and benign (Farber, 2006; Knox, 2005; Wallace & Alonso, 1994).

Previous research also supported the fact that it is relatively common for supervisees to consciously omit information (e.g., Ladany et al., 1996; Yourman & Farber, 1996; Yourman, 2000) and this type of nondisclosure is more intentional (Farber, 2006; Ladany et al., 1996). Wallace and Alonso (1994) presented that no matter what developmental stage supervisees are at or who the supervisors or clients are, supervisees will “more or less consciously omit discussion of significant information about their psychotherapy experience to varying degrees” (p. 213). Furthermore, Yourman and Farber (1996) also suggested that supervisees generally tend to hide or omit rather than distort information. As mentioned earlier, the most common type of supervisee nondisclosure is about the negative reactions toward the supervisor or supervisory relationship. Supervisees are less likely to distort this information as it happens between themselves and their supervisors, compared to the issues in the counseling sessions (Yourman & Farber, 1996). Last, even though some supervisees have good supervisory relationships with their supervisors, they may still have certain things that they will not disclose in supervision (e.g., supervisees may perceive things as irrelevant or inappropriate to be discussed in supervision; Sweeney & Creaner, 2014). Thus, it is really the supervisees who decide what or to what extent to disclose in supervision (Bordin, 1983; Ladany et al., 1996) and the only way supervisors can learn what and how the supervisees think is through supervisee disclosure in supervision (Ladany et al., 1996).
When supervisees do not disclose in supervision due to various reasons, they may become less likely to invest in future supervision sessions and experience various negative feelings (e.g., frustration, unsafety, self-doubt as well as disappointment), and nondisclosure may also affect supervisee’s work with clients (Hess et al., 2008). For example, while distracted by certain issues that supervisees do not disclose, supervisees may be less present with clients and fail to develop deeper and stronger therapeutic relationships with their clients (Hess et al., 2008). Similarly, nondisclosure may jeopardize supervisees’ relationship with their supervisors (Ladany et al., 1997; Farber, 2006). For example, Ladany et al. (1997) conducted a study about how supervisees use supervision to address their sexual attractions toward clients. The results showed that supervisees who disclosed this information to their supervisors felt supported, validated, and normalized, and found their supervisors’ responses helpful. On the other hand, compared to those who disclosed sexual attractions toward clients to their supervisors, supervisees who did not disclose reported that they developed negative feelings about their supervisors and felt their supervisors were not supportive at all, which ended up negatively affecting their supervisory relationship. However, to what degree supervisee nondisclosure can cause deleterious effects depends on the situation (Yourman, 2003). For example, if a supervisee is five minutes late for one counseling session after being on time for many consecutive sessions, it is okay that the supervisee not disclose this during supervision as the supervisor may not need to know about this; whereas, if the supervisee has been continuously late for many counseling sessions and does not inform his/her supervisor, then this nondisclosure in supervision may cause serious consequences (e.g., client’s premature termination) that the supervisor could have prevented to ensure the client care.

It is important to point out that supervisees do have a strong need to disclose in
supervision (Ladany et al., 1996) and nondisclosure does not mean supervisees are silent (Knox, 2015). Hiding the information from their supervisors, about 66% of the supervisees (mainly doctoral-level with an average counseling experience of 12 months and 15 clients) were found to talk about the issues with their peers or friends or significant others (Ladany et al., 1996). In other words, supervisees discussed counseling or supervision-related concerns with people who had little to no experience of counseling and supervision. More specifically, supervisees shared profession-related issues with trustworthy colleagues and personal life issues with friends and families or even personal therapists (Spence et al., 2014). As problematic as it may be (e.g., ethical concerns, such as confidentiality), supervisees may feel more supported and less worried about evaluation in these interactions during supervision sessions (Ladany et al., 1996; Spence et al., 2014).

**Supervisee Disclosure in Supervision and Relevant Scales**

Although researchers started to shift focus to the supervisee disclosure in supervision, the definitions for supervisee disclosure in supervision vary in the literature (e.g., Hammes, 2014; Knox, 2015; Yourman & Farber, 1996). For example, supervisee disclosure in supervision includes supervisees disclosing information about the events in the therapy sessions, their feelings toward their clients, and their feelings toward their supervisors (Yourman & Farber, 1996). Hammes (2014) defined supervisee disclosure as “an act of communicating information, that is, in the trainee’s opinion, relevant to his or her clinical work and supervisory experience” (p. 13). Given all these different perspectives, it is not clear what is supervisee disclosure in supervision. Therefore, Li and Kemer (under review) conducted an extensive review of previous literature and offered a summative definition for supervisee disclosure in supervision (e.g., Ladany et al., 1996; Yourman & Farber, 1996; Hammes, 2014; Hess et al., 2008; Knox, 2015;
Walsh, Gillespie, Greer & Eanes, 2003): “Supervisee disclosure in supervision refers to supervisees’ voluntary and accurate expression of relevant experience regarding their counseling and supervision experiences (e.g., past and present, opinions or thoughts, emotions or reactions or concerns, behaviors)”.

In addition, without a comprehensive definition, the existing instruments measuring supervisee disclosure may lack construct validity. Upon a closer examination of the existing instruments for supervisee disclosure in supervision, we found other psychometric issues (e.g., validity or reliability information is missing). Therefore, Li and Kemer (under review) developed and provided initial validation for a 20-item measure, the Supervisee Disclosure in Supervision Scale (SDSS), to assess the likelihood of supervisee disclosure in supervision. The SDSS has two subscales: one represents supervisees’ counseling-related and the other one represents supervision-related disclosure. Although the SDSS demonstrated good psychometric properties in the initial validation process, it is necessary to further validate the instrument. Thus, the first part of this study will focus on the further examination of the SDSS through Confirmatory Factor Analysis (CFA).

As an important factor influencing the effectiveness of supervision (Ladany et al., 1996; Spence et al., 2014), supervisee disclosure in supervision is critical to all parties of the supervision process (i.e., supervisees, supervisors, clients). Disclosure in supervision not only improves supervisees’ learning and self-awareness as counselors, but also promotes more discussions about the counseling process (Hammes, 2014). For example, upon disagreeing with their supervisors in supervision, supervisees should discuss their disagreements with the supervisors; otherwise, supervisors’ feedback may not be well-received and supervision may not be as beneficial to the supervisees (Farber, 2003), because the potential learning opportunities
may be lost (Wallace & Alonso, 1994).

Due to confidentiality and consent-driven difficulties of using some of the other supervision methods (e.g., video/audio recordings), supervisee self-report or disclosure becomes a primary method for supervisors to monitor supervisees’ counseling performances and clients’ welfare in supervision (Farber, 2003; Wallace & Alonso, 1994; Yerushalmi, 1992). Supervisors can only help supervisees when they know what the supervisees need help with; thus, when supervisees are honest and open about the dynamics of the counseling sessions, supervisors gain a comprehensive understanding of the counseling process and facilitate supervisees’ learning in a better way (Walsh et al., 2003). In specific situations, supervisors may be professionally affected by supervisees’ failure to disclose because, as Bernard and Goodyear (2009) asserted, supervisors may need to assume responsibility for both ethical and unethical practices of their supervisees. For example, if a supervisee did not conduct the necessary suicide assessment with a client when the client is suicidal and hid this information from his/her supervisor, the supervisor will be held accountable for client’s suicidal act.

In a similar way, supervisees’ failure to disclose to their supervisors may compromise client care (Ladany et al., 1996). Supervisees’ nondisclosure in supervision may negatively impact the quality of the supervision provided by the supervisor. In other words, supervisees may not get the support or guidance they need from the supervision. Then, supervisees may still have no idea what to do or how to behave differently during counseling sessions and, as a result, clients will not receive the appropriate help (Knox, 2015; Ladany et al., 1996). For example, if a supervisee disagrees and disregards the feedback offered by the supervisor without addressing their disagreement in supervision, the client may not receive the most appropriate care in counseling (Ladany et al., 1996). As mentioned earlier, to increase the quality of received
supervision, supervisees’ disclosures about their interactions with clients is essential, especially when they experience difficulties or struggles with clients (Walsh et al., 2003). For example, holding negative feelings toward a client (e.g., the client has fed me up) and not talking about this in supervision, supervisees may fail to express empathy or make connections with their clients in counseling (Ladany et al., 1996). Similarly, if a supervisee experiences a therapeutic rupture during counseling without mentioning this in supervision, s/he may not know what caused the issue, let alone how to solve the issue. Without addressing the struggles appropriately, the client may prematurely leave counseling with a lasting effect (Knox, 2015). In such a case, supervisor may not be aware of the impact of supervisee on the client’s premature withdrawal (Ladany et al., 1996).

Therefore, supervisee disclosure in supervision is critical to all involved parties (e.g., Hammes, 2014; Ladany et al., 1996; Knox, 2015), and it is essential for supervision scholars to understand what could enhance supervisee disclosure in supervision (Walsh et al., 2003; Knox, 2015). Despite efforts (e.g., Gunn & Pistole, 2012; Walsh et al., 2003); although it is still not clear what factors may impact supervisee disclosure in supervision except for supervisory working alliance (Knox, 2015; Mehr et al., 2015).

With 480 clinical or counseling psychology doctoral students, Gunn and Pistole (2012) examined how supervisory working alliance mediated the relationship between supervisees’/trainees’ attachments to supervisors and supervisee disclosure in supervision. The best fitting model indicated that the rapport between the supervisee and the supervisor partially mediated the relationship between supervisees’ secure attachments to their supervisors and their disclosure in supervision. Specifically, both supervisees’ secure attachments to their supervisors and rapport with their supervisors positively related to their disclosures in supervision, which
explained a significant amount of variance in their disclosures (i.e., 28% and 18%). In the study, authors administered the Disclosure in Supervision Scale (DSS; Gunn & Pistole, 2012), which was developed by including some of the items from the Supervisory Questionnaire (Black, 1987) and Ladany et al.’s (1996) 13 categories of supervisee nondisclosure. The DSS consisted of two subscales in the DSS: Client-Personal Disclosure subscale and Supervisor Disclosure subscale. In the DSS, some of the items and their subscale titles appeared to be irrelevant [e.g., “I am comfortable sharing negative reactions to clients with my supervisor” (client-personal disclosure); “I have felt comfortable letting my supervisor know my negative feelings about him/her” (supervisor disclosure)]. Despite providing good internal consistency coefficients for both subscales (i.e., .82 and .84), Gunn and Pistole (2012) did not offer an operational definition for supervisee disclosure and validity properties for the instrument.

Relatedly, Mehr et al. (2010) conducted a mixed-methods study about the contents and reasons for counselor trainee/supervisee nondisclosure in supervision and the influence of supervisee anxiety and supervisory working alliance on the amounts of supervisee nondisclosure and willingness to disclose. Researchers reported that both supervisory working alliance and supervisees’ levels of anxiety significantly predicted supervisees’ willingness to disclose in supervision and the number of supervisee nondisclosures in supervision (Mehr et al., 2010). However, in their follow-up study, supervisees’ willingness to disclose in supervision was significantly related to supervisory working alliance, but not related to supervisees’ anxiety levels (Mehr et al., 2015). Mehr et al. (2015) also used an instrument for supervisee disclosure that was directly modified from Supervisor Self-Disclosure Index (SSDI; Ladany & Lehrman-Waterman, 1999). The 9-item Self-Disclosure Index (SDI) measures supervisees’ own disclosure in supervision. Although supervisors and supervisees may disclose similar issues in supervision
(e.g., personal issues), supervisor disclosures (e.g., previous counseling experience and general observation of the supervisee; Ladany & Lehrman-Waterman, 1999) might be different from the contents of supervisee disclosures. Thus, direct adoption of items from the SSDI may have weakened the construct validity of the SDI. Correspondingly, the authors did not appear to examine the validity properties of the SDI, instead, they offered concurrent and convergent validity of the SSDI. The SDI was reported to have an adequate internal consistency coefficient (.86).

In their study with 110 female supervisees, Walker et al. (2007) examined how gender-related issues (e.g., supervision events related to supervisees’ or clients’ sex or gender, stereotypes regarding gender roles) influenced supervisory working alliance and female counselor trainees’/supervisees’ disclosures in supervision. Results revealed that half of the supervisors facilitated discussions of gender-related events in supervision, and two of the most common gender-related events in supervision were “supervisor discussed academic conceptualization of a client integrating gender” and “supervisor discussed gender-related transference and countertransference with the female supervisees” (Walker et al., 2007, p. 12). Authors also reported that female supervisees disclosed more when their supervisors showed support for gender-related discussions during supervision.

Among 75 pastoral counselor trainees/supervisees, Walsh et al. (2003) found that the quality of supervisory working alliance was the most important factor influencing willingness to disclose clinical mistakes in supervision. The level of mutuality as well as supervisors’ counseling and supervision experience also contributed to more supervisee disclosure about their mistakes in supervision. However, the results were based on a relatively small sample size; therefore, more studies on a larger and more diverse sample are warranted.
In the UK, Spence et al. (2014) noted that there was limited amount of literature on supervisee disclosure in supervision. To form a theoretical framework for the disclosure process, they interviewed ten qualified UK clinical psychologists from different career stages. Participants/supervisees reported that they would disclose in supervision if it was beneficial to their professional work. Spence et al. also found factors that usually influence supervisees’ decisions to disclose in supervision are some contextual variables (e.g., supervision context and personal perceptions of the professional culture), supervisory relationship, and supervisees’ emotional states in supervision sessions. The content and frequency of the supervisees’ disclosure differed from each other; however, regardless of their career stages, they all had nondisclosure to various degrees due to the fear of negative consequences. After deciding to disclose in supervision, supervisees reported thinking about how to disclose, specifically, the timing and depth of their disclosure. Most of the supervisees noted gaining desired outcomes upon their disclosure, which helped them to build more trust with their supervisors and deepen their disclosures in the future. One interesting finding in this study was that beginning supervisees disclosed more in supervision, although the amount of their disclosure decreased as they move forward in their careers. Because the study was conducted in the UK, the results must be considered cautiously in terms of their generalizability to other countries and cultures.

Webb and Wheeler (1998) examined British psychodynamic counselors’ disclosures about sensitive issues in supervision (e.g., sexual feelings towards clients, feelings of discomfort with the supervisor). When supervisees had higher level of rapport with their supervisors, they were more willing to disclose sensitive issues regarding both counseling and supervision sessions. Furthermore, supervisees disclosed more when they could choose their supervisors rather than being assigned to supervisors and when they are not being evaluated by the
supervisors to whom they disclose. However, similar to Spence et al.’s (2014) study, this study was conducted in the British context, thus, we do not know how generalizable it is for other cultures. Rather than focusing on supervisees’ current experiences, the authors asked participants to respond based on one of their previous supervision experiences. Therefore, it was likely that some of the participants may have selected their best or worst supervision experiences to respond to the study.

Researchers reported that appropriate supervisor disclosures fostered supervisee disclosure during supervision and improved supervisory alliance between supervisors and supervisees (Knox et al., 2008; Knox et al, 2011; Ladany & Walker, 2003; Knox, 2015; Kreider, 2014). When supervisors disclosed similar experiences to supervisees’, such as struggles with clients as counselors, they normalized supervisees’ anxiety and worry and enhanced supervisee disclosure and supervisory relationship (Ladany & Lehrman-Waterman, 1999). Researchers also highlighted the supervisors’ role in initiating the conversations to address supervisee nondisclosure in supervision (Gray, Ladany, Walker, & Ancis, 2001) to perhaps model disclosure in supervision.

To summarize, supervisory working alliance (Gunn & Pistole, 2012; Mehr et al., 2010, 2015; Spence et al., 2014; Webb & Wheeler, 1998), certain supervisee factors [e.g., attachment, (Gunn & Pistole, 2012); concerns regarding evaluation (Walsh et al., 2003); level of anxiety (Mehr et al., 2010)] as well as supervisor factors [e.g., counseling and supervision experience (Walsh et al., 2003); supervisor disclosure in supervision (Knox et al., 2008)] were common contributors of supervisee disclosure in supervision. Some of the studies focused on specific parts of supervisee disclosure in supervision [e.g., gender-related issues (Walker et al., 2007); clinical mistakes (Walsh et al., 2003)], and some of the studies were conducted in other cultures
[e.g., British (Spence et al., 2014; Webb & Wheeler, 1998)]. To broaden our understanding, the examinations of the complex relationships among supervisee disclosure in supervision and other literature-supported variables, such as supervisory working alliance and supervisory style, appear to be warranted.

**Supervisory Working Alliance and Supervisee Disclosure in Supervision**

Bordin (1983) extended the idea of therapeutic working alliance to supervision and pointed out that supervisory working alliance also includes three essential elements: Supervisor’s and supervisee’s mutual agreement on the *goals* and *tasks* of supervision, and the shared *emotional bond* between the supervisor and the supervisee. Bordin suggested that, first, supervisor and supervisee need to collaborate with each other in setting up the *goals*, which should be valued by both parties and designed to help the supervisee improve and obtain a positive supervision experience (Wood, 2005). Eight primary goals of supervision proposed by Bordin (1983) were mastering specific skills, deepening understanding of clients, increasing awareness of process issues, enlarging awareness of supervisees themselves and its impact on the process, overcoming obstacles affecting learning and practices, expanding the understanding of concepts and theories, identifying researchable questions, and maintaining the standards of services with supervisors.

Second, Bordin (1983) pointed out that the *tasks* of the supervision are the activities that supervisors and supervisees need to carry out in order to achieve the goals of supervision. These tasks, designed based on the goals of supervision, can be general or specific. The three tasks suggested by Bordin included supervisees’ preparations of session reports, supervisors’ observations of supervisees’ counseling sessions, and supervisees’ selections of problems and issues for presentations in supervision.
Third, Bordin (1983) defined the bond among supervisors and supervisees as “the feelings of liking, caring and trusting” that supervisors and supervisees experience in the supervision (p.36). As an emotional aspect of working alliance, the bond between supervisees and supervisors will influence implementation of the goals and tasks of supervision. In addition to its similarities to therapeutic working alliance between counselors and clients, supervisory working alliance also involve educational and evaluative focus (Patton & Kivlighan, 1997).

Bordin focused more on the “purposeful, task-oriented learning nature of supervision, but not the bidirectional nature of the supervisory relationship” (Spelliscy, 2007, p. 24). Broadening Bordin’s definition of the supervisory working alliance, Efstation, Patton, and Kardash (1990) stated that supervisory working alliance is “an aspect of the supervisor-supervisee relationship in which the supervisor acts purposefully through his or her technical knowledge and skill to influence the supervisees, and the supervisee in turn acts willingly to display his or her acquisition of that knowledge and skill” (p.323). Researchers repeatedly emphasized the importance of supervisory working alliance in supervision, because it affects not only supervision process and outcomes (Bernard & Goodyear, 2014; Chen & Bernstein, 2000; Cooper & Ng, 2009; Falender & Shafranske, 2012; Ladany, Ellis, & Fridelander, 1999; Ladany & Inman, 2012; Inman & Ladany, 2008), but also counseling process, such as the therapeutic working alliance with clients (Patton & Kivlighan, 1997).

The relationship between supervisory working alliance and supervisee disclosure and/or nondisclosure in supervision has been extensively examined in the past research (e.g., Gray, Ladany, Walker, & Ancis, 2001; Hess et al., 2008; Karpenko & Gidycz, 2012; Mehr et al., 2010; Ofek, 2013; Sweeney & Creaner, 2014; Walsh et al., 2003; Webb & Wheeler, 1998). Most of the relevant quantitative research revealed a positive relationship between supervisory working
alliance and supervisee disclosure in supervision (e.g., Gunn & Pistole, 2012; Merh et al., 2010, 2015; Walsh et al., 2013).

For example, Hess et al. (2008) found that, despite having some non-disclosed items on clinical issues with their supervisors, supervisees were more willing to examine their nondisclosures in supervision with the supervisors whom they had good supervisory relationships. However, these supervisees also expected their supervisors to start the discussions on their nondisclosure. On the other hand, supervisees in problematic relationships with their supervisors did not disclose their dissatisfaction in supervision, attended supervision involuntarily, thought nothing could facilitate their disclosures, and had to have their supervision needs met from other sources. Both supervisees in positive and negative relationships with their supervisors agreed that their nondisclosure in supervision had negative impacts on them (e.g., they may lose confidence or feel guilt and their relationships with client were compromised). However, the supervisees from problematic supervisory relationships noted that their nondisclosure impaired the supervisory relationship with their supervisors.

In a partial replication of Hess et al.’s (2008) study, Sweeney and Creaner (2014) also found that supervisees in good supervisory relationships disclosed in a collegial and transparent manner and reported that their supervisors did their best to foster supervisee disclosure in supervision. Supervisees in problematic supervisory relationships, on the other hand, hesitated to disclose certain issues, such as supervisory concerns. As an important part of supervisory alliance, the bond between the supervisee and supervisors appeared to be missing in these problematic supervisory relationships. Farber (2006) also stated that “… the extent to which a supervisee is open and honest with the supervisor is based not only on what each brings separately to the equation, but also on the ways the dyad works together” (p.183).
Complementarily, supervisor’s style of supervision appeared to have an influence on supervisee disclosure in supervision.

**Supervisory Style and Supervisee Disclosure in Supervision**

Supervisory style refers to “different approaches that supervisors use in combination with their distinctive manner of responding to trainees” (Friedlander & Ward, 1984, p. 263). Friedlander and Ward noted that supervisory style is a multidimensional concept, including attractive, interpersonally sensitive, and task-oriented dimensions. Supervisors who mainly use attractive styles display certain characteristics, such as friendliness, supportiveness, openness, flexibility, warmth, trustworthiness, and positivity, and present a collegial style of supervision. Supervisors of interpersonally sensitive style are mainly characterized as committed, creative, invested, intuitive, and therapeutically perceptive, and rely on a relationship-oriented approach to supervision. Supervisors primarily using task-oriented style are practical, explicit, prescriptive, concrete, thorough, focus on goals and structures, and utilize a content-focused approach to supervision.

Friedlander and Ward (1984) also argued that supervisory style may reflect supervisors’ theoretical orientations. For example, they found that supervisors from almost all of the theoretical orientations used the attractive style; whereas, supervisors of cognitive behavioral therapy tended to use the task-oriented style, and psychodynamic and humanistic supervisors were more inclined to use the interpersonally sensitive style. Supervision scholars, on the other hand, recommended that supervisors to use different supervisory styles, as the variation may influence the supervision process and outcomes (e.g., Bernard, 1997; Friedlander & Ward, 1984; Stoltenberg & McNeil, 1997). Similarly, most supervisees also expected their supervisors to demonstrate all three styles, in addition to be flexible in switching among different styles to meet
their unique supervision needs (Ladany, Marotta, & Muse-Burke, 2010). Based on the Discrimination Model (Bernard, 1997), these three styles are parallel to different supervisory roles; that is, attractive style parallels the consultant role, whereas interpersonally sensitive style aligned with the counselor and task-oriented style is to the teacher roles (Friedlander & Ward, 1984). Bernard (1997) also suggested that supervisors should prepare to use different styles with supervisees at various developmental levels; whereas, other scholars argued that supervisors should use task-oriented style with beginning supervisees and interpersonally sensitive style with advanced supervisees (Friedlander & Ward, 1984; Stoltenberg & McNeill, 1997).

The profound impact supervisory style has on the supervision process has been well established in the literature (Teitelbaum, 1998; Steward, Breland, & Neil, 2001). Researchers reported that supervisory style was related to supervisee satisfaction with supervision (Fernando & Hulse-Killacky, 2005), supervisees’ counseling self-efficacy (Steward et al., 2001), supervisory relationship and frequency of supervisor disclosure in supervision (Ladany, Walker, & Melincoff, 2001), and supervisory working alliance (Efstation et al., 1990; Ladany et al., 2001).

About 87% of the supervisees in Walsh et al.’s (2003) study reported that supervisors’ supervisory style influenced their disclosure in supervision. Kreider (2014) noted that more supervisee disclosure in supervision would occur when supervisors authentically share their general observations about the supervisees, personal experience, and reactions toward the interaction with the supervisees. In other words, when supervisors use attractive or interpersonally sensitive style, supervisees tend to disclose in supervision. Gunn and Pistolet (2012) noted that supervisees are less likely to disclose in supervision when supervisors exclusively focus on supervisees’ skill development, meaning less supervisee disclosure occurs
when supervisors display task-oriented style. In addition to these qualitative research studies, further studies with quantitative strategies could further our understanding of the relationships between supervisory styles, supervisee disclosure and supervisory working alliance in supervision.

**Supervisory Style, Supervisory Working Alliance, and Supervisee Disclosure in Supervision**

Researchers have demonstrated that supervisory style and supervisory working alliance are directly related to supervisees’ disclosure in supervision (e.g., Mehr et al., 2010, 2015; Kreider, 2014); however, the relationships between these variables might be complex. For example, supervisory working alliance has been a mediator, a variable that explains the relationship between the predictor and outcome variables (Baron & Kenny, 1986), in many complex relationships in supervision (e.g., Crockett & Hays, 2015; Inman, 2006). When it comes to supervisee disclosure, Hess et al. (2008) found that with supervisors using task-oriented style, supervisees tended to have problematic relationships with them and showed resistance to disclose in supervision. Ladany, Friedlander, and Nelson (2005) pointed out that it might be because of their task-oriented focus, these supervisors did not sense supervisees’ doubt and discomfort at the beginning of supervision; thus, without addressing those issues on time, these supervisors failed to develop good supervisory working alliance with their supervisees, leading to less supervisee disclosure in supervision (Hess et al., 2008). Therefore, it seems there might be a potential mediation relationship where supervisory style predicts supervisee disclosure in supervision via supervisory working alliance. In other words, certain supervisory style(s) may lead to a stronger supervisory working alliance and subsequently promotes more supervisee disclosure in supervision or certain supervisory style(s) may lead to a weaker supervisory
working alliance and subsequently prevents more supervisee disclosure in supervision (see Figure 1a).

Figure 1a. A Conceptual Diagram of the Proposed Mediation Model

Moreover, although the relationship between supervisory working alliance and supervisee disclosure in supervision has been extensively examined in the literature (e.g., Mehr et al., 2010; Ofek, 2013; Walsh et al., 2003; Walker et al., 2007; Webb & Wheeler, 1998), it is not yet clear whether this relationship will change upon different supervisory styles. Ladany et al. (2001) noted that supervisors with attractive or interpersonally sensitive styles may focus on all three aspects of the supervisory working alliance (i.e., emotional bond, agreement on goals and tasks of supervision with their supervisees); whereas, supervisors who use task-oriented style may mainly focus on the goals and tasks of supervision. Researchers also reported that some supervisees preferred supervisors using attractive and interpersonally sensitive styles rather than task-oriented style (Friedlander & Ward, 1984; Usher & Borders, 1993; Worthington, 1987). Thus, compared to when supervisors using task-oriented style, the relationship between
supervisory working alliance and supervisee disclosure may get stronger when supervisors use attractive or interpersonally sensitive style, because supervisees favor this type of style and supervisors focus on all aspects of the supervisory working alliance. In other words, supervisory style may also moderate the effect supervisory working alliance has on the supervisee disclosure in supervision. Therefore, both mediation and moderation might simultaneously exist among these three variables.

Frone (1999) noted that moderated mediation models explain both how and when a certain effect occurs. According to Preacher, Rucker, and Hayes (2007), moderated mediations, or conditional indirect effects, can occur in several ways; for example, when an independent variable influences a dependent variable via a mediator and the independent variable also simultaneously functions as a moderator for the relationship between the mediator and the dependent variable. Despite individual findings on the relationships between these variables (i.e., supervisory working alliance, supervisory style, supervisee disclosure in supervision), no researcher has examined the complex relationships among these variables in a mediation or even a moderated mediation model. Based on the above rationale, the supervisory style may predict supervisee disclosure in supervision via supervisory working alliance and supervisory style may also simultaneously moderate this mediation relationship, implying a moderated mediation (see Figure 1b). In such a model, the mediation relationship among the supervisory style, supervisory working alliance, and supervisee disclosure in supervision is conditional on the supervisory style; that is, the mediation relationship will change upon different level of supervisory style. Thus, purpose of the current study was twofold: (1) providing further validation for the Supervisee Disclosure in Supervision Scale (SDSS) and (2) examining the potential relationships between supervisory working alliance, supervisory style, and supervisee disclosure in
supervision via structural equation modeling. In Chapter 3, I presented the details of the proposed methodology.

Figure 1b. A Conceptual Diagram of the Proposed Moderated Mediation Model
CHAPTER 3
Methodology

Participants

I employed a non-probability sampling for the current study. To be eligible for participating in this study, participants need to meet the following criteria: (1) Are currently taking practicum or internship in a master’s or doctoral-level counseling or counseling-related program in the U.S. (e.g., clinical mental health counseling, counselor education and supervision) and currently receiving weekly supervision as a supervisee; or (2) graduated from a master’s or doctoral counseling or counseling-related program (e.g., clinical mental health counseling and counselor education and supervision) in the U.S, but are currently working toward getting licensures and receiving weekly supervision.

Among the 304 participants, there were 258 (84.9%) female, 42 (13.8%) male, and four identified as transgender (1.3%); 148 (48.7%) of whom reported their age between 22 and 27, while 83 (27.3%) were between the ages 28 and 33, and 73 (24%) were 34 or above. Regarding the ethnicities, 13 participants identified themselves as four Asian American (4.3%), 26 identified as Hispanic American (8.6%), 33 identified as Black/African American (10.9%), 210 identified as White (69.1%), and 22 identified as Other (e.g., Biracial and Multiracial; 7.2%). For the training level, 155 (51%) reported they were enrolled in Master’s programs, 110 (36.2%) were enrolled in doctoral programs, and 39 (12.8%) graduated from the above Master’s programs and worked as practitioners who were seeking supervision for counseling licensures. In terms of discipline, 278 (91.3%) reported they were from counseling (e.g., clinical mental health counseling, school counseling, and counselor education) and 26 (8.6%) were from counseling psychology backgrounds. Although skewed, their direct client hours ranged from 1 to 8000
Median = 240) and supervision experience ranged from 1 to 1000 (Median = 64) hours. Last, the participants had worked with the current supervisor whom they filled out the survey from 6 to 68 (\( M = 6.80, SD = 6.37 \)) months.

Instrumentation

**Demographic questionnaire (Appendix B).** A demographic questionnaire was used to gather information regarding participants’ personal background (e.g., gender, age, ethnicity, currently level of training), clinical background (e.g., obtained hours of clinical practice), and supervision experience (e.g., hours of supervision received as a supervisee and duration of supervision with the current supervisor).

**Supervisee Disclosure in Supervision Scale (SDSS; Li & Kemer, under review) (Appendix C).** Developed by Li and Kemer (under review), SDSS is a 20-item scale measuring the likelihood of supervisee disclosure in supervision. The scale includes two subscales: 11-item Supervision-related Disclosure and 9-item Counseling-related Disclosure. Sample items are “Your emotional reactions to your client’s story (e.g., you cried in the session with the client)” and “Your supervisor’s lack of flexibility”. Participants answer items on a five-point Likert scale ranging from 1 (not at all likely) to 5 (very likely). Scores on SDSS can range from 20 to 100 and higher scores represent supervisees’ higher likelihood of disclosure in supervision. The convergent validity was established through the positive correlation between SDSS and supervisory working alliance. The moderate correlation between SDSS’s two subscales (\( r = .50 \)) indicated a reasonable discriminant validity. The internal consistency coefficients for the total scale and two subscales were .93, .93, and .90, respectively. In the current study, the internal consistency coefficients for the total SDSS and its two subscales were .94 (total), 96. (Supervision-related disclosure) and .81 (Counseling-related disclosure).
**Working Alliance Inventory-Supervisee Form (WAI/S; Bahrick, 1989) (Appendix D)**. WAI/S is a 36-item scale measuring the trainee’s perspective of the supervisory working alliance. This scale, theoretically grounded in Bordin’s (1983) conceptualization of the supervisory working alliance, has three 12-item subscales: Task, Bond, and Goal. Sample items are “The goals of these sessions are important to me” and “We agree on what is important for me to work on”. Responding on a seven-point Likert scale ranging from 1 (never) to 7 (always), participants could obtain scores ranging from 36 to 252, higher scores of which represent higher levels of supervisory working alliance. Convergent validity of the WAI/S was established through positive correlations with goal setting and feedback giving process in supervision (Lehrman-Waterman & Ladany, 2001). Negative correlations with trainee role ambiguity and conflict indicated WAI/S’s discriminant validity (Ladany & Friedlander, 1995). The authors also reported internal consistency coefficient for the total scale of WAI/S as .90. In the current study, the internal consistency coefficient for the WAI/S was .97.

**Supervisory Style Inventory – Trainee (SSI-T; Friedlander & Ward, 1984) (Appendix E)**. SSI-T is a 33-item scale measuring supervisee/trainees’ perceptions of their supervisors’ supervisory styles. The SSI-T contains three subscales, namely, Attractive, Interpersonally Sensitive, and Task-oriented, each represented by adjectives describing the specific supervisory style. The 7-item Attractive subscale includes items such as “friendly”, “trust,” and “supportive.” The 8-item Interpersonally Sensitive subscale involves items such as “intuitive”, “invested,” and “reflective.” Finally, the 10-item Task-oriented subscale contains items such as “structured”, “goal-oriented,” and “evaluative.” Participants answer items on a 7-point Likert scale ranging from 1 (not at all characteristic) to 7 (very characteristic). Scores on SSI-T can range from 33 to 231, higher score of which representing higher inclinations for the
certain type of supervisory style. Convergent validity of the SSI-T was demonstrated through significant correlations with supervisory working alliance and supervisor’s self-disclosure (Efstation, Patton, & Kardash, 1990; Friedlander & Ward, 1984; Ladany et al., 1996). Internal consistency coefficient of the SSI-T ranged from .76 to .93, whereas test-retest reliability coefficient of SSI-T ranged from .78 to .94 (Friedlander & Ward, 1984). Ladany et al. (2001) also reported internal consistency coefficients for the Attractive, Interpersonally-sensitive, and Task-oriented subscales as .88, .74 and .83. In the current study, the internal consistency coefficients for the total SSI-T and its three subscales were .97 (total), .94 (attractive), .93 (interpersonally sensitive) and .90 (task-oriented).

**Procedures**

After receiving Old Dominion University’s Institutional Review Board (IRB) approval, I contacted the program directors and/or coordinators of counseling or related programs in the U.S. (e.g., clinical mental health counseling, counselor education and supervision, counseling psychology) and requested distributing the current study to their students who meet the criteria. I also announced the study on professional listservs, such as CESNET and COUNSGRADS. The recruitment email (Appendix A) included the informed consent and the link to online survey on Qualtrics. The data were password-protected and only the principal investigator and I had access to the data. The current study was funded by the Virginia Association of Counselor Education and Supervision Graduate Student Research Grant. Therefore, for the incentives, participants had the option to participate in a raffle for fifty $10 Amazon gift cards. At the end of the survey, participants were directed to an external link (not connected to their responses) to provide their emails for the raffle. Upon completion of the study, I drew the raffle, issued the gift cards, and deleted participants’ contact information.
Data Analyses

I first screened (e.g., recode certain variables) and cleaned the data set (e.g., check missing data, univariate and multivariate outliers). For the preliminary analyses, I examined descriptive statistics (i.e., mean and SD) and the Pearson bivariate correlations for the variables. For the main analyses, SEM analyses were performed through Mplus 6 program (Muthén & Muthén, 2010). Possessing several advantages over traditional multivariate analyses, SEM enables researchers to (1) understand complex relationships or simultaneously analyze multiple relationships among different latent and manifest variables (Kelloway, 1998; Stage, Carter, & Nora, 2004) and (2) control for measurement errors; thus, provides less biased results (Schumacker & Lomax, 2010). Therefore, many researchers prefer SEM for mediation analysis (Frazier, Tix, & Barron, 2004; MacKinnon, Krull, & Lockwood, 2000).

To perform SEM, I followed Anderson and Gerbing’s (1988) guidelines. First, in the measurement model of the SEM, a CFA was conducted to examine the dimensionality of the SDSS, the research question 1. Second, after obtaining a good fit to the data in the measurement model, I continued to the structural model of the SEM to test the hypothesized relationships among the interested variables for research question 2a-3d.

Given the nature of the research questions 2a-3d, I used the three subscales from SSI-T: attractive, interpersonally sensitive, and task-oriented. Also, due to the high inter-scale correlations among the three subscales of the supervisory working alliance (Tangen & Borders, 2015), I used the total score. The supervisee disclosure in supervision was the only latent variable; whereas, different supervisory styles (i.e., attractive, interpersonally sensitive, and task-oriented) and supervisory working alliance were used as manifest variables. Due to the inconsistent findings (e.g., Spence et al., 2014; Sweeney & Creaner, 2014), the training level was
controlled as a covariate variable. The training level in the current study was defined as: master’s level supervisees who were enrolled in practicum or internship, master’s level graduates who were working toward their counseling license, and doctoral level supervisees who were enrolled in doctoral practicum or internship. The statistical diagram of the proposed model can be found in Figure 2.

Figure 2. A Statistical Diagram of the Proposed Model

**Measurement model.** For the measurement model, I conducted a CFA through maximum likelihood estimation method to see if this model would indicate a good fit to the data (see Figure 2). I checked if the Chi-square test result is non-significant, as the non-significant
value indicates the proposed model fits the sample data (Tabachnick & Fidell, 2013). I also examined additional fit indices, as Chi-square test is sensitive to large sample sizes (Lent, Lopez, Brown, & Gore, 1996). These additional fit indices are Comparative fit index (CFI >.95), standardized root mean square residual (SRMR < .08), and root mean square error approximation (RMSEA <.06; Hu & Bentler, 1999; Kline, 2015). After obtaining an acceptable fit to the data in the measurement model, I checked how well the measured items load on each latent variable (e.g., the values of item pattern coefficients and their statistical significance). If the pattern coefficients are relatively high and significant, it means the items adequately measure the latent variable. If the measurement model does not fit the data, I will follow Cole and Maxwell’s (2003) suggestions by checking the modification index to find out the misfits of the model and re-specifying the model (i.e., delete certain items based on the modification index or items’ conceptual meanings) to improve the model fit.

**Structural model.** After obtaining a good model fit for the measurement model, I continued to the structural model. To answer research question 2a-c, I tested the simple mediation models. Because there are three supervisory styles, I ran three mediation models (See Figure 3). To answer research question 3a-d, I ran three moderated mediation models for these three supervisory styles and to find out the strongest moderator, I checked the values of statistically significant interaction term (see Figure 4). The details of each type of model are listed:

**Mediation effect.** I conducted bootstrapping analyses, a nonparametric approach using resampling to generate a specified number of samples, to investigate the significance level of the indirect effect or mediation (Shrout & Bolger, 2002). Bootstrapping will offer more accurate estimate of the indirect effect or mediation, as it will provide asymmetric confidence limits
(Efron & Tibshirani, 1993). The bootstrapping results will confirm the mediation effect proposed by the current study, if the 95% Confidence Interval (CI) estimation of the indirect effect or mediation effect does not include zero, which means the mediation effect would be statistically significant at the level of .05 (Shrout & Bolger, 2002). Specifically, 10,000 bootstrap samples were generated by randomly sampling with replacements from the original dataset [(N= 304); Mallinckrodt, Abraham, Wei, & Russell, 2006] and with these 10,000 bootstrap samples, 10,000 estimations of each path coefficient were created. The indirect or mediation effect was created through multiplying 10,000 pairs of the following path coefficients: (a1/ a1/ a1) from different supervisory styles to supervisory working alliance, and (b1/ b1/ b1) from supervisory working alliance to supervisee disclosure in supervision. I examined if the 95% confidence interval of the indirect or mediation effect was significant. If it was not, the indirect or mediation effect was not significant at the level of .05; if it was, the indirect or mediation effect was significant at the level of .05. I also checked if the coefficients of the direct path from different supervisory styles to supervisee disclosure in supervision (c c c ) are statistically significant at the level of .05 (see Figures 3[1], [2], and [3]).
Figure 3 (1). A Statistical Diagram of the Mediation Model 1

Figure 3 (2). A Statistical Diagram of the Mediation Model 2
Moderated mediation effect. To test whether the different supervisory styles (i.e., attractive, interpersonal and task-oriented style) serves as moderators between supervisory working alliance and supervisee disclosure in supervision, I first centered different supervisory styles and supervisory working alliance by subtracting respective means of three SSI-T subscales and WAI/S from each participant’s three original SSI-T subscale scores and WAI/S scores. Then, I created interaction terms by multiplying the centered supervisory styles (i.e., attractive, interpersonally sensitive, and task-oriented) and centered supervisory working alliance. Next, I first checked the model fit and then ran three moderated mediation models through the same bootstrapping procedures. I checked if the 95% confidence interval of the indirect or mediation effect was significant. If it was not, the indirect or mediation effect was not significant at the
level of .05; if it was, the indirect or mediation effect was significant at the level of .05. Then I checked if the interaction \((c'_{21} / c'_{22} / c'_{23})\) between supervisory working alliance and different supervisory styles was significant at the level of .05. For the significant moderated mediation model(s), I conducted significance test and I also checked the standardized pattern coefficients for the interaction terms (i.e., \(c'_{21}, c'_{22}, c'_{23}\)) to see which moderator is the strongest one (see Figures 4[1], [2], and [3]).

**Figure 4 (1). A Statistical Diagram of the Moderated Mediation Model 1**
Figure 4 (2). A Statistical Diagram of the Moderated Mediation Model 2

Figure 4 (3). A Statistical Diagram of the Moderated Mediation Model 3
CHAPTER 4

Results

Data Cleaning and Screening

After finishing data collection, I downloaded the raw dataset from Qualtrics.com to prepare for the analyses. First, I cleaned redundant information (e.g., progress duration, data recorded date), and recoded variables based on instrument guidelines (e.g., 14 items of the WAI/S were reverse recorded). For the purposes of the current study, I also recoded one of the demographic data, the training level. The training level of the participants was represented by three groups of supervisees responded to the study (i.e., master’s level counselor trainees, doctoral level counselor trainees, and master’s graduates pursuing residency). I dummy coded this three-level categorical variable into two dummy variables. Second, I screened the dataset by checking the missing values. Out of 405 cases, 72 answered none of the three major scales (i.e., SDSS, WAI/S, and SSI) and, thus, were eliminated. Among the remaining cases, there were about 3% missing data in WAI/S and 3% missing data in SSI. Tabachnick and Fidell (2013) suggested that 5% or less missing in a large dataset is less serious, as almost any procedure addressing missing values produces similar results. Thus, I continued the procedures with 333 cases. Third, I also checked the assumptions for the CFA. Multivariate normality is an important assumption of the Maximum Likelihood (ML), the default parameter estimation method for CFA. Thus, I checked multivariate outliers through Mahalanobis distance test. Multivariate outliers are considered as a threat to the tested model, and need to be removed from the data set (Kline, 2015). Upon removal of 29 outliers, the final sample size of the current study was 304.

Preliminary Analyses
To gain an initial understanding of the relationships among the variables of interests, I conducted preliminary analyses (i.e., descriptive and correlational analyses). Table 1a presents the Pearson bivariate correlations among different demographic variables and the supervisee disclosure in supervision. Table 1b presents the means, standard deviations, and Pearson bivariate correlation among the variables of interest.

Table 1a

Pearson Bivariate Correlations Between Demographic Variables and Supervisee Disclosure

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>---</td>
<td>0.20*</td>
<td>0.08</td>
<td>-0.03</td>
<td>0.12</td>
</tr>
<tr>
<td>2. Training Level</td>
<td>0.20*</td>
<td>---</td>
<td>0.38**</td>
<td>0.27**</td>
<td>0.10</td>
</tr>
<tr>
<td>3. Direct Client Hours</td>
<td>0.08</td>
<td>0.38**</td>
<td>---</td>
<td>0.47**</td>
<td>0.00</td>
</tr>
<tr>
<td>4. Supervision Experience</td>
<td>-0.03</td>
<td>0.27**</td>
<td>0.47**</td>
<td>---</td>
<td>-0.05</td>
</tr>
<tr>
<td>5. Supervisee Disclosure in Supervision</td>
<td>0.12</td>
<td>0.10</td>
<td>0.00</td>
<td>-0.05</td>
<td>---</td>
</tr>
</tbody>
</table>

Note. ** p < .01, * p < .05

Table 1b

Means, Standard Deviations, and Pearson Bivariate Correlations among Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Supervisory Working Alliance</td>
<td>6.04</td>
<td>1.10</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Attractive Style</td>
<td>5.77</td>
<td>1.12</td>
<td>.74**</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Interpersonal-sensitive Style</td>
<td>5.04</td>
<td>1.10</td>
<td>.82**</td>
<td>.81**</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Task-oriented Style</td>
<td>5.63</td>
<td>.92</td>
<td>.54**</td>
<td>.44**</td>
<td>.64**</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>5. Supervisee Disclosure in Supervision</td>
<td>3.28</td>
<td>.79</td>
<td>.42**</td>
<td>.36**</td>
<td>.42**</td>
<td>.32**</td>
<td>---</td>
</tr>
</tbody>
</table>

Note. ** p < .01

Results revealed that none of the demographic variables was significantly related to supervisee disclosure in supervision. However, supervisory working alliance had a significant
positive correlation with supervisee disclosure in supervision ($r = .42, p < .01$). In other words, the higher supervisory working alliance supervisees perceived to have with their supervisors, the more likely they would disclose in supervision sessions. Additionally, all three supervisory styles also had significant positive correlations with supervisee disclosure in supervision ($r_{attractive} = .36, p < .01; r_{interpersonally-sensitive} = .42, p < .01; r_{task-oriented} = .32, p < .01$). Specifically, the more supervisees perceived their supervisors’ adopted style as attractive, interpersonally sensitive, and task-oriented, the more likely they would disclose in supervision. Furthermore, all three supervisory styles also had significant positive correlations with supervisory working alliance ($r_{attractive} = .74, p < .01; r_{interpersonally-sensitive} = .82, p < .01; r_{task-oriented} = .54, p < .01$). Specifically, the more supervisees perceived their supervisors adopted style as attractive, interpersonally sensitive, and task-oriented, the higher supervisory working alliance supervisees perceived to have with their supervisors. Based on the absolute values of the correlation coefficients, task-oriented supervisory style had a weaker association with the supervisory working alliance.

**Main Analyses**

**Measurement Model.** For research question 1, I conducted a CFA on SDSS using ML estimation method. To identify the model fit, I examined multiple fit indices [i.e., Chi-square Test of Model Fit, Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI) and Standardized Root Mean Square Residual (SRMSR)] per recommendations of Lent, Lopez, Brown, and Gore (1996). Besides a non-significant Chi-square (Kline, 2015), the model achieves an acceptable fit to the data when the CFI > .95, SRMR < .08, and RMSEA < .06 (Hu & Bentler, 1999).

First, Kline (2015) proposed that “the model Chi-square measures departure from exact or perfect fit” (p. 273) and a non-significant Chi-square statistic indicates that the proposed
model fits the sample data (Tabachnick & Fidell, 2013). In the current study, the model Chi-square was significant \[ \chi^2 (169) = 404.33, p = .00 \], indicating that the proposed model did not fit the sample data. However, due to the fact that Chi-square statistic is sensitive to many factors (e.g., correlation size, unique variance, sample size), I continued with examining other fit indices (Kline, 2015; Lent et al., 1996). Next, RMSEA, an absolute fit index, measures “the departure from close or approximate fit” (Kline, 2015; p. 273). In the current study, the RMSEA was .07 and its 90% Confidence Interval (CI) was [.06, .08]. The CFI, an incremental fix index, is a goodness-of-fit statistic, and the values of the CFI vary from 0 (worst fit) to 1 (best fit; Kline, 2015). In the current study, CFI was .95. The SRMR, an absolute fit index, is a badness-of-fit statistic, and the values of SRMR range from 0 to 1. The higher the SRMR is, the worse the model fit is (Kline, 2015). The SRMR was .05. Based on the above model fit criteria, the RMSEA was slightly beyond the fit criteria (i.e., RMSEA < .06). Based on Cole and Maxwell’s (2003) suggestions, I checked the modification index, factor loadings and conceptual meanings of the items, and deleted three items (i.e., “your anxiety about different aspects of your counseling performance”, “your emotional reactions to your client’s story”, and “lack of direction and structure from your supervisor in supervision”) to improve the model fit. Finally, the measurement model reached an acceptable fit to the data (see Table 2).

Table 2

<table>
<thead>
<tr>
<th>Values of Fit Statistics for the Measurement Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square Test of Model Fit</td>
</tr>
<tr>
<td>Value</td>
</tr>
<tr>
<td>Degrees of Freedom</td>
</tr>
<tr>
<td>P-Value</td>
</tr>
<tr>
<td>Root Mean Square Error of Approximation (RMSEA)</td>
</tr>
<tr>
<td>Estimate</td>
</tr>
<tr>
<td>90 Percent C. I.</td>
</tr>
</tbody>
</table>
Next, I examined how well each of the measured items loaded on each latent variable by checking the item loadings and their statistical significance. All observed variable loadings on the latent constructs were statistically significant at the alpha level of .00. In other words, the 17 observed variables adequately measured the two latent constructs, *Supervision-related disclosure* and *Counseling-related disclosure*, supporting H1. The internal consistency values for the total SDSS, *Supervision-related disclosure* subscale, and *Counseling-related disclosure* subscale were .94, .96, and .81, respectively, while the correlation between the two subscales was .58.

Table 3 represents the means, standard deviation, and factor loadings.

### Table 3

*Summary of Confirmatory Factor Analysis Results (N =304)*

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>30. Your supervisor imposing his/her own ways of doing things onto you</td>
<td>2.799</td>
<td>1.377</td>
<td>.881</td>
<td></td>
</tr>
<tr>
<td>26. Poor fit (e.g., style and personality) between you and your supervisor</td>
<td>2.562</td>
<td>1.443</td>
<td></td>
<td>.877</td>
</tr>
<tr>
<td>29. Lack of needed support from your supervisor</td>
<td>2.901</td>
<td>1.582</td>
<td></td>
<td>.875</td>
</tr>
<tr>
<td>33. Your discomfort with your supervisor</td>
<td>2.572</td>
<td>1.436</td>
<td></td>
<td>.875</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>31. Your supervisor's suggestions not being useful/helpful</td>
<td>2.668</td>
<td>1.347</td>
<td>.856</td>
<td></td>
</tr>
<tr>
<td>34. Your supervisor's excessive focus on task-related stuff (e.g., paperwork)</td>
<td>2.789</td>
<td>1.594</td>
<td>.850</td>
<td></td>
</tr>
<tr>
<td>39. Your observation of your supervisor's countertransference with you</td>
<td>2.539</td>
<td>1.466</td>
<td>.841</td>
<td></td>
</tr>
<tr>
<td>25. Your supervisor's lack of flexibility</td>
<td>2.701</td>
<td>1.499</td>
<td>.805</td>
<td></td>
</tr>
<tr>
<td>35. Your fear of retaliation once you share your criticisms about your supervisor</td>
<td>2.477</td>
<td>1.394</td>
<td>.797</td>
<td></td>
</tr>
<tr>
<td>36. Your disagreement with your supervisor's evaluation of you</td>
<td>2.891</td>
<td>1.524</td>
<td>.757</td>
<td></td>
</tr>
<tr>
<td>12. Your concerns that you may cross boundaries with a client</td>
<td>3.938</td>
<td>1.006</td>
<td>.722</td>
<td></td>
</tr>
<tr>
<td>6. Your reactions toward a certain client (e.g., feel scornful about a client who sneezes for the whole session)</td>
<td>4.105</td>
<td>0.785</td>
<td>.714</td>
<td></td>
</tr>
<tr>
<td>16. Clinical mistakes regarding your counseling performance (e.g., ineffective/inappropriate use of counseling skills)</td>
<td>4.181</td>
<td>0.714</td>
<td>.691</td>
<td></td>
</tr>
<tr>
<td>9. Your thoughts about how your client is feeling about you</td>
<td>3.980</td>
<td>0.927</td>
<td>.633</td>
<td></td>
</tr>
<tr>
<td>19. Personal issues influencing your counseling work</td>
<td>3.625</td>
<td>1.451</td>
<td>.620</td>
<td></td>
</tr>
<tr>
<td>2. Troubles you have in counseling sessions (e.g., not knowing what to say, feelings of awkwardness)</td>
<td>4.461</td>
<td>.577</td>
<td>.513</td>
<td></td>
</tr>
<tr>
<td>4. Your observations of your client (e.g., nonverbals, behaviors and patterns)</td>
<td>4.615</td>
<td>.349</td>
<td>.433</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Factor 1 stands for Supervision-related Disclosure; Factor 2 stands for Counseling-related Disclosure. All the above factor loadings were rounded into three decimals in order to see the differences.
Structural Model.

Mediation. After obtaining an acceptable fit for the measurement model, I continued to the structural model and first examined the mediation or indirect relationships among the three supervisory styles, supervisory working alliance, and supervisee disclosure, controlling supervisees’ training level. A simple mediation model explains “how” questions; specifically, how does independent variable influence dependent variable via a mediator. Using Figure 3 (1) as an example, the equations representing the mediation process are:

\[
M = i_M + a_{11}X + e_M
\]

\[
Y = i_Y + c^{'}_{11}X + b_{11}M + f_{11}T + e_Y
\]

\(M\) represents the supervisory working alliance, \(X\) represents the attractive style, \(T\) represents the training level, \(Y\) represents the supervisee disclosure in supervision, \(i_M, i_Y\) are the intercepts of \(M\) and \(Y\), \(e_M, e_Y\) are the errors of \(M\) and \(Y\), and \(a_{11}, c^{'}_{11}, b_{11}, f_{11}\) are path coefficients. The above equations can be combined:

\[
Y = i_Y + (c^{'}_{11} + a_{11} b_{11}) X + f_{11}T + e_Y
\]

The mediation or indirect effect of \(X\) on \(Y\) through \(M\) is: \(a_{11} * b_{11}\) and the direct effect of \(X\) on \(Y\) is \(c^{'}_{11}\).

As mentioned earlier, controlling training level, I examined how the three different supervisory styles influenced supervisee disclosure in supervision through supervisory working alliance. Thus, I analyzed three separate mediation models. First, for the mediation model with the attractive supervisory style, the Chi-square test was statistically significant \(\chi^2 (183) = 285.27, p = .00\), whereas other indices indicated that the model achieved an acceptable fit to the data; RMSEA = .04, 90% CI = [.03, .05], CFI = .97, and SRMR = .05. Therefore, the proposed mediation model provided a good fit to the data. To test the mediation or indirect relationship, I
used bootstrapping procedures to generate 10,000 bootstrap samples from the original \( N = 304 \) data. With these 10,000 bootstrap samples, 10,000 estimations of each path coefficient were created. The indirect or mediation effect was then generated through multiplying 10,000 pairs of the path coefficient \( a_{11} \) (attractive supervisory style to supervisory working alliance), and the path coefficient \( b_{11} \) (from supervisory working alliance to supervisee disclosure in supervision). The bootstrapping results confirmed the mediation effect proposed by the current study, as the 95% confidence interval (CI) estimation of the indirect effect or mediation effect did not include zero (Shrout & Bolger, 2002). In other words, attractive supervisory style significantly influenced supervisee disclosure in supervision via supervisory working alliance \((\beta = .33, p < .05)\). Specifically, attractive supervisory style predicted supervisory working alliance \((\beta = .74, p < .05)\), which in turn predicted supervisee disclosure in supervision \((\beta = .44, p < .05)\).

However, in this mediation model, neither attractive supervisory style had a significant direct effect on supervisee disclosure in supervision \((\beta = .11, p = .20)\), nor training level significantly predicted supervisee disclosure \((\beta = -.05, p = .59; \beta = -.12, p = .19)\). This model explained 29.6% of the variance in supervisee disclosure in supervision. Therefore, the H2a was supported.

Second, the mediation model with interpersonally sensitive supervisory style also achieved an acceptable model fit, based on the following fit indices: \( \chi^2 (183) = 286.85, p = .00, \) RMSEA = .04, 90% CI = [.03, .05], CFI = .97, SRMR = .05. I again created 10,000 estimations of each path coefficient with the bootstrap samples generated from the original data. Then, the indirect or mediation effect was created through multiplying 10,000 pairs of the following path coefficients: \( a_{12} \) (interpersonally sensitive supervisory style to supervisory working alliance), and \( b_{12} \) (from supervisory working alliance to supervisee disclosure in supervision). As a result, the 95% Confidence Interval (CI) estimation of the indirect effect or mediation effect did not include
zero (Shrout & Bolger, 2002), which indicated the mediation effect proposed by the current study was significant at the alpha level of .05. In other words, interpersonally sensitive supervisory style also significantly influenced supervisee disclosure in supervision through supervisory working alliance ($\beta = .33, p < .05$). More specifically, interpersonally sensitive supervisory style predicted supervisory working alliance ($\beta = .81, p < .05$), which in turn predicted supervisee disclosure in supervision ($\beta = .40, p < .05$). However, in this mediation model, interpersonally sensitive style did not significantly predict supervisee disclosure in supervision in this model ($\beta = .14, p = .17$). Similarly, training level did not have a significant estimation for supervisee disclosure ($\beta = -.06, p = .57; \beta = -.11, p = .26$). This model explained 30.9% of the variance in supervisee disclosure in supervision. Thus, these results supported H2b.

Third, for the mediation model including task-oriented supervisory style also showed an acceptable fit to the data, based on the following model fit indices: $\chi^2 (183) = 303.95, p = .00$, RMSEA = .05, 90% CI = [.04, .06], CFI = .97, and SRMR = .05. Once again, 10,000 bootstrapping samples were generated and also used to create mediation effect by multiplying 10,000 pairs of the following path coefficients: $a_{13}$ (task-oriented supervisory style to supervisory working alliance), and $b_{13}$ (from supervisory working alliance to supervisee disclosure in supervision). The 95% Confidence Interval (CI) estimation of the indirect effect or mediation effect did not include zero (Shrout & Bolger, 2002); thus, the bootstrapping results confirmed the mediation effect proposed in the current study. In other words, task-oriented supervisory style significantly influenced supervisee disclosure in supervision via supervisory working alliance ($\beta = .27, p < .05$). Specifically, task-oriented supervisory style predicted supervisory working alliance ($\beta = .54, p < .05$), which in turn predicted supervisee disclosure in supervision ($\beta = .51, p < .05$). Additionally, in this mediation model, task-oriented style did not
have a significant direct effect on supervisee disclosure in supervision ($\beta = .04, p = .64$).

Training level did not significantly predict supervisee disclosure, either ($\beta = -.06, p = .53; \beta = -.12, p = .20$). This model explained 29.7% of the variance in supervisee disclosure in supervision. Finally, these findings also supported H2c.

Figure 5 (1). Results of the Mediation Model 1
Moderated Mediation. According to Preacher et al. (2007), the moderated mediation or conditional indirect analysis can occur in many ways. For the type of moderated mediation
model occurred in the current study, the independent variable influences the dependent variable via a mediator and the independent variable also simultaneously moderates the relationship between the mediator and the dependent variable. In other words, the mediation relationship is conditional on the independent variable. Using Figure 4 (1) as an example, the equations representing this moderated mediation process are (Hays, 2007):

\[
M = i_M + a_{11}X + e_M
\]
\[
Y = i_Y + c'_{11}X + b_{11}M + c'_{21}MX + f_{11}T + e_Y
\]

\( M \) represents supervisory working alliance, \( X \) represents attractive style, \( T \) represents training level, \( Y \) represents supervisee disclosure in supervision, \( i_M, i_Y \) are the intercepts of \( M \) and \( Y \), \( e_M, e_Y \) are the errors of \( M \) and \( Y \), and \( a_{11}, c'_{11}, b_{11}, c'_{21}, f_{11} \) are path coefficients. The above two equations can be combined:

\[
Y = i_Y + c'_{11}X + (b_{11} + c'_{21}X)M + f_{11}T + e_Y
\]

The effect of \( M \) on \( Y \) is \( \theta_{M \rightarrow Y} = b_{11} + c'_{21}X \) and the conditional indirect effect or moderated mediation of \( X \) on \( Y \) through \( M \) is:

\[
a_{\theta_{M \rightarrow Y}} = a (b_{11} + c'_{21}X) = ab_{11} + ac'_{21}X
\]

Similar to previous mediation analyses, three separate moderated mediations were conducted. First, to test the conditional indirect effect among the supervisory working alliance, supervisee disclosure in supervision and attractive supervisory style, I first centered attractive supervisory style and supervisory working alliance. Specifically, I subtracted the respective means of attractive supervisory style subscale and WAI/S from each participant’s original attractive supervisory subscale and WAI/S scores. Then, I multiplied the centered attractive supervisory style by the centered supervisory working alliance to create the interaction term (i.e., \( c'_{21} \)). Next, I obtained an acceptable model fit: \( \chi^2(200) = 324.08, p = .00; \) RMSEA = .05, 90% CI
= [.04, .06]; CFI = .97; SRMR = .05. I then ran the moderated mediation analysis through the same bootstrapping procedures as mentioned earlier. The results showed that the 95% confidence interval of the indirect or mediation effect did not include 0; however, the interaction was not significant (c'_{21} = .01, p = .92). According to the above equation (i.e., $a_{\theta_{M \rightarrow Y}} = a_{11} [b_{11} + c'_{21}X] = a_{11}b_{11} + a_{11}c'_{21}X$), when the interaction term is not significant, the moderated mediation model is the same as the simple mediation model. Thus, the moderated mediation was not significant for the attractive supervisory style, indicating that H3a was not supported in the current study. In this model, once again, training level did not significantly predict supervisee disclosure ($\beta = -.05, p = .59; \beta = -.11, p = .22$). This model explained 29.7% of the variance in supervisee disclosure in supervision.

Second, for the moderated mediation model with interpersonally sensitive supervisory style, I first centered interpersonally sensitive supervisory style and supervisory working alliance by subtracting the respective means of interpersonally sensitive supervisory style subscale and WAI/S from each participant’s original interpersonally sensitive supervisory subscale score and WAI/S score. The interaction term (i.e., $c'_{22}$) was created from the product of the centered interpersonally sensitive supervisory style and centered supervisory working alliance. The fit indices [$\chi^2(200) = 332.92, p = .00$, the RMSEA = .05, 90% CI was [.04, .06], the CFI = .97, the SRMR = .05] indicated an acceptable model fit. Then with the same bootstrapping procedures, I conducted the moderated mediation analysis and the results showed that although the indirect or mediation effect was significant, the interaction was not significant ($c'_{22} = .10, p = .24$) either. Therefore, the moderated mediation model with interpersonally sensitive supervisory style was not significant; that is, the H3b was not supported either. In this model, training level did not
significantly predict supervisee disclosure, either ($\beta = -.06, p = .57; \beta = -.11, p = .25$). This model explained 32.8% of the variance in supervisee disclosure in supervision.

Third, to test if the mediation relationship among task-oriented supervisory style, supervisory working alliance and supervisee disclosure in supervision is conditional on task-oriented supervisory style, I first created the interaction term (i.e., $c'_{23}$) with the centered task-oriented supervisory style and supervisory working alliance. Based on the fit indices $\chi^2 (200) = 354.42, p = .00, \text{RMSEA} = .05, 90\% \text{CI} = [.04, .06], \text{CFI} = .96, \text{SRMR} = .06$, this moderated mediation model demonstrated an acceptable model fit to the data. I then proceeded to the moderated mediation analyses through the same bootstrapping procedures and the results showed that both the indirect or mediation effect ($\beta = .30, p < .05$) and the interaction were significant ($c'_{23} = .16, p < .05$), supporting the H3c. In this model, the training level was not a significant predictor of supervisee disclosure, either ($\beta = -.06, p = .53; \beta = -.12, p = .20$). This model explained around 36.2% of the variance in supervisee disclosure in supervision.

Then, I conducted the significance tests on the hypothesis that the conditional indirect effect equals zero at specific values [low (-1 SD), Mean, high (+1 SD)]. The results showed that supervisory working alliance mediated the effect of task-oriented supervisory style on the supervisee disclosure in supervision when task-oriented style was low (-1 SD), mean, and high (+1 SD). Thus, the conditional indirect effect increased with increasing level of task-oriented supervisory style (See Table 4).

Table 4

<table>
<thead>
<tr>
<th>Level of task-oriented style</th>
<th>$\beta$</th>
<th>SE</th>
<th>$p$</th>
</tr>
</thead>
</table>

*Conditional Indirect Effects of Task-oriented Supervisory Style on Supervisee Disclosure via Supervisory Working Alliance*
Low (Mean - 1SD) 0.08 0.03 0.00
Mean 0.11 0.03 0.00
High (Mean + 1SD) 0.14 0.03 0.00

Figure 6 (1). Results of the Moderated Mediation Model 1
In summary, the measurement model reached an acceptable fit to the data, which means the 17-item SDSS measured the two constructs (i.e., supervisee Supervision-related Disclosure...
and *Counseling-related Disclosure*) well. Moreover, supervisory working alliance significantly mediated the relationships among the three supervisory styles and supervisee disclosure in supervision. In other words, all three supervisory styles indirectly predicted supervisee disclosure in supervision via supervisory working alliance, while supervisees’ training level was controlled [i.e., attractive (β = .33, p < .05), interpersonally sensitive (β = .34, p < .05), task-oriented (β = .27, p < .05)]. For specific path coefficients, see Figure 5 [1], 5 [2], and 5 [3]). In addition, in all three mediation models, none of the three supervisory styles was directly related to the supervisee disclosure in supervision, while controlling training level. Therefore, H2a, 2b, and 2c were supported. Furthermore, while the training level was controlled, neither the moderated mediation model with attractive supervisory style (c₁ = .01, p = .92) nor the model with interpersonally sensitive style (c₂ = .10, p = .23) was significant. The only significant moderated mediation model was task-oriented supervisory style, in which the conditional indirect effect increased as the level of task-oriented supervisory style increased. Therefore, the H3a, 3b, and 3d were not supported in the current study, and H3c was supported. For the specific path coefficients in all three models, see Figure 6 [1], 6 [2], and 6 [3]).
CHAPTER 5
Discussion

Review of Research Purpose and Hypotheses

The current study findings provided further validation for the Supervisee Disclosure in Supervision Scale (SDSS) through Confirmatory Factor Analysis (CFA) and examined the mediation and moderated relationships among supervisory style, supervisory working alliance, and supervisee disclosure in supervision. As one of the very first research on this subject, the current study utilized Structural Equation Modeling (SEM) to examine the following hypotheses:

H1: The dimensionality of the SDSS is confirmed with a cross-validation sample.

H2: Supervisory working alliance mediates the relationship between supervisory style and supervisee disclosure in supervision.

H2a: Supervisory working alliance mediates the relationship between attractive supervisory style and supervisee disclosure in supervision;

H2b: Supervisory working alliance mediates the relationship between interpersonally sensitive supervisory style and supervisee disclosure in supervision;

H2c: Supervisory working alliance mediates the relationship between task-oriented supervisory style and supervisee disclosure in supervision.

H3: Supervisory style moderates the mediation effect in H2.

H3a: Attractive supervisory style moderates the mediation effect in H2a. Specifically, the conditional indirect effect will be statistically stronger when supervisees perceive their supervisors demonstrate higher attractive supervisory style.
H3b: Interpersonally sensitive supervisory style moderates the mediation effect in H2b. Specifically, the conditional indirect effect will be statistically stronger when supervisees perceive their supervisors demonstrate higher interpersonally sensitive supervisory style.

H3c: Task-oriented supervisory style moderates the mediation effect in H2c. Specifically, the conditional indirect effect will be statistically stronger when supervisees perceive their supervisors demonstrate lower task-oriented supervisory style.

H3d: Interpersonally sensitive supervisory style is the strongest moderator.

Discussion of Findings

Validation of the SDSS via CFA (H1). The CFA results showed that the SDSS measured two related but distinct constructs: supervisees’ Supervision-related Disclosure and Counseling-related Disclosure, supporting H1. In the Supervision-related Disclosure subscale, sample items are such as “your supervisor imposing his/her own ways of doing things onto you,” “your supervisor’s suggestions not being useful/helpful,” and “lack of needed support from your supervisor.” Based on the factor loadings, all the items on this subscale seemed to measure the construct well. In addition, the descriptive results showed that participants averagely indicated “unlikely” to “neutral” on this subscale. In other words, participants were less likely to disclose these experiences to their supervisors in supervision. A closer look at the items on this subscale also indicated that the items supervisees reported lower likelihood of disclosure were mainly about supervisors’ undesirable behaviors, such as imposing their own ideas on supervisees, not offering enough support or flexibility, or exclusively focusing on the task-related aspects of supervision (e.g., paperwork). Consistent with previous supervisee nondisclosure research findings, supervisees in our study also had less tendencies to disclose their negative supervision experiences to their supervisors (Ladany et al., 1996; Farber, 2006). In addition, supervisees also
appeared to have even lower likelihood to disclose content related to their own feelings and perspectives regarding their supervisor. Some of these items were “your discomfort with your supervisor,” “your fear of retaliation once you share your criticisms about your supervisor,” and “your disagreement with your supervisor's evaluation of you.” According to Rønnestad and Skovholt (2003), due to the power differentials between supervisees and supervisors, supervisees may feel anxious and worried about negative consequences after they disclose. Thus, it might be easier for supervisees to disclose about things related to themselves rather than others. However, the current study showed that it was easier for supervisees to point out their supervisors’ undesirable behaviors compared to sharing their own feelings and thoughts. One possible explanation to this result may be that although it is not easy to disclose their supervisors’ undesirable behaviors, it might be even harder for supervisees to be vulnerable with their supervisors by sharing their internal issues such as feelings of discomfort and fear.

In the Counseling-related Disclosure subscale, sample items are such as “clinical mistakes regarding your counseling performance (e.g., ineffective/inappropriate use of counseling skills),” “personal issues influencing your counseling work,” and “your thoughts about how your client is feeling about you.” In comparison to the factor loadings on the Supervision-related Disclosure subscale, the factor loadings on this subscale were relatively low; however, balancing the statistical and conceptual value of the items, I decided to keep some of the specific items, such as “personal issues that are affecting your work,” “troubles you have in counseling sessions (e.g., not knowing what to say, feelings of awkwardness),” and “your observations of your client (e.g., nonverbals, behaviors and patterns). Although the factor loadings of these items were relatively low, they are also important disclosures for the supervisors to conceptualize supervisees’ counseling sessions and better facilitate supervisees’
learning (e.g., Ladany et al., 2005). Moreover, based on the visual comparisons of the means between two subscales, it seems that supervisees tended to have higher likelihood for counseling-related disclosure than supervision-related disclosure. This result came as no surprise, as supervisees commonly disclose their experiences in counseling sessions, but may have no idea if and/or how much they can talk about their experiences of supervisors and/or supervision sessions.

In the current study, I also obtained high internal consistency coefficients for the total SDSS, *Supervision-related Disclosure* subscale, and *Counseling-related Disclosure* subscale. Supporting Li and Kemer’s (under review) reliability properties, SDSS and its subscales appeared as reliable constructs. In addition, the correlation analyses showed that the SDSS was moderately related to the supervisory working alliance and supervisory style, which demonstrated the SDSS’s convergent validity. The two subscales were also moderately related to each other, suggesting that despite sharing variance, two subscales measured different aspects of the supervisee disclosure in supervision (i.e., discriminant validity). Overall, the total SDSS scale and its two subscales appeared as valid and reliable constructs to be used in future studies.

**Mediation.**

*H2a-c. Supervisory working alliance mediates the relationship between the three supervisory styles (i.e., attractive, interpersonally sensitive, and task-oriented) and supervisee disclosure in supervision.* Knox (2015) highlighted the need for understanding the factors that facilitate supervisee disclosure in supervision. Besides supervisory working alliance, we had not had empirical knowledge on the other contributing factors of supervisee disclosure in supervision (e.g., Mehr et al., 2010; 2015). The current study was the very first to use SEM to examine and obtain empirical evidence on how three supervisory styles (i.e., attractive, interpersonally
sensitive, and task-oriented) influenced supervisee disclosure through supervisory working alliance.

Supervisory working alliance was a significant mediator explaining the relationships between the three supervisory styles and supervisee disclosure in supervision. Specifically, the more supervisees perceived their supervisors using attractive style, the higher working alliance they also perceived with their supervisors, which led to their higher likelihood disclosure in supervision. Attractive supervisors’ warm, friendly, open, and collegial style may contribute to the emotional bond between the supervisor and supervisee as well as their agreement on goals and tasks, which may also have contributed to supervisees’ disclosures in supervision. Similarly, the more supervisees perceived their supervisors as using interpersonally sensitive, the higher working alliance they perceived with their supervisors, and the higher likelihood of disclosure they had in supervision. Interpersonally sensitive supervisors are usually more therapeutically perceptive or counselor-like and, thus, emphasize more relational facets of supervisory work, which could also have resulted in more supervisee disclosure in supervision. Finally, in contrast to Hess et al.’s (2008) findings, the more supervisees perceived their supervisors using task-oriented style, the higher working alliance they perceived with their supervisors, which also led them to have higher likelihood of disclosure in supervision. One possible interpretation of this findings could be that supervisors with task-oriented styles perhaps use more practical and pragmatic solutions to supervisees’ counseling work. Such an approach may have contributed to the supervisory dyads’ agreement on supervisory tasks and goals, resulting in more supervisee disclosure in supervision. In addition, according to Integrated Developmental Model (IDM; Stoltenberg, McNeill, & Delworth, 1998), supervisees at earlier developmental stages need more structure and direction from their supervisors. The IDM suggests even supervisees in the later
stages of development may still occasionally need directions. Thus, even though the training level was controlled in the analyses, our participants may have been primarily in the earlier stages of their development as counselor trainees. As their structure and guidance needs are met by the task-oriented supervisors, our participants may have experienced a stronger working alliance with their supervisors, thus, were more likely to disclose in supervision. In other words, this finding may be directly related to the characteristics of the current study sample.

In the current study, I did not obtain significant direct relationships between the three supervisory styles (i.e., attractive, interpersonally sensitive, and task-oriented) and supervisee disclosure in supervision when supervisory working alliance (as a mediator) and training level were controlled. In other words, since the current study’s mediation models also included supervisory working alliance and training level, none of the supervisory styles accounted for any unique amounts of variances in the supervisee disclosure in supervision. However, it is worth noting that, in the current study, without supervisory working alliance, all three supervisory styles were significantly correlated with supervisee disclosure in supervision; thus, all three supervisory styles might significantly predict supervisee disclosure in supervision if supervisory working alliance was not included in the analysis. Therefore, the direct relationships between all three supervisory styles and supervisee disclosure in supervision obtained from current study’s mediation analyses might be affected by the presence of supervisory working alliance. In other words, the direct relationships between all three supervisory styles and supervisee disclosure in supervision obtained from current study’s mediation analyses might not fully represent the true direct relationships between the three supervisory styles and supervisee disclosure in supervision.

In general, with the presence of supervisory working alliance, none of these three supervisory styles themselves directly influenced supervisee disclosure in supervision; however,
they all contributed to supervisory working alliance, which led to more supervisee disclosure in supervision. Moreover, these findings further emphasized the profound impact supervisory working alliance had on supervisee disclosure in supervision. That is, supervisory working alliance itself not only directly contributed supervisee disclosure in supervision, but also served as a bridge to connect other variables (e.g., supervisory style) with supervisee disclosure in supervision.

**Moderated Mediation (H3a-d).**

*H3a-d. Supervisory styles (i.e., attractive, interpersonally sensitive, and task-oriented)*

*moderated the mediations in H2a-c.* The study showed that the association among attractive supervisory style, supervisory working alliance and supervisee disclosure in supervision did not change whether supervisors use higher or lower attractive style. Similarly, the association among interpersonally sensitive supervisory style, supervisory working alliance and supervisee disclosure in supervision did not change either, whether supervisors use higher or lower interpersonally sensitive style. However, when the levels of supervisors’ task-oriented style increased, the association between task-oriented supervisory style, supervisory working alliance, and supervisee disclosure in supervision increased as well. Specifically, for supervisors with higher task-oriented style, their higher task-oriented style would have a stronger influence on supervisory working alliance and thus on supervisee disclosure in supervision; for supervisors with lower task-oriented style, their lower task-oriented style would have a weaker influence on supervisory working alliance and thus on supervisee disclosure in supervision. One possible explanation for this might be that compared to the other two supervisory styles, the association between task-oriented style, supervisory working alliance and supervisee disclosure seemed to be the weakest one (i.e., indirect effect coefficients). Also, compared to the other two styles, task-
oriented style had the weakest relationship with supervisory working alliance (e.g., path coefficients). Because of such a weak impact the task-oriented style has, it is no wonder when supervisors demonstrating lower level of task-oriented style, the weak association between task-oriented style, supervisory working alliance and supervisee disclosure would become even worst and when supervisors demonstrating higher level of task-oriented style, the weak association between task-oriented style, supervisory working alliance and supervisee disclosure would become better.

**Implication for Future Research**

Findings of the current study has implications for further research studies on supervisee disclosure in supervision. First, because it is a new instrument, future studies may continue examining the psychometric qualities of the SDSS. Also, cross-cultural validations of the SDSS may also offer us with more information on the variance of factor structure across different cultures.

Second, it would be interesting to further examine how different supervisory styles specifically contribute to different aspects of the supervisory working alliance, which eventually influence what specific kind of supervisee disclosure (i.e., supervision-related or counseling-related disclosure). For example, since the interpersonally sensitive style are more counselor-like, will it be more related to the emotional bond between supervisee and supervisor, which lead to more supervision counseling-related disclosure? Furthermore, establishing a mediation effect of supervisory style on supervisee disclosure in supervision through supervisory working alliance does not imply that supervisory working alliance is the only mechanism linking supervisory style to supervisee disclosure in supervision. It is likely that some other confounding variables (e.g., supervisee anxiety and self-efficacy) may also mediate the relationships between
supervisory style and supervisee disclosure in supervision. Thus, future researchers may consider examining other variables’ mediating effects between supervisory style and supervisee disclosure in supervision.

Third, including this study, researchers only examined supervisee disclosure in supervision in relation to supervisory style and supervisory working alliance. Other variables, such as supervisee anxiety, maybe also related to supervisee disclosure in supervision. Therefore, further studies are warranted to examine the relationships among supervisee disclosure in supervision and other variables.

Fourth, previous researchers mainly examined how supervisory working alliance predicted supervisee disclosure in supervision; however, the relationship between these two variables might be reciprocal. Social Penetration Theory (Altman & Taylor, 1973) proposed that people feel closer as they disclose more to one another. Thus, the supervisee disclosure in supervision may also contribute to supervisory working alliance and this contribution must also be examined in future research efforts. Besides, the supervisee disclosure in supervision may also serve as predictors for other supervision and counseling outcome variables such as supervisee satisfaction toward supervision and client recovery. Therefore, researchers may consider examining supervisee disclosure in supervision not only as an outcome, but also as a predictor variable.

**Implication for Counselor Education and Supervision Practices**

Based on the highlighted complex relationships between different supervisory styles, supervisory working alliance, and supervisee disclosure, current study findings have implications for counselor educators and supervision practices.
First, given the importance of supervisee disclosure in supervision, counselor educators and supervisors may consider including and emphasizing this concept in supervision in their classes and supervision practices (e.g., what it is and why it is important for supervisees and supervisors). With the SDSS, counselor educators and supervisors may offer supervisees further clarifications on what supervisees can talk about in supervision in order to better utilize the supervision. Also, given the concerns about retribution, supervisees hesitated to disclose their negative feelings toward their supervisors or their negative supervision experiences (Ladany et al., 1996). Thus, with its included disclosure content, the SDSS may help supervisors to create a safe space for supervisees to understand supervisory process and disclose relevant information to make supervision effective. Particularly, the Supervision-related Disclosure subscale may be instrumental in inviting supervisees to share their supervision experiences.

Second, among all three supervisory styles, the task-oriented style may need to be reviewed with a newer lens by supervisors. Due to their task focus, and perhaps lack of relational qualities, supervisors primarily adopting a task-oriented style seem to receive a negative view by supervisees (e.g., Friedlander & Ward, 1984; Usher & Borders, 1993; Worthington, 1987). However, our findings suggested that all styles uniquely contributed to the supervisory working alliance, and in turn lead to higher likelihood of supervisee disclosure in supervision. Therefore, supervisors need to be flexible and tailor their supervisory style to meet the needs of their supervisee and supervision. In addition, in the didactic training of supervisors, both counselor educators and supervisors may start with introducing the three supervisory styles to further foster the development of individual supervisory styles as supervisor trainees gain more supervision experience. Furthermore, when adopting the task-oriented style, supervisors may consider maximizing their use of this style because a lower level of task-oriented supervisory style may
only slightly impact on supervisory working alliance and thus supervisee disclosure in supervision.

Finally, as we mentioned before, the critical role of supervisory working alliance on supervisee disclosure in supervision cannot be emphasized enough. Thus, supervisors may need to reflect on and pay specific attention to building working alliance with their supervisees because it was found as a key factor at the crossroads leading to supervisee disclosure in supervision. Moreover, when teaching the idea of the supervisory working alliance, instead of simply emphasizing the concept and its importance, counselor educators may also consider using findings from empirical studies to point out how does supervisory working alliance connect different supervisory variables with each other, which may help their students to better understand the dynamic of the supervision process. For example, in the current study, if it was not because of supervisory working alliance, we might not know how supervisory style would influence supervisee disclosure in supervision.

**Limitations of the Study**

There are also limitations of the current study that the reader may want to take into consideration. First, although SEM has many advantages compared with traditional multivariate methods, it only offers indication of causality and does not establish causality. Second, the data is based on self-report measures, thus, the findings prone to social desirability. Third, with a cross-sectional survey design, the data was collected at one point in time; however, the content of supervisee disclosure in supervision may change over time, depending on different factors (e.g., supervisee’s gained understanding of the supervision process and supervisor’s reactions toward supervisee’s disclosure). Fourth, in the current study, I only focused on the supervisee perspective; however, inclusion of both supervisors and supervisees may provide a more holistic
understanding the relationships among the variables. Fifth, as discussed earlier, participants of the current study may be representing relatively earlier stages of counselor development. Due to this specific sample characteristic, some of the results may not be generalizable to the supervisees in more advanced or higher counselor development levels. Sixth, in the current study, each supervisory style was treated separately. In other words, same supervisor’s utilization of more than one supervisory style was not controlled. For example, a supervisor may primarily use both attractive and interpersonally sensitive styles or both interpersonally sensitive and task-oriented styles. Finally, there may be other types of supervisory style that have not been presented or examined in the literature. Thus, the current study results could only be considered within these three supervisory styles.
CHAPTER 6

Manuscript

The Effects of Supervisory Style and Supervisory Working Alliance on Supervisee Disclosure in Supervision: A Moderated Mediation Analysis
Abstract

In the current study, I further validated the Supervisee Disclosure in Supervision Scale (SDSS) through Confirmatory Factor Analysis (CFA) and obtained significant mediation and moderated mediation relationships among supervisory style, supervisory working alliance, and supervisee disclosure. I also discussed the results with literature and implications for counselor training, supervision, and future research.

*Keywords:* supervisee disclosure, supervisory style, supervisory working alliance
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The Effects of Supervisory Style and Supervisory Working Alliance on Supervisee Disclosure in Supervision: A Moderated Mediation Analysis

Introduction

As proposed by many supervision models, supervisees are inherently expected to disclose information about their clients, themselves, and their relationships with their clients and supervisors (e.g., Stoltenberg & Delworth, 1987; Bordin, 1983; Loganbill, Hardy, & Delworth, 1982). As an important concept to all stakeholders (i.e., supervisees, supervisors, & clients) supervisee disclosure has received little attention from the researchers (e.g., Farber, 2003; Knox, 2015). Specifically, most of the relevant studies were either mainly about supervisee nondisclosure or were conducted in the 90s (e.g., Ladany, Hill, Corbett, & Nutt 1996; Yourman & Farber, 1996). In these studies, the definition for the concept of supervisee disclosure in supervision was limited (e.g., Hammes, 2014; Knox, 2015; Yourman & Farber, 1996). As a result, the instruments used to measure supervisee disclosure suffered from various issues, such as measurement development issues and/or inadequate psychometric information (Li & Kemer, under review). Thus, there is a need for a psychometrically-sound instrument to measure supervisee disclosure in supervision and examine its relationship with other supervision concepts (Knox, 2015).

Based on an extensive review of previous literature (e.g., Ladany et al., 1996; Yourman & Farber, 1996; Hammes, 2014; Hess et al., 2008; Knox, 2015; Walsh, Gillespie, Greer & Eanes, 2003), Li and Kemer (under review) offered a summative definition for supervisee disclosure in supervision; “supervisees’ voluntary and accurate expression of relevant experience regarding their counseling and supervision experiences (e.g., past and present, opinions or thoughts, emotions or reactions or concerns, behaviors).” Additionally, Li and Kemer (under
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review) developed and provided an initial validation for the 20-item Supervisee Disclosure in Supervision Scale (SDSS) that measures supervisees’ likelihood of disclosure in supervision. Based on the Exploratory Factor Analysis (EFA) results, the SDSS seemed to include two subscales: supervisees’ *Supervision-related Disclosure* and *Counseling-related Disclosure*. Despite obtaining promising psychometric properties, Li and Kemer suggested further validation of the SDSS.

**Supervisee Disclosure in Relation to Other Variables**

As a critical factor influencing effectiveness of supervision (Spence, Fox, Golding, 2014), it is critical to determine the factors contributing to supervisee disclosure in supervision (Knox, 2015). Researchers reported the relationships between supervisee disclosure and two specific variables of supervision: supervisory working alliance and supervisory style (e.g., Mehr, Ladany, & Caskie, 2010, Gunn & Pistole, 2012; Hess et al., 2008; Sweeney & Creaner, 2014).

Bordin (1983) proposed three essential components of supervisory working alliance: supervisor and supervisee’s mutual agreement on the goals and tasks of supervision and the shared emotional bond between these two parties. Researchers extensively examined the relationship between supervisory working alliance and supervisee disclosure and/or nondisclosure in supervision (e.g., Gray, Ladany, Walker, & Ancis, 2001; Hess et al., 2008; Karpenko & Gidycz, 2012; Mehr et al., 2010; Ofek, 2013; Sweeney & Creaner, 2014; Walsh et al., 2003; Webb & Wheeler, 1998). In two of these studies, the researchers examined supervisees’ disclosure experience in supervision through qualitative inquiry (Hess et al., 2008; Sweeney & Creaner, 2014). In both studies, supervisees reported hesitating to disclose when they had problematic relationships with their supervisors, but tended to disclose more when their supervisory relationships was good with their supervisors.
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According to Friedlander and Ward (1984), supervisory style refers to “different approaches that supervisors use in combination with their distinctive manner of responding to trainees” (p. 263). They also proposed three main styles that supervisors utilize; attractive (e.g., friendly and supportive), interpersonally sensitive (e.g., relationship-oriented and therapeutically perceptive), and task-oriented (e.g., practical and goal-oriented). Researchers found supervisory style is an influential variable to many different supervision variables, such as supervisee satisfaction with supervision (Fernando & Hulse-Killacky, 2005) and supervisees’ counseling self-efficacy (Steward, Brelan, & Neil, 2001). Similar to supervisory working alliance, previous qualitative studies showed that there might be a potential direct relationship between supervisory style and supervisee disclosure in supervision. For example, Walsh et al. (2003) found that about 87% of the supervisees reported that supervisors’ supervisory style had impacted their disclosure in supervision. Kreider (2014) also pointed out that supervisees were more willing to disclose when their supervisors utilized attractive or interpersonally sensitive supervisory style.

The Complex Relationships among Supervisee Disclosure, Supervisory Working Alliance, and Supervisory Style

Researchers frequently reported the mediator role of supervisory working alliance in many complex relationships in supervision (e.g., Crockett & Hays, 2015; Inman, 2006). There is evidence that the supervisory working alliance may also mediate the relationship between supervisory style and supervisee disclosure. For example, supervisees reported having problematic relationships with supervisors using mainly task-oriented style and, as a result, hesitated to disclose in supervision (Hess et al., 2008). Therefore, there may be a potential mediation relationship where supervisory style predicting supervisee disclosure in supervision via supervisory working alliance. In other words, certain supervisory styles, such as attractive or
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interpersonally sensitive, may be related to a stronger supervisory working alliance, which in turn, would lead to more supervisee disclosure in supervision or vice versa. However, to date, no researcher has examined these complex relationships quantitatively. Furthermore, although many researchers have investigated the relationship between supervisory working alliance and supervisee disclosure in supervision (e.g., Mehr et al., 2010; Ofek, 2013; Walsh et al., 2003; Walker, Ladany, & Pate-Carolan, 2007; Webb & Wheeler, 1998), we do not know whether the strength of this relationship would change upon different supervisory styles. Some supervisees reported preferring attractive and interpersonally sensitive styles when compared to task-oriented style (Friedlander & Ward, 1984; Usher & Borders, 1993; Worthington, 1987). Ladany et al. (2001) suggested that supervisors with attractive or interpersonally sensitive styles may tend to focus on all three aspects of the supervisory working alliance (tasks, goals, and bond), whereas supervisors mainly used task-oriented style may mainly focus on the goals and tasks of supervision (Ladany, Walker, & Melinoff, 2001). Therefore, the strength of the relationship between supervisory working alliance and supervisee disclosure in supervision may change upon the three supervisory styles.

Purpose of Current Study

Thus, the purposes of the current study was twofold: (1) further validation of the SDSS through Confirmatory Factor Analysis (CFA) and (2) examination of the relationships among supervisee disclosure, supervisory working alliance, and supervisory style. For the second purpose, given the complexity of these relationships, there might be a potential moderated mediation or conditional indirect effect that explains both how and when a certain effect occurs (Frone, 1999). The moderated mediation may occur in many ways, for example, when an independent variable influences a dependent variable via a mediator and the independent variable
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also simultaneously functions as a moderator for the relationship between the mediator and the dependent variable (Preacher, Rucker, & Hayes, 2007). As a pioneer study focusing on in a mediation or even a moderated mediation model, our hypotheses included following: (1) The dimensionality of the SDSS will be confirmed with a cross-validation sample, (2) The supervisory working alliance will mediate the relationship between the three supervisory styles (i.e., attractive, interpersonally sensitive and task-oriented) and supervisee disclosure in supervision, (3) The three supervisory styles (i.e., attractive, interpersonally sensitive and task-oriented) will moderate the mediation effects in H2.

Method

Participants

Among the 304 participants, there were 258 (84.9%) female, 42 (13.8%) male and 4 identified as transgender (1.3%); 13 participants reported their ethnicities which are four Asian American (4.3%), 26 Hispanic American (8.6%), 33 Black/African American (10.9%), 210 White (69.1%) and 22 identified as Other (e.g., Biracial and Multiracial; 7.2%); 155 (51%) were enrolled in Master’s programs, 110 (36.2%) were enrolled in doctoral programs, and 39 (12.8%) graduated from the above Master’s programs and worked as practitioners who were seeking supervision for counseling licensures; 278 (91.3%) from counseling programs (e.g., clinical mental health counseling, school counseling and counselor education) and 26 (8.6%) from counseling psychology; the length participants worked with the current supervisor for whom they filled out the survey ranged from 6 to 68 \( (M = 6.80, \ SD = 6.37) \) months.

Instrumentation

A demographic questionnaire and three instruments were used in the current study to measure the supervisory working alliance, supervisory style and supervisee disclosure.
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**Demographic questionnaire.** The demographic questionnaire gathered information about participants’ personal background as well as their clinical, supervision experience.

**Supervisee Disclosure in Supervision Scale (SDSS; Li & Kemer, under review).** The 20-item SDSS assesses the likelihood of supervisee disclosure in supervision and it contains two subscales: Supervision-related Disclosure and Counseling-related Disclosure. Sample items for both subscales are “Troubles you have in counseling sessions (e.g., not knowing what to say and feelings of awkwardness)” and “Your supervisor’s lack of flexibility”. The SDSS is also a five-point Likert scale ranging from 1 (not at all likely) to 5 (very likely) and participants’ total SDSS scores can range from 20 to 100, with higher scores implying higher likelihood of supervisee disclosure in supervision. The positive correlation between SDSS and supervisory working alliance demonstrated its convergent validity and the strength of the correlation between SDSS’s two subscales (r = .50) was moderate, which indicated a reasonable discriminant validity (Kline, 2011). The SDSS also demonstrated predictive validity through its prediction for supervisees’ subjective happiness. The internal consistency coefficients for the total scale and two subscales were .93, .93, and .90. In the current study, the internal consistency coefficients were .94 for the total scale, .96 for the supervision-related disclosure subscale and .81 for the counseling-related disclosure subscale.

**Working Alliance Inventory-Supervisee Form (WAI/S; Bahrick, 1989).** The 36-item WAI/S scale assesses the trainee’s perspective of the supervisory working alliance, and it contains three subscales: Task, Bond, and Goal. Sample items for these three subscales are “The goals of these sessions are important to me” and “We agree on what is important for me to work on”. The WAI/S is also a seven-point Likert scale ranging from 1 (never) to 7 (always) and participants’ total WAI/S scores could range from 36 to 252, with higher scores representing
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higher levels of supervisory working alliance. The WAI/S’ positive correlations with goal setting and feedback giving process in supervision demonstrated its convergent validity (Lehrman-Waterman & Ladany, 2001) and its negative correlations with trainee role ambiguity and conflict indicated its discriminant validity (Ladany & Friedlander, 1995). In addition, given the high inter-correlations among the three subscales (Tangen & Borders, 2015), I decided to use the total score of the WAI/S. The internal consistency coefficients for the total WAI/S scale was .90 (Ladany & Friedlander, 1995). In the current study, the internal consistency coefficient for the WAI/S was .97.

Supervisory Style Inventory – Trainee (SSI-T; Friedlander & Ward, 1984). The 33-item SSI-T scale assesses supervisee/trainees’ perceptions of their supervisors’ supervisory styles and it includes three subscales: Attractive, Interpersonally Sensitive, and Task-oriented supervisory style. Each style was described by specific adjectives and sample items are “friendly and open (Attractive),” “reflective and perceptive (Interpersonally sensitive),” “practical and goal-oriented (Task-oriented).” The SSI-T is also a 7-point Likert scale ranging from 1 (not at all characteristic) to 7 (very characteristic) and participants’ total scores on SSI-T can range from 33 to 31, higher score of which representing higher inclinations for the certain type of supervisory style. The SSI-T’s significant correlations with supervisory working alliance and supervisor’s self-disclosure demonstrated its convergent validity (Efstation, Patton, & Kardash, 1990; Friedlander & Ward, 1984; Ladany et al., 1996), and its internal consistency coefficient ranged from .76 to .93 and test-retest reliability coefficient ranged from .78 to .94 (Friedlander & Ward, 1984). The internal consistency coefficients for the Attractive, Interpersonally-sensitive, and Task-oriented subscales were .88, .74 and .83 (Ladany et al., 2001). Since the current study specifically focused on the three supervisory styles’ impacts, instead of using the total scale, the
three subscales were used separately. The internal consistency coefficients for the three subscales were .94 (Attractive), .93 (Interpersonally-sensitive), and .90 (Task-oriented).

**Procedures**

First obtained approval from the university’s Institutional Review Board (IRB). Given the complexity of the current study, a large sample size was needed. Thus, I contacted counseling or related programs in the U.S. (e.g., clinical mental health counseling, counselor education and supervision, counseling psychology)’ program directors and/or coordinators, and requested them to distribute the current study to their students who are eligible to participate. The study was also announced on professional listservs, such as CESNET and COUNSEGRADS. The survey included an informed consent, demographic questionnaire and three measurements. Only the principal investigator and the second author had access to the data, which was collected through Qualtrics platform and protected with password. The current study was funded by the Virginia Association of Counselor Education and Supervision Graduate Student Research Grant. All participants had the option to participate in a raffle for fifty $10 Amazon e-gift cards. The contact information of the interested participants (for raffle) was not connected with their survey responses and was deleted after the raffle was drawn.

**Data Analyses**

For the preliminary analyses, I first screened and cleaned the data set (e.g., recode certain items such as the ones in WAI/S, check missing data, and outliers) and also conducted descriptive statistics (i.e., mean and SD) and Pearson bivariate correlation analyses. For the main analyses, following Anderson and Gerbing’s (1988) guidelines, I conducted Structural Equation Modeling (SEM), a preferred mediation analysis method (Frazier, Tix, & Barron, 2004; MacKinnon, Krull, & Lockwood, 2000), through Mplus 6 program (Muthén & Muthén, 2010).
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Specifically, the hypothesis 1 was tested in the measurement model of the SEM and the rest hypotheses were examined in the structural model of the SEM. In addition, given the current sample included supervisees of different training levels (e.g., master’s and doctoral levels) and the inconsistent findings on training level’s impact on supervisee disclosure in supervision (e.g., Spence et al., 2014; Sweeney & Creaner, 2014), the training level was controlled as a covariate variable in the analyses.

Results

Preliminary Analyses

I, first, examined multivariate normality, an important assumption of the Maximum Likelihood (ML) as the default parameter estimation method for CFA. Using the Mahalanobis distance test, I detected 29 multivariate outliers. After omitting these outliers, the size of the final dataset was 304. Then, I examined the Means, Standard Deviations, and Pearson bivariate correlations among the variables (see in Table 1). Based on the correlation results, it seemed all three supervisory styles were significantly related to supervisee disclosure in supervision and supervisory working alliance.

Table 1

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Supervisory Working Alliance</td>
<td>6.04</td>
<td>1.10</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Attractive Style</td>
<td>5.77</td>
<td>1.12</td>
<td>.74**</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Interpersonal-sensitive Style</td>
<td>5.04</td>
<td>1.10</td>
<td>.82**</td>
<td>.81**</td>
<td>---</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Main Analyses

**Measurement Model.** I conducted the CFA with ML method for the measurement model. First, I examined the model fit by checking multiple model fit indices [i.e., Chi-square Test of Model Fit, Root Mean Square Error of Approximation (RMSEA), Confirmatory Fit Index (CFI), & Standardized Root Mean Square Residual (SRMSR); Lent, Lopez, Brown, & Gore, 1996] and followed Hu and Bentler’s (1999) model fit criteria (i.e., non-significant Chi-square, CFI >.95; SRMR < .08; RMSEA <.06). In the current study, the Chi-square Test of Model Fit was significant $[\chi^2 (169) = 404.33, p = .00]$. The Chi-square statistics is known to be sensitive to sample size (Kline, 2015; Lent et al., 1996); thus, the non-significance may be related to the relatively large sample of this study. On the other hand, I also examined other fit indices, specifically, RMSEA = .07, and its 90% Confidence Interval (CI) = [.06, .08], CFI = .95, and SRMR = .05. Because the RMSEA was slightly beyond the fit criteria, I followed Cole and Maxwell’s (2003) suggestions (e.g., checked the modification index and factor loadings) and deleted three items to improve the model fit. Finally, the measurement obtained an acceptable fit to the data $[\chi^2 (118) = 194.50.92, p = .00$, RMSEA = .05, 90% CI was [.03, .06], CFI = .98, SRMR = .04]. Moreover, all of the item loadings were statistically significant and most of the item loadings were relatively high (e.g., .881 and .722). Overall, measurement model results showed that 17 items of the SDSS adequately measured the two latent variables, supporting H1. Table 2 presents the means, standard deviations, and factor loadings.
Table 2

*Summary of Confirmatory Factor Analysis Results* (N = 304)

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>30. Your supervisor imposing his/her own ways of doing things onto you</td>
<td>2.799</td>
<td>1.377</td>
<td>.881</td>
<td></td>
</tr>
<tr>
<td>26. Poor fit (e.g., style and personality) between you and your supervisor</td>
<td>2.562</td>
<td>1.443</td>
<td>.877</td>
<td></td>
</tr>
<tr>
<td>29. Lack of needed support from your supervisor</td>
<td>2.901</td>
<td>1.582</td>
<td>.875</td>
<td></td>
</tr>
<tr>
<td>33. Your discomfort with your supervisor</td>
<td>2.572</td>
<td>1.436</td>
<td>.875</td>
<td></td>
</tr>
<tr>
<td>31. Your supervisor's suggestions not being useful/helpful</td>
<td>2.668</td>
<td>1.347</td>
<td>.856</td>
<td></td>
</tr>
<tr>
<td>34. Your supervisor's excessive focus on task-related stuff (e.g., paperwork)</td>
<td>2.789</td>
<td>1.594</td>
<td>.850</td>
<td></td>
</tr>
<tr>
<td>39. Your observation of your supervisor's countertransference with you</td>
<td>2.539</td>
<td>1.466</td>
<td>.841</td>
<td></td>
</tr>
<tr>
<td>25. Your supervisor's lack of flexibility</td>
<td>2.701</td>
<td>1.499</td>
<td>.805</td>
<td></td>
</tr>
<tr>
<td>35. Your fear of retaliation once you share your criticisms about your supervisor</td>
<td>2.477</td>
<td>1.394</td>
<td>.797</td>
<td></td>
</tr>
<tr>
<td>36. Your disagreement with your supervisor's evaluation of you</td>
<td>2.891</td>
<td>1.524</td>
<td>.757</td>
<td></td>
</tr>
<tr>
<td>12. Your concerns that you may cross boundaries with a client</td>
<td>3.938</td>
<td>1.006</td>
<td>.722</td>
<td></td>
</tr>
<tr>
<td>6. Your reactions toward a certain client (e.g., feel scornful about a client who sneezes for the whole session)</td>
<td>4.105</td>
<td>0.785</td>
<td>.714</td>
<td></td>
</tr>
<tr>
<td>16. Clinical mistakes regarding your counseling performance (e.g., ineffective/inappropriate use of counseling skills)</td>
<td>4.181</td>
<td>0.714</td>
<td>.691</td>
<td></td>
</tr>
</tbody>
</table>
Note. Factor 1 stands for Supervision-related Disclosure; Factor 2 stands for Counseling-related Disclosure. All the above factor loadings were rounded into three decimals in order to see the differences.

**Structural Model.** Upon obtaining an acceptable model fit for the measurement model, I continued to the structural model to examine the mediation and moderated mediation relationships among the supervisory style, supervisory working alliance, and supervisee disclosure.

**Mediation.** Controlling the training level of supervisees, I conducted three separate mediation models to understand how the three different supervisory styles were related to supervisee disclosure in supervision via supervisory working alliance (H2). First, utilizing Hu and Bentler’s (1999) criteria, I examined the model fit indices of all three mediation models [i.e., mediation model with the attractive supervisory style, $\chi^2 (183) = 285.27, p = .00, \text{RMSEA} = .04, \text{CFI} = .97$ and $\text{SRMR} = .05$; with the interpersonally sensitive supervisory style, $\chi^2 (183) = 286.85, p = .00, \text{RMSEA} = .04, \text{CFI} = .97$, and $\text{SRMR} = .05$; and with the task-oriented supervisory style, $\chi^2 (183) = 303.95, p = .00, \text{RMSEA} = .05, \text{CFI} = .97$, and $\text{SRMR} = .05$]. After all the mediation models achieved acceptable fits to the data, I conducted the mediation analyses through bootstrapping approach (Shrout & Bolger, 2002). Specifically, as a nonparametric
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method, the bootstrapping generates a specific number of bootstrap samples from original data and use these samples to examine the mediation effect by providing asymmetric confidence limits (Efron & Tibshirani, 1993). If the 95% confidence interval (CI) estimation of the mediation effect does not include zero, the mediation effect would be statistically significant at the level of .05 (Shrout & Bolger, 2002). Based on Mallinckrodt, Abraham, Wei, and Russell’s (2006) suggestion, 10,000 bootstrap samples were generated. Also, because the mediation effect was a product of the direct effect from supervisory style to supervisory working alliance and the direct effect from supervisory working alliance to supervisee disclosure in supervision, the mediation effect was created by multiplying 10,000 pairs of the path coefficients from the each of the three supervisory styles to supervisory working alliance, and the path coefficients from supervisory working alliance to supervisee disclosure in supervision. Overall, in all three mediation models, the 95% confidence interval (CI) estimations of the mediation effects did not include zero, suggesting that all three mediation effects were significant at the alpha level of .05 (Shrout & Bolger, 2002).

Results indicated that supervisory working alliance mediated the relationship between the attractive supervisory style and supervisee disclosure in supervision ($\beta = .33, p < .05$). More specifically, attractive supervisory style predicted supervisory working alliance ($\beta = .74, p < .05$), which in turn predicted supervisee disclosure in supervision ($\beta = .44, p < .05$). Supervisory working alliance also mediated the relationship between interpersonally sensitive supervisory style and supervisee disclosure in supervision ($\beta = .34, p < .05$). Specifically, interpersonally sensitive supervisory style predicted supervisory working alliance ($\beta = .81, p < .05$), which in turn predicted supervisee disclosure in supervision ($\beta = .40, p < .05$). Finally, supervisory working alliance was also a significant mediator between task-oriented supervisory
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style and supervisee disclosure in supervision ($\beta = .27, p < .05$). Specifically, task-oriented supervisory style predicted supervisory working alliance ($\beta = .54, p < .05$), which in turn predicted supervisee disclosure in supervision ($\beta = .51, p < .05$). Thus, the H2 was supported in the current study. Among the mediation models, none of the three supervisory styles significantly and directly predicted the supervisee disclosure in supervision (i.e., attractive style: $\beta = .11, p = .20$; interpersonally sensitive style: $\beta = .14, p = .17$; task-oriented style: $\beta = .04, p = .64$).

**Moderated Mediation.** After the simple mediation model, I continued to the moderated mediation model. First, I centered the three supervisory styles and supervisory working alliance and created the interaction terms by multiplying the centered three supervisory styles separately with centered supervisory working alliance. Similarly, I conducted three separate moderated mediations for the three supervisory styles. Specifically, all the three moderated mediation models first achieved acceptable model fits [i.e., for the moderated mediation model with the attractive style, $\chi^2 (200) = 324.08, p = .00$, RMSEA = .05, CFI = .97, and SRMR = .05; for the moderated mediation model with the interpersonally sensitive style, $\chi^2 (200) = 332.92, p = .00$, RMSEA = .05, CFI = .97, and SRMR = .05; for the mediation model with the task-oriented style, $\chi^2 (200) = 354.42, p = .00$, RMSEA = .05, CFI = .96, and SRMR = .06]. Next, I conducted the moderated mediation analyses through the same bootstrapping procedures for the three models and the bootstrapping results showed while controlling the training level, neither the moderated mediation model with the attractive nor the interpersonally sensitive supervisory style was statistically significant (e.g., $i_{\text{attractive}} = .01, p = .92$ and $i_{\text{interpersonally sensitive}} = .10, p = .24$); however, the moderated mediation model with the task-oriented supervisory style was ($i_{\text{task-oriented}} = .16, p < .05$). Then I conducted significant tests at different levels of task-oriented supervisory styles.
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[i.e., low (-1SD), mean (0), high (+1SD)]. The results showed that the supervisory working alliance mediated the effect of the task-oriented supervisory style on the supervisee disclosure in supervision when the task-oriented style was low, at the mean, and high. In other words, the moderated mediation or conditional indirect effect increased as the level of task-oriented supervisory style increased. Therefore, the H3 was only supported for the task-oriented supervisory style but not the attractive or interpersonally sensitive supervisory style.

Discussion
The current research was the very first study utilized Structural Equation Modeling (SEM) to provide further validation for the Supervisee Disclosure in Supervision Scale (SDSS) and examine the mediation relationships among supervisory styles, supervisory working alliance, and supervisee disclosure in supervision. The findings provided some insights into the supervision process through the SDSS, extended the previous findings on the predictors for supervisee disclosure in supervision, and highlighted the critical role of supervisory working alliance between supervisory style and supervisee disclosure in supervision.

We obtained the validity evidence for the SDSS, measuring two related but distinct constructs: Supervisee’s Supervision-related Disclosure and Counseling-related Disclosure. In Supervision-related Disclosure subscale, based on the visual comparison of means, participants in the current study reported lower likelihood of disclosing these supervision-related issues, which was consistent with findings from supervisee nondisclosure studies (e.g., Ladany et al., 1996; Farber, 2006). In a closer inspection of the items on this subscale, we noticed two potential subgroups: One is about supervisees’ own negative feelings (e.g., supervisee’s discomfort in supervision and fear of retaliation) and the other is about supervisees’ perspective on supervisors’ undesirable behaviors in supervision (e.g., supervisors imposing values on
SUPERVISEE DISCLOSURE IN SUPERVISION

supervisee and not providing enough support). Interestingly, our participants expressed even lower likelihood of disclosure on the latter subgroup than the former subgroup. Rønnestad and Skovholt (2003) suggested that supervisees hesitated to disclose in supervision due to power differentials and fears of retribution. Thus, we expected that it might be easier for supervisees to disclose information about their own than their supervisors, which was contradictory to our findings. Even though disclosing their supervisors’ undesirable behaviors was not easy for supervisees, it seemed even harder to be vulnerable with their supervisors by sharing their internal feelings in supervision. In the Counseling-related Disclosure subscale, on the other hand, our participants expressed relatively higher likelihood of disclosure. As supervisees mainly know that they are supposed to talk about their counseling experiences in supervision, the parameters of disclosure regarding supervision experiences may not be clear for them (e.g., if, what, and how much to share).

Another important finding of this study was that although none of the three supervisory styles directly influenced supervisee disclosure in supervision with the presence of supervisory working alliance; however, they all indirectly influenced supervisee disclosure through supervisory working alliance, while the training level was controlled. As of today, we only knew supervisory working alliance was significantly related to supervisee disclosure; thus, our findings extended our knowledge on this subject by shedding light to the complex relationships among supervisory style, supervisory working alliance, and supervisee disclosure in supervision. Specifically, supervisors adopting attractive supervisory style with warmth, friendliness, and openness contributed to the alliance between supervisors and supervisees, which in turn lead to higher likelihood of supervisee disclosure. Similarly, supervisors of interpersonally sensitive
SUPERVISEE DISCLOSURE IN SUPERVISION

style, and their therapeutically perceptive and relational-focused characteristics, also contributed to supervisory working alliance, which resulted in higher likelihood of supervisee disclosure.

On the other hand, in contrast to Hess et al.’s findings (2008), we found that the more supervisees perceiving their supervisors utilizing task-oriented supervisory style, the higher working alliance they reported to have with their supervisors and, thus, they were more likely to disclose in supervision. One possible reason for this unique finding may be the supervisors’ ability to provide more practical, structured and pragmatic guidance for supervisees, which contributed to the task and goal aspects of the supervisory working alliance and resulted in higher supervisee disclosure. In addition, as Stoltenberg et al. (1998) suggested in the Integrated Developmental Model (IDM), supervisees at beginning developmental level need their supervisors to provide more clear directions and structures for supervision and even supervisees at later advanced developmental stages may occasionally need directions as well. Thus, although we controlled the training level, we were not able to assess supervisees’ developmental levels and it is possible that our participants may have been primarily in the beginning stages of their development. When their supervisors provided supervision with clear structure and directions, they may have had higher supervisory working alliance with their supervisors and, thus, were more likely to disclose to their supervisors.

The current study further emphasized the critical role of supervisory working alliance in relation to supervisee disclosure in supervision by not only significantly predicting supervisee disclosure, but also serving as a bridge to connect other variables with supervisee disclosure in supervision.

The most unique finding of the current study was the association between the task-oriented supervisory style, supervisory working alliance, and supervisee disclosure, when
SUPERVISEE DISCLOSURE IN SUPERVISION

Supervisors adopted higher or lower task-oriented styles. In other words, when supervisors used higher level of task-oriented style, the association between these three variables increased; whereas, when supervisors utilized lower level of task-oriented style, the association became weaker. When compared to the other two supervisory styles, task-oriented style had the weakest association with supervisory working alliance (e.g., based on the absolute value of the path coefficients between task-oriented style and supervisory working alliance), and the association between the task-oriented supervisory style, supervisory working alliance, and supervisee disclosure was also the weakest (e.g., based on the absolute values of the indirect or mediation effect coefficients). Thus, due to such a weak impact task-oriented style had on supervisory working alliance and supervisee disclosure, it is no wonder when supervisors used lower task-oriented style, the association became worse and when supervisors increased their use of task-oriented style, the association between these three variables became a little bit stronger.

Implications for Future Research and Counselor Education and Supervision Practices

Based on the complex relationships between different supervisory styles, supervisory working alliance and supervisee disclosure in supervision, the results of current study have implications for future research as well as counselor education and supervision practices. First, future studies may continue examining the psychometric qualities of the SDSS and also cross-cultural validations of the SDSS may provide more insights of its factor structure. Second, it would be interesting to investigate how different supervisory styles influence the different aspects of the supervisory working alliance and what kind of supervisee disclosure. Fourth, although supervisory working alliance has commonly serves as a mediator in many complex relationships, it might not be the only mediator between supervisory style and supervisee disclosure in supervision; thus, researchers may consider other mechanism that linking these two
SUPERVISEE DISCLOSURE IN SUPERVISION

variables together. Last, the relationship between supervisory working alliance and supervisee disclosure might be reciprocal, as the Social Penetration Theory (Altman & Taylor, 1973) stated that the more people disclose to each other, the closer they feel with each other. Thus, supervisee disclosure may also predict supervisory working alliance. Besides, supervisee disclosure in supervision may predict other supervision (e.g., supervisee satisfaction) and counseling outcome (e.g., client recovery) variables. Thus, future research may examine the supervisee disclosure in supervision not only as an outcome, but also predictor variable.

Our findings also have implications for counselor education and supervision practices. First, due to supervisee disclosure in supervision’s important role, counselor educators and supervisors may consider introducing and emphasizing this concept in their teaching and supervision process (e.g., what it is and why it is important). Second, to help the supervisees to better utilize supervision, counselor educators and supervisors can use the SDSS to clarify what supervisee can talk about in supervision. Also, the SDSS may help the supervisors to build a safe space to invite supervisees to disclose their negative supervision experience or opinions towards supervisors, as they might be listed on the SDSS. Third, because all three supervisory styles uniquely contributed to the supervisee disclosure in supervision through supervisory working alliance, supervisors need to be flexible and tailor their styles based on the supervisees’ needs. However, when adopting the task-oriented style, supervisors may consider to maximize their use of this style, as a lower level of task-oriented supervisory style may have weaker impact on supervisory working alliance and supervisee disclosure in supervision. Finally, given its critical role, supervisors not only need to pay attention, but also find ways to improve supervisory working alliance with their supervisees. When teaching supervisory working alliance, besides explaining and emphasizing its importance, counselor educators may consider using empirical
SUPERVISEE DISCLOSURE IN SUPERVISION

studies to point out how supervisory working alliance link different supervisory variables with each other, that is, its mediating role among supervision variables.

**Limitations**

Although the current research found different complex relationships among these three variables, there are several limitations need to be considered when interpreting the results. First, SEM can only offer indication of causality but not causality, despite its advantages compared to other traditional multivariate methods. Second, participants may respond to the questionnaire based on social desirability as the data was collected through self-report measures. Third, the data was collected at one point; whereas, supervisee disclosure in supervision may change as they progress in the supervision. Fourth, the results only reflected supervisees’ perspectives, as the current study only focused on them rather than supervisor-supervisee dyads. Fifth, results regarding task-oriented supervisory style may only be generated to supervisees of earlier development levels (e.g., need structure and direction from supervisors). Sixth, the current study only looked at three supervisory styles; however, some supervisors might have both attractive and task-oriented styles or even use other styles that have not been mentioned in the literature yet; thus, the current results can only be interpreted within these three styles.
SUPERVISEE DISCLOSURE IN SUPERVISION

Reference


SUPERVISEE DISCLOSURE IN SUPERVISION


SUPERVISEE DISCLOSURE IN SUPERVISION


Li, C., & Kemer, G. (Under Review). The development and initial validation of the supervisee disclosure in supervision scale.
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SUPERVISEE DISCLOSURE IN SUPERVISION


References


Black, B. K. S. (1987). Components of effective and ineffective psychotherapy supervision as perceived by supervisees with different levels of clinical experience. Sciences and Engineering, 48(10), 3105.


doi:10.1037/a0022067


Li, C., & Kemer, G. (Under Review). The development and initial validation of the supervisee disclosure in supervision scale.


doi: 10.1080/14733141003712301


doi: 10.1037/tep0000028


counseling supervision. *Journal of College Counseling, 8*, 127-137.


APPENDIX A

INFORMED CONSENT

Dear Participants,

My name is Chi Li, a doctoral candidate from Old Dominion University. I am working with my advisor, Dr. Gulsah Kemer, on a research study to examine supervisee disclosure in supervision. We are writing to invite you to participate in this research study, which includes a survey that will take approximately 10-12 minutes.

To be eligible to participate in this study, you must be:
(1) Currently enrolled in the practicum or internship course in a master’s or doctoral counseling program in the U.S. and receiving weekly individual supervision
OR
(2) Graduated from the above program, but currently working toward getting licensed and receiving weekly supervision in the U.S.

If you are interested in entering a raffle to win a $10 Amazon gift card (there will be 50 winners randomly selected), please leave your email (not your name) at the end of the survey, which will not be linked to your responses for the survey. This project has been funded by the Virginia Association of Counselor Education and Supervision Graduate Student Development Grant.

Your participation in this study is completely voluntary. You can decide not to participate or withdraw from the study at any time. There are no foreseeable risks for you to participate in this study. However, the survey questionnaire you will respond to may lead to increased awareness of your supervision practices. Also, your confidentiality is very important to us and your answers will be completely anonymous. You will not be asked to provide any identifying information in the survey and you will be assigned an ID number in order to protect your confidentiality. Your anonymous responses will be kept confidential and the electronic copies of the data will be protected with password and kept in the principal investigator’s computer at ODU Darden College of Education Building. Only the researchers involved in this study will have access to these protected documents. The results of the study may be published, which will not show any identification information of the participants. If you have any questions or concerns regarding this study, please contact Chi Li at cli023@odu.edu or Dr. Gulsah Kemer (PI) at gkemer@odu.edu. If you have any questions about your rights as a subject/participant in this research, you may contact Dr. Jill Stefaniak (jstefani@odu.edu; 757-683-6696), the current IRB chair for the Darden School of Education IRB, Old Dominion University. Or the Old Dominion University Office of Research, at 757-683-3460.

Voluntary Consent by Participant:
I agree to be part of the study.

□ I agree
□ I don’t agree
Thank you for your interest in this study. Please answer the following questions for descriptive and exploratory purposes.

1. How old are you? ____years old

2. What is your gender?
   A. Female  
   B. Male  
   C. Transgender  
   D. Other _____________

3. What is your ethnicity?
   A. Native American/American Indian  
   B. Asian American/Pacific Islander  
   C. Black American/African American  
   D. Hispanic/Latino American  
   E. White American  
   F. Other _____________

4. What is your current level of training?
   A. Master’s student, please specify your major (s): _____________________
   B. Doctoral student, please specify your major (s): _____________________
   C. If you have already graduated, please specify
      • your highest degree: _____________________
      • your major (s): _____________________

5. Approximately, how many direct client hours do you have at the point of taking this survey? _________ hours

6. Approximately, how many hours of supervision experience (as a supervisee) do you have at the point of taking this survey? _________ hours
You may currently have many supervisors, but please pick ONE of them (current supervisor) and fill out the rest of the survey based on your experience with this supervisor:

7. Approximately, how many months have you been working with this supervisor? __________

8. How many supervisors (i.e., the ones who provide individual or group supervision for you) have you had before working with this current supervisor? __________

9. How old is your supervisor? __________ (Please estimate if unknown)

10. What is your supervisor’s gender?

   A. Male       B. Female
   C. Transgender D. Others __________

11. What is your supervisor’s ethnicity?

   A. Native American/American Indian       B. Asian American/Pacific Islander
   C. Black American/African American       D. Hispanic/Latino American
   E. White American                        F. Other ___________________

12. What is your supervisor’s highest degree?

   A. Master’s degree       B. Doctoral degree
   C. Other __________
# APPENDIX C

## SUPERVISEE DISCLOSURE IN SUPERVISION SCALE

During your supervision session, how *likely* are you to talk about the following issues with your supervisor?

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<th>3</th>
<th>4</th>
<th>5</th>
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<tbody>
<tr>
<td></td>
<td>not at all likely</td>
<td>unlikely</td>
<td>neutral</td>
<td>likely</td>
<td>very likely</td>
</tr>
</tbody>
</table>

25. Your supervisor's lack of flexibility

27. Lack of direction and structure from your supervisor in supervision

26. Poor fit (e.g., style and personality) between you and your supervisor

29. Lack of needed support from your supervisor

30. Your supervisor imposing his/her own ways of doing things onto you

33. Your discomfort with your supervisor

34. Your supervisor's excessive focus on task-related stuff (e.g., paperwork)

31. Your supervisor's suggestions not being useful/helpful

36. Your disagreement with your supervisor’s evaluation of you

35. Your fear of retaliation once you share your criticisms about your supervisor

39. Your observation of your supervisor’s countertransference with you

2. Troubles you have in counseling sessions (e.g., not knowing what to say, feelings of awkwardness)

3. Your anxiety about different aspects of your counseling performance (e.g., confronting/challenging the client, terminating sessions)

1. Your emotional reactions to your client’s story (e.g., you cried in the session with the client)

4. Your observations of your client (e.g., nonverbals, behaviors and patterns)

6. Your reactions toward a certain client (e.g., feel scornful about a client who sneezes for the whole session)

9. Your thoughts about how your client is feeling about you

16. Clinical mistakes regarding your counseling performance (e.g., ineffective/inappropriate use of counseling skills)

12. Your concerns that you may cross boundaries with a client
19. Personal issues influencing your counseling work
APPENDIX D

WORKING ALLIANCE INVENTORY-SUPERVISEE FORM

Instructions: Below are different ways a person might think or feel about his or her supervisor. As you read the sentences, mentally insert the name of the supervisor in place of ___ in the text and rate each statement on a seven-point scale:

1 2 3 4 5 6 7
Never Rarely Occasionally Sometimes Often Very Often Always

___ 1. I feel uncomfortable with ______.

___ 2. ______ and I agree about the things I will need to do in supervision.

___ 3. I am worried about the outcome of our supervision sessions.

___ 4. What I am doing in supervision gives me a new way of looking at myself as a counselor.

___ 5. ______ and I understand each other.

___ 6. ______ perceives accurately what my goals are.

___ 7. I find what I am doing in supervision confusing.

___ 8. I believe ______ likes me.

___ 9. I wish ______ and I could clarify the purpose of our sessions.

___ 10. I disagree with ______ about what I ought to get out of supervision.

___ 11. I believe the time ______ and I are spending together is not spent efficiently.

___ 12. ______ does not understand what I want to accomplish in supervision.

___ 13. I am clear on what my responsibilities are in supervision.
14. The goals of these sessions are important to me.

15. I find what ______ and I are doing in supervision is unrelated to my concerns.

16. I feel that what ______ and I are doing in supervision will help me to accomplish the changes that I want in order to be a more effective counselor.

17. I believe ______ is genuinely concerned for my welfare.

18. I am clear as to what ______ wants me to do in our supervision sessions.

19. ______ and I respect each other.

20. I feel that ______ is not totally honest about his or her feelings towards me.

21. I am confident in ______’s ability to supervise me.

22. ______ and I are working towards mutually agreed-on goals.

23. I feel that ______ appreciates me.

24. We agree on what is important for me to work on.

25. As a result of our supervision sessions, I am clearer as to how I might improve my counseling skills.

26. ______ and I trust one another.

27. ______ and I have different ideas on what I need to work on.

28. My relationship with ______ is very important to me.

29. I have the feeling that it is important that I say or do the “right” things in supervision with ______.
30. ______ and I collaborate on setting goals for my supervision.

31. I am frustrated by the things we are doing in supervision.

32. We have established a good understanding of the kinds of things I need to work on.

33. The things that ______ is asking me to do don’t make sense.

34. I don’t know what to expect as a result of my supervision.

35. I believe the way we are working with my issues is correct.

36. I believe ______ cares about me even when I do things that he or she doesn’t approve of.
APPENDIX E

SUPERVISORY STYLE INVENTORY

Please indicate your perception of your supervisor's style on each of the following descriptors. Rate on the scale, from 1 to 7, which best reflects your view of him or her.

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<th>4</th>
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<th>7</th>
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<tr>
<td>Not Very</td>
<td>Very</td>
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<tr>
<td>1. goal-oriented</td>
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<td>2. perceptive</td>
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<td>3. concrete</td>
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<td>4. explicit</td>
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<td>5. committed</td>
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<td>6. affirming</td>
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<td>7. practical</td>
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<td>8. sensitive</td>
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<td>9. collaborative</td>
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<td>10. intuitive</td>
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<td>11. reflective</td>
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<td>12. responsive</td>
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<td>13. structured</td>
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<td>14. evaluative</td>
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<td>15. friendly</td>
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<td>16. flexible</td>
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<td>17. prescriptive</td>
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<td>18. didactic</td>
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<td>19. thorough</td>
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<td>20. focused</td>
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<td>21. creative</td>
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<td>22. supportive</td>
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<td>23. open</td>
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<td>24. realistic</td>
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<tr>
<td>25. resourceful</td>
<td></td>
<td>26. invested</td>
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<tr>
<td>27. facilitative</td>
<td></td>
<td>28. therapeutic</td>
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<tr>
<td>29. positive</td>
<td></td>
<td>30. trusting</td>
<td></td>
<td></td>
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</tbody>
</table>
31. informative  
32. humorous  
33. warm
APPENDIX F

IRB APPROVAL LETTER

-----Original Message-----
From: Laura Chezan <no-reply@irbnet.org>
Sent: Wednesday, September 26, 2018 11:53 AM
To: Kemer, Gulsah <gkemer@odu.edu>
Subject: IRBNet Board Document Published

Please note that Old Dominion University Education Human Subjects Review Committee has published the following Board Document on IRBNet:

Project Title: [1210694-2] Supervisee Disclosure in Supervision: Contributions of Supervisory Style and Supervisory Working Alliance

Principal Investigator: Gulsah Kemer, Ph.D.

Submission Type: Amendment/Modification
Date Submitted: September 21, 2018

Document Type: Exempt Letter
Document Description: Exempt Letter
Publish Date: September 26, 2018

Should you have any questions you may contact Laura Chezan at lchezan@odu.edu.

Thank you,
The IRBNet Support Team

https://na01.safelinks.protection.outlook.com/?url=www.irbnet.org&amp;data=02%7C01%7Cgkemer%40odu.edu%7C7C64d882df3f7341080ba108d623c81ceb%7C48bf86e811a24b8a8cb368d8be227f3%7C0%7C0%7C636735739715128117&amp;data=B5qFdXsR90e1Hv0sFnatANA4X7cSy2GAq6A3f2mrhs%3D&amp;reserved=0
APPENDIX G

DATA COLLECTION RECRUITMENT EMAIL

Dear Dr. xx,

My name is Chi Li, a doctoral candidate at Old Dominion University, and my advisor is Dr. Gulsah Kemer. I am currently collecting data for my dissertation about supervisee disclosure in supervision and I am looking for 200-300 participants who are currently receiving supervision in the U.S. Please consider distributing this survey link to the students in your department (e.g., listserv). Thank you so much for your support and time!

--

Chi Li, Doctoral Candidate, M.C., NCC
Counselor Education and Supervision
Graduate Research Assistant & Teaching Instructor
Department of Counseling and Human Services
Old Dominion University
Norfolk, VA 23529
Email: cli023@odu.edu
Phone: (614) 266-5188
Chi Li, Doctoral Candidate/ABD, M.C., M.A., NCC
5509 Alson Drive, Apt 142 A, Norfolk VA 23508
✉ cli023@odu.edu | ☎ (614)-266-5188

EDUCATION

Ph.D. **Counselor Education and Supervision, CACREP-Accredited** May 2019 (anticipated)
Old Dominion University, Norfolk, VA
**Dissertation:** The effects of supervisory style and supervisory working alliance on supervisee disclosure in supervision: A moderated mediation analysis

M.C. **Clinical Mental Health Counseling, CACREP-Accredited** August 2016
Arizona State University, Tempe, AZ
**Thesis:** Counseling self-efficacy of international counseling students in the U.S.: Contributions of language anxiety, acculturation and social connectedness with American people

M.A. **Educational Administration** December 2012
The Ohio State University, Columbus, OH

B.A. **Organizational Leadership** May 2011
Fort Hays State University, Hays, KS

PUBLICATIONS AND MANUSCRIPTS

Publication:


Manuscript in Press:


Manuscripts under Review:

3. Li, C., & Kemer, G. Development and initial validation of supervisee disclosure in supervision scale.

2. Lu, J. F., Li, C., Ufomadu, J., & Potts, C. The predicting factors for spiritual competence development in counselor education.

**Manuscripts in Preparation:**

7. Li, C., & Kemer, G. (*proposal development*). What made you an expert researcher?


4. Li, C., Lu, J. F., & Kemer, G. (*manuscript writing*). The further validation of supervisory style inventory: Is it a two-factor or three-factor measure?

3. Li, C., & Kemer, G. (*manuscript writing*). The influence of demographic variables on supervisee disclosure in supervision.

2. Kemer, G. & others, Li, C., & others. (*manuscript writing*). Content analysis of multicultural supervision competency.

1. Kemer, G., Li, C., & Sunal, Z. (*manuscript writing*). Content analysis of supervision process and outcome measures.

---

**GRANTS**

**Funded:**


**Submitted but not Funded:**

AWARDS

6. Outstanding Research Award, Chi Sigma Iota 04/2018
5. Doctoral Student Professional Development Award, Old Dominion University 12/2017
4. Travel Award, Graduate School, Old Dominion University 09/2017
3. Travel Award, Darden College of Education, Old Dominion University 09/2017
2. Travel Award, Darden College of Education, Old Dominion University 06/2017
1. Travel Award, College of Letters and Sciences, Arizona State University 10/2015

CONFERENCE PRESENTATIONS


### RESEARCH EXPERIENCE

**Independent Study – Applied Structural Equation Modeling**

Department of Psychology, Old Dominion University  
- Faculty: Dr. James M. Henson  
01/2018 – 12/2018

**Independent Study – Applied Factor Analysis in Counseling**

Department of Counseling and Human Services, Old Dominion University  
- Faculty: Dr. Gülşah Kemer  
08/2017 – 12/2017

**Graduate Research Assistant**

Department of Counseling and Human Services, Old Dominion University  
- Faculty: Dr. Gülşah Kemer  
08/2016 – Present  
- Main responsibilities: Conduct literature review and data analysis (e.g., MANOVA and concept mapping), and write manuscripts  
- Research areas: Expert supervisor, effective and less effective supervision

**Counseling/Supervision Process and Outcome Research Lab Member**

Department of Counseling and Human Services, Old Dominion University  
- Faculty: Dr. Gülşah Kemer  
08/2016 – Present  
- Main responsibilities: Attend weekly lab meeting, conduct literature review and data analysis, coordinate research projects, mentor master’s students in research projects and collaborate on grant applications
- Research areas: Perception analyzer, counseling & supervision process and outcome research, and instruments in supervision

**Graduate Research Assistant** 01/2016 – 07/2016
Hugh Downs School of Human Communication, Arizona State University
- Faculty: Dr. Jonathan Pettigrew
- Main responsibilities: Conduct literature review, lead research project, and write final report for the grant project
- Research areas: Substance use and externalizing behaviors among adolescents

**Graduate Research Assistant** 08/2012 – 12/2012
Department of Educational Studies, The Ohio State University
- Faculty: Dr. Anita Anthony
- Main responsibility: Conduct literature review
- Research areas: Educational technology comparisons among China, USA and India

### TEACHING EXPERIENCE

**Co-Instructor (Graduate level)**
Department of Counseling and Human Services, Old Dominion University
- COUN 645: Testing and client assessment 08/2018 – 12/2018
- COUN 633: Counseling techniques 06/2018 – 08/2018
- COUN 655: Social and cultural issues in counseling 05/2018 – 06/2018
- COUN 670: Introduction to supervision 01/2018 – 05/2018
- COUN 634: Advanced counseling and psychotherapy techniques 08/2017 – 12/2017

**Instructor (Undergraduate level)**
Department of Counseling and Human Services, Old Dominion University
- HMSV 441: Career development and appraisal 01/2018 – 05/2018
- HMSV 346: Diversity issues in human services 01/2017 – 05/2017

**Co-Instructor (Undergraduate level)**
Department of Counseling and Human Services, Old Dominion University
- HMSV 444: Psychological groups 01/2019 – Present
- HMSV 448: Interventions and advocacy with children 08/2018 – 12/2018
- HMSV 444: Psychological groups (online) 05/2018 – 06/2018
- HMSV 346: Diversity issues in human services 08/2017 – 12/2017
- HMSV 346: Diversity issues in human services (online) 05/2017 – 07/2017

### CERTIFICATIONS

National Certified Counselor (NCC # 741912) 04/2017 – 04/2022
8-week Mindfulness-based Stress Reduction Program 03/2016

### COUNSELING EXPERIENCE

**Intern Counselor** 01/2018 – 07/2018
Chesapeake Regional Healthcare, Chesapeake, VA
  • Main responsibility: Conduct weekly individual counseling under supervision

**Intern Counselor**
Southwest Behavioral Health Services, Mesa, AZ
  • Main responsibilities: Conduct weekly individual counseling under supervision and conducted weekly group counseling (Mindfulness-based Stress Reduction) under supervision

**Practicum Counselor**
Counselor Training Center, Arizona State University, Tempe, AZ
  • Main responsibility: Conduct weekly individual counseling under supervision

**Volunteer Counselor**
Southwest Behavioral Health Services, Tempe, AZ
  • Main responsibility: Co-facilitate group activities for clients with severe mental illness at the center

**Volunteer Counselor**
University Counseling Services, Sias International University, China
  • Main responsibilities: Conduct individual counseling and teach *Safe Dates* program

### SUPERVISION EXPERIENCE

**Assistant Clinical Supervisor**
Chesapeake Regional Healthcare, Chesapeake, VA
  • Main responsibility: Conduct weekly individual, triadic and/or group supervision for master’s students

**Doctoral Student Supervisor**
Department of Counseling and Human Services, Old Dominion University
  • Main responsibility: Conduct weekly individual, triadic and/or group supervision for master’s students

**Doctoral Student Supervisor**
Department of Counseling and Human Services, Old Dominion University
  • Main responsibility: Provide weekly written supervision feedback for master’s students

### PROFESSIONAL SERVICES

**Editorial Fellow**
Counselor Education and Supervision (CES)
  06/2018 – Present

**Supervision Interest Network Member**
Association for Counselor Education and Supervision
  10/2017 – Present

**Counseling and Human Services Search Committee Member**
Department of Counseling and Human Services, Old Dominion University
  08/2017 – 03/2018

**Conference Proposals Review Committee Member**
Virginia Counselor Association, Yorktown, VA
  06/2017
### PROFESSIONAL MEMBERSHIP

<table>
<thead>
<tr>
<th>Organization</th>
<th>Date</th>
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<tbody>
<tr>
<td>Association for Assessment and Research in Counseling (AARC)</td>
<td>04/2017 – Present</td>
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<tr>
<td>National Center for Faculty Development and Diversity (NCFDD)</td>
<td>08/2016 – Present</td>
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<tr>
<td>Southern Association for Counselor Education &amp; Supervision (SACES)</td>
<td>08/2016 – Present</td>
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<tr>
<td>Association for Counselor Education &amp; Supervision (ACES)</td>
<td>01/2015 – Present</td>
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<td>American Counseling Association (ACA)</td>
<td>09/2014 – Present</td>
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### VOLUNTEER EXPERIENCES

<table>
<thead>
<tr>
<th>Experience</th>
<th>Date</th>
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<tbody>
<tr>
<td><strong>Undergraduate Online Course Co Developer</strong></td>
<td>05/2018 – 08/2018</td>
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<tr>
<td>Department of Counseling and Human Services, Old Dominion University</td>
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<tr>
<td><strong>Graduate Student Volunteer</strong></td>
<td>04/2018</td>
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<tr>
<td>American Counseling Association Conference, Atlanta, GA</td>
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<tr>
<td><strong>Guest Speaker</strong></td>
<td>11/2016 &amp; 05/2017</td>
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<tr>
<td>Multicultural Counseling Class, Old Dominion University, Norfolk, VA</td>
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<tr>
<td><strong>Graduate Student Volunteer</strong></td>
<td>10/2015</td>
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<tr>
<td>Association for Counselor Education and Supervision Conference, Philadelphia, PA</td>
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<tr>
<td><strong>Graduate Student Volunteer</strong></td>
<td>03/2015</td>
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<tr>
<td>American Counseling Association Conference, Orlando, FL</td>
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<tr>
<td><strong>Graduate Student Volunteer</strong></td>
<td>02/2015</td>
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<tr>
<td>Arizona Association of Family and Conciliation Courts Conference, Sedona, AZ</td>
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