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Differentiation of Self as a Predictor of Vicarious Trauma in Mental Health Professionals

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This is to certify that the doctoral dissertation by

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Abstract

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by

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MS, Northern Illinois University, 1996

BS, Northern Illinois University, 1994

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Mental health professionals in all settings work with clients who are affected by trauma. Traumatic events expose mental health professionals to the negative psychological and emotional impact of witnessing and listening to client stories. Vicarious trauma is the emotional consequence of this empathic engagement with clients. The purpose of this correlational study was to identify predictors of vicarious trauma in mental health professionals that had not been studied before. The theoretical framework guiding the study was the Bowen family systems theory and the construct of differentiation of self. A regression analysis was conducted with a purposive sample of 83 licensed or certified mental health professionals from community counseling agencies in the Midwest. Five research questions were evaluated using multiple regression analysis and determined that subcomponents of differentiation of self (i.e., emotional reactivity, I position, emotional cutoff, and fusion with others) predicted vicarious trauma. An additional regression analysis showed that vicarious trauma was best predicted by 2 subcomponents of differentiation of self; emotional reactivity was the most significant predictor followed by I position. By identifying characteristics in mental health professionals that predict vicarious trauma, counselor educators and supervisors can better educate, train, develop programs, and advocate for the emotional welfare of mental health professionals in the field.

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Dedication

I dedicate this dissertation to my husband for his unconditional support of my goals and to the future education of my daughters.

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Chapter 1: Introduction to the Study

Background

Mental health professionals continually listen to clients describe traumatic experiences. The mental health professional may be impacted emotionally and cognitively by providing an empathic response to the traumatic experiences of clients. The personal emotional health and ability to maintain healthy boundaries with clients may be related to the degree to which a counselor can emotionally separate him or herself from listening to traumatic content. Over the course of their career, mental health professionals may be less resilient in the emotional coping needed to provide an empathic response. The purpose of this study was to develop information to aid in supporting the emotional welfare of mental health professionals.

Based on Bowen's theory, which is focused on interpersonal relationships in the family system, researchers have defined *differentiation of self* (DoS) as the ability to balance individuality and togetherness in relationships (Bowen, 1978; Drake, Murdock, Marszalek, & Barber, 2015; Kerr & Bowen, 1988). Subcomponents of DoS include *emotional reactivity* (ER) (anxiety or irritability), *I position* (IP) (ability to express and maintain personal perspective), *emotional cutoff* (EC) (distancing self in relationships to soothe anxiety), and *fusion with others* (FO) (degree of emotional closeness in relationships; Bowen, 1978; Jankowski & Hooper, 2012; Kerr & Bowen, 1988). Empirical data has demonstrated that individuals with higher levels of DoS are able to think and act rationally despite stressful emotional situations while maintaining a clear sense of self (Bowen, 1978; Drake et al., 2015).

DoS theorists consider the mental health professional's degree of EC and degree of FO when interacting with clients (Kerr & Bowen, 1988; Savitz-Smith, 2004). According to Savitz-Smith (2004), the degree of EC and FO is important when considering how an individual can maintain a relationship with the client without losing self-identification. It is important for counselor educators and supervisors to consider how counselors are able to separate personal emotions and cognition when addressing client issues, treatment planning, and emotions of clients (Savitz-Smith, 2004).

McCann and Pearlman (1990) first conceptualized *vicarious trauma* (VT) as a normal reaction to the distressing content of working with trauma victims. Terms other than vicarious trauma, such as *compassion fatigue* and *secondary traumatic stress*, have been used interchangeably in literature over the last few decades (Figley, 1995; Trippany, Kress, & Wilcoxon, 2004). However, VT was the term that I used for the purpose of this study. VT may include symptoms similar to post-traumatic stress disorder (PTSD) (American Psychiatric Association, 2013) including but not limited to intrusive thoughts, difficult emotional reactions, irritability, and sleep disturbances (Figley, 1995).

Problem Statement

Despite evidence of DoS predicting emotional health, I did not identify existing literature supporting that DoS has a relationship with the VT in mental health professionals. Michalopoulos and Aparicio (2012) described how personal trauma history, degree of social support, and years of experience in the counseling field impacted the development of VT in a group of licensed social workers from the state of Maryland.

Unprecedented acts of terrorism, military involvement overseas (Kintzle, Yarvis, & Bride, 2013; Pulido, 2012), and catastrophic events involving shared trauma for the client and counselor (Tosone, Nuttman-Shwartz, & Stephens, 2012) are just some of the more current events facing mental health professionals. If the level of DoS does predict level of VT, mental health professionals could benefit from learning an additional predictor of VT in order to decrease negative emotional responses in the course of their work with clients (Sabin-Farrell & Turpin, 2003). Without assessment tools for identifying clinicians at risk from symptoms of VT, the general public may be at risk in the event of a mental health crisis because clinicians could be impaired by VT (Michalopoulos & Aparicio, 2012). Mental health professionals may be less able to provide an empathic response in the counseling process due to the cumulative nature of VT, and therefore not have the capacity to meet the mental health needs of the general public (Michalopoulos & Aparicio, 2012).

Purpose of the Study

The purpose of this quantitative cross sectional survey design using multiple regression analysis was to determine whether the subcomponents of DoS including ER, IP, EC, and FO predict the level of VT in mental health professionals. The independent variables were DoS as measured by individual subscale scores of ER, IP, EC, and FO based on the Differentiation of Self Inventory-Revised (DSI-R; Skowron & Schmitt, 2003). The dependent variable was VT operationalized as the total score of the Vicarious Trauma Scale (VTS; Vrklevski & Franklin, 2008).

Research Questions and Hypotheses

Does differentiation of self predict VT in mental health professionals? To be more specific, the research questions were the following:

Research Question 1: What is the predictive nature of the subscale score for ER with the level of VT as measured by the VTS in mental health professionals?

Research Question 2: What is the predictive nature of the subscale score for IP with the level of VT as measured by the VTS in mental health professionals?

Research Question 3: What is the predictive nature of the subscale score for EC with the level of VT as measured by the VTS in mental health professionals?

Research Question 4: What is the predictive nature of the subscale score for FO with the level of VT as measured by the VTS in mental health professionals?

Research Question 5: Which subscale score (i.e., ER, IP, EC, FO) has the most statistical significance when predicting level of VT as measured by the VTS in mental health professionals?

H_o: $\beta 1 = \beta 2 = \beta 3 = \beta 4 = 0$. In mental health professionals, the proportion of the variance of the dependent variable VT explained by the independent variables ER, IP, EC, and FO equals zero.

H_a: $\beta 1 \neq \beta 2 \neq \beta 3 \neq \beta 4 \neq 0$. In mental health professionals, the proportion of the variance of the dependent variable VT explained by the independent variables ER, IP, EC, and FO does not equal zero.

Theoretical Framework

The construct of DoS was developed within Bowen's (1978) family systems theory. DoS has been described as a strong predictor of psychological welfare consisting

of a person's ability to maintain autonomous and independent thinking or actions despite interpersonal stressors (Bowen, 1978; Hooper & Doehler, 2011; Kerr & Bowen, 1988; Skowron et al., 2009). Due to the predictive quality of DoS in relation to psychological health, it was theorized that the four subcomponents of DoS may predict the level of VT in mental health professionals. Chapter two expands upon Bowen's theory and how the construct of DoS and subcomponents of DoS may predict VT in counseling professionals.

Nature of the Study

A quantitative cross-sectional survey design using multiple regression analysis was implemented. I conducted a backwards regression analysis and determined which of the four independent variables had the most significant impact on the development of VT. Participants completed both self-report instruments including the VTS and the DSI-R. The participants had a license or certification in a mental health related field and self identified as counselors. The purpose of these inclusion criteria was to reflect a group of mental health professionals who have been providing counseling services long enough to have been exposed to clients with trauma. The required minimum sample size calculated through G* Statistical Software (2014) was 58 with a power of .80. Due to the potential of incomplete data or non-participation, I purposefully oversampled with a population of 150 to ensure enough statistical power. A total of 83 participants completed all questions on the DSI-R and VTS.

Definitions

In this study, these words and phrases were defined as follows:

Differentiation of self: Measure of a person's current ability to remain autonomous while avoiding negative ER with the context of interpersonal relationships. (Bowen, 1978; Kerr & Bowen, 1988; Knerr & Bartle-Haring, 2010).

Emotional reactivity: Level of emotional anxiety or sense of emotional flooding as defined by a high subscale score of ER on the DSI-R (Skowron & Schmitt, 2003).

I position: The ability to maintain a clear sense of self and the ability to maintain independent choices in the face of relational stress as defined by a high subscale score of IP on the DSI-R (Skowron & Schmitt, 2003).

Emotional cutoff: The degree of emotional distancing from others in relationships as defined by a high subscale score on EC on the DSI-R (Skowron & Schmitt, 2003).

Fusion with others: The degree of emotional closeness and over-involvement in relationships including taking on the ideas or beliefs of others without question and measured by a high subscale score on FO on the DSI-R (Skowron & Schmitt, 2003).

Vicarious trauma: The negative emotional response resulting from empathic listening to traumatic content within counseling sessions and measured by a higher score on the VTS (Jordan, 2010; Vrklevski & Franklin, 2008).

Mental health professional: Individual with a minimum of a certification or licensure in the counseling profession and self identifies as a counselor.

Assumptions

In this study, I assumed that the participants clearly understood the instruments and answered based on their emotional status over the last week. An assumption existed that participants with excessively high levels of VT still participated in completing the

instruments. This assumption appears to be accurate due to the range of scores on the VTS. In addition, it was assumed that a substantial predictability would exist between subcomponents of DoS and VT. I also assumed that statistical assumptions for multiple regression would be met (i.e., normal distributions or skewness of each variable, multicollinearity, and linear relationship between the independent and dependent variable). All assumptions were met in the data analysis for multiple regression.

No prior theory or hypothesis was used to determine the order of entry for the backwards elimination technique. In order to determine which independent variable was the most statistically significant predictor of VT, the order of entry using IBM SPSS Statistics Standard Grad Pack was the backwards linear regression. Two independent variables did have more statistical significance with ER showing the most significance followed by IP. It was assumed that the DSI-R accurately assessed DoS with the level of subcomponent scores. Lastly, it was assumed the VTS accurately assessed VT.

Limitations and Delimitations

According to Vogt and Johnson (2011), the delimiting variables "specify the nature of a population or a sample" (p. 101). While the delimitations are intended to create specific criteria for the sample population, the limitations may only theoretically meet the criteria needed for the study (Vogt & Johnson, 2011). The sample I used with this delimiting variable included licensed or certified mental health professionals at community counseling agencies in the Midwest. Therefore, these delimitations reduced the generalizability of the data to other types of counseling agencies or counseling

students. Additional delimitations included the chosen instruments, method of data analysis, and variables under study.

The sample consisted of more licensed mental health counselors versus certified counselors and it is possible the results were skewed based on the differences in professional backgrounds or training. This study included the perspective of 83 licensed or certified mental health professionals located in the Midwest. Therefore, clinicians with different counseling backgrounds or training may not be generalizable to the findings from this study.

The operationalized definitions of DoS, subcomponents of DoS, and VT may have presented a potential limitation. An additional limitation is the omission of moderating variables such as type of graduate school programming, self-care, personal experience of trauma, previous personal counseling, and years of experience in the counseling field. While there is extensive and long-term use of the DSI-R in completed research studies, the VTS has been used less in counseling research to date. The lack of previous research validating the use of the VTS on the proposed population under study may have created a limitation.

Significance

The data in this study could lead to additional methods to identify and prevent vicarious trauma in mental health counseling professionals. Then, counseling professionals can engage in additional training to improve their overall DoS and prevent the negative emotional symptoms of VT. If this study does not relate to a relationship between DoS and VT, mental health professionals can still benefit from learning what

may contribute or not contribute to the development of VT. As researchers' knowledge grows in relation to DoS as a possible predictor of VT, the information can improve existing training to increase the level of DoS and decrease the level of VT in the mental health professional. A potential implication for social change exists if mental health professionals are able to increase their level of DoS leading to improved emotional health and lower levels of VT. This implication implies positive impact towards the public as mental health professionals will have improved personal welfare as they interact with public counseling needs (Michalopoulos & Aparicio, 2012).

Summary

Extensive research exists regarding the predictable nature of DoS on psychological health and the impact of VT on mental health professionals. The purpose of this study was to determine to what extent if any level of DoS predicts VT in mental health professionals. In Chapter 2, I will review the professional literature on the construct of differentiation of self and VT.

Chapter 2: Literature Review

Introduction

Bowen developed the family systems theory in the 1960s, and seminal researchers supported the development of Bowen's construct of *differentiation of self* (DoS) (Jankowski & Hooper, 2012; Skowron & Friedlander, 1998; Skowron & Schmitt, 2003). Existing literature regarding the theoretical foundation of DoS is reviewed in this chapter. Literature related to how DoS may predict the level of vicarious trauma (VT) in mental health professionals also is reviewed.

In this chapter, I summarize additional literature related to the impact of VT on mental health professionals. The connection between trauma research and (VT) in mental health professionals is reviewed. The search strategy for this literature review was limited to peer reviewed published journals, books, web sites, and dissertations found with electronic search engines. Search terms used were *vicarious trauma, secondary traumatic stress, differentiation of self, Bowen family systems theory, family systems, trauma, traumatic stress, continuous traumatic stress, post-traumatic stress,* and *counselor*. The databases used were Thoreau Multi-Database, PsycINFO, SocINDEX, and Dissertations and Theses.

Theoretical Foundation

The foundation of Bowen's family system theory was central to this study. DoS which includes the four subcomponents of DoS *emotional reactivity* (ER), *emotional cutoff* (EC), *fusion with others* (FO), and *I position* (IP) are described along with how these constructs connect to the emotional welfare of the mental health professional.

Bartle-Haring, Glade, and Vira (2005) noted how higher levels of DoS predicted more adaptability and resilience under stress. Interpersonal relationships may improve in cases of individuals having higher DoS (Bartle et al., 2005) and therefore mental health professionals with higher DoS may be more adaptable within the client relationship or resilient leading to less VT. Relevant studies are summarized to illustrate the predictability of DoS on the emotional welfare of diverse individuals.

In 1966, Bowen first published his theory regarding typical patterns within interpersonal relationships (Brown, 1999). Bowen's theory focused on decreasing the level of anxiety resulting from family interaction patterns. The primary goals of Bowen's theory were to increase the awareness of the emotional system and to increase the level of differentiation of each individual in the system (Brown, 1999). Building upon this theory, Bowen (1978) encouraged counseling trainees to identify and possibly alter multigenerational patterns from their family of origin. Previous multigenerational patterns may contribute to emotional discord and lower levels of DoS. Through an increased awareness of personal family of origin patterns, according to Bowen, the trainees began to provide more effective counseling when compared to previous sets of trainees. This knowledge would assist them in creating healthier boundaries and interactions with clients.

The construct and subcomponents of DoS are rooted in Bowen family systems theory (Bowen, 1978; Kerr & Bowen, 1988). Bowen (1978) described DoS as the ability to be emotionally independent within the context of interpersonal relationships. Skowron and Schmitt (2003) noted how DoS encompasses the ability of the individual to

distinguish between thoughts and feelings, which leads to self-regulation of behavior. This self-regulation supports flexible boundaries in relationships leading to healthy emotional expression without feeling overwhelmed by the relationship (Bowen, 1978).

If DoS was placed on a scale incorporating ER, IP, EC, and FO, it may be conceptualized as starting at zero for a person with no emotional separation to 100 for a person highly responsible for their actions (Bowen, 1978). The use of a differentiation scale offers theoretical importance rather than assigning a specific score to an individual (Kerr & Bowen, 1988). Persons with low levels of DoS may leave them with almost no ability to maintain autonomous functioning. Therefore, persons lower on the differentiation scale would be more susceptible to stress and recover slowly from stressful events, whereas persons higher on the scale would recover more rapidly from stressful events (Kerr & Bowen, 1988).

Higher levels of DoS are theorized to lead individuals to greater interpersonal competence and emotional health (Bowen, 1978; Skowron et al., 2009). A higher level of DoS may result in a greater ability to avoid automatic responses to stimuli during periods of higher anxiety (Kerr & Bowen, 1978). Additionally, higher levels of DoS reflect improved psychological health because higher levels enable individuals to better regulate the emotional distress experienced in difficult interpersonal interactions (Skowron et al., 2009). This regulation of emotional distress or higher DoS involves the ability to examine situations, maintain awareness of one's full emotional status, and sustain logical reasoning under difficult circumstances (Skowron & Dendy, 2004).

Subcomponents of DoS described by Bowen (1978) include ER, IP, EC, and FO. *Emotional reactivity* (ER) is defined as having difficulty remaining calm in emotional settings with others and the tendency to make impulsive decisions when stressed (Bowen, 1978; Kerr & Bowen, 1988). Jenkins, Buboltz, Schwartz, and Johnson (2005) described ER as the degree the individual reacts to external or internal stimuli in the environment. An *I position* (IP) is demonstrated by the ability to remain independent in relationships and maintain one's own beliefs or convictions in the face of emotional distress (Bowen, 1978; Jankowski & Hooper, 2012). Individuals with lower levels of DoS may feel overwhelmed by emotions within the family leading to *emotional cutoff* (EC) or *fusion with others* (FO; Kerr & Bowen, 1988). EC is defined as the extent an individual may distance from others in order to decrease the degree of emotional distress (Jankowski & Hooper, 2012; Kerr & Bowen, 1988). FO describes the degree of emotional closeness in relationships (Jankowski & Hooper, 2012; Kerr & Bowen, 1988). These four subcomponents each play a role in DoS. Skowron et al. (2009) reported that higher levels of DoS are characterized by low ER, higher ability to take on an IP, lower FO, and less EC.

The construct of DoS supports counselors having a full awareness of emotional states, thoughtful examination of situations, and logical reasoning (Kerr & Bowen, 1988). Skowron, Wester, and Azen (2004) noted a mature sense of autonomy accompanies DoS allowing individuals to have thoughtful consideration of others' opinions and understand how the opinions of others may fit into their own belief system. If counselors have higher

levels of DoS, they may be better able to tolerate the anxiety and stress within client interactions (Bowen, 1978).

Skowron and Friedlander (1998) noted the theoretical importance of how the individual's level of DoS may have vital consequences. The person highly fused with others may find separation very threatening, while being emotionally cut off leads the person to create distance from the relationship to order to reduce internal anxiety (Skowron & Friedlander, 1998). The emotionally reactive person may tend to make decisions based on what feels right at the time and find it difficult to maintain a sense of calm when surrounded by the emotionality of others (Bowen, 1988; Skowron & Friedlander, 1998). A counselor with higher levels of DoS can remain emotionally objective despite the stress within client sessions allowing the counselor to relate well to the client (Bowen, 1978).

Based on the work of Kerr and Bowen (1998), the individual's family of origin has been deemed highly influential in the development of relationship skills and core constructs of forming relationships including DoS. Development of individuation or autonomy begins in the context of the family of origin (Bowen, 1978). The personal characteristics of the mental health professional have been described as playing a strong role in the relationship with the client (Lawson & Sivo, 1998) and these characteristics initially develop within the intergenerational context of the family of origin (Bowen, 1978). Tuason and Friedlander (2000) noted that patterns of differentiation in the family of origin are not limited to the parent-child relationship. Based on prior research, I hypothesized that the levels of DoS of mental health professionals may play a role in

their relationships with clients and may predict the degree of VT developed from these client interactions.

Differentiation of Self

Skowron and Friedlander (1998) noted the value of Bowen's theory within the field of family therapy to describe interpersonal relationships. They worked to develop an instrument to examine the constructs of the theory including ER, IP, EC, and FO. Skowron and Friedlander (1998) developed the Differentiation of Self Inventory (DSI), which included 43 statements with Likert scales to be answered as a self-report measurement examining thoughts and emotions about oneself and others (Skowron & Friedlander, 1998). The DSI offered researchers an opportunity to add additional support to Bowen's theory that higher levels of DoS predicted better psychological adjustment (Jenkins et al., 2005; Johnson, Schamuhn, Nelson, & Buboltz, 2014; Skowron, Holmes, & Sabatelli, 2003; Skowron et al., 2004).

In 2003, Skowron and Schmitt sought to revise the DSI by revising the FO subscale in an effort to increase its reliability and validity. Earlier studies had reflected lower psychometric properties of the FO subscale (Skowron, 2000; Skowron & Friedlander, 1998) when compared to the other subscales including ER, IP, and EC. The resulting self-report instrument was the Differentiation of Self Inventory - Revised (DSI-R) and consisted of a total of 46 Likert scaled statements with internal consistency scores of DSI-R full scale = .92, ER = .89, IP = .81, EC = .84, FO = .86.

Researchers had demonstrated the validity of DoS as an emotional and developmental construct through adulthood (Skowron, 2004; Skowron & Platt, 2005;

Skowron et al., 2009). Jankowski and Hooper (2012) contributed to the validity and value of using the DSI-R (Skowron & Schmitt, 2003) as a measurement of DoS. At the time of the Jankowski and Hooper (2012) study, existing research did support some generalizability of DoS to diverse cultural groups such as Korean and European American students (Chung & Gale, 2006), college students at a university in Israel (Pelog, 2005), and low income urban families (Skowron, 2004). Jankowski and Hooper (2012) noted the empirical value of using the total scale score of the DSI-R to assess the overall level of DoS. Additionally, Jankowski and Hooper (2012) noted that in lieu of the total scale score, the ER and EC scale would provide an efficient means to assess level of DoS.

Pelog (2005) reported that the construct of DoS (see Skowron & Friedlander, 1998; Skowron & Schmitt, 2003) was developed on the assumption that DoS was the most crucial variable needed to attain psychological health or adjustment. A regression analysis conducted by Jenkins et al. (2005) included 314 college students completing the DSI and the Measures of Psychological Development (Hawley, 1988). Jenkins et al. (2005) found DSI scores were related to the psychological development of the participants, and demonstrated statistical significance across all of the subscales on the Measures of Psychological Development instrument. Jenkins et al. (2005) noted how these results supported Bowen's theory that differentiation would be predictive of psychological welfare in adulthood.

In relation to ER, the Jenkins et al. (2005) results suggested that individuals responding to their environment with emotional flooding or a lack of autonomy have a

less stable sense of identity. The findings indicating IP and EC were also in line with Bowen theory of DoS predicting the eight subscales of the MPD and the majority of the variance in the analysis. According to Jenkins et al. (2005), the ability to maintain a clear sense of personal identity despite external or internal environmental stressors is central to psychological development. These data supported the theory that EC should be avoided in relationships because this is a symptom of too much emotional distress or low DoS resulting in the person using distancing as a means to cope.

In a longitudinal analysis, Skowron et al. (2009) found that lower levels of ER and stronger ability to take on an IP indicative of higher DoS early in the college semester predicted less psychological and interpersonal problems later in the semester. Even when controlling for other student problems or variables early in the semester, the higher degree of DoS was noted. Therefore, participants tending to emotionally cut off or develop FO had higher scores of psychological and interpersonal problems. These results with Skowron et al. (2009) provided additional support to Bowen's (1978) theory that higher levels of DoS lead to better well-being.

Krycak, Murdock, and Marszalek (2012) hypothesized how emotional support in marital relationships would be a mediator between DoS and level of psychological distress. The participants completed survey instruments including the DSI-R, the Communication Based Emotional Support Scale (Weber & Patterson, 1996), the Perceived Stress Scale (Cohen, Kamarack, & Mermelstein, 1983), and the Hopkins Symptom Checklist (Green, Walkey, McCormick, & Taylor, 1988). The data demonstrated a theoretically predictive interaction between DoS, perceived stress, and

emotional support. Krycak et al. (2012) noted that their results offered partial support to the findings of Skowron et al. (2004) reflecting how DoS may mediate the relationship between psychological distress and stressful events. Hypotheses of Krycak et al. (2012) tested if DoS would moderate the relationship between stress and personal adjustment. Findings by Krycak et al. (2012) provided empirical data that personal coping was accounted for by aspects of DoS including ability to remain emotionally connected to others, avoid EC, regulate levels of ER, and take an IP.

Biadsy-Ashkar and Pelog (2013) conducted a hierarchical regression analysis with a sample of 154 Arab and 114 Jewish women. Biadsy-Ashkar and Pelog (2013) hypothesized cross-cultural differences may be reflected using the DSI-R in Eastern versus Western cultures. Partial support of this hypothesis existed with Arab women scoring higher on IP and ER when compared to Jewish women. The participants did not display cultural differences in levels of EC. Biadsy-Ashkar and Pelog (2013) noted DoS was positively associated with satisfaction with life in both cultures under study. However, Arabic women had stronger levels of IP and ER related to overall life satisfaction. Significant differences were not found in either group related to level of EC or FO. Among both Jewish and Arab adult females, life satisfaction had an inverse relationship with EC and was positively associated with IP. In the regression model, DoS accounted for 34% of the variance in both cultural groups. According to Biadsy-Ashkar and Pelog (2013), Bowen theory of DoS was supported in their data with the association of IP and satisfaction with life in both cultural groups. Biadsy-Ashkar and Pelog (2013)

recommended additional research to cross validate the findings across diverse cultural groups.

Kim et al. (2014) conducted an analysis demonstrating significant differences in levels of DoS within South Korean culture. Participants ranged from age 20 to 70 and differences existed in level of DoS between the younger participants versus older South Koreans. Older South Koreans had higher levels of DoS when compared to younger participants. According to Kim et al. (2014), older Koreans likely had higher levels of DoS based on Bowen's theory of DoS being a lifelong process.

It is important to not assume that higher or lower levels of differentiation result in relationship satisfaction in all cultural groups. Depending on the unique aspects of the culture, a stronger sense of togetherness or independence may be valued by the family of origin (Bowen, 1978). A cultural stance on independence of closeness within family relationships may result in lower levels of DoS, but continue to support healthy family functioning in some cultural groups (Kim et al., 2014). For example, historically Korean families value a sense of interdependency and togetherness (Kim & Rye, 2005) and therefore, do not have higher levels of ER, EC, or FO that may be expected from lower levels of autonomy in other cultures.

The regression analyses summarized thus far (Biadsy-Ashkar & Pelog, 2013; Kim & Rye, 2005; Kim et al., 2014) supported the hypothesis of DoS as an important contributor to emotional well-being in diverse cultures. Much of the literature reviewed has demonstrated use of regression analysis to predict DoS as a factor in emotional health in diverse cultural groups (Biadsy-Ashkar & Pelog, 2013; Jenkins et al., 2005; Skowron

et al. 2009, Tuason & Friedlander, 2000). Therefore, these research designs supported using a regression analysis in this study.

Vicarious Trauma

McCann and Pearlman (1990) first coined the term *vicarious trauma* (VT) to describe a phenomenon experienced by clinicians in which they suffered significant psychological effects because of the trauma related to them by their clients. VT was described as a normal, inevitable, and predictable event in counseling professionals that can result in serious effects. McCann and Pearlman described VT as cognitive shifts, altered beliefs systems, difficult psychological consequences such as depressed mood or irritability, and negative emotional responses after listening to the traumatic content of client stories. McCann and Pearlman (1990) indicated that all mental health professionals working with traumatic content could experience altered cognitive schemas resulting in an extensive impact on emotions, relationships, and daily living. VT has been described as an occupational hazard of the cumulative impact of listening to traumatic content (Pearlman & Mac Ian, 1995). In order to fully grasp and describe VT, a brief history of trauma literature will support the possible impact of traumatic events on victims and mental health counseling professionals.

Trauma

According to Van der Kolk, Weisaeth, and Van der Hart (1996), the history of trauma documentation began in 1859 including childhood trauma and behavioral symptoms of psychological distress. MacLeod (1993) described how a neurologist, James J. Putman, theorized the functional means of trauma symptoms in human behavior.

MacLeod (1993) summarized how behavioral regulation developed by the trauma victim resembles the human instincts of automatic or reflexive methods of physiological functioning in early human development. Paulson and Krippner (2007) described trauma as an event on mind or body that can have a lasting impact on human subsystems "such as physiological, psycho neurological, social-emotional, and/or spiritual functions" (p. 1).

Van der Kolk et al. (1996) described the early work of Oppenheim (1889) and how he was the first researcher to describe the shifts in the central nervous symptom using the term *traumatic neurosis* (p. 48). Offering an organic origin to symptoms related to traumatic experiences provided an honorable description to soldiers struggling with these issues versus making the assumption that soldiers were breaking down under the emotional stressors of war (Van der Kolk et al., 1996). Descriptions of trauma symptoms included descriptors such as *cardiac neuroses* or *traumatic neurosis* to describe the physical changes experienced by combat soldiers (Oppenheim as cited in Van der Kolk et al., 1996, p. 48).

In the early 1900s, Janet (as cited in Van der Kolk et al., 1996) proposed that patients sometimes have difficulty integrating traumatic material and tend to react to reminders of the trauma as if the original event was taking place. Van der Kolk (2007) reported "people have always been aware" that events involving overwhelming fear may "lead to troubling memories, arousal, and avoidance" (p. 19). Van der Kolk (2007) reported how this pattern has been represented in literature since the writings of Homer to present research. Even from these beginnings of psychiatry, it has been unclear if symptoms from trauma are psychological or organic, if subjective interpretation of the

traumatic event results in negative symptomology, and if preexisting vulnerabilities of the traumatic event leads to negative symptomology (Van der Kolk et al., 2007).

Through the mid 1900s, researchers including Freud increased their awareness of how sexual trauma may developmentally impact children. Van der Kolk et al. (1996) summarized literature including repetition of traumatic memories through patients' dreams, patients with hysteria being unable to let go of traumatic memories, and repressed memories. Van der Kolk et al. (1996) noted how researchers during this time frame seemed to acknowledge the distress of sexual trauma but tended to avoid reviewing the full impact of the events on the patient. Janet (1925) described how patients would experience very strong emotional responses from traumatic memories but were not able to integrate the experience into their present cognitive schema. Because these memories could not be integrated, they are chronically experienced with difficult emotional responses (Janet, 1925).

Schnurr, Friedman, and Bernardy (2002) described how post traumatic stress disorder (PTSD) represents an extreme psychological reaction which may occur following the course of long term or short term reactions to trauma. Based on the *Diagnostic and Statistical Manual* (5th ed.; *DSM-V*; American Psychiatric Association, 2013), requirements for a diagnosis of PTSD include at least one of the following: direct experience of a traumatic event, learning a traumatic event happened to a close family member or friend, witnessing a traumatic event occur to others, or experiencing repeated exposure to trauma details. PTSD diagnostic criteria also includes symptoms such as intrusive memories, psychological distress, physiological reactions, avoidance of stimuli

similar to the event, and alterations in emotional reactions (American Psychiatric Association, 2013). Therefore, diagnostic criteria for PTSD could be generalized to cases of VT in mental health professionals being repeatedly exposed to details or exposure to traumatic content in counseling sessions with clients. Mental health professionals may experience fewer symptoms of PTSD or VT with higher levels of DoS because they are better able to cope with emotional stressors.

Impact of Trauma

Despite any specific type of traumatic event such as childhood abuse, sexual assault, or natural disasters, the human response tends to be fairly consistent (Van der Kolk, 1987). Empirical research exists with varying populations across the globe. This literature review is not intended to be inclusive of all research encompassing traumatic stress, continuous stress, or PTSD; but will instead provide examples of populations studied in the counseling field. Extensive research with specific populations does exist in relation to the impact of trauma with military service personnel (Kintzle et al., 2013), victims of natural disasters (Smith et al., 2014), gender disparities (Stuber, Resnick, & Galea, 2006), and children (Kjellgren, Svedin, & Nilsson, 2013).

The term *traumatic stress* will be defined as the emotional consequences or emotional shock resulting in negative psychological consequences versus physical injury (McLean, 2006). Eagle and Kaminer (2015) noted how traumatic stress tends to be the umbrella term over many trauma related events including but not limited to sexual assaults, natural disasters, domestic violence, torture, war, and car accidents. As the diagnoses related to traumatic stress evolved from the 1950s to 1980s, the *DSM-III*

recognized that stress disorders were no longer restricted only to acute stress responses in healthy people (Van der Kolk et al., 1996). Therefore, the *DSM-III* included the diagnosis of PTSD. Paulson and Krippner (2007) described PTSD as a complex human response developed to protect individuals from a prolonged or systematic threat to their personal welfare. As mental health professionals provide interventions for the treatment of PTSD or traumatic stress in clients, the process can involve the client vividly recalling the details of the event and therefore repeatedly exposing the clinician to traumatic content (Bride, 2004).

Research on PTSD has associated an increase in alcohol abuse following traumatic events (Nickerson et al., 2014; Ouimette, Read, Wade, & Tirone, 2010). Individuals have a tendency to self-medicate negative emotions associated with PTSD or traumatic experiences with alcohol (Ouimette et al., 2010). Nickerson et al. (2014) noted how the specific symptoms of PTSD such as hyper arousal and emotional numbing lead to an increase in alcohol use in participants who have experienced a traumatic injury.

The constructs of post-traumatic stress and traumatic stress do not adequately describe the lived experiences for many individuals around the globe who may be exposed to trauma, violence, or conflicts on a long term basis (Stevens, Eagle, Kaminer, & Higson-Smith, 2013). The term *continuous traumatic stress* (CTS) was conceptualized in the 1980s by Straker and The Sanctuaries Counseling Team (1987) to describe the lived experience of trauma on a long term or nearly day to day basis. This group of mental health workers were supporting victims of political violence in Africa. Stevens et al. (2013) noted how up until the last decade, most research on trauma survivors had been

conducted in higher income countries and therefore may have skewed the cultural context of traumatic stress and PTSD. Further evaluation of continuous traumatic stress may offer a means to offer more diverse knowledge to the field of trauma and offer a better means of articulating the lived experiences of various cultures (Stevens et al., 2013).

Sue, Zane, Hall, and Berger (2009) advocated for culturally sensitive treatment approaches and recognition of the unique experiences of marginalized populations with trauma. Some cultural groups have demonstrated a higher risk of traumatic events including the Native American population (Gone, 2013; Manson, Beals, Klein, Croy, & the Al-SUPERPFP Team, 2005), war refugees in the United States (Betancourt et al., 2012), and African-American families (Salloum & Lewis, 2010). Evidence-based practice for trauma should integrate client needs, value systems, interventions, and preferences to support culturally sensitive treatment for clients (Kazdin, 2008).

Relationship of Trauma, PTSD, and Continuous Stress to VT

As studies continue to refine the impact criteria and stressors, there will be a continual improvement in diagnosing traumatic stress-related conditions in the mental health profession (Eagle & Kaminer, 2015). Since the initial development of the *DSM-III*, the PTSD diagnosis could be considered a typical response to an abnormal or traumatic event (Eagle & Kaminer, 2015). This *DSM-III* PTSD diagnostic criteria evolved to the *DSM-III-Revised* (1987) followed by the *DSM-IV*, Text Revision (2000) incorporating the traumatizing event to include severe threat to life or physical safety (Eagle & Kaminer, 2015). Later in the *DSM-V,* the American Psychiatric Association created more

specific diagnostic criteria to avoid over generalizing trauma and PTSD diagnoses to all individuals who had experienced trauma (Eagle & Kaminer, 2015).

According to Mclean (2006), the history of trauma literature has become more consistent over the last few decades. Varying life events can trigger PTSD and place an individual within the continuum of behaviors, emotions, and dialogue similar to PTSD with or without a formal diagnosis (Paulson & Krippner, 2007). Scaer (2005) noted trauma is a commonplace life event for most people and therefore individuals may fall anywhere on the trauma continuum throughout their lifetime. Individuals living in environments of continuous traumatic stress often suffer detrimental mental health issues and frequently seek the assistance of mental health professionals (Stevens et al., 2013). Therefore, similar to the continuum of trauma in the individual, the continuum of trauma exposure for the mental health professional may vary among client populations and over the course of their counseling career. In situations of continuous traumatic stress or an ongoing threat of harm, it is important to provide a nonpathologizing response to support psychological welfare and increase methods of coping for victims (Diamond, Lipsitz, & Hoffman, 2013). Due to the future and current threat of traumatic incidents, continued advocacy for services by counseling professionals and investigation of PTSD symptoms or VT is necessary to protect the welfare of clients and mental health professionals (Michalopoulos & Aparicio, 2012).

According to Paulson and Krippner (2007), in the field of trauma, it is vital to consider PTSD as a tentative diagnosis and support the use of other terminology when appropriate to successfully describe the plight of diverse professional and civilian

populations who have experienced trauma. For example, Somer and Ataria (2014) believed the *DSM-V* stressor criteria for PTSD may not meet the diagnostic needs for victims of ongoing, daily, or continuous traumatic events. Continual evaluation of diagnostic criteria is needed for clinicians to remain up to date in the mental health field. Related to continuous stress, PTSD, and traumatic stress, defining terminology such as VT may be valuable for training and prevention of the phenomenon in mental health professionals. The counseling field needs to stay up to date with research for the on-going emotional welfare needs of mental health professionals.

Literature Review of VT

VT literature has been extensive over the last few decades. The following review of VT will not be exhaustive of the topic. However, studies were selected based on their relevance to this study and ability to describe the impact of VT on the lives of mental health professionals.

Previous research has often used the terms *secondary traumatic stress, compassion fatigue*, and VT interchangeably in the literature (Adams, Boscarino, & Figley, 2010; Devilly, Wright, & Varker, 2009; Negash & Sahin, 2011; Robinson-Kelig, 2014; Tosone et al., 2012; Trippany et al., 2004). However, according to Bourke and Craun (2014), distinctions exist among VT, compassion fatigue, and secondary traumatic stress. The primary distinctions are between secondary traumatic stress disorder and compassion fatigue when compared to VT. Figley (1995) reported the terms secondary traumatic stress disorder and compassion fatigue in mental health professionals to be consistent with PTSD. According to Bride, Radey, and Figley (2007), *compassion fatigue*

was later introduced as a more user-friendly term to describe the PTSD like symptoms experienced by mental health professionals, but was still equivalent to secondary traumatic stress.

While VT includes some symptoms of PTSD, the unique characteristic of VT is the transformation in mental health professionals' belief systems and cognitive schemas to fears and anxieties in the context of their life (McCann & Pearlman, 1990). For example, a change in cognitive schemas (i.e., thinking patterns) may lead to mental health professionals experiencing VT to develop fears within their daily environment and beliefs of their community no longer being safe. Negative thinking patterns and changed beliefs within the mental health professional may lead to difficulties within relationship interactions, emotional coping, psychological needs, and personal identity (Pearlman & Saakvitne, 1995).

Some of the elements shared by VT, compassion fatigue, and secondary traumatic stress are the emotional, physical, cognitive, and behavioral responses that may be considered normal when listening to traumatic content (Sabin-Farrell & Turpin, 2003). Some of the research in this literature summary have used the terms compassion fatigue or secondary traumatic stress to related to negative emotional aspects of empathic listening to traumatic content. For the purposes of my study, the terms secondary traumatic stress and compassion fatigue used by other researchers will be equivalent to VT. VT has been described as including inevitable negative emotional responses, altered thoughts or cognitions, and difficult psychological consequences from providing an empathic response to the traumatic client content within mental health counseling

sessions (Adams & Riggs, 2008; Devilly et al., 2009; Jordan, 2010; McCann & Pearlman, 1990).

According to Jordan (2010), the symptoms of VT parallel the symptomology of PTSD as defined by the *DSM-V*. Mental health professionals are continually drawn into the intensity of the therapeutic process (Kintzle et al., 2013) and despite all efforts are vulnerable to developing VT due to the trauma inducing stimuli provided by the stories of their clients (Figley, 1995). Symptoms of VT may result from a one-time counseling event, but are typically cumulative over time in the field (Jordan, 2010). Napoli and Bonifas (2009) noted how counseling students may have their first experiences of VT during stressful scenarios in the classroom. Bride et al. (2007) noted how compassion fatigue, or in the case of my study VT is recognized as a result of indirect exposure to traumatic content and can have significant behavioral, emotional, and cognitive changes in counseling professionals. Figley (1995) described the negative physical and psychological responses from listening to traumatic content of client stories as secondary traumatic stress disorder. Despite varying terms existing in literature, the mental health community typically refers to this phenomenon of PTSD symptomology as VT (Bride et al., 2007; Dunkley & Whelan, 2006; Newell & MacNeil, 2010).

Pearlman and Mac Ian (1995) studied a sample of 52 male and 136 female counselors who self-identified as trauma clinicians to investigate the impact of traumatic content on counselors. The purpose of the study was to promote knowledge of counselors' current degree of psychological functioning and develop dependent variables that may indicate VT and independent variables that might predict VT. Independent

variables based on the participant counselors included the following: years working with trauma survivors; amount of exposure to client traumatic content within sessions (i.e., moderate, great deal, none, enormous amount based on caseload); prior experience of having counseling due to personal trauma; type of work setting (i.e., hospital, clinic, supervisor); and trauma specific supervision or more general supervision in the workplace.

Pearlman and Mac Ian (1995) found a significant impact of the counselor's personal trauma history on the degree of general distress levels. Clinicians who had personally experienced a traumatic event tended to have more disrupted cognitive schemas. The mean score on the Traumatic Belief Scale of the total sample for Pearlman and Mac Ian (1995) was 184. A significant difference existed for the clinicians with personal trauma history having a mean score of 190 (*SD* = 38) and clinicians without a trauma history having a mean score of 174 (*SD* = 34). Based on the results, Pearlman and Mac Ian (1995) theorized that clinicians with a personal history of trauma may continue to engage in professional and personal development over the course of their careers lessening the impact of VT. Other significant variables were length of time in the field and type of supervision. Newer clinicians and those not receiving trauma specific supervision displayed more distress reflected by higher scores on the Traumatic Stress Institute Belief Scale (Pearlman, in press). Additionally, the results reflected clinicians with fewer years of experience in the counseling field having higher levels of VT when compared to clinicians with more years in the profession. Therefore, the researchers concluded that clinicians in the field longer may have developed better coping skills and

clearer emotional boundaries between clients and themselves in order to support lower levels of VT (Pearlman & Mac Ian, 1995).

Howlett and Collins (2014) concluded that this occupational hazard of developing VT in the mental health profession should be addressed through preventative measures and any onset of symptoms should be managed (Howlett & Collins, 2014). In order to prevent and manage symptoms, counselors at risk need to be identified and educated about the symptomology. Howlett and Collins (2014) provided recommendations for increased training, safe settings to express emotions, and regular evaluations in order to decrease the risk of mental health professionals developing VT.

Kintzle et al. (2013) conducted a quantitative analysis with a nonrandom convenience sample. The 70 participants were mental health professionals from two military hospitals and had a minimum of a graduate degree. The instrument used to measure degree of secondary traumatic stress was the 17-item self-report Secondary Traumatic Stress Scale (STSS; Bride, Robinson, Yegidis, & Figley, 2004). According to Kintzle et al. (2013), higher scores on the STSS indicated higher levels of secondary traumatic stress. The internal consistency of the STSS in this sample was $\alpha = 0.95$. Kintzle et al. (2013) reported the overall scores had fairly low levels of secondary traumatic stress (STS) with 41% of their sample reporting no symptoms of STS. Symptoms noted most frequently by participants included intrusive thoughts, numbing emotions, and sleep disturbance. Kintzle et al. (2013) theorized that this result of 41% reporting no symptoms may be related to the military culture of the participant sample which typically reflects a high sense of teamwork, strength, and a sense of duty which

may serve as resiliency factors lowering STS. Kintzle et al. (2013) recommended that future studies explore what cultural or protective factors may contribute to lower levels of STS in various mental health professionals.

Devilly et al. (2009) examined the theoretical constructs of STS, VT, and burnout together versus assuming these were distinct constructs. The study included 152 mental health professionals consisting of one group of clinicians typically treating trauma clients and a control group of clinicians typically not treating trauma clients. These researchers maintained the assumption that trauma work may lead to VT and therefore other factors may increase the likelihood of developing VT. The results reflected no significant difference in STS or VT when comparing mental health professionals with caseloads of trauma clients when compared to clinicians with caseloads of non-trauma clients. These findings countered previous finding that reported the negative impact of working with trauma clients (Pearlman & Mac Ian, 1995). Devilly et al. (2009) noted the lack of control group in those studies may have led to acceptance that STS and VT are primarily issues for clinicians working with traumatized populations and did not include mental health professionals where other factors may have contributed to their symptomology. Future recommendations included providing equal treatment of trauma and non-trauma therapists in order avoid minimization of the non-trauma counselors' commitment or personal involvement in their work (Devilly et al., 2009).

Individual factors may increase or decrease the degree of vulnerability to STS (Pulido, 2012). Harrison and Westwood (2009) conducted a mixed methods design study to explore what protective self-care practices mitigate the symptoms of VT. Various

themes of self-care emerged supporting lower levels of VT in mental health professionals including self-awareness, boundaries, job satisfaction, spirituality, holistic self-care, and maintaining limits. Harrison and Westwood (2009) described how clinicians maintaining these protective practices and self care were able to maintain empathy for their clients without engaging in emotional fusion or confusing client experiences with their own. Self-care allowed the clinicians to better focus on the present moments of the counseling session and not become lost in a personal perspective which may lead to more VT symptoms (Harrison & Westwood, 2009). Napoli and Bonifias (2011) recommended self-care practices such as mindfulness education to decrease the emotional stress of social work students. VT symptomology can begin as early as classroom training due to traumatic content of education materials, role plays, and internships (Napoli & Bonifias, 2011). Increasing the amount of time mental health professionals devote to self-care is recommended for long term work in the field and reduction of VT (Harrison & Westwood, 2009; Napoli & Bonifias, 2011).

Several researchers cited factors that may impact the severity of VT in mental health professionals (Harrison & Westwood, 2009; Jordan, 2010; Kintzle et al., 2013; Pulido, 2012; Robinson-Keilig, 2014). These factors included personal history of trauma, supervision, self-care, social support, resiliency, perception of level of training, history of psychiatric symptoms, and professional trauma. An example of a professional trauma would be providing counseling to military troops due to high degree of traumatic content (Jordan, 2010) or the experience of sharing the traumatic event (i.e., hurricane, tornado, terrorism) in the same community as the client (Tosone et al., 2012).

Integration of Differentiation of Self and VT

Literature was summarized describing how lower levels of DoS seem to predict the development of more psychological distress and emotional problems over time (Bartle-Haring, Glade, & Vira, 2005; Krycak et al., 2012; Murdock & Gore, 2004; Skowron et al., 2009; Tuason & Friedlander, 2000). Skowron et al. (2009) noted persons with low levels of DoS tended to be irritable, be dependent on others in relationships, had poor boundaries, display insensitivity in relationships, and were intrusive in interacting with others. These behaviors related to low DoS may leave a mental health professional more likely to develop VT due to dysfunctional patterns trying to cope with the emotional stress of interacting with clients and listening to traumatic content of client stories.

Individuals with lower levels of DoS may be more emotionally reactive, engage in EC, engage in FO, and have a lower sense of IP during times of overwhelming anxiety (Bowen, 1978; Kerr & Bowen, 1988; Skowron & Friedlander, 1998). Skowron et al. (2004) noted the people with higher levels of DoS were better able to cope with their emotions under stress. Therefore, people with higher DoS are better able to modulate the emotional reactions stemming from psychological distress (Skowron et al., 2004) and may develop less VT. Therefore, I hypothesized that persons with lower levels of DoS would be more likely to experience higher levels of VT.

Social Change and Ethical Responsibility

Negash and Sahin (2011) recommended that mental health professionals monitor their level of ER both inside and outside the counseling relationship. The creation of an empathic relationship with clients can be difficult without clear emotional boundaries as a

clinician. This empathic relationship may be difficult to maintain if the clinician has become emotionally exhausted from compassion fatigue (Negash & Sahin, 2011). Compassion fatigue can be a result of secondary trauma following traumatic client content and produces similar symptoms of VT such as negativity, emotional exhaustion, irritability, and social detachment (Negash & Sahin, 2011).

Continual monitoring for the presence of negative symptomology may lead to the prevention of the negative aspects of VT (Bride et al., 2007). Ongoing assessment is valuable because VT may lead to a lack of clinical effectiveness and interfere with personal welfare (Bride et al., 2007). Some types of VT may result from the empathic response of the counselor including a reenactment of the traumatic client experience including the counselor becoming a witness to intentional cruelty between human beings (Sabin-Farrell & Turpin, 2003).

The ability of mental health professionals to be empathic may depend on their ability to establish boundaries against the emotional pain of the client, their perceptions of the helping relationship, and their ability to manage the stress in the helping relationship (Hernandez, Engstrom, & Gangsei, 2010). The degree of compassion fatigue that may evolve will depend upon the length of exposure, the extent of disruptions in the professional or personal life of counselors, and personal history of traumatic experiences (Hernandez et al., 2010). If a mental health professional is experiencing VT, the symptomology may impact client care, progress, and assessment of clients. Addressing VT is imperative to avoid any exploitation of the client relationship and to protect the ethical dynamics within the counseling relationship (Trippany et al., 2004).

Several research studies regarding the topic of secondary traumatic stress and VT have provided input supporting prevention education and advocacy for supportive resources to be provided to mental health professionals (Harrison & Westwood, 2009; Kintzle et al., 2013; Napoli & Bonifas, 2011; Sommer, 2008; Robinson-Keilig, 2014). The use of a brief 8 item instrument such as the Vicarious Trauma Scale (VTS; Vrklevski & Franklin, 2008) could support regular assessment of VT in diverse mental health settings. Bride et al. (2007) recommended a short time frame such as a week to assess the most current level of VT. The assessment could serve as a screening tool to increase the possibility of identifying mental health professionals at a greater risk of experiencing or are currently experiencing VT (Bride et al., 2007).

Sommer (2008) described the importance of counselor educators having an ethical duty to provide specific education in the area of VT in order to protect counselors and clients. Advanced knowledge of the hazard of VT may be critical to the long term welfare of mental health professionals (Sommer, 2008). Sabin-Farrell and Turpin (2003) recognized the value of regular assessments for mental health professionals by early identification, prevention, and treatment of VT. Counseling organizations may have a need for training and structural changes if VT is determined to be a risk factor for mental health practitioners (Sabin-Farrell & Turpin, 2003).

As described in the literature review, mental health professionals may begin to develop symptoms of VT in an effort to cope with the traumatic content of client stories and experiences. Researchers over the last 10 years have sought to advocate for the prevention of vicarious in mental health professionals (Tosone, McTighe, Bauwens, &

Naturale, 2011). The goal of prevention and remediation of VT may increase from examining elements of DoS in mental health professionals.

Summary and Conclusions

In order to better inform the results of this study, a review of DoS, subcomponents of DoS, trauma, and VT has been conducted. Subcomponents of DoS including ER, IP, EC, and FO were hypothesized to relate to the degree of VT in the mental health professional. This study has added to existing knowledge related to the prevention of VT in mental health professionals. Therefore, additional literature on the predictability of DoS and VT may lead to changes in course curriculum, training, and continuing education for mental health professionals.

In the literature review, I described the variables included in this study. In addition to examining the variables, it is evident that further research may support a predictable nature of DoS with VT. Chapter 3 will include the methodology used to examine this predictor relationship.

Chapter 3: Research Method

Introduction

The purpose of this quantitative study was to determine whether the level of differentiation of self (DoS) consisting of subcomponents of DoS including emotional reactivity (ER), I position (IP), emotional cutoff (EC), and fusion with others (FO) predicted the level of vicarious trauma (VT) in mental health professionals. In accordance with Bowen family systems theory, DoS reflects an individual's ability to self-regulate intrapersonal and interpersonal emotional responses in the context of relationships (Johnson et al., 2014; Kerr & Bowen, 1988; Skowron & Schmitt, 2003).

Diverse empirical data have been accumulated by researchers regarding the predictable nature of DoS for psychological health (Hooper & Doehler, 2011; Khaddouma, Gordan, & Bolden, 2015; Murdock & Gore, 2004; Tuason & Friedlander, 2000). Based on the results of my study, mental health professionals could benefit by examining how DoS is a predictor of VT. This greater awareness could decrease negative emotional responses in the course of their work with clients (Sabin-Farrell & Turpin, 2003). The rationale and design of this study will be reviewed including but not limited to definition of variables, design choice, population, sampling, power analysis, and recruitment.

Research Design and Rationale

Variables

The most central construct of Bowen's family systems theory is DoS (Bowen, 1978; Kerr & Bowen, 1988; Jenkins et al., 2005). For the purposes of this study,

subcomponent scores of DoS (i.e., ER, IP, EC, FO) were determined as reported on the Differentiation of Self Inventory-Revised (DSI-R; Skowron & Schmitt, 2003). These measurements reflected the participants' current level of psychological health and ability to self-regulate emotions within interpersonal relationships (Bowen, 1978; Kerr & Bowen, 1988; Licht & Chabot, 2006).

The independent variables were the subcomponents of DoS measured by the subscale scores on the DSI-R (Skowron & Schmitt, 2003). ER was the degree a person reacts to stimulus in the environment without feeling emotionally flooded (Jenkins et al., 2005; Kerr & Bowen, 1988). IP was the extent to which a person is able to identify, maintain, and express his or her own perspective in the face of emotional stress (Jankowski & Hooper, 2012; Kerr & Bowen, 1988). EC is the extent a person distances from others in order to reduce emotional stress (Jankowski & Hooper, 2012; Kerr & Bowen, 1988). FO was defined as the degree of emotional closeness within interpersonal relationships (Jankowski & Hooper, 2012; Kerr & Bowen, 1988).

VT as a dependent variable included both the immediate and cumulative negative emotional response or interpersonal disturbance resulting from engaging in the empathic response of listening to the traumatic content of client material (Adams & Riggs, 2008; Jordan, 2010; Robinson-Keilig, 2014). VT was measured by the total score of the Vicarious Trauma Scale (VTS; Vrklevski & Franklin, 2008).

A *mental health professional* in this study was defined as a certified or licensed mental health clinician and could include licensed or certified counselors, psychologists,

social workers, marriage and family therapists, counselor educators, and addictions counselors. The mental health professional self identified as a counselor.

Research Design

This research project included using a quantitative cross-sectional survey design with multiple regression analysis and determined how accurately ER, IP, EC, and FO predicted the level of VT in counseling professionals. The regression analysis involved the independent variables being entered into the regression equation using the backwards elimination technique (Vogt & Johnson, 2011). Using the backwards elimination technique with the regression model allowed me to determine which variable accounted for the highest amount of variance in the dependent variable (Kellar & Kelvin, 2013**)**. Therefore, it was determined which subcomponent score of DoS accounted for the most variance in the dependent variable VT.

The research design was consistent with a multiple regression analysis, which determined how accurately the independent variables predicted the dependent variable of VT. This design choice was appropriate for a one-time completion of the survey instrument. The regression analysis was consistent with previous studies predicting DoS on psychological welfare of participants (Hooper & Doehler, 2011; Murdock & Gore, 2004; Skowron, 2005; Skowron & Platt, 2005). This study supported advancement in the social science field.

Research Question and Hypotheses

Does differentiation of self predict VT in mental health professionals?

To be more specific, the research questions were the following:

Research Question 1: What is the predictive nature of the subscale score for ER with the level of VT as measured by the VTS in mental health professionals?

Research Question 2: What is the predictive nature of the subscale score for IP with the level of VT as measured by the VTS in mental health professionals?

Research Question 3: What is the predictive nature of the subscale score for EC with the level of VT as measured by the VTS in mental health professionals?

Research Question 4: What is the predictive nature of the subscale score for FO with the level of VT as measured by the VTS in mental health professionals?

Research Question 5: Which subscale score (i.e., ER, IP, EC, FO) will have the most statistical significance when predicting level of VT as measured by the VTS in mental health professionals?

H_o: $\beta 1 = \beta 2 = \beta 3 = \beta 4 = 0$ In mental health professionals, the proportion of the variance of the dependent variable VT explained by the independent variables ER, IP, EC, and FO equals zero.

H_a: $\beta 1 \neq \beta 2 \neq \beta 3 \neq \beta 4 \neq 0$ In mental health professionals, the proportion of the variance of the dependent variable VT explained by the independent variables ER, IP, EC, and FO does not equal zero.

Methodology

Sampling and Sampling Procedures

A purposive nonrandom sample was chosen for this study. A purposive study includes participants with predetermined criteria to be eligible for the study (Banerjee & Chaudhury, 2010). The sampling strategy included obtaining a sample of mental health

professionals who were employed in Midwestern community counseling agencies specializing in mental health and substance abuse disorders. Following approval # 02-09-16-0343452 of the Walden University Institutional Research Board (IRB), one large community agency was identified as a potential participant. Additional sites were to be contacted if needed for additional participants to complete the survey.

In consideration of the inclusion criteria, the mental health professionals needed to have a minimum of a certification or a license in a mental health related field. This target population included characteristics reflective of mental health professionals such as graduate level training in a counseling related field and employment within the mental health field. The reason only certified or licensed mental health professionals were included in this study was because they are professionals who have been working for a long period of time and therefore have had enough client contact to have had the opportunity to counsel traumatized clients, which will have exposed them to the potential of developing VT themselves. Due to a period of six months to two years being required to obtain certification of licensure, the participants would have had enough time to experience VT regardless of their length of employment with the agency. Mental health professionals who did not have a certification or licensure in their field were not included in the study regardless of their years of experience in the field. These clinicians were not included because they may not be held to the same continuing education requirements to support their welfare as a counseling professional (ACA, 2014). If they are gaining experience toward becoming licensed, then they will not have had enough experience as a mental health professional for this particular study.

Procedures for Recruitment

Initial contact via email was made with a large mental health and substance abuse treatment facility in the Midwest. The corporate compliance director provided a copy of the site's research application to participate in the study. The application process for the site was completed but not accepted for participation. The corporate compliance director reported a different research project had been accepted by the agency and therefore, the agency would not be participating in my study. Following the rejection from this large facility to participate in the study, similar counseling agencies were contacted to participate in the study until a minimum of 150 potential participants was obtained.

Initial contact was made with site supervisors via telephone calls. Supervisors were informed of a request to attend a regularly scheduled staff meeting attended by licensed or certified mental health professionals as part of a doctoral study approved by Walden University. Supervisors were told:

1. An email would be sent to confirm a meeting time and provide a site cooperation letter (see Appendix A).
2. The site cooperation letter must be returned before the researcher could attend the meeting.
3. Informed consents and instruments would be distributed at the staff meeting.
4. Participants would be able to complete the surveys at a convenient time
5. A sealed box would be left for participants to place their surveys if they chose to participate.

6. Participants would keep the copy of their informed consent and provide their consent by choosing to place the surveys in the sealed box.
7. Participants would have the option of declining participation with no penalty.
8. I (as the researcher) would pick up the sealed box at a later date identified with the site supervisor.

A total of 12 community counseling agencies in the Midwest agreed to participate in the study. Despite agreement to participate and a signed cooperation letter, one site did not schedule the required staff meeting so no surveys were distributed to that site, leaving 11 remaining agencies. Participants were provided with paper copies of the informed consent, personal data sheet, and instruments (see Appendices B, C, D, and E) during the scheduled staff meetings. A sealed box was provided and left at a designated area (i.e., break room or room designated by site supervisor) for participants to place their personal data sheets (e.g., gender, age, certification, licensure, years in the field) attached to survey instruments.

Calculation of Sample Size with G*Power

According to Trochim (2006), four components should be taken into consideration when calculating sample size. These aspects are alpha level by calculation of the significance of a result happening due to the experiment versus by chance, the sample number chosen or units, power to calculate odds of an observed treatment effect, and effect size noting the degree of impact from the experiment. The alpha level determined for this study was .05 allowing the risk of being statistically wrong only 5

times out of 100. A lower alpha level requires the statistical test to become more rigorous (Trochim, 2006).

A larger sample size can increase the chance of rejecting the null hypothesis and account for nonresponse bias or missing data (Trochim, 2006). According to Cohen (1992), operational definitions of effect sizes can fall into categories of small, medium, and large. Researchers must consider to what degree they are willing to accept an incorrect null hypothesis (Cohen, 1992). Michalopoulos and Aparicio (2012) noted "lack of sufficient power for medium effect size in their regression analysis" and therefore, could not account for the statistically insignificant results related to trauma history related to the development of vicarious trauma" (p. 659). This study accepted a medium effect size of .25. Power in social science research has often accepted .80 which reflects the researchers involved accepting an 80% possibility of a statistical difference in the resulting data (Keller & Kevlin, 2013; Trochim, 2006). Therefore, through the use of G* Statistical Software (2014), a power of .80 was chosen for this study. When the formula for G* power was applied, it was determined that a minimum sample size of 58 participants was required for this study. Potentially, 150 employees may have completed the instruments. If additional participants had been needed due to uncompleted surveys, more licensed and certified mental health professionals would have been sought at similar community agencies.

Instrumentation, Reliability and Validity for the DSI-R

Skowron and Friedlander (1998) originally developed the Differentiation of Self Inventory (DSI) over the course of three separate studies. The purpose of creating the

inventory was to develop and validate an instrument that would support the construct of DoS, as defined by Bowen (1978). The first study was conducted with 313 participants consisting of graduate students in counseling related graduate programs and acquaintances of individuals connected with the research team. The researchers had an original pool of 96 items supporting the domain of DoS and were able to support the existence of subscales as a result of their studies.

These original subscales and Cronbach's alpha included DSI total score (DSI) = .88, ER = .83, Reactive Distancing = .80, IP = .80, and Fusion with Parents = .82. Additional studies were conducted by Skowron and Friedlander (1998) to improve the validity of the DSI subscales. Skowron and Friedlander (1998) refined the Fusion with Parents and Reactive Distancing subscales to FO and EC in order to strengthen them conceptually within the DSI.

Skowron and Friedlander (1998) studied 169 participants who were employed at a large state agency and were 25 and older. This study was conducted primarily to improve the validity of the ER and IP subscales. The researchers narrowed the subscales to include 43 items reflective of the four subscales of ER, IP, EC, and FO. The third research trial was conducted to evaluate the factor structure and confirm the theory of DoS theoretically predicting psychological symptoms, DoS, and marital satisfaction with 127 participants with an age range of 25-72. The internal consistency of the DSI in this participant group with Skowron and Friedlander (1998) to improve the validity ranged from DSI total $\alpha = .88$, ER $\alpha = .88$, IP $\alpha = .85$, EC $\alpha = .79$, and FO $\alpha = .70$. The final

version of the DSI contained 43 Likert Scale items ranging from (1) not at all true of me to (6) very true of me.

Skowron and Schmitt (2003) sought to revise the DSI in order to strengthen the reliability of the FO subscale. They noted how previous studies using the DSI reported lower reliability on the FO subscale when compared to the other subscales. The researchers conducted statistical analysis on each item of the FO subscale on the DSI. The revisions on the FO subscale resulted in a total of 12 items.

Following the revisions by Skowron and Schmitt (2003) the DSI-R contained 46 items and assessed the four subcomponents of DoS including ER, IP, EC, and FO. The resulting Cronbach's alpha score for the DSI-R was total score = .92, ER = .89, IP = .81, EC = .84, and FO = .86. The ER subscale consists of 11 items reflecting the degree a person experiences emotional flooding or hypersensitivity to emotions. A sample item from the ER subscale is "When someone close to me disappoints me, I withdraw from him/her for a time". The IP subscale consists of 11 items reflecting how clearly the person defines a sense of self and the ability to maintain independent decisions despite pressure to choose otherwise. A sample item from the IP subscale is "When I am having an argument with someone, I can separate my thoughts about the issue from my feelings about the person". The EC subscale consists of 12 items reflecting behaviors such as distancing in relationships, over functioning, and feeling overly vulnerable in relationships. A sample item from the EC subscale is "When one of my relationships becomes very intense, I feel the urge to run away from it". The FO subscale consists of 12 items measuring behaviors of being overly involved within relationships. A sample

item from the FO subscale is “Sometimes I feel sick after arguing with my spouse/partner”.

In order to compute the scores on the subscales of the DSI-R, the items on the EC and ER subscales were reversed. Item number 35 on the IP subscale was reverse scored and all items on the FO subscale were reverse scored with the exception of item number 37. The raw scores of the subscales were then totaled and divided by the number of items on each subscale. Higher scores from each subscale reflected lower ER, stronger ability to maintain IP, lower EC in relationships, and lower FO.

The DSI-R was appropriate to use in this study based on the empirical support in the literature reflecting the construct of DoS. The DSI has been supported as valid and reliable in the literature for over 20 years (Knerr & Bartle-Haring, 2010; Pelog; 2005; Skowron & Friedlander, 1998; Skowron, 2005). Even though the original DSI continues to be used in recent studies, the DSI-R was used for this study. The DSI-R supports a more updated version of the instrument and yields a higher Cronbach’s alpha score on the FO subscale than several previous studies (Kim et al., 2014; Krycak et al., 2012; Skowron & Schmitt, 2003) when compared to studies using the DSI (Jenkins et al., 2005; Skowron & Friedlander, 1998). Jenkins et al. (2005) urged researchers to use the DSI-R due to the lower psychometric support of the DSI in prior studies.

Previous Studies Supporting Use of the DSI-R

The original DSI was normed on populations of ages 25 and over (Skowron & Friedlander, 1998). The DSI-R has been used among diverse cultural populations in social science research (Biadsy-Ashkar & Pelog, 2013; Isik & Bulduk, 2015; Jankowski

& Hooper, 2012; Kim et al., 2014). These studies have provided more generalizability with using the DSI-R in diverse populations.

Jankowski and Hooper (2012) conducted a validation study with students from a southern state university that explored the construct of DoS. The researchers had 749 students complete the DSI-R with a self-reported ethnicity of *n* = 530 White American, n = 160 Black American, *n* = 30 mixed race, *n* = 11 Hispanic, *n* = 7 Asian American, and *n* = 5 Native American. These scholars found evidence to support the Skowron and Schmitt (2003) recommendation to use the total scale score of the DSI-R because the FO subscale has not been consistent with ethnically diverse populations. In addition, Jankowski and Hooper (2012) supported the recommendation to use the total DSI-R score as an overall measurement of emotional health in diverse populations. Of the four subscales, the ER subscale reflected the most efficient means of assessing the level of DoS in diverse ethnic populations (Jankowski & Hooper, 2012; Knauth & Skowron, 2004).

Additional studies support the reliability and validity of the DSI-R in diverse cultural groups (Isik & Bulduk, 2015; Jankowski & Hooper, 2012; Kim et al., 2014). Isik and Bulduk (2015) conducted a study to examine the reliability and validity of the DSI-R with a population of Turkish adults. The sample included two independent samples of Turkish adults ages 25 and over. The first sample included 221 adults and the second sample included 187 adults. Two native Turkish speakers translated the DSI-R and then the instrument was back translated by professional translators from Mevlana University to the Differentiation of Self Inventory-Turkish (DSI-T). Sample 1 then completed the DSI-T with a mean score of 3.66 and sample 2 with a mean score of 3.89 for the total

DSI-T. Additional evidence to support the validity and reliability of the scale was demonstrated through the total DSI-T score negatively associating with the trait anxiety as measured by the Trait Anxiety Inventory, therefore supporting the premise that highly differentiated individuals would score lower in symptoms of anxiety. Internal consistency of the DSI-T included a total scale score = .81, ER = .78, IP = .75, EC = .77, and FO = .74. This data lends support to the reliability and validity of the DSI-R in diverse populations and the clarity of the instrument to support translation to native languages.

Kim et al. (2014) determined the relationship between DoS and South Korean family functioning. The Korean version of the subscales on the DSI-R reflected good reliability with Cronbach's alpha scores of ER = .83, IP = .77, EC = .81, and FO = .78. The first hypothesis tested was that older South Koreans would have lower levels of DoS when compared to younger South Koreans. This hypothesis was not supported because "a significant linear trend F (3, 231) = 12.01, p = .000," (p. 260) indicated younger South Koreans had lower DoS than older ones. This empirical data was significant for counseling professionals working with South Korean families to understand the value of being more dependent (lower DoS) in their culture (Kim et al., 2014). The research using the DSI-R by Isik and Buldock (2015) and Kim et al. (2014) demonstrated the internal and external validity of the DSI-R with diverse populations and further justified using the DSI-R in my study.

Permission to Use

The editors of the *Journal of Marital and Family Therapy* were contacted at Wiley Global Permissions and permission was granted to reproduce the DSI-R for the purposes of this study (see Appendix F).

Instrumentation and Reliability and Validity for the VTS

Vrklevski and Franklin (2008) sought to learn if members of the legal profession experience VT in a manner similar to other professionals. These researchers noted the similarities of symptomology between populations such as mental health counselors, nurses, physicians, and additional solicitors of traumatic content. According to Vrklevski and Franklin (2008), most trauma workers may experience some level of emotional difficulty listening to traumatic content but may not all develop VT. The purpose of the study was to determine whether differences existed between criminal lawyers soliciting information from traumatized clients and lawyers not working directly with traumatized clients. The results supported the hypothesis that VT was higher in the criminal law participants who solicited traumatic content from clients when compared to noncriminal law participants.

The VTS was developed consisting of eight Likert scaled statements ranging from 1 (strongly agree) to 7 (strongly agree) resulting in an interval scale. A sample statement is "I find myself distressed by listening to my clients' stories and situations." The total score for the VTS ranges from 8 to 56 with higher scores being associated with higher levels of VT. The original VTS developed by Vrklevski and Franklin (2008) demonstrated a Cronbach's alpha score of .88.

The VTS was developed to assess subjective levels of emotional distress when working with traumatized populations (Vrklevski & Franklin, 2008). In order to assess the reliability and validity of the VTS, it was completed in conjunction with the Depression, Anxiety, and Stress Scales (DASS), Impact of Event Scale-Revised (IES-R), and Trauma and Attachment Belief Scale (TABS) with a sample of 100 participants from the legal profession. The Impact of Event Scale-Revised (IES-R; Weiss & Marmar, 1997) provides a standardized self-report instrument, which parallels diagnostic criteria for post-traumatic stress disorder. Subjective levels of distress are measured on three scales: hyper arousal, avoidance, and intrusions.

According to Vrklevski and Franklin (2008), the IES-R provides a more comprehensive measurement of VT compared to the original IES (Horowitz, Wilner, & Alvarex, 1979). The internal consistency of the IES-R ranges between .79 and .90 (hyper arousal); .84 and .86 (avoidance); and .87 and .93 (intrusions). Vrklevski and Franklin (2008) noted "a significant correlation (.261) between the VTS and the IES-R" (p. 110). The VTS was developed to provide a possibility of one measurement tool for the construct of VT in research (Vrklevski & Franklin, 2008). A total of 50 participants worked in criminal law and 50 participants worked in noncriminal law.

Michalopoulos and Aparico (2012) used a sampling frame of 11,866 licensed social workers from the Maryland Board of Social Work Examiners. They randomly chose 400 participants from this sampling frame. All of the social workers in the sample held some level of licensure in the social work field with 63% holding advanced clinical licensure, 27% post-graduate licensure, 4% advanced generalist licenses, and 7%

baccalaureate licensure. A total of 395 surveys were distributed to accurate addresses resulting in a response of 170 surveys. Six of these surveys were excluded because the VTS was left unanswered due to the participant no longer working in the field. An additional four surveys were not included because participants worked in a non-social work career such as faculty member or firefighter. The final sample was $N = 160$. This sample had a predominance of Caucasian (77%) females (89%) and a mean age of 46 years old. These researchers reported a full sample Cronbach's $\alpha = .79$ and a subsample score of $\alpha = .76$.

Aparico et al. (2013) supported an internal consistency score of $\alpha = .77$ in a sample of licensed social workers from the state of Maryland. Packets were mailed to personal addresses and the surveys had no participant identification to protect confidentiality. Of the 395 surveys mailed to confirmed addresses, 171 were returned to the researchers. The resulting data analysis was conducted on 157 completed survey instruments and reflected good internal consistency ratings with a Cronbach's alpha score of .77. According to Aparico et al. (2013), Vrklevski described three ranges of scores: 8 to 28 constituted low VT, 9 to 42 moderate VT, and 43 to 56 high VT. These ranges were noted in a personal communication between Aparico et al. (2013) and Vrklevski.

Aprarico et al. (2013) developed their study to investigate the internal consistency and psychometric properties of the VTS developed by Vrklevski and Franklin (2008). Aparico et al. (2013) noted the value of having a psychometrically sound and brief 8 item instrument to assess VT due to time constraints in the counseling field. In addition, the researchers described how a free screening tool for VT would be supportive of

community counseling agencies with limited funding but high exposure to client traumatic content.

Previous Studies Supporting Use of the VTS

Due to its recent development, the VTS has limited empirical support to date in the literature. However, the VTS has demonstrated good psychometric properties in each study scores ranging from .77 to .88 for internal consistency (Aparico et al., 2013; Michalopoulos & Aparicio, 2012; Vrklevski & Franklin, 2008). The instrument is a brief tool which may have increased response rate and may have resulted in less missing data in this study.

Permission to Use

The VTS may be used at no cost for research or testing (Vrklevski & Franklin, 2008) (see Appendix G). Aparico et al. (2013) noted the benefits of having a brief and free screening tool for community counseling agencies with budgetary constraints.

Operationalization of Each Variable

Emotional reactivity: Level of emotional anxiety or sense of emotional flooding as defined by a high subscale score of ER on the DSI-R (Skowron & Schmitt, 2003).

I position: The ability to maintain a clear sense of self and the ability to maintain independent choices in the face of relational stress as defined by a high subscale score of IP on the DSI-R (Skowron & Schmitt, 2003).

Emotional cutoff: The degree of emotional distancing from others in relationships as defined by a high subscale score on ER on the DSI-R (Skowron & Schmitt, 2003).

Fusion with others: The degree of emotional closeness and over-involvement in relationships including taking on the ideas or beliefs of others without question and measured by a high subscale score on FO on the DSI-R (Skowron & Schmitt, 2003).

Vicarious trauma: The negative emotional response resulting from empathic listening to traumatic content within counseling sessions and measured by a higher score on the VTS (Jordan, 2010; Vrklevski & Franklin, 2008).

Mental health professional: Individual with a minimum of a certification or licensure in the counseling profession and self identifies as a counselor.

Data Analysis Plan

The statistical analysis chosen was multiple regression to answer the following research question: Does differentiation of self predict VT in mental health professionals?

To be more specific, the research questions are the following:

Research Question 1: What is the predictive nature of the subscale score of ER with the level of VT as measured by the VTS in mental health professionals?

Research Question 2 What is the predictive nature of the subscale score of IP with the level of VT as measured by the VTS in mental health professionals?

Research Question 3: What is the predictive nature of the subscale score of EC with the level of VT as measured by the VTS in mental health professionals?

Research Question 4: What is the predictive nature of the subscale score of FO with the level of VT as measured by the VTS in mental health professionals?

Research Question 5. Which subscale score (i.e., ER, IP, EC, FO) will have the most statistical significance when predicting level of VT as measured by the VTS in mental health professionals?

According to Glass and Hopkins (1996), multiple regression analysis is most commonly used to predict "*Y* from two or more independent variables" (p. 170). For this study, multiple regression analysis included the backward elimination technique. According to McDonald (2009), the multiple regression with backward elimination technique would be started with all of the X variables included and then multiple regressions would be performed removing one *X* variable at a time. The *X* variable causing the least amount of decrease in the model was eliminated. This method connected to the purpose of the study by determining which subcomponent of DoS served as the most significant predictor of VT in mental health professionals.

Research Questions and Hypotheses

Research Question 1: What is the predictive nature of the subscale score for ER with the level of VT as measured by the VTS in mental health professionals?

Research Question 2: What is the predictive nature of the subscale score for IP with the level of VT as measured by the VTS in mental health professionals?

Research Question 3: What is the predictive nature of the subscale score for EC with the level of VT as measured by the VTS in mental health professionals?

Research Question 4: What is the predictive nature of the subscale score for FO with the level of VT as measured by the VTS in mental health professionals?

Research Question 5: Which subscale score (i.e., ER, IP, EC, FO) will have the most statistical significance when predicting level of VT as measured by the VTS in mental health professionals?

Hypotheses

Hypothesis β1: Level of ER subscale score predicts the level of VT with more statistical significance when compared to other subscale scores of IP, EC, and FO in mental health professionals.

Hypothesis β2: IP subscale score predicts the level of VT with more statistical significance when compared to other subscale scores of ER, EC, and FO in mental health professionals.

Hypothesis β3: Level of EC subscale score predicts the level of VT with more statistical significance when compared to other subscale scores of ER, IP, and FO in mental health professionals.

Hypothesis β4: Level of FO subscale score predicts the level of VT with more statistical significance when compared to other subscale scores of ER, IP, and FO in mental health professionals.

Hypothesis β5: One of the subscale scores (ER, IP, EC, FO) will have more statistical significance than other subscale scores when predicting level of VT as measured by the VTS in mental health professionals.

Assumptions Tests to Test the Hypotheses

Statistics for the study were conducted using the IBM SPSS Statistics Standard Grad Pack (SPSS; 2014). Data screening was performed on the continuous variables

before running the multiple regression analysis. A frequency analysis was run on the variables using the 80 % confidence interval formula. The data was screened for missing data and outliers. Statistical analysis included the means, standard deviations, and correlations among variables. Four assumption tests were run including normal distributions or skewness to each variable, linear relationship between the dependent and independent variables, and multicollinearity (Osborne & Waters, 2002). A series of correlations, analysis of variance (ANOVA), and multiple regression analyses were conducted to test each hypothesis. The level of total ER score, IP score, EC score, and FO scores served as the independent variables and total score on the VTS served as the dependent variable.

Threats to Validity

External Validity

External validity threats may include characteristics of the population that are too narrow which would decrease generalization of the data. In response to this validity threat, Campbell and Stanley (1963) noted that claims regarding other counseling professional populations cannot be generalized. Studies should be conducted with additional participant groups to better support generalization of the data (Campbell & Stanley, 1963).

A second external validity threat may have occurred because the study was a one-shot research design. Therefore, results may not be generalized to previous or future situations. According to Campbell and Stanley (1963), researchers should address this validity threat through replication of the study to determine if similar results support the

results of the original study. In order to address both of these validity threats, recommendations included replicating the study at additional counseling agencies, random sampling of professional counseling organizations, or sampling professional counselors through the Internet to enhance diversity.

Internal Validity

Campbell and Stanley (1963) noted internal validity threats of regression and selection that may impact the data. Due to regression, participants with extreme scores on the instruments would have been eliminated from the data. This study did not have outliers and therefore all scores were included for participants who completed all answers on the survey instruments. Some of the participants at the site were primarily substance abuse counselors. According to Bride and Kintzle (2011), substance abuse counselors may be predisposed to higher levels of traumatic content and may experience higher rates of VT. Therefore, the internal validity threat of participant selection will impact generalization of the data to other sites with a different population of substance abuse or mental health professionals.

Ethical Procedures

The Walden University IRB reviewed the study and provided approval # 02-09-16-0343452. In order to have access to participants, a site cooperation letter was obtained. After passing out the informed consents and survey instruments, the researcher left the meeting. All participants had the option to complete the instruments at a later time to fully consider their consent to participate. A sealed box was provided for participants to place their demographic data sheet with the attached survey instruments. No

identifying information was placed on the instruments to protect anonymity of participants. By placing their instrument in the sealed box, participants provided consent to have their data included in the study.

Summary

In this chapter, I explained the methods of this quantitative research study. The participant sample included mental health professionals with a certification or licensure to determine if DoS and the subcomponents of DoS predict the level of VT. Chapter 4 will include results obtained with these methods.

Chapter 4: Results

Introduction

In this quantitative cross-sectional survey design, a multiple regression analysis was used to examine to what degree the subcomponents of differentiation of self (DoS) emotional reactivity (ER), I position (IP), emotional cutoff (EC), and fusion with others (FO) predict the level of vicarious trauma (VT) in mental health professionals. In addition, a backwards elimination technique determined which independent variable accounted for the greatest amount of variance in the dependent variable VT. I sought to determine which subcomponent of DoS was the strongest predictor of VT. Determining which predictor is strongest could assist mental health professionals in gaining additional information regarding VT in order to support emotional health in the counseling field.

In this chapter, I summarize sampling procedures, data collection, and statistical measures. Sampling strategies are reviewed including demographic characteristics of the study sample and results for research questions and hypotheses. Each research question and results are reviewed. The research findings are discussed including the data collection process and an explanation for the differences in data collection explained in Chapter 3. Tables are included to illustrate the research analyses. This chapter summarizes the research questions and hypotheses involved in the study.

Data Collection

Following approval # 02-09-16-0343452 of the Walden University IRB, a purposive non-random sample was chosen. Inclusion criteria for participants was a minimum of certification or license in a mental health-related field. Application to one

large Midwest community counseling agency was not accepted. Therefore, other similar sites were contacted for participation until a minimum of 150 potential participants were found.

I continued to contact agencies until I had a minimum of 150 potential participants, although only 58 were required for this study. Twelve community agencies verbally consented to participate via initial phone contact with appropriate site supervisors. The supervisors were then emailed a site cooperation letter for signature. All 12 sites returned the letters of cooperation and these were provided to the Walden University IRB which then gave final approval to proceed with the study. Next, each site was contacted via email to schedule a staff meeting regularly attended by certified or licensed mental health professionals. Only one site did not follow through with scheduling a meeting and therefore did not participate in the study. I was able to schedule and attend 11 meetings and collect sealed boxes containing survey instruments within a total of 44 days.

Results

Demographic Characteristics

As noted, a total of 12 community counseling agencies agreed to participate in the study. One agency did not respond to efforts to schedule the staff meeting and therefore was not included in the study. Ultimately, a total of 91 participants participated in the study. Of these 91 participants, 83 completed all 46 questions on the DSI-R (see Skowron & Schmitt, 2003) and all 8 questions on the VTS. Due to the presence of incomplete surveys, the remaining 8 participants' data was not included in the final analysis.

As shown in Table 1, the sample was comprised of 88.0% female (*n* =73) and 12.0% male (*n* = 10) participants.

Table 1

Frequency Distribution of Participants' Gender

Gender	*n*	%
Female	73	88.8
Male	10	12.0
Total	83	

As shown in *Table* 2, the sample's self-identified race was 91.6% White (*n* = 76), 3.6% Multiple (*n* = 3), 2.4% Hispanic (*n* = 2), 1.2% South Asian (*n* = 1), and 1.2% undefined (*n* = 1). Multiple race/ethnicity identifiers were Black or African American.

Table 2

Frequency Distribution of Participants' Race/Ethnicity

Race/Ethnicity	*n*	%
White	76	91.6
Hispanic	2	2.4
South Asian	1	1.2
Multiple	3	3.6
Undefined	1	1.2
Total	83	

As shown in Table 3, a broad range of years of experience was represented (range 1- 40, *M* =12.92, *SD* = 9.845).

Table 3

Frequencies of Range of Experience

Years of Experience	*n*	%
1-5 years	24	28.9
6-10 years	14	16.9
11-15 years	8	9.6
16-20 years	8	9.6
21-25 years	11	13.2
26-30 years	4	4.8
31-35 years	1	1.2
36-40 years	1	1.2
Undefined	12	14.5
Total	83	

As shown in Table 4, education levels consisted of bachelor degree, current masters student status, master's degree, and doctorate.

Table 4

Frequencies of Education Level

Education	*n*	%
Bachelor	14	16.9
Current masters student	4	4.8
Masters	59	71.1
Doctorate	6	7.2
Total	83	

Participants identified primary counseling areas of counseling training which included clinical mental health counseling (CMHC), school counseling, college counseling, addiction counseling, couples & family counseling, and counseling psychology (see Table 5).

Table 5

Frequencies of Primary Counseling Area

Primary area	*n*	%
CMHC	42	50.6
School	3	3.6
College	1	1.2
Addiction	2	2.4
Couples & family	7	8.4
Counseling psych	8	9.6
Other	18	21.7
Undefined	2	2.4
Total	83	

Participants identified their current and primary position as a counselor ranging from CMHC, addictions counselor, counseling psychologist, to master's student (see Table 6).

Table 6

Frequencies of Primary Counseling Position

Primary position	*n*	%
CMHC	48	57.8
Addiction	3	3.6
Counseling psych	5	6.0
Masters student	3	3.6
Other	20	24.1
Undefined	4	4.8
Total	83	

Survey responses were entered into SPSS for data analysis with values for each item on the VTS and DSI-R. For VTS scores, individual answers were scored based on their correlation with 1 representing *strongly disagree* and 7 representing *strongly agree*.

A total VTS score was then compiled for each participant by adding the individual score on each of the eight items, resulting in a possible value between 8 and 56. Participants in the study had a range of scores on the VTS from 20 to 53 *(M* = 37, *SD* = 6.96). The descriptive statistics for the VTS total score and DSI-R subscale scores are summarized in Table 7.

Individual scores on the DSI-R items were also developed with 1 representing *not at all true of me* and 6 representing *very true of me*. Unlike the VTS, where a total score was calculated, scoring of the DSI-R involved computing total scores for each of four subscales: ER, IP, EC, and FO. Scores for each of the subscales were calculated by adding values for each of the appropriate items, taking into account reverse scoring, and dividing the final figure by the number of items in the subscale. This resulted in a total value for each of the subscales between 1 and 6.

Specifically, the DSI-R ER subscale score was calculated by adding the reverse values for items 1, 6, 10, 14, 18, 21, 26, 30, 34, 38, and 40 and dividing the sum by 11. Total resulting participants' scores for the ER subscale ranged from a minimum score of 1.73 to a maximum score of 5.55 (*M* = 3.89, *SD* = .85).

The subscale of IP was determined by adding the values for items 4, 7, 11, 15, 19, 23, 27, 31, 41, and 43 with the reverse value for item 37. This total was divided by 11 and resulted in a minimum score of 3.36 and a maximum value of 5.64 (*M* = 4.42, *SD* = .48).

Next, the DSI-R EC subscale score was computed by adding reverse scores for items 2, 3, 7, 12, 16, 20, 24, 28, 32, 36, 39, and 42 and dividing the total by 12, which

resulted in a minimum participant score of 2.25 and maximum value of 6.00 (*M* = 5.00, *SD* = .80)

Finally, the DSI-R FO subscale score was calculated by adding the value for items 37 with the reverse values for items 5, 9, 13, 17, 22, 25, 29, 33, 44, 45, 46. The total was then divided by 12, which resulted in a minimum reported score of 2.08 and a maximum reported score of 5.83 (*M* =4.01, *SD* =.73).

Table 7

Descriptive Statistics for VTS Total Score and DSI-R Subscale Scores

Subscale	N	Minimum	Maximum	Mean	Std. Deviation	Variance
ER	83	1.73	5.55	3.8927	.84855	.720
IP	83	3.36	5.64	4.4239	.4783	.229
EC	83	2.25	6.00	4.9960	.79866	.638
FO	83	2.08	5.83	4.0110	.73457	.540
VT TOT	83	20	53	37.00	6.962	48.463
Valid N (list wise)		83				

Research Questions

The statistical analysis chosen was multiple regression analysis to answer the following research question: Does DoS predict VT in mental health professionals? The research question is based on the subcomponent levels of DoS predicting the level of VT in the counseling professional.

In order to address the first four research questions, simple linear regression analysis was conducted. The research questions and simple linear regression analysis are the following:

Research Question 1: What is the predictive nature of the subscale score of ER with the level of VT as measured by the VTS in mental health professionals?

Results of Research Question 1. The first linear regression was conducted to predict VTS scores based on ER scores. A significant regression equation was found with $F(1, 81) = 27.70$, $p < .001$) and a R^2 of .26 (see Table 8). ER was found to predict VT in that participants with lower scores on the ER subscale had more VT. Lower scores on the ER subscale indicate lower DoS (Skowron & Schmitt, 2003). Participants' predicted VTS scores are 53.12 – 4.14 (ER) when the other subscales are not considered (see Table 9).

Table 8

Summary of Model ANOVA ER

Model	R	R square	Ad. R Square	SE B	Change Statistics				
					R Square Change	F Change	df1	df2	Sig.
1	.505[a]	.255	.246	6.05	.255	27.71	1	81	.000

a. Predictors: (Constant), ER
b. Dependent Variable VTS TOT

Table 9

Summary of Model Coefficients ER

Coefficients[a]

Model	Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1(Constant)	53.123	3.134		16.950	.000
ER	-4.142	.787	-.505	-5.264	.000

a. Dependent Variable: VTS TOT

Research Question 2: What is the predictive nature of the subscale score of IP with the level of VT as measured by the VTS in mental health professionals?

Results of Research Question 2. A second linear regression equation was conducted to predict VTS scores based on IP. A significant regression equation was found with $F(1, 81) = 17.60$, $p < .001$) and a R^2 of .18 (see Table 10). IP was found to predict VT in that participants with lower scores on the IP subscale had more VT. Lower scores on the IP subscale indicate lower DoS (Skowron & Schmitt, 2003). Participants' predicted VTS scores are equal to 64.20 – 6.15 (IP) when the other subscales are not considered (see Table 11).

Table 10

Summary of Model ANOVA IP

Model	R	R square	Ad. R Square	SE B	Change Statistics				
					R Square Change	F Change	df1	df2	Sig.
1	.422[a]	.178	.168	6.35	.178	17.60	1	81	.000

a. Predictors: (Constant), IP
b. Dependent Variable VTS TOT

Table 11

Summary of Model Coefficients I Position

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1(Constant)	64.197	6.521		9.845	.000
IP	-6.148	1.466	-.422	-4.195	.000

a. Dependent Variable: VTS TOT

Research Question 3: What is the predictive nature of the subscale score of EC with the level of VT as measured by the VTS in mental health professionals?

Results of Research Question 3. A third simple regression was conducted to predict VTS scores based on EC scores. A significant regression equation was found with $F(1, 81) = 4.92$, $p = .029$). with a R^2 of .06 (see *Table 12*). EC was found to predict VT in that participants with lower scores on the EC subscale had more VT. Lower scores on the EC subscale indicate lower DoS (Skowron & Schmitt, 2003). Participants' predicted VTS scores are 47.42 – 2.09 (EC) when the other subscales are not considered (see Table 13).

Table 12

Summary of Model ANOVA EC

Model	R	R square	Ad. R Square	SE B	Change Statistics				
					R Square Change	F Change	df1	df2	Sig.
1	.239[a]	.057	.046	6.80	.057	4.92	1	81	.029

a. Predictors: (Constant), EC
b. Dependent Variable VTS TOT

Table 13

Summary of Model Coefficients EC

Coefficients[a]

Model	Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1(Constant)	47.419	4.757		9.968	.000
EC	-2.086	.940	-.239	-2.218	.000

a. Dependent Variable: VTS TOT

Research Question 4: What is the predictive nature of the subscale score of FO with the level of VT as measured by the VTS in mental health professionals?

Results of Research Question 4: A fourth simple linear regression was conducted to predict VTS scores based on FO scores. A significant regression equation was found with $F(1, 81) = 23.52$, $p < .001$) and a R^2 of .22 (see Table 14). FO was found to predict VT in that participants with lower scores on the FO subscale had more VT. Lower scores on the FO subscale indicate lower DoS (Skowron & Schmitt, 2003). Participants' predicted VTS scores are 55.03 – 4.50 (FO) when the other subscales are not considered (see Table 15).

Table 14

Summary of Model ANOVA FO

Model	R	R square	Ad. R Square	SE B	Change Statistics				
					R Square Change	F Change	df1	df2	Sig.
1	.474[a]	.225	.215	6.17	.225	23.52	1	81	.000

a. Predictors: (Constant), FO
b. Dependent Variable VTS TOT

Table 15

Summary of Model Coefficients FO

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1(Constant)	55.032	3.779		14.562	.000
FO	-4.496	.927	-.474	-4.850	.000

a. Dependent Variable: VTS TOT

Research Question 5: Which subscale score (ER, IP, EC, FO) will have the most statistical significance when predicting level of VT as measured by the VTS in mental health professionals?

Results of Research Question 5. The results of research question five will be reviewed after testing the assumptions and hypotheses in the next section.

Assumptions Tests to Test the Hypotheses

Statistics for the study was conducted using the IBM SPSS Statistics Standard Grad Pack (SPSS; 2014). Data screening was performed on the continuous variables before running the regression analysis. A frequency analysis was run on the variables using the 80% confidence interval formula. The data were screened for missing data and outliers. Eight of the participants had incomplete data on the survey instruments of the VTS and DSI-R and were therefore removed from the final data set. Assumption tests were run such as normal distributions or skewness to each variable, linear relationship between the dependent and independent variables, and multicollinearity (Osborne & Waters, 2002). A series of correlations, analyses of variance (ANOVAs) and multiple regression analyses were conducted to test each hypothesis. The level of total ER score, IP score, EC score, and FO score served as the independent variables and total score on the VTS served as the dependent variable.

An analysis of standard residuals was conducted to test the data for outliers. As seen in Table 16, the analysis revealed the absence of any outliers (Standard Residual Minimum = -2.21, Standard Residual Maximum = 1.89). The minimum and maximum values after the Standard Residuals is above -3.29 and below 3.29 so there are no outliers in the data and no outliers needed to be removed.

Table 16

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	29.14	44.54	37.00	3.891	83
Residual	-13.385	12.311	.000	5.773	83
Std. Predicted Value	-2.020	1.939	.000	1.00	83
Std. Residual	-2.262	2.080	.000	.975	83

a. Dependent Variable: VTS TOT

After the analysis for outliers, tests were conducted to ensure the data met the assumption of multicollinearity with the data. Multicollinearity exists if two or more independent variables are highly correlated making it difficult to examine the separate effects on the dependent variable (Vogt & Johnson, 2011). A variance of inflation factor (VIF) greater than 10 or a tolerance score less than .1 would indicate the data had not met the assumption of multicollinearity. As seen in Table 17, the results of these tests indicated the assumption of multicollinearity had been met (ER Score, Tolerance = .42, VIF = 2.37; EC Scores, Tolerance = .64, VIF = 1.56, IP Score, Tolerance = .69, VIF = 1.45; FO Score, Tolerance = .43, VIF = 2.32).

Table 17

Variance of Inflation Factor to test Assumption of Multicollinearity

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1(Constant)	62.241	6.738		9.238	.000		
ER	-2.528	1.187	-.308	-2.130	.036	.421	2.373
EC	.938	1.022	.108	.918	.361	.642	1.559
IP	-2.599	1.647	-.179	-1.578	.119	.688	1.452

FO	-2.141	1.355	-.226	-1.580	.118	.431	2.319

a Dependent Variable: VTS TOT

The Durbin-Watson test was utilized to ensure the residual terms were uncorrelated. As seen in Table 18, the residual terms were not correlated and therefore the assumption of independent errors had been met.

Table 18

Residuals Model Summary[d]

Model	R	R square	Adusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.559[a]	.312	.277	5.919	1.824
2	.552[b]	.305	.279	5.913	1.761
3	.537[c]	.282	.271	5.945	1.793

a. Predictors (Constant), FO, IP, EC, ER
b. Predictors (Constant), FO, IP, ER
c. Predictors (Constant), IP, ER
d. Dependent Variable: VTS TOT

As noted in Figure 1, the histogram displays a normally distributed curve.

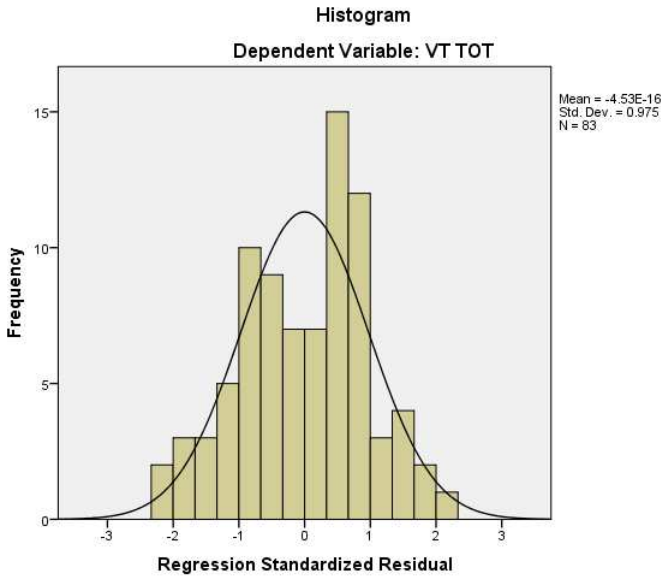

Figure 1. Histogram of VT TOT

A P - Plot of standardized residuals in Figure 2 shows points close to the regression line and is consisistent with the assumption of normally distributed errors.

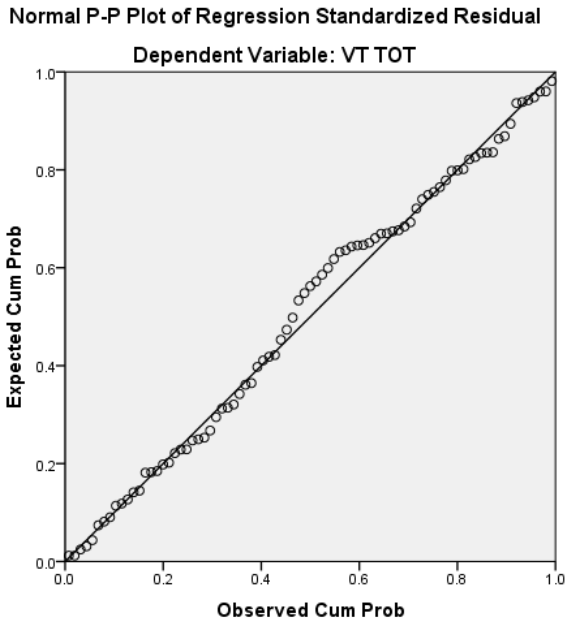

Figure 2. P - Plot of regression.

A scatterplot in Figure 3 is consistent with the assumptions of homogeneity of variance and linearity.

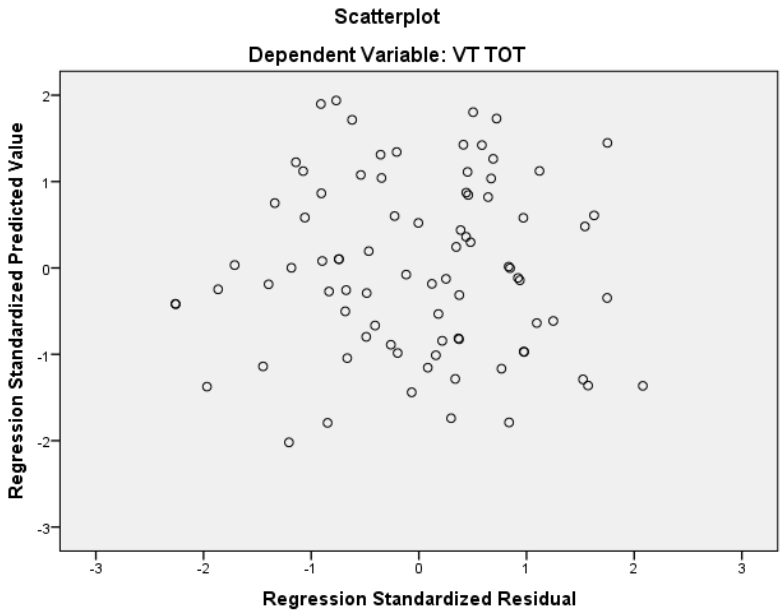

Figure 3. Scatterplot of VT TOT.

Hypotheses

Hypothesis β1. The null hypothesis states in mental health professionals, the proportion of the variance of the dependent variable VT explained by the independent variable ER equals zero. The alternative hypothesis states in mental health professionals, the proportion of the variance of the dependent variable VT explained by the independent variable ER does not equal zero.

The results in Table 8 show a significant regression equation was found with F (1, 81) = 27.70, $p < .001$) and a R^2 of .26. Participants' predicted VTS scores are 53.12 – 4.14 (ER) when the other subscales are not considered (see Table 9). ER accounted for the R^2 change of 2.55% of the variance in VT when all other predictors were left out of the model (see Table 9). Therefore, I rejected the null hypothesis and accepted the alternative hypothesis which states in mental health professionals, the proportion of the

variance of the dependent variable VT explained by the independent variable ER does not equal zero.

Hypothesis β2. The null hypothesis states in mental health professionals, the proportion of the variance of the dependent variable VT explained by the independent variable IP equals zero. The alternative hypothesis states in mental health professionals, the proportion of the variance of the dependent variable VT explained by the independent variable IP does not equal zero.

The results presented in Table 10 show a significant regression equation was found with $F (1, 81) = 17.60$, $p < .001$) and a R^2 of .18. Participants' predicted VTS scores are equal to 64.20 – 6.15 (IP) when the other subscales are not considered (see Table 11). IP accounted for the R^2 change of 1.78% of the variance in VT when all other predictors were left out of the model (see Table 11). Therefore, we rejected the null hypothesis and accepted the alternative hypothesis in mental health professionals, the proportion of the variance of the dependent variable VT explained by the independent variable IP does not equal zero.

Hypothesis β3. The null hypothesis states in mental health professionals, the proportion of the variance of the dependent variable VT explained by the independent variable EC equals zero. The alternative hypothesis states in mental health professionals, the proportion of the variance of the dependent variable VT explained by the independent variable EC does not equal zero.

The results presented in Table 12 show a significant regression equation was found $F (1, 81) = 4.92$, $p = .029$), with a R^2 of .06. Participants' predicted VTS scores are

equal to 47.42 – 2.09 (EC) when the other subscales are not considered (see Table 13). EC accounted for the R^2 change of .05% of the variance in VT when all other predictors were left out of the model (see Table 13). Therefore, I rejected the null hypothesis and accepted the alternative hypothesis that in mental health professionals, the proportion of the variance of the dependent variable VT explained by the independent variable EC does not equal zero.

Hypothesis β4. The null hypothesis states in mental health professionals, the proportion of the variance of the dependent variable VT explained by the independent variable FO equals zero. The alternative hypothesis states in mental health professionals, the proportion of the variance of the dependent variable VT explained by the independent variable FO does not equal zero.

The results in Table 14 show a significant regression equation was found $F (1, 81) = 23.52$, $p < .001$). with a R^2 of .22. Participants' predicted VTS scores are equal to 55.03 – 4.50 (FO) when the other subscales are not considered (see Table 15). FO accounted for the R^2 change of 2.25% of the variance in VT when all other predictors were left out of the model (see Table 15). Therefore, I rejected the null hypothesis and accepted the alternative hypothesis that states in mental health professionals, the proportion of the variance of the dependent variable VT explained by the independent variable FO does not equal zero.

Hypothesis β5. The null hypothesis states that none of the subscale scores (i.e., ER, IP, EC, FO) will have more statistical significance than other subscale scores when predicting level of VT as measured by the VTS in mental health professionals. The

alternative hypothesis states one of the subscale scores (i.e., ER, IP, EC, FO) will have more statistical significance than other subscale scores when predicting level of VT as measured by the VTS in mental health professionals.

Based on the results of the independent simple linear regressions and lack of a prior hypothesis, an order of entry had not been determined for the predictor variables. The most appropriate statistical test to determine the order of the DSI-R subscales was the backwards linear regression. Since the assumptions of multiple regression analysis were met, the backwards regression was utilized to determine which of the subscales of the DSI-R had the most significant impact on the VTS scores. The four variables (ER, IP, EC, FO) entered into the equation produced an R^2 of .31, F (4, 78,) = 8.86, p = .001) for the prediction of VTS Table 19 and Table 21. The predictor with the lowest regression coefficient Table 20 (EC, β = -.11, t (78) = .92, p = 36) was removed and another regression analysis was conducted. This regression analysis had an adjusted R^2 of .28 Table 21 and included the predictor of with the lowest regression coefficient of (FO, β = -.19, t (79) = -1.37, p = .17). Next a final regression was conducted with an R of .54, R^2 = .28, and an adjusted R^2 of .27. This left two significant predictors of VTS - ER and IP. The strongest predictor of VTS was Table 20 ER (β = .39) followed by IP (β = .22). The final equation to predict VTS = 63.37 - 3.21 ER - 3.14 IP. Therefore, we rejected the null hypothesis and accepted the alternative hypothesis which states one of the subscale scores (i.e., ER, IP, EC, FO) will have more statistical significance than other subscale scores when predicting level of VT as measured by the VTS in mental health professionals.

Table 19

Summary of ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1241.604	4	310.401	8.861	.000[b]
	Residual	2732.396	78	35.031		
	Total	3974.000	82			
2	Regression	1212.088	3	404.029	11.557	.000[c]
	Residual	2761.912	79	34.961		
	Total	3974.000	82			
3	Regression	1146.208	2	573.104	16.213	.000[d]
	Residual	2827.792	80	35.347		
	Total	3974.000	82			

a. Dependent Variable VTS TOT
b. Predictors (Constant), FO, IP, EC, ER
c. Predictors (Constant), FO, IP, ER
d. Predictors (Constant), IP, ER

Table 20

Summary of Model Coefficients

Coefficients[a]

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1(Constant)	62.241	6.738		9.238	.000
ER	-2.528	1.187	-.308	-2.130	.036
IP	-2.599	1.647	-.179	-1.578	.119
EC	.938	1.022	.108	.918	.361
FO	-2.141	1.355	-.226	-1.580	.118

2(Constant)	64.737	6.158	10.512	.000	
ER	-2.246	1.145	-.274	-1.961	.053
IP	-2.683	1.642	-.184	-1.633	.106
FO	-1.777	1.294	-.187	-1.373	.174
3(Constant)	63.373	6.111	10.370	.000	
ER	-3.205	.912	-.391	-3.516	.001
IP	-3.141	1.617	-.216	-1.942	.056

a. Dependent Variable: VTS TOT

Table 21

Backwards Regression Model Summary[d]

Model	R	R square	Adusted R Square	R square change	Std. Error of the Estimate
1	.559[a]	.312	.277	.312	5.919
2	.552[b]	.305	.279	.290	5.913
3	.537[c]	.288	.271	.282	5.945

a. Predictors (Constant), FO, IP, EC, ER
b. Predictors (Constant), FO, IP, ER
c. Predictors (Constant), IP, ER
d. Dependent Variable: VTS TOT

Research Question 5. Which subscale score (i.e., ER, IP, EC, FO) will have the most statistical significance when predicting level of VT as measured by the VTS in mental health professionals?

Results of Research Question 5. The strongest predictor of VT was Table 20 ER (β = .39) followed by IP (β = .22). The final equation to predict VTS = 63.37 - 3.21 ER - 3.14 IP.

Summary

In this chapter, I summarized the results of this quantitative cross-sectional survey research design with a multiple regression analysis. In order to test the first four research questions, an independent simple linear regression analysis was conducted for each question. The results showed each of the subscales to each be a significant independent predictor of VT. Research question number five examined which subscale score has the most statistical significance when predicting level of VT. The predictor with the least amount of significance was EC followed by FO. The two predictors with the highest amount of significance were IP and ER. The predictor with the greatest degree of statistical significance when predicting VT was ER.

Prior to conducting the backwards regression analysis, assumptions tests were conducted to ensure the assumptions needed for multiple linear analysis regression were met. All assumptions were met to conduct the analysis. Based on the results of the multiple linear regression analysis, the alternative hypothesis was accepted for Hypotheses 1, 2, 3, and 4. Backwards regression analysis was used to test the null hypothesis for Hypothesis 5. The null hypothesis was rejected and the alternative hypothesis was accepted. ER was determined to be the most significant predictor of VT in mental health professionals.

The knowledge gained from my study will support mental health professionals in learning how DoS may impact their personal experience of VT. In Chapter 5, I will summarize limitations of the data, recommendations for future research, and implications for social change for the counseling and mental health profession.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

Purpose

Virtually all counseling settings will have clients who have survived trauma, leaving mental health professionals coping with the emotional exposure of clients' traumatic stories. McCann and Pearlman (1990) defined the term *vicarious trauma* (VT) as the transformation experienced within the counselor from the empathic engagement of listening to client traumatic content during counseling sessions. VT includes cognitive shifts, altered belief systems, and negative emotional responses within the mental health professional, which can be cumulative over time (Pearlman & MacIan, 1995). Diverse individual, social, community, and organizational factors may impact the degree of individual vulnerability in the development of VT (Pulido, 2012).

In reviewing existing literature, no data was found demonstrating a correlation between differentiation of self (DoS) and VT. DoS has been described as the ability to maintain rational thought in the midst of emotionally charged situations (Bowen, 1978). In conducting this research project, I sought to determine if the level of subcomponents in DoS including emotional reactivity (ER), I position (IP), emotional cutoff (EC), and fusion with others (FO) predict the level of VT in mental health professionals. Through identification of additional predictors of VT, the long term emotional health of mental health professionals may be preserved through early identification, education, and prevention of VT to better serve the mental health needs of clients on a global level (Michalopoulos & Aparicio, 2012).

In this research project, I evaluated four research questions using multiple regression analysis with the forward entry method. A fifth question was evaluated through backwards linear regression. In Chapter 4, I reviewed the statistical analysis and results. In this chapter, I have provided interpretations of my results. Additionally, I discuss and review the limitations of the study, future research and action recommendations, and implications for positive social change in the counseling field.

Interpretation of Findings

In this section, I interpret the findings in this study in relation to the theoretical lens for the study. I then interpret the study findings for each of the five research questions based on my review of the literature.

Theoretical Foundation

The theoretical foundation of this study is Bowen's family systems theory. The theory focused on goals to increase the level of DoS and subcomponents of DoS by increasing counseling trainees' awareness of their emotions within the context of the family of origin. Bowen (1978) theorized that trainees with an increased awareness of emotional patterns in the family of origin would become more effective counselors when compared to trainees who are less aware. The intergenerational relationship patterns developed within the family of origin are believed to be the initial interaction pattern with authority figures, intimate relationships, and clients (Bowen, 1978). Drake et al. (2015) noted how DoS serves as the balance between togetherness and individuality in relationships during stressful emotional times.

Kerr and Bowen (1988) noted that at any point a person may be stressed to the degree that symptoms of physical, social, or emotional symptoms of stress may appear. However, Drake et al. (2015) described how more stress may be required to trigger a symptom in an individual with a higher score on the DoS. Individuals scoring high on DoS can be more resilient against the effects of stressors where individuals while lower scores on DoS may symbolize significant psychological distress under the same stressors, according to Murdock and Gore (2004). Individuals with higher levels of DoS would be able to actively utilize objective coping skills rather than avoidance or emotionally fueled responses (Murdock & Gore, 2004).

While an individual with higher levels of DoS may be comfortable in situations with strong emotional content, a less differentiated person may become emotionally overwhelmed leading to higher levels of psychological distress (Skowron & Friedlander, 1998). Researchers (Jenkins et al., 2005; Johnson et al., 2014; Skowron & Friedlander, 1998; Skowron et al., 2004; Skowron et al., 2009) developed data supporting higher levels of psychological distress existed in relation to lower levels of DoS. Therefore, through the lens of Bowen's theory, it is theorized that the mental health professional with higher levels of DoS would be able to maintain more emotional autonomy within the context of client relationships. This more objective and emotionally autonomous stance may decrease how vulnerable the mental health professional will be in developing VT (Pulido, 2012).

Within the context of Bowen's theory, individuals with lower levels of DoS may be more vulnerable to develop VT because they are more likely have dysfunctional

psychological responses due to (a) a lower ability to maintain IP, (b) higher ER, (c) higher EC, and (d) higher FO. Symptoms of VT include negative emotional reactions leaving it difficult to for the clinician to provide an empathic response in client sessions, , an altered belief system, and negative psychological consequences such as irritability or mood disturbances from providing a compassionate and empathic response within counseling sessions (McCann & Pearlman, 1990). More highly differentiated individuals defined as those with (a) lower ER, (b) stronger IP, (c) lower EC, and (d) lower FO are considered to be more adaptive and flexible when under stress. This suggests that they are more capable of mediating emotional distress imposed on them during stressful events (Skowron et al., 2004). Individuals with higher levels of DoS are less likely to react in a dysfunctional manner under stress and will recover more rapidly from stressful events (Friedman, 1991) possibly leaving them at a lower risk of developing VT. Mental health professionals with higher levels of DoS may experience less VT because they are better able to remain more rational, less anxious, and more self-aware in the context of counseling sessions.

The results of this study provided insight and empirical data supporting DoS and subcomponents of DoS predicting VT in a group of licensed or certified mental health professionals in Midwest community counseling agencies. In this respect, the study findings confirmed prior research that the higher the level of DoS, the lower the negative psychological effects (Kerr & Bowen, 1988; Pelog & Arnon, 2013; Skowron et al., 2009). VT, including difficult emotional symptoms, negative psychological consequences, and altered belief systems (Adams & Riggs, 2008; Devilly et al., 2009;

Jordan, 2010, McCann & Pearlman, 1990), were predicted from the subcomponent scores of DoS in this study. The subcomponent scores of DoS had an inverse relationship with VT. The next section will provide more specific detail on the individual results from data collection and literature review of each research question. Additionally, the best predictors of VT will be reviewed.

Discussion of Findings for Research Question 1

In this study, a significant regression equation was found indicating that lower scores on the ER subscale predicts VT in that participants with lower scores on the ER subscale had more VT. Lower scores on the Differentiation of Self Inventory-Revised (DSI-R) ER subscale indicate lower DoS (Skowron & Schmitt, 2003). The negative correlation of r = -.505 between ER and VT resulted in a large magnitude between the variables (see Cohen, 1988).

ER has been deemed to be the central barometer of DoS and the individual's ability to separate feelings and thinking (Bowen, 1978). Bowen (1978) and Skowron and Schmitt (2003) noted how the degree of ER supports self-regulation of emotions. Additionally, Bowen (1978), as cited by Skowron and Dendy (2004), noted how lower levels of ER enabled participants in their study of adult relationships to self-soothe during periods of anxiety and continue to remain engaged in the relationships under study. Therefore, the ability to examine thoughts logically and have a full awareness of emotional states would support the data collected in this study. Lower scores on the ER subscale correlated with a lower DoS, leading to higher VT scores in mental health professionals.

As reviewed in chapter two, Skowron et al. (2009) found that lower levels of ER early in the semester for college students was predictive of less psychological distress later in the semester. The higher the DoS, the more likely the individual will be able to regulate the degree of emotion towards others and will experience lower levels of anxiety. This more differentiated individual or less emotionally reactive person would then be emotionally capable of making objective decisions and would have clearer boundaries (Parsons, Nalbone, Killmer, & Wetchler, 2007) resulting in less VT (Michalopoulos & Aparicio, 2012).

The ability to articulate emotions in a reflective manner representative of lower levels of anxiety relates to an individual's degree of ER (Bowen, 1978). Skowron et al. (2009) reported participants with higher degrees of ER tended to have more irritability, less concern for others' welfare, and difficulty regulating emotions under stress. In this respect, the findings in this study confirmed existing research noting higher ER or lower DoS as predictive of negative symptomology. Symptoms of high ER are similar to the symptoms of VT. VT symptoms can mimic high levels of ER or low DoS because the symptoms can include anxiety, irritability, poor emotional regulation, altered belief systems, and struggles with personal identity (Howlett & Collins, 2014; Pearlmann & Saakvitne, 1995).

The literature summarized in regards to ER and the results of my study support the concept that mental health professionals who have more VT have higher levels of ER. Results confirmed that a lower ER predicts fewer psychological and interpersonal problems and a higher DoS score. In the case of my study, the lower the score on the

DSI-R ER subscale indicates lower DoS and was predictive of higher levels of VT on the VTS.

Discussion of Findings for Research Question 2

In this study, a significant regression equation was found indicating IP predicted VT in that participants with lower scores on the IP subscale had more VT. Lower scores on the DSI-R IP subscale indicated lower DoS (Skowron & Schmitt, 2003). The negative correlation of r = -.422 between IP and VT resulted in a moderate magnitude between the variables (see Cohen, 1988).

By maintaining a stronger IP as a clinician, this sets an example of stronger differentiation of self for clients in session, maintains a neutral stance in therapy, and reduces the degree of anxiety in the therapy process (Hanson, 2009). Mental health professionals' ability to have a stronger DoS frees them to focus on the counseling theory in sessions versus being distracted by trying to manage the emotions of the client (Hanson, 2009). The more independent stance created by higher DoS (Brown, 1999; Hanson, 2009; Kerr & Bowen, 1988) leads to clearer emotional boundaries between the mental health practitioner and client, resulting in lower levels of VT (Pearlman & MacIan, 1995).

Skowron and Friedlander (1998) noted how a stronger IP promoted lower anxiety, stronger psychological adjustment, and better marital satisfaction. Bartle-Haring, Glade, and Vira (2005) supported Bowen's theory that higher levels of DoS are reflective of higher levels of overall emotional health and functioning within relationships due to a healthier IP. The results of Bartle-Haring et al. (2005) and my study are reflective of both

Bowen's theory and previous research which found that higher levels of DoS lead to better emotional outcomes, and therefore, less VT.

Higher levels of IP were found to be predictive of stronger levels of career identity (Johnson et al., 2014). Johnson et al. (2014) suggested the individual's ability to have a clearly defined identity and follow one's personal convictions even when pressured to do otherwise is predictive of successful career development. Individuals with higher levels of IP have a stronger capacity and emotional reserve to be goal directed specifically to their career development (Johnson et al., 2014). Skowron et al. (2009) identified how young adults who are better able to take on an independent stance or stronger IP in relationships developed fewer interpersonal problems over the course of their longitudinal study. Skowron et al. (2009) supported the idea that healthy emotional contact and a solid sense of self, or IP, leads to healthy emotional development thru adulthood.

The literature summarized in regards to IP and the results of my study support mental health professionals having less VT when maintaining a stronger sense of IP or self-directed behavior. The results of my study confirmed previous findings that a stronger IP predicts fewer psychological and interpersonal problems. In the case of my study, lower scores on the DSI-R IP subscale predicted lower DoS and predicted higher levels of VT on the VTS.

Discussion of Findings for Research Question 3

In this study, a significant regression equation was found indicating EC predicts VT in that participants with lower scores on the EC subscale had more VT. Lower scores

on the DSI-R EC subscale predicted lower differentiation of self (Skowron & Schmitt, 2003). The negative correlation of r = -.239 between EC and VT resulted in a small magnitude between the variables (see Cohen, 1988).

Skowron et al. (2009) found a sense of anxiety was linked to EC and attempts to create distance in relationships as a means to manage the anxiety. Skowron et al. (2009) noted IP in addition to EC had unique contributions to emotional well-being in young adults. In their study, the adults identified in the beginning of the college semester as having higher degrees of EC had more interpersonal and psychological problems when compared over time to peers with higher levels of DoS. The researchers noted how the young adults who began the semester with a lower sense of IP seemed more likely to emotionally cut off in an attempt to define a sense of self. Participants with higher levels of FO, ER, and EC developed more complex or difficult issues in interpersonal relationships over time. Individuals who tended to be more emotionally cut off seemed more likely to try to control others in relationships as if to remain aloof or distant (Skowron et al., 2009).

Johnson et al. (2014) described the importance of clinicians being clear about the qualitative differences between EC and healthy levels of DoS. Often, the level of ER associated with separation in relationships can be the key distinction in healthy levels of DoS or degree of EC (Johnson et al., 2014). Mental health professionals with high levels of EC may be trying to self-protect or maintain emotionally distance in the stressful context of counseling sessions which leads to VT . For example, mental health professionals with higher degrees of VT may be more likely to leave the profession or

avoid client contact (Bride, Hatcher, & Humble, 2009; Figley 1995) as a means of EC. The results in my study lend support to the idea that mental health professionals with higher degrees of EC or lower DoS have higher scores of VT.

As noted in research findings for question one, Bowen (1978) described both ER and EC as enabling self-soothing behaviors during periods of anxiety. Mental health professionals engaging in self-care or preventative measures to avoid negative psychological symptoms (Howlett & Collins, 2014) would likely be demonstrating less ER and EC and be experiencing fewer symptoms of VT. The data in my study with 83 mental health professionals was consistent with lower levels of EC predicting less VT.

Knerr and Bartle-Haring (2010) noted higher scores of DoS were predictive of relationship satisfaction in couples. It is noteworthy that EC scores were significantly predictive of changes in the degree of relationship satisfaction over time. Knerr and Bartle-Haring (2010) found data supporting husbands with lower EC scores were more likely to have a higher degree of relationship satisfaction. The higher the level of DoS the less likely the person will use EC as a means to create distance and lower anxiety within the relationship (Kerr & Bowen, 1988). The level of EC appears to have some predictability in the outcomes of emotional health in relationships. The results of my study lend support to EC scores as possible predictor variables in the context of relationships.

The literature in regards to EC and the results of my study support that mental health professionals who have higher levels of VT also have higher levels of EC or lower DoS. The results of my study confirmed previous findings that lower levels of EC predict

fewer psychological and interpersonal problems and higher DoS. In the case of my study, the lower the score on the DSI-R EC subscale predicted lower DoS and higher levels of VT on the VTS.

Discussion of Findings for Research Question 4

In this study, a significant regression equation was found indicating FO predicts VT in that participants with lower scores on the FO subscale had more VT. Lower scores on the DSI-R FO subscale indicated lower DoS (Skowron & Schmitt, 2003). The negative correlation of r = -.474 between FO and VT resulted in a moderate magnitude between the variables (see Cohen, 1988).

The degree of FO developed by the mental health professional impacts the degree of emotional closeness and boundaries in client relationships (Jankowski & Hooper, 2012; Kerr & Bowen, 1988). A positive therapeutic alliance can be characterized as having healthy supportive boundaries. Better relationships and emotional boundaries with family of origin results in higher degrees of DoS with lower FO (Kerr & Bowen, 1988). Johnson et al. (2014) described how FO can be characterized by being overly emotionally involved with parental relationships. FO with parents impacted participants' ability to make independent career decisions (Johnson et al., 2014; Larson & Wilson, 1998) and have positive relationship skills . Individuals with high levels of FO have a tendency to have a less stable belief system and may seek approval or acceptance from others as a primary goal versus making independent choices as a young adult (Johnson et al., 2014; Larson & Wilson, 1998).

Larson and Sivo (1998) found that counseling trainees with better relationships with their family of origin were more likely to develop a healthy therapeutic alliance with clients in counseling sessions. Poor relationships with parents in the family of origin could lead to problems maintaining appropriate levels of emotional closeness or FO (Bowen, 1978). Larson and Sivo (1998) reviewed how FO can impact the ability of the counselor to remain individuated in relationships with clients. Larson and Sivo (1998) studied counseling trainees in their first practicum experience to determine if the ability to develop healthy relationships outside of the family of origin impacted therapeutic alliance with clients. Trainees were divided into two groups. Clients had more favorable relationships with counseling trainees who were able to identify with their own children or had another significant relationship outside of the family of origin versus trainees that did not have a significant relationship (i.e., child or spouse) outside of the family of origin. (Larson & Sivo, 1998). Results from Larson and Sivo (1998) suggest that lower levels of FO, or higher DoS, led to mental health professionals having healthier boundaries with clients. Lower levels of FO may prevent the clinician from being overly attached in the client relationship and lower levels of VT. Results of my study demonstrate low FO, or higher DoS, predicted lower levels of VT.

Skowron et al. (2009) linked higher degrees of ER with a tendency to have more FO, which leads to boundary issues in relationships, difficulty being alone, and being more intrusive in relationships. Spencer and Brown (2007) also described common behavioral or emotional responses for individuals unable to maintain a strong DoS as characteristic of FO and EC. The degree to which an individual strongly complies with

the opinion of another person may reflect FO through their dependency on the other person (Spencer & Brown, 2007). Harrison and Westwood (2009) described how clear boundaries allow clinicians to remain empathetic to the client without confusing the client's emotional experiences with their own. The mental health professional with clear boundaries would be able to remain connected to the client's story without emotionally fusing with the client's experience or adopting the client's worldview over their own. Therefore, a high degree of FO or low DoS would likely predict more VT as demonstrated in the results of this study because the mental health professional may fuse with or adopt client ideas leading to more interpersonal distress and VT (Harrison & Westwood, 2009).

The literature summarized in regards to FO supported higher levels of FO leading to lower levels of DoS. Results of my study may support that mental health professionals with higher levels of FO stemming from their family of origin relationships may have difficulty maintaining healthy client relationships leading to more VT. In the case of my study, the lower the score on the FO subscale, the lower DoS and the higher levels of VT on the VTS.

Discussion of Findings for Research Question 5

The most statistically significant predictor of VT in this study was ER followed by IP. According to Jankowski and Hooper (2012), the ER subscale and EC subscale could provide an efficient score to assess level of DoS, rather than measuring the total score for the Differentiation of Self Inventory-Revised (DSI-R, Skowron & Schmitt, 2003). The findings of my study coincide with prior research by Jankowski and Hooper

(2012) that the ER subscale addressed the construct of affect regulation the most out of the DSI-R subscales. However, in my study, the EC subscale was not as predictive as IP.

Skowron and Dendy (2004) found that the ability to prevent maladaptive behavior was predicted by lower levels of ER and a stronger ability to take on an independent stance or IP. Remaining more emotionally neutral within relationships supports a more objective stance (Skowron et al., 2009). The higher the degree of DoS, the more likely individuals can take on a solid IP and have less anxiety (Kerr & Bowen, 1988). The resulting inner directed emotional stance would allow mental health professionals to make more objective decisions and maintain better coping skills leading to lower VT (Harrison & Westwood, 2009) as supported by the results of my study.

Previous research has found correlations between low DoS and behavioral patterns in couples (Skowron & Friedlander, 1998). A study by Skowron and Friedlander (1998) found that marital couples with lower ER, low FO, and stronger ability to take on an IP had greater levels of marital satisfaction. Similar to a marital couple, the relationship between the mental health professional and client would also be impacted through the degree of the ER and IP of the clinician. The dynamics of this relationship may lead to more or less VT experienced by the mental health professional based on his or her degree of ER and IP. In this study, ER and IP were found to be the strongest predictors of VT.

As noted reviewing previous research questions, there is some overlapping in how the subcomponents of DoS may impact one another. For example, a stronger sense of IP can lead to lower ER (Kerr & Bowen, 1988). Extensive data exists confirming that higher

levels of DoS correlate with improved coping under stress and lower overall psychological distress (Bartle-Haring et al., 2005; Krycak et al., 2012; Murdock & Gore, 2004; Skowron et al., 2004; Skowron et al., 2009; Tuason & Friedlander, 2000). There is very little existing research that supports the idea that a specific subscale of DoS predicts psychological distress. However, Jankowski & Hooper (2012) found that the ER subscale score was the more significant in predicting emotional health instead of a total DoS score. The results of this study lend support to the Jankowski and Hooper (2012) findings in that the ER subscale was the most statistically significant subscale in predicting VT. Through use of the backwards elimination regression, this study found that ER followed by IP were the most statistically significant predictors of VT 83 mental health professionals in Midwest community counseling agencies.

Limitations of the Study

Although this study yielded insight into the predictable nature of the subcomponents of Dos, some weaknesses exist limiting the generalizability of the results. This study has the limitations of social desirability, transient mood states, and bias of methodology used. Reliance on self-report data may decrease validity and future cross-validation. Johnson et al. (2014) noted how using only self-report instruments was a limitation of their study with college students predicting career decision making. Due to using all self-report measurements, the relationships between the variables may have been inflated (Johnson et al., 2014). Skowron et al. (2004) recommended using alternative measures to promote validity of future data which could include manipulation of levels of emotional stress and alternative methods to operationalize DoS (Skowron et

al., 2004). This study utilized all self-report data collection which may reduce both validity and generalizability.

Some limitations may be difficult to predict but impact the likelihood of a participant completing survey instruments and the validity of the data. For example, mental health professionals already feeling emotionally overwhelmed with VT may be less likely to complete a questionnaire as they deem it is an additional work burden or distress (Bride & Kintzle, 2011; Bride et al., 2009; Sabin-Farrell & Turpin, 2003). An alternative impact on reliability and generalizability of data may be persons with higher degrees of VT have more personal interest in participation and therefore scores could skew the overall results by raising the number of participants with potentially higher than average levels of VT (Bride et al., 2009). Furthermore, individuals with high degrees of relationship conflicts may be less likely to complete survey instruments related to emotional issues or relationships (Khaddouma, Gordon, & Bolden, 2015) such as the DSI-R or VTS and may have impacted participation rates in this study.

In a study by Biadsy-Ashkar and Pelog (2013), EC was noted as the main variable impacting overall life satisfaction for Arab women. Results of this study found that more highly differentiated women had more overall life satisfaction. While Bowen's theory has been considered a universal construct, Biadsy-Ashkar and Pelog (2013) noted each cultural context should be considered before generalizing to additional populations. My research study has added to the current literature by finding DoS subcomponents can predict the severity of the level of VT in a sample of mental health professionals in Midwest counseling agencies, but does not add specific information regarding the

protective or cultural variables that may impact the study's findings. Without this information, generalizablity of my results to specific cultural variables or protective practices is not possible.

While summarizing results of the Skowron and Friedlander (2004) and Tuason and Friedlander (2000), Lambert and Friedlander (2008) noted how it appears that individuals of color have similar psychological adjustments related to DoS as White individuals. However, the results of my study and previous studies should not be considered universal to all mental health professionals. The results of my study are limited in generalizability to diverse cultures because the sample was primarily White. Similar to previous studies reviewed in Chapter 2 (Biadsy-Ashkar & Pelog, 2013; Chung & Gale, 2006; Kim et al., 2014), inclusion of more diverse ethnic/racial diversity would support more generalizable data and address cultural differences related to DoS and VT.

The generalizability of the current study should be limited to licensed or certified mental health practitioners in Midwest counseling centers in the United States. Woodward Meyers, and Cornille (2002) found that female practitioners working with traumatized children reported more physical and emotional symptoms when compared to males. Additional consideration should be given since the study's sample consisted primarily of females and may not be representative of all counseling settings. Females may identify or report different physical or emotional symptoms of VT when compared to males (Stuber et al., 2006) and this may have lead to less reliable data collected in this study or skewed the results.

The clinical setting of the mental health professional may impact the level of DoS and VT in undetermined ways and reduce the reliability of the findings in this study. Examples of settings that have been found to reflect higher levels of VT in professionals include child welfare (Jankoski, 2010), counseling students (Knight, 2010), and substance abuse (Bride et al., 2009). Researchers have noted that specific populations such as military counselors (Jordan, 2010) and substance abuse counselors (Bride et al., 2009) may have higher rates of VT when compared to other mental health professionals because the clients they serve tend to have more traumatic content. Since this study did not examine specific types of mental health professionals the results may not generalize well to certain populations.

Recommendations for Future Research

Mental health professionals' perceptions of stress, social support, and emotional support may impact their level of DoS and development of VT. Perception of stress level or emotional discord may be higher in individuals with higher levels of ER (anxiety) or lower DoS (Krycak et al., 2012), and therefore may result in higher VT levels. Behaviors demonstrative of FO, low IP (dependency), or EC may lead to negative emotional support in family or social relationships. This lack of positive emotional support from relationships can increase psychological distress leading to lower levels of DoS (Krycak et al., 2012). Additional data collection and research should be completed to better identify the amount and types of emotional support provided to mental health professionals as emotional support may be linked to their perceptions of stress, social support, level of DoS, and development of VT.

Future research may help determine if individuals with similar total scores of DoS may have certain strengths or weaknesses along specific subscales of DoS. For example, individuals with relationship problems may be struggling with EC, or persons having conflicts with supervisors may be struggling with ER (Skowron et al., 2003). As noted earlier, Jankowski and Hooper (2012) identified the ER subscale score as the most predictive of DoS when compared to the other subscales. This study supported the ER subscale as the most significant predictor of VT and confirmed some significance of this particular subscale. I recommend future research studies build upon this study and develop more empirical data on the predictability of specific subcomponent scores of DoS with diverse variables in the counseling profession. In addition, I suggest determining which interventions counselor educators and supervisors can utilize with mental health professionals to target ways to reduce ER as it appears to be the most significant subscale.

I recommend more research to determine whether cultural or protective factors from the family of origin shield mental health professionals from developing VT. Kintzle et al. (2013) recommended the exploration of protective and cultural variables that may attribute to lower levels of secondary traumatic stress in mental health professionals. If clinicians with specific family of origin patterns or low levels of DoS are identified early on, interventions and education may promote their becoming more effective counselors. Additionally, future data could lead to additional training materials and increase the effectiveness of counselor education, and therefore promote the long term emotional welfare of mental health professionals.

I recommend future research incorporate cultural variables including specific types of traumatic events within the cultural context. The variables under study should be unique to the culture of the participant population and consider which life events may be considered traumatic by that population. Furthermore, more diverse, larger, and global samples should be studied to increase our understanding of how culture, race, and gender may be potential variables in the development of VT symptomology (Lent & Schwartz, 2012; Michalopoulos & Aparicio, 2012).

In future studies, moderating variables should be examined to determine which other factors might contribute to the emergence of VT (Michalopoulos & Aparicio, 2012; Sabin-Farrell & Turpin, 2003; Vrklevski & Franklin, 2008). These moderating variables could include, but are not limited to personal coping style, trauma history, caseload, and psychiatric history (Sarbin-Farrell & Turpin, 2003), and physical health (Hooper & Doehler, 2011) of the mental health professional. Furthermore, exploring resilience as a moderating variable may lead to a better understanding of how some mental health professionals suffer less than others from the impact of VT (Vrklevski & Franklin, 2008).

Bride (2004) noted how research is limited because we have not been able to examine the factors of VT that may have led mental health professionals to leave the counseling field. Future studies should conduct longitudinal data to better understand the phenomenon and history of VT (Bride, 2004). I recommend longitudinal research to better understand how some mental health professionals are able to sustain coping mechanisms or remain in the field with severe VT while others may drop out and change professions.

I recommend additional research be conducted utilizing the Vicarious Trauma Scale (VTS; Vrklevski & Franklin, 2008). This study was one of the few to date (Aparicio et al., 2013; Michalopoulos & Aparicio, 2012; Vrklevski & Franklin, 2008) that utilized the VTS instrument and additional studies should be conducted to further support its construct validity. Substantial research (Hoopler & Doehler, 2011; Isik & Bulduk, 2015; Kim et al., 2014; Krycak et al., 2012) supports the use of the DSI-R in examining the construct of differentiation of self. However, a shortened version of the DSI-R could be beneficial for time constraints in organizations and still be psychometrically sound versus completing the 46 item DSI-R (Drake et al., 2015). A short form of the Differentiation of Self Inventory-Short Form (DSI-SF) included 20 items but has limited research supporting use beyond its initial development by Drake et al. (2015). Further research with the DSI-SF (Drake et al., 2015) may prove to be useful in the field.

Recommendations for Action

It is the ethical imperative of the mental health professional to monitor overall well-being in order to protect the emotional welfare of themselves and fellow professionals (ACA, 2014; Jankoski, 2010; Sommer, 2008). The next section will focus on recommendations for action to address ways counselor supervisors and educators might possibly increase DoS awareness in mental health professionals and reduce the impact of VT. Applications for social change implications also will be reviewed.

Implications for Counselor Supervisors

If a mental health professional does not request supervision or peer support when appropriate, the level of VT may increase due to the resulting lack of social, professional, and emotional support. Jankoski (2010) issued a call to action for all organizations to meet the needs of their staff. Some clinical settings such as the military may have significant psychological consequences for their counselors due to the traumatic content or experiences of their clients (Jordan, 2010). The implications of VT on the personal wellness of mental health professionals makes it imperative on a global level to understand which factors may influence VT (Bourke & Craun, 2014; Stevens et al., 2013). I recommend supervisors regularly assess level of DoS and VT to inform the supervision process and choice of interventions for supervisees.

Mental health professionals increasing their level of Dos will likely create more efficient and objective decisions for the clinical team (Hanson, 2009) and possibly reduce VT. Participants in a study by Hanson (2009) completed family of origin training over a 10 month period within supervision. This training focused on individual family of origin issues and patterns of anxiety impacting the individual supervisee and potentially the clinical team. The participants were better able to remain connected and communicate as a team addressing emotionally charged topics. I recommend supervisors target strategies such as family of origin training within their organizations to develop higher levels of DoS in mental health professionals, which could result in lower levels of VT.

Some studies exist supporting the value of examining family of origin and DoS issues in counselor training (Brown, 1999**;** Hanson, 2009; Lawson & Gaushell, 1988; Lawson, Gaushell, & Karst, 1994; Wilcoxon, Walker, & Hovestadt, 1989). Bowen (1978)

reported that clinicians and supervisors able to overcome negative family of origin issues may be better able to assist clients or supervisees. Increased personal awareness of family of origin issues may support the welfare of counselor trainees and lead to an increased level of DoS. If mental health professionals were assisted in increasing DoS, they would be less likely to re-enact emotional patterns developed from their family of origin with clients and within supervision (Hanson, 2009). For example, mental health professionals with higher levels of DoS may lead to more effective supervision and therefore, improved client outcomes.

In group supervision, it is possible that a supervisee with low DoS may impede the group process through behaviors reflective of ER, EC, and FO (Hanson, 2009). Similar to the Hanson's (2009) family of origin training, I recommend supervisors educate mental health professionals on how interpersonal and group dynamics within supervision mimic relationships from the family of origin. Helping the supervisee to demonstrate more effective relationship skills in both individual and group supervision could lead to an increase in DoS. I recommend the supervisor identify interventions and continuing education programming that would promote less ER and anxiety in group supervision leading to a stronger DoS for the supervisee. This stronger DoS may lead to lower levels of VT as predicted in this study.

I recommend supervisors create a neutral atmosphere and encourage independent thinking leading to less dependency on the supervisor. A collaborative relationship with the supervisor invites the supervisee to experience a higher level of DoS versus borrowing ideas from the supervisor which may indicate lower DoS (MacKay & Brown,

2014). Questions from the supervisor should elicit learning and reduce ER, supporting a thoughtful exchange of ideas. Supervisors should be responding in a neutral manner and be exploring the emotional process of the team of supervisees. This would create opportunities to develop a stronger sense of DoS. Based on the results of this study, the stronger DoS would lead to a decrease in VT symptomology.

Pulido (2012) described how current society is experiencing unprecedented acts and traumatic events leading to the development of VT. Due to the unpredictable nature of current and possible future traumatic events, programming needs and supervision much be consistent and continually assessed to determine whether they are meeting the needs of today's mental health professional and global environment. Supervisors need to have clear practices in intervening if a mental health professional is experiencing symptoms of VT (Hayden, Williams, Canto, & Finklea, 2015). Supervisors should be mandated to attend specialized training to identify VT symptoms and assist supervisees in coping with the negative effects of VT (Jankoski, 2010). The ability to recognize VT symptomology and coping mechanisms in counseling employees worldwide is imperative for the well being of supervisees (Bourke & Craun, 2014). I recommend regular program reviews and consultation with diverse mental health professionals from across the globe to ensure clinicians are as prepared as possible in the event of a disaster.

Over the course of their career, supervisors should be conscious of their own level of DoS and VT. Supervisors' personal level of DoS and VT may impact their interaction within individual and group supervision. Additionally, I recommend supervisors regularly assess their own level of DoS and VT, as it may impact their ability to supervise

effectively. Supervisors unable to advocate for programming, supervisees, or clients due their own VT may lead to needs of the public not being met in the event of a crisis (Michalopoulos & Aparicio, 2012). Furthermore, supervisors' levels of DoS and VT may impact the frequency they seek consultation and their level of confidence in asserting themselves within an organization for advocacy needs of the population.

Implications for Counselor Educators

The ability to assess counselor trainees before or early in graduate programs may lead to more individualized planning of interventions leading to higher levels of DoS and lower levels of VT. Psycho education and psychotherapeutic interventions related to DoS may support prevention and remediation of issues for students early in counseling programs (Lawson & Gaushell, 1991). I recommend assessment of level of DoS before the start of counselor education graduate programs and regular assessment of students through their professional growth.

Based on the results of this study, with ER as the most robust predictor of VT, it may be beneficial to assess mental health profession trainees early in graduate programs with the ER subscale. Jankowski and Hooper (2012) noted how in lieu of the total DoS score, the ER subscale score of the DSI-R could be predictive of the degree of emotional health and provided the most consistency of the four subscales. A counselor educator may be able to predict which students will struggle with VT from the ER subscale score versus the entire instrument. Once identified, trainees at a higher risk of developing VT could then receive additional support and training to lessen the possibility of their developing VT.

Counselor educators should develop interventions to prepare mental health professionals to cope with and identify the symptoms of VT early in the education process (Adams & Riggs, 2008; Jankoski, 2010; Sommer, 2008). Symptoms of VT may be cumulative, or could be the result of a one-time counseling event (Jordan, 2010; Newell & MacNeil, 2010). Therefore, counselor educators must assume that the mental health professional may be subjected to traumatic content as early as course content materials (Sommer, 2008) or field practicum (Knight, 2010) and integrate methods of improving DoS or emotional health early in the education process.

I recommend counselor educators include alternative and holistic methods of self-care education within educational programming. Self-care education and application may lead to a higher sense of DoS and lower level of VT. Jankoski (2010) described alternative or holistic efforts to decrease ER or anxiety which may decrease VT. Diverse options such as mindfulness training, yoga, exercise, or meditation may lower overall anxiety related to ER and VT (Harrison & Westwood, 2009; Howlett & Collins, 2014; Napoli & Bonifas, 2011) and therefore lead to a stronger sense of DoS. Counselor education related to self-care may contribute to the emotional wellness of counseling students throughout their training experience (Roach & Young, 2007).

Lack of awareness regarding personal issues or interaction patterns from the family of origin may impose risks upon clients as mental health professionals may hinder the counseling process based on their personal struggles (Kottler & Parr, 2000). Therefore, within the lens of Bowen's (1978) theory, counselor educators should be cognizant of dysfunctional patterns learned in the family of origin influencing the role of

the clinician. Lawson and Gaushell (1991) recommended counselor educators consider identifying intergenerational family issues prior to admission to counseling programs. A required family autobiography may provide useful details if it was included in admission materials and could provide a starting point for discussion of potential problem areas (Lawson & Gaushell, 1991). I recommend identification of specific educational programming, screening tools, or interventions that improve family of origin awareness in mental health professionals which may lead to higher levels of Dos, and therefore reduce VT.

Interventions chosen by counselor educators and supervisors should be specific to individual and cultural needs of the mental health professional. I recommend best practice interventions being utilized and the cultural needs of counseling students being accommodated or the welfare of the general public may be impacted with less effective counselors. Educational programming should help counseling students to incorporate their cultural strengths in order to remediate the negative psychological impact of VT (Smith, Bernal, Schwartz, Whitt, Christman, Donnelly, Wheatley, Guillaume, Nicolas, Kish, & Kobetz, 2014).

Positive Social Change Implications

Mental health professionals may be exposed to traumatic content in settings outside of the counseling organization. Natural disasters (Smith et al., 2014), acts of terrorism, and other crisis events in modern society (Pulido, 2012) may leave even the healthiest mental health professional with symptoms of VT. Some of the traumatic content of client stories and events witnessed by professionals in modern society may be

potentially more traumatic than scenarios previously addressed by clinicians (Pulido, 2012). The behavior and emotional health of mental health professionals manifest within the context of their work setting (Kottler & Parr, 2000) and therefore, additional considerations need to be taken to meet the needs of today's mental health professionals. I recommend continuing education, program development, and supervision to specifically address methods to reduce VT, or the general public may be negatively impacted by mental health professionals with higher levels of VT. Advocacy for this programming is an ethical obligation in the counseling field and will benefit both mental health professionals and the clients they serve (ACA, 2014; Sommer, 2008).

A gap in literature exists because it is not known whether the level of DoS or the ability to cope with VT leads mental health professionals to choose specific types of counseling such as child welfare versus a more diverse client population. Knight (2010) conducted a study with social work students in their field practicum placement at child welfare agencies. The participants who manifested symptoms of emotional stress and compassion fatigue had stronger reluctance to work in a setting similar to their field practicum placement and a lower desire to work in the social work field. Without future research and advocacy related to implications of DoS and VT, there may be a shortage of mental health professionals to work with specialty populations.

Self-care has been described as a sign of personal growth and commitment to the mental health profession (Jankoski, 2010). The emotional wellness and self-care of mental health professionals should be supported early in their educational programming (Adams & Riggs, 2008; Knight, 2010; Roach & Young, 2007) and continue throughout

their careers. It is essential for counseling organizations to promote the overall wellness of employees within their work schedule (Howlett & Collins, 2014), allowing time during the work day for self-care activities such as yoga, meditation, or mindfulness (Napoli & Bonifas, 2011). Emotionally healthier mental health professionals will promote better counseling services on an international level. These cost effective strategies of self-care would not strain organizational budgets or society resources and are vital to support long term careers in the field of mental health.

Mental health professionals with higher levels of DoS may be more likely to communicate assertively within their organizations and within the community to advocate for client services. Results from the Krycak et al. (2012) study noted that individuals with lower levels of DoS would be more likely to react emotionally and may not assert themselves clearly in stressful situations. If client needs are not advocated for by professionals in the mental health field, the community could be at a higher threat of significant mental health needs not being met. Therefore, in order to promote social change implications on a global level, the development of higher levels of DoS in mental health professionals must be supported to promote assertive communication of client advocacy needs. Meeting the needs of clients will directly impact public welfare.

Due to the ongoing threat of traumatic stress on a global level (Stevens et al., 2013), supervisors, researchers, and counselor educators need to continue advocacy work to promote the welfare of mental health professionals to serve client populations. Critical thinking and debate centering on issues related to traumatic stress (Stevens et al., 2013) and VT is imperative given the possible implications in society if mental health

professionals are experiencing excessive amounts of VT. To promote counselor wellness, research participants and studies should solicit equal numbers of mental health professionals from various regions throughout the globe. Advocacy for continued research similar to this study and methods to improve the emotional welfare of mental health professionals is necessary to promote counselors being prepared in the event of an international crisis.

Due to a lack of existing research, we do not know how many mental health professionals may drop out of the field due to symptoms of VT (Figley, 1995; Knight, 2010). A shortage of mental health professionals would put a strain on organizations' budgets to attempt to hire and train new clinicians (Sommer, 2008). Therefore, we must be continually researching ways to predict and reduce VT or there may be a shortage of mental health professionals in the event of a crisis.

Conclusion

The cost of caring and empathic engagement with clients is an occupational hazard leading to VT. As demonstrated in this study, the level of DoS in the mental health professional has important and predictable consequences related to the development of VT. This study makes a valuable contribution to existing literature and helps to fill a gap related to what predictor variables lead to the development of VT.

The subscale scores of ER and IP are the most statistically significant predictors of VT in this study. While existing research supports diverse methods to reduce VT, more specific training and programming can be developed related to increasing DoS as a means to reduce VT. Counselor educators and supervisors need to stay up to date on

methods to maintain health mental health professionals in the field. This study supports an efficient means to assess, identify, and intervene before a mental health professional has psychological consequences related to VT. The findings in this research study suggest that it is possible to predict mental health professionals' likelihood of experiencing excessive amounts of VT based on their scores of ER and IP.

On a global level, the findings in this study support replication with equal numbers of participants from diverse cultures and various types of counseling settings. Due to the increase of traumatic events in modern society, advocacy and research efforts to predict VT should continue to evolve. It is an ethical imperative for counselor educators and supervisors to identify and treat VT to protect the general public from impaired mental health professionals. Identification of new predictor variables as demonstrated in this study offers new information for counselor educators and supervisors to prevent the damaging effects of VT on both local and international groups of mental health professionals.

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Appendix A: Site Cooperation Letter

Agency Name X
Supervisor Name X and Title X
Address X

Date:

Dear Denise Purvis:

Based on our conversation reviewing the details of your research proposal, I give you permission to conduct your study "Differentiation of Self as a Predictor of Vicarious Trauma in Mental Health Professionals" within the **SITE NAME**. I understand you will attend a staff meeting.

During that staff meeting, you will distribute your survey instruments and informed consents. The participants may complete the survey at a later time in a location they deem convenient and private. Individual's participation will be voluntary and at their own discretion. A sealed box will be left onsite for participants to place their anonymous surveys.

We understand that our organization's responsibilities are to provide the option of time and day of the staff meeting typically attended by licensed or certified mental health professionals. We will identify an appropriate place for the sealed box to be located. We reserve the right to withdraw from the study at any time if our circumstances change.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of Denise Purvis's supervising faculty without permission from the Walden University IRB.

I also understand **SITE NAME** will not be identified in any reports related to this research project. I confirm that I am authorized to approve research in this setting and this plan complies with the organization's policies.

Sincerely,

SIGNATURE

Appendix B: Informed Consent

CONSENT FORM

You are invited to take part in a research study of how the differentiation of self of the counselor may predict the level of vicarious trauma in the mental health professional. The researcher is inviting all certified and/or licensed mental health professionals to be in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part. This study is being conducted by a researcher named Denise Purvis, who is a doctoral student at Walden University.

Background Information:

The purpose of this study is to increase the awareness and prevention of vicarious trauma in the mental health professional.

Procedures:

If you agree to be in this study, you will be asked to

- Complete an informed consent
- Provide demographic information
- Complete a survey to score your current level of vicarious trauma
- Score your survey on vicarious trauma
- Complete a survey to score your level of differentiation of self in relationships
- Attend a brief training on awareness and prevention of vicarious trauma

Here are some sample statements you will be asked to rate on a scale:

- My job involves exposure to traumatized or distressed clients.
- I find it difficult to deal with the content of my work.
- It is hard to stay positive and optimistic given some of the things I encounter in my work.
- People have remarked that I'm overly emotional
- I usually do not change my behavior simply to please another person.
- If I have had an argument with my spouse/partner, I tend to think about it all day.

Voluntary Nature of the Study:

This study is voluntary. Everyone will respect your decision of whether or not to be in the study. No one at Walden University or your employer will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind later. You may stop at any time.

Risks and Benefits of Being in the Study:

Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as minor stress. Being in this study would not pose risk to your safety or wellbeing.

Possible benefits may include an increased awareness of your personal level of vicarious trauma. This research study may add to existing research in the field related to mental health professional well-being.

Privacy:

Signed informed consents will be kept confidential and only Denise Purvis will have access to that information. All surveys will be kept anonymous and separate from the informed consent by being placed in a separate box at time of the study. Denise Purvis will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. Data will be kept secure by Denise Purvis on a computer with a pass code known only to her. Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:

You may ask any questions you have now. Or if you have questions later, you may contact the researcher via Denise Purvis at denise.purvis@waldenu.edu. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 612-312-1210. Walden University's approval number for this study is # 02-09-16-034352 and it expires on February 9, 2017.

Denise Purvis will give you a copy of this form to keep for your records.

Statement of Consent:

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By signing below, "I consent". I understand that I am agreeing to the terms described above.

Printed Name of Participant

Date of Consent

Participant's Signature

Researcher's Signature

Appendix C: Demographic Data Sheet

Please indicate your primary ethnicity or racial background by circling one the following categories:

White

Black or African American

Hispanic or Latino/Latina

American Indian or Alaska Native

Native Hawaiian or Pacific Islander

East Asian

South Asian

Southwest Asian

Multiple Heritage

Other: _____

Please share your age in years: _____

Please indicate your gender (circle all that apply):

Male

Female

Transgender

Other _____

Please share your highest counseling degree in terms of formal education:

Bachelor's/Current Master's Student in Counseling

Master's

Education Specialist

Doctorate

Please circle your primary area of counseling training associated with the previous question:

Clinical Mental Health Counseling

School Counseling

College Counseling or Student Affairs

Addictions Counseling

Counselor Education

Couples & Family Counseling

Counseling Psychology

Rehabilitation Counseling

Other: _____

Please indicate your current and primary position as a counselor:

Clinical Mental Health Counselor in a community agency or private practice

Counselor Educator

Addictions Counselor

Counseling Psychologist

Rehabilitation Counselor

Master's Student

Doctoral Student

Other: _____

Please provide your approximate years of experience as a counselor in a professional setting: _____

Appendix D: Differentiation of Self Inventory-Revised

DSI–R (Skowron and Schmitt, 2003)

These are questions concerning your thoughts and feelings about yourself and relationships with others. Please read each statement carefully and decide how much the statement is *generally true* of you on a 1 (not at all) to 6 (very) scale. If you believe that an item does not pertain to you (e.g., you are not currently married or in a committed relationship, or one or both of your parents are deceased), please answer the item according to your best guess about what your thoughts and feelings would be in that situation. Be sure to answer every item and try to be as honest and accurate as possible in your responses.

Items

NOT AT ALL TRUE OF ME TRUE OF ME

1 2 3 4 5 6

1. People have remarked that I'm overly emotional
2. I have difficulty expressing my feelings to people I care for.
3. I often feel inhibited around my family.
4. I tend to remain pretty calm even under stress.
5. I usually need a lot of encouragement from others when starting a big job or task.
6. When someone close to me disappoints me, I withdraw from him/her for a time.
7. No matter what happens in my life, I know that I'll never lose my sense of who I am.
8. I tend to distance myself when people get too close to me.
9. I want to live up to my parents' expectations of me.
10. I wish that I weren't so emotional.
11. I usually do not change my behavior simply to please another person.
12. My spouse/partner could not tolerate it if I were to express to him/her my true feelings
about some things.
13. When my spouse/partner criticizes me, it bothers me for days.
14. At times my feelings get the best of me and I have trouble thinking clearly.
15. When I am having an argument with someone, I can separate my thoughts about the issue from my feelings about the person.
16. I'm often uncomfortable when people get too close to me.
17. I feel a need for approval from virtually everyone in my life.
18. At times I feel as if I'm riding an emotional roller–coaster.
19. There's no point in getting upset about things I cannot change.
20. I'm concerned about losing my independence in intimate relationships.
21. I'm overly sensitive to criticism.

22. I try to live up to my parents' expectations.
23. I'm fairly self-accepting.
24. I often feel that my spouse/partner wants too much from me.
25. I often agree with others just to appease them.
26. If I have had an argument with my spouse/partner, I tend to think about it all day.
27. I am able to say "no" to others even when I feel pressured by them.
28. When one of my relationships becomes very intense, I feel the urge to run away from it.
29. Arguments with my parent(s) or sibling(s) can still make me feel awful.
30. If someone is upset with me, I can't seem to let it go easily.
31. I'm less concerned that others approve of me than I am in doing what I think is right.
32. I would never consider turning to any of my family members for emotional support.
33. I often feel unsure when others are not around to help me make a decision.
34. I'm very sensitive to being hurt by others.
35. My self-esteem really depends on how others think of me.
36. When I'm with my spouse/partner, I often feel smothered.
37. When making decisions, I seldom worry about what others will think.
38. I often wonder about the kind of impression I create.
39. When things go wrong, talking about them usually makes it worse.
40. I feel things more intensely than others do.
41. I usually do what I believe is right regardless of what others say.
42. Our relationship might be better if my spouse/partner would give me the space I need.
43. I tend to feel pretty stable under stress.
44. Sometimes I feel sick after arguing with my spouse/partner.
45. I feel it's important to hear my parents' opinions before making decisions.
46. I worry about people close to me getting sick, hurt, or upset.

DSI–R Subscale Composition: (underlined means reverse scored)
Emotional reactivity: 1, 6, 10, 14, 18, 21, 26, 30, 34, 38, 40;
"I" Position: 4, 7, 11, 15, 19, 23, 27, 31, 35, 41, 43;
Emotional cutoff: 2, 3, 8, 12, 16, 20, 24, 28, 32, 36, 39, 42;
Fusion with others: 5, 9, 13, 17, 22, 25, 29, 33, 37, 44, 45, 46.
Note. The items for all of the subscales except the revised Fusion with Others subscale are from "The
Differentiation of Self Inventory: Development and initial validation," by E. A. Skowron and M. L.
Friedlander, 1998, *Journal of Counseling Psychology, 45,* p. 246. Copyright 1998 by the American
Psychological Association. Reprinted with permission. (Skowron and Schmitt, 2003).

Appendix E: Vicarious Trauma Scale

Vicarious Trauma Scale Items

1. Strongly disagree
2. Disagree
3. Slightly disagree
4. Neither agree nor disagree
5. Slightly agree
6. Agree
7. Strongly agree

Please read the following statements and indicate on a scale of 1 (strongly disagree) to 7 (strongly agree) how much you agree with them.

1. My job involves exposure to distressing material and experiences.
2. My job involves exposure to traumatized or distressed clients.
3. I find myself distressed by listening to my clients' stories and situations.
4. I find it difficult to deal with the content of my work.
5. I find myself thinking about distressing material at home.
6. Sometimes I feel helpless to assist my clients in the way I would like.
7. Sometimes I feel overwhelmed by the workload involved in my job.
8. It is hard to stay positive and optimistic given some of the things I encounter in my work.

Appendix F: Permission to use DSI-R

From: **Wiley Global Permissions** <permissions@wiley.com>
Date: Mon, Apr 13, 2015 at 4:13 AM
Subject: RE: reproduction of article assessment tool
To: Denise Purvis <denise.purvis@waldenu.edu>

Dear Denise,

Thank you for your request.

Permission is granted for you to use the material requested for your thesis/dissertation subject to the usual acknowledgements (author, title of material, title of book/journal, ourselves as publisher) and on the understanding that you will reapply for permission if you wish to distribute or publish your thesis/dissertation commercially.

You should also duplicate the copyright notice that appears in the Wiley publication in your use of the Material. Permission is granted solely for use in conjunction with the thesis, and the material may not be posted online separately.

Any third party material is expressly excluded from this permission. If any material appears within the article with credit to another source, authorization from that source must be obtained.

Kind Regards

Brian Collins
Permissions Assistant

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Chichester PO19 8SQ
UK
www.wiley.com

Appendix G: Permission to Use VTS

Vicarious Trauma Scale PsycTESTS Citation: Vrklevski, L. P., & Franklin, J. (2008). Vicarious Trauma Scale [Database record]. Retrieved from PsycTESTS. doi: 10.1037/t03119-000 Test Shown: Full Test Format: 7-point Likert-type scale, ranging from 1 (strongly disagree) to 7 (strongly agree). Source: Vrklevski, Lila Petar, & Franklin, John (2008). Vicarious trauma: The impact on solicitors of exposure to traumatic material. Traumatology, Vol 14(1), 106-118. doi: 10.1177/1534765607309961,