

THE ASSOCIATION BETWEEN BELONGING AND PSYCHOLOGY  
GRADUATE TRAINEES' HEALTH

A DISSERTATION SUBMITTED TO THE FACULTY OF THE ADLER  
SCHOOL OF PROFESSIONAL PSYCHOLOGY

BY

RONNIE DOSS

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE  
OF DOCTOR OF PSYCHOLOGY

CHICAGO, IL

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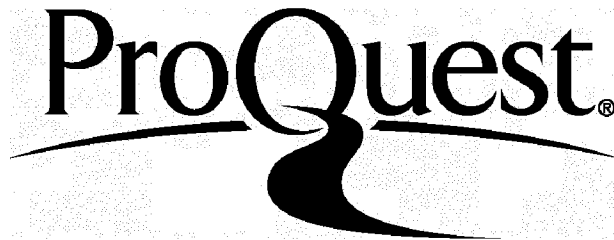
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**ADLER SCHOOL OF PROFESSIONAL PSYCHOLOGY DISSERTATION  
COMMITTEE MEMBERS**

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Dissertation Title: The Association between Belonging and Psychology Graduate Trainees' Health

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### Abstract

The purpose of this study was to examine the relationship between psychology graduate trainees' sense of belonging to their training environment (school and practicum) and its association with students' health (psychological, emotional, and physical). Participants were first to fifth year psychology graduate trainees from several institutes throughout the United States. Significant correlations were found between all health measures and several belonging measures. Support was provided for the hypothesis that stated that trainees who reported a higher sense of overall belonging to the training environment would report better overall health. Implications of the findings and suggestions for future research were discussed.

## Acknowledgements

I would first like to thank myself for my hard work, dedication, and resiliency to complete this work amidst many professional as well as personal demands and challenges. Additionally, I would like to acknowledge the role of my committee members Dr. Nataka Moore and Dr. Seema Saigal whose open door policy, knowledge, and belief in my abilities made completing this feat that much more possible. I would also like to thank my peers whom I went through this process with and whom remained supportive of me and I them. Similarly, I would like to thank my family, friends, and loved ones whom there are too many to name but who without nothing of this would have been possible. Specifically, my mother who without I would not exist, who gave me the freedom and support to pursue my goals as well as obtain them. Lastly and certainly not least, I would like to thank my dissertation chair, Dr. Peter Ji, the Edit Emperor. Your belief in me that any study was possible was truly encouraging. Additionally, your consistent availability to assist me in completing the study kept me motivated to complete this task. I thank you and all those I previously mentioned.

## Curriculum Vitae

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**EDUCATION**

---

**Adler School of Professional Psychology** **Aug 2010 – Present**  
Chicago, IL

- APA Accredited Program
- Clinical Psychology Doctoral Student (Psy.D.),

**Northeastern Illinois University** **Aug 2004 – Aug 2009**  
Bachelor of Arts Chicago, IL

- Psychology Major
- Sociology Minor

**TRAINING EXPERIENCE**

---

**Adler Community Health Services (ACHS)** **Sept 2013 – Present**  
APA Accredited Doctoral Internship Chicago, IL

Expected Hours: 2,000 (completed by August 2015)

- Provide psychological services to a variety of settings: forensic, community mental health, medical outpatient clinic
- Provide individual therapy to a variety of populations that include individuals who are currently incarcerated, people with severe mental illness, and those that are experiencing homelessness and/or HIV
- Serve as site supervisor/lead administrator for two sites (forensic and community mental health)
- Supervise doctoral therapy and diagnostic assessment externs
- Lead psychoeducational/interpersonal hybrid groups concerning coping skills
- Conduct psychological assessments for triage in a medical outpatient clinic servicing homeless and/or individuals with HIV
- Utilize evidenced-based manualized trauma approach, cognitive processing therapy (CPT)), 3 or 12 session model for trauma treatment with medical outpatient populations experiencing homelessness and/or HIV
- Participate in weekly staff meeting

- Facilitate trainings and presentations at various sites
- Conduct intakes and diagnostic assessments to various populations of all ages across various sites: forensic, outpatient medical clinic, community mental health
- Administer and review outcome measures with clients
- Write case notes and treatment plans
- Coordinate therapeutic services
- Collaborated with multiple professional disciplines and staff to establish comprehensive treatment plans for clients at all sites
- Receive weekly individual and group supervision with licensed psychologist as well as peer supervision
- Conduct a program evaluation

**Adler Community Health Services (ACHS)**

Doctoral Advanced Therapy Practicum

Expected Hours: 1,000 (completed by August 2014)

**Sept 2013 – Aug 2014**

Chicago, IL

- Provided psychotherapeutic services to a forensic population of formerly incarcerated individuals many of whom were on parole.
- Lead psychoeducational/interpersonal hybrid groups concerning anger management and parenting
- Provided individual psychotherapy
- Conducted intakes
- Administered outcome measures
- Wrote case notes and treatment plans
- Coordinated therapeutic services
- Collaborated with multiple professional disciplines and staff to establish comprehensive treatment plans for residents
- Received weekly individual, group, and peer supervision with licensed psychologists
- Received weekly supervision from psychology doctoral intern

**Seguin Services**

*Doctoral Therapy Practicum*

**July 2012-June 2013**

Cicero, IL

- Provided brief and long-term individual and family psychotherapy to individuals (children to adults) involved in the Illinois Department of Children and Family Services (DCFS) and Medicaid system with co-occurring developmental disorders and mental illness
- Administered diagnostic psychometric instruments to clients to assess levels of functioning (cognitive, personality, learning, ADHD, daily living skills), answer referral questions, and make treatment recommendations

- Created individual and family treatment plans
- Collaborated with multiple professional disciplines and staff to establish comprehensive treatment plans for individual and family clients
- Wrote psychological reports
- Wrote Medicaid approved case notes as well as individual and family treatment plans for billing and client charts
- Received weekly individual, group, and peer supervision with licensed psychologist, Master's level clinicians, and other graduate school students and professionals
- Conducted feedback sessions with clients to provide results of assessment and treatment recommendations
- Made recommendations to case managers, social workers, and other treating professionals for client cases in the DCFS and foster care systems
- Adhered to DCFS treatment authorization procedures to conduct therapeutic services with children and families involved in their services
- Established contact with referrals
- Reviewed individual and family clients' charts for information and need for additional information

**Tinley Park Mental Health Center**

*Supervised Doctoral Diagnostic Practicum*

**July 2011 – June 2012**

Tinley Park, IL

- Provided psychological services to adults with severe mental illness and various other disorders in a state psychiatric hospital
- Administered diagnostic psychometric instruments to assess patients' cognitive functioning, personality, substance use, and learning capacity to answer referral questions and make recommendations for services
- Conducted structured clinical interviews and mental status exams
- Scored and interpreted psychological assessment measures to make treatment referrals for services
- Developed treatment recommendations
- Participated in individual supervision with licensed clinical psychologist
- Wrote integrative reports and progress notes for patients
- Led weekly milieu therapy meetings with patients and staff
- Participated in daily treatment team meetings with other professional disciplines and staff to assess patient progress and future direction of treatment
- Reviewed medical charts for information and need for additional information
- Participated in group supervision with licensed clinical psychologist and other psychology graduate students



- Provided feedback of test results to patients and staff

**Teamwork Englewood**

*Community Service Practicum*

**Jan 2011 – August 2011**

Chicago, IL

- Mentored child and adolescent groups and help them learn about their community
- Helped adolescent groups learn about job and academic opportunities
- Assisted ex-offenders get reestablished in the community
- Aided ex-offenders in developing resumes and apply for jobs
- Assisted in the case management and documentation of follow-up services for ex-offenders' reentry progress
- Found funding for organizational needs
- Participated in daily organizational meetings
- Assisted members of the community find affordable housing
- Collaborated with community ambassadors to establish solutions to the problems faced by the community

**RESEARCH EXPERIENCE**

---

**Adler School of Professional Psychology  
Doctoral Dissertation (in progress)**

**Topic:** The Association between Belonging and Psychology Graduate Trainees' Health

**Date of Completion:** November 25, 2014

**Dissertation Chair:** Peter Ji, Ph.D.

**Institute of Social Exclusion**

*Research Assistant*

**Sept 2011 – Jan 2013**

Chicago, IL

- Conducted surveys in underprivileged communities
- Communicated with community members regarding community needs
- Participated in team meetings with other professionals to assess the progress and future needs of the project
- Assisted in establishing and maintaining communication with publicly elected officials as a means of advocating the needs of the community
- Assisted in the file and storage of collected data
- Participated in the conduction of stimulations concerning social oppressions and discriminations aimed at informing others of the difficult experiences of these populations

**University of Illinois at Chicago Institute for Health Research & Policy: Positive Action Program**      **Jan 2009 – Aug 2010**  
Chicago, IL

*Research Specialist*

- Administered social and emotional learning surveys to Chicago Public School (CPS) children (5<sup>th</sup>- 8<sup>th</sup> graders)
- Analyzed data received from learning surveys.
- Compared findings to the global experimental and control groups being surveyed by the Positive Action Program
- Advised CPS youth and their families on healthier emotional, social, and physical means of life.
- Participated in weekly constructive team meetings aimed at reporting up-to-date findings and new ways to improve the overall Positive Action Program
- Participated in task teams that administered surveys and facilitated collaborative learning of CPS students with their parents and teachers

**Northeastern Illinois University Social Psychology Lab**      **Jan 2009 – May 2009**

*Undergraduate Thesis: Primary Investigator*      Chicago, IL

- Designed APA approved study/experiment based on Emile's Durkheim's theory of Anomie to examine its impact on employment and relationship status
- Developed an APA approved informed consent form that was issued to participants
- Retrieved NEIU students as participants for study
- Issued and supervised the completion of the study with participants
- Collected and analyzed data using the SPSS program

**Northeastern Illinois University Cognitive Psychology**      **Jan 2008 – May 2008**

*Research Assistant*      Chicago, IL

Primary Investigator: Dr. Linda Ruckert, Ph.D.

- Examined the effect of the word superiority on bilinguals (especially interested in individuals with whom English was not their first language)
- Collaborated with a team to produce and conduct the APA approved study/experiment
- Retrieved university age students from various places to serve as participants in the study
- Issued and supervised the completion of the study with participants
- Collected and analyzed data in SPSS program

**PRESENTATIONS**

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Doss, R. (2011). Challenges of reentry and recidivism: Impact on individuals, communities, and society. Poster session presented at the Adler School community service practicum fair. Chicago, IL.

Supervisor: Dr. Amanda Dykema-Engblade, Ph.D.

Doss, R. (2009). The influence of relationship and employment status on anomie scores. Symposium conducted at the annual Northeastern Illinois University symposium for psychological research. Chicago, IL.

Ruckert, L., Hill, L., Doss, R. (2008). The effects of the word superiority effect in bilingual speakers with English as a second language. Symposium conducted at the annual Northeastern Illinois University symposium for psychological research. Chicago, IL.

## **TEACHING EXPERIENCE**

**Adler School of Professional Psychology**

**May 2013 – July 2013**

*Teaching Assistant*

Chicago, IL

Course: Introduction to Adlerian Theory

Instructor: Dr. Leigh Johnson-Migalski, Psy.D.

- Facilitated and organized classes to teach students several elements of Adlerian theory
- Graded presentations and provide students with feedback
- Provided consistent feedback throughout classes concerning Adlerian theory and other theoretical models and treatment approaches
- Assisted students in building case conceptualization skills within the theoretical model

**Richard J Oglesby Elementary School**

**June 2012 – Sept 2102**

*Co-Teacher*

Chicago, IL

- Conducted eight parenting classes for the surrounding community with a fellow student
- Psychoeducated parents and children about evidence-based effective parenting styles
- Established connection with school and community leaders to conduct classes
- Created advertisements to engage willing community members to participate in classes

## **COMMUNITY INVOLVEMENT**

**Beacon Light Ministries** **May 2010 – June 2012**  
*Helper* Chicago, IL

- Donated clothing and food
- Assisted in distributing donated food and clothing to homeless and other impoverished individuals

**Salvation Army** **May 2002 – Sept 2002**  
*Counselor* Chicago, IL

- Organized daily activities such as recreational events, study groups, and exercise times for the youth in the program
- Participated in academic and recreational activities with the youth
- Provided food and clothing to impoverished families in need
- Supervised children on field trips

## CERTIFICATIONS

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**Cognitive Processing Therapy (CPT)** **Sept 2014**  

- Online evidenced-based manualized training for delivery trauma services

**CPR Certification Illinois Department of Human Services** **July 2011 & July 2012**  

- Adult CPR
- Child CPR
- Infant CPR

**Crisis Prevention Institute (CPI) & Nonviolent Crisis Intervention** **July 2011 & July 2012**  

- Restraint techniques to help control escalating situations

**Psychological First Aid** **Jan 2011**  
 Workshop conducted at the Adler School of Professional Psychology in Chicago, Illinois  

- Therapeutic methods used to assist individuals in traumatic situations

## MEMBERSHIPS

---

**APA Division 28: Psychopharmacology and Substance Abuse** **May 2014 – Present**  
*Student Affiliate*

**APA Division 2: The Society for the Teaching of Psychology** **May 2014 – Present**  
*Student Affiliate*

**APA Division 13: Society of Consulting Psychology** **May 2014 – Present**  
*Student Affiliate*

**Adler Black Student Association** **Aug 2010 – Present**  
*Active Member*

Chicago, IL

- Participate in discussions on important academic and societal issues specific to the group
- Preparing to set up awareness outreach activities for the general population cornering several issues relevant to the group

**Northeastern Illinois University Psychspace** **Aug 2009 – Aug 2012**  
*Active Member*

Chicago, IL

- Collaborated with faculty, students, and alumni from the psychology department at NEIU to improve the program
- Provided and receive information concerning new movements in the psychology field
- Provided and receive information on new job openings in the field
- Participated in current student and faculty research studies

**Psi-Chi** **Aug 2007 – Aug 2009**  
*Active Member*

- National honor society for psychology students

## **AWARDS**

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**Merit Award for Outstanding Psychological Research** **May 2009**

**Merit Award for Outstanding Psychological Research** **May 2008**

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## The Association between Belonging and Psychology Graduate Trainees' Health

### Chapter I: Introduction

The aim of this study is to demonstrate that trainees who feel a sense of belonging to their training environment of psychology graduate programs may experience better health. A psychology graduate program consists of the education and the clinical training environments. It is the belief of this study that because at its core the practice of psychology involves social relationships, the relationships between the trainers (e.g., professors, advisors, and supervisors), peers, and trainees (i.e., the graduate students) are the sine qua non of the training environment. Trainees that have positive relationships in their training environments may believe that they belong to the environment. They feel comfortable being themselves. They believe their opinions and feelings are heard and respected. More important than having positive relationships, trainees who feel this sense of belonging may perceive that their training environment is one where he/she can grow and develop as he/she encounters challenges.

These challenges are meant to promote the trainee's professional skills, but invariably are also stressful. Trainees encounter long hours, difficult client caseloads, advisors, and supervisors who challenge the students' abilities academically as well as clinically. Much like any other stress, these stressors can impact the trainee's health (McLean, Wade, & Encel, 2003; Rosenberg & Pace, 2006). It is possible that trainees' positive sense of belonging might mitigate the



deleterious effects of these training-related stressors on their health. The purpose of this study was to test this proposition.

Sense of belonging is a psychological construct based on a person's attachment to and social comfort with his or her community, friends, family, personal interests (i.e., activities or hobbies), and workplace (Kitchen, Williams, & Chowhan, 2012). A sense of belonging is considered a basic human need that is related to psychological and physical health in individuals (Kitchen et al., 2012; Maslow, 1954; Mosak & Maniacci, 1999). Social isolation and exclusion are associated with negative effects on individuals (MacDonald & Leary, 2005). Psychologically, Mosak and Maniacci (1999) stated that when an individual does not have a sense of belonging, the individual could feel excluded or isolated. In response, the individual could believe that he or she does not belong because there is something different or wrong with him or her. This belief could result in the individual feeling inferior or not good enough, in other words, his or her psychological health worsens.

A trainee's sense of belonging can be a product of the quality of trainees' relationships. In the education environment, trainees have relationships with supervisors, advisors, peers, and professors. In the clinical training environment, trainees have relationships with supervisors, co-workers, clients, and other professionals. More so than having positive relationships, a hallmark of having a sense of belonging is social comfort. Trainees who feel comfortable at school and

at practicum will likely be confident in their clinical and class work. Moreover, they would likely feel safe to consult with others about their stress and their abilities to meet the challenges of graduate school. This sense of belonging would likely help trainees feel that their training environment is a place where despite challenges they have the necessary social supports to help them feel that they could address their challenges.

Trainees may need to experience a sense of belonging to their training environment so that they can successfully address the stresses they encounter during the training program. Furthermore, Chu, Saucier, and Hafner (2010) identified various types of support that could represent belonging surrounding relationships with teachers, school, family, and friends. Therefore, trainees have the possibility of experiencing an overall belonging to the training environment or individual elements of belonging related to the various aforementioned relationships.

During the trainee's training experience, he or she acts as both a therapist-in-training and a student. This dual role may represent additional responsibilities and potential stressors. As a student, graduate trainees experience much stress as they study for many hours (Peluso, Carleton, Richter, & Asmundson, 2011). As a therapist-in-training, they provide diagnostic assessments, individual, family, and group therapy (Peluso, Carleton, Richter, et al., 2011). They also have to complete research requirements (e.g., dissertation/thesis), apply for competitive practicum

sites, internship placements, and with postdoctoral positions (Peluso, Carleton, Richter, et al., 2011). These demands on their time represent the many potential stressors that could deteriorate their health.

Graduate trainees have a myriad of reactions to the training environment (school and practicum placements) that are potentially detrimental. These reactions include but are not limited to burnout and emotional as well as psychological distress (Hunter, 2012; McLean et al., 2003; Rosenberg & Pace, 2006). It is this study's belief that these reactions can be considered as indicators of the trainees' general health that includes their psychological, emotional, and physical health.

There have been several findings that established a connection between a sense of belonging and health. A greater sense of belonging was found to be associated with various kinds of improved health: psychological (Begen & Turner-Cobb, 2012), emotional/physiological (Blackhart, Eckel, & Tice, 2007; Gunnar, Sebanc, Tout, Donzella, & Van Dulmen, 2003), and physical (Begen & Turner-Cobb, 2012; Kitchen et al., 2012). Sense of belonging has been linked to well-being (Chu et al., 2010). These studies have examined these relationships with various populations (children, adolescents, and adults) and contexts (communities and schools), but as of yet, not with graduate students in psychology training programs. Doing so would support the idea that trainees' sense of belonging to their training environment is an important predictor of their

overall health, given the stressors of graduate school training.

### **Purpose of the Study**

The purpose of this study was to determine the level of psychology graduate trainees (henceforth referred to as trainees) sense of belonging to their training environment and its association with their health (psychologically, emotional, and physical).

### **Research Question**

Are trainees' sense of belonging to their training environments positively associated with their health?

### **Hypotheses**

There are four hypotheses:

1. Trainees who report a higher sense of overall belonging to the training environment will report significantly better health.
2. Trainees who report a higher sense of school belonging will report significantly better health across health measures.
3. Trainees who report a higher sense of supervisor belonging will report significantly better health across health measures.
4. Trainees who report a higher sense of advisor belonging will report significantly better health across health measures.

## **Chapter II: Review of the Literature**

The following literature review will first present early theories of the concept of belonging. These theories describe the basic human need of belonging and how it can mitigate the impacts of stress on health (psychological and physical). Second, several findings from research that illustrates the connection between a sense of belonging and health are presented to compliment the theories. Third, the impact of the unique experiences of the training environment on trainee's health is presented. Finally, the premise of the current study is presented: a sense of belonging to the training environment will protect trainees against health problems.

### **Early Theories about Belonging**

Belonging is related to a person's physical and mental health. Theories of human development stress that the person's belonging is necessary for development. Maslow (1954) underscores the importance of belonging by identifying it as a basic human need, ranking it third in his hierarchy behind physiological needs such as hunger and thirst, and the need for safety and security. Maslow believed that if a person met all five stages in his hierarchy of needs that he/she would feel self-confident, self-worth, strong, adequate and capable of being useful and necessary in the world (Cloninger, 2008). This belief means that a person would have a strong sense of belonging and a degree of comfort deriving from meeting these needs.

Individual Psychology echoes the idea that a fundamental human desire is to belong. Manaster and Corsini (2009) noted that Individual Psychology asserts that humans not only need other humans but they need to be needed by other humans. In fact, Dreikurs (1950) believed the fundamental question of human nature was belonging and how they belonged. Adlerian theory states the greater the sense of belonging, the less a person feels inferior and they feel more psychologically as well as physically healthier (Mosak & Maniacci, 1999). These theories illustrate the fundamental desire of humans to belong as well as the beneficial role such a sense plays in a person's health.

Not meeting these stages would mean that the person would experience less self-esteem and feel inferior (Cloninger, 2008). According to Individual Psychology, the most devastating of all emotions is not belonging, being alone, isolated, and rejected (Manaster & Corsini, 2009). Adler viewed these inferior feelings as the result of when a person believes that his or her self-concept falls short of the self-ideal (Mosak & Maniacci, 1999).

Prilleltensky (2008) also theorized the association between wellness and a sense of belonging. He believed that wellness was achieved by the simultaneous, balanced, and contextually sensitive satisfaction of personal, collective, and relational needs. Moreover, concerning the relational needs he stated that to achieve wellness, one must attend to relationality whereupon two sets of needs are important in pursuing healthy relationships among groups and individuals. Those

two are (1) respect for diversity and (2) collaboration and democratic participation (Prilleltensky, 2008). Similarly, Prilleltensky and Nelson (2000) identified child wellness as being predicated on satisfaction with physical, affective, and psychological needs. Additionally, Prilleltensky and Nelson (2000) stated that those needs are transferred to family wellness whereupon the absence of discord is not enough but the presence of supportive, affectionate, and gratifying relationships that promote personal development of family members is needed to achieve a state of wellness. These ideas suggest the association between a sense of belonging and wellness/health as it will be examined in the current study.

#### **Sense of Belonging and Overall Health**

Research studies have examined the relationship between sense of belonging and health. Kitchen and colleagues (2012) examined sense of community belonging to understand the association between belonging and health. The author's defined sense of community belonging as a psychological construct whereupon people felt an attachment and social comfort to their community, friends, family, and workplace. Additionally, the authors believed that this sense of community belonging promoted health by building mutual respect and increasing self-esteem. In Kitchen et al. (2012) study, participants who reported "fair or poor" health were less likely to have a higher sense of belonging than those with "excellent or very good" health. Those reporting "fair or poor" mental health were less likely to have a higher sense of belonging to

their community than participants with “excellent or very good” perceived mental health. Lacking a sense of belonging was associated with more difficulties. Those who reported having “quite a bit or extremely” stressful lives were less likely to have a higher sense of belonging than people having “not at all or not very” stressful lives. This finding illustrated how belonging was associated with reduced stress and improved psychological health. The associations were strong and consistent association even when accounting for the geography and socio-economic status of the community. These variables were important to account for because despite smaller areas (in terms of populations) showing a greater sense of belonging, a sense of belonging kept a strong association with health in all areas large or small and across types of areas (rural versus urban). Similarly, in terms of socio-economic status, despite findings showing that the highest sense of belonging among seniors and couples with children (individuals with higher SES) compared to younger individuals living in high-rises and who were single (lower SES), a sense of belonging to the community was still associated with health.

Chu and colleagues (2010) explored the associations between social support and well-being in children and adolescents. Through a meta-analysis they came to define well-being in their study by several outcomes that included psychological adjustment (depression, anxiety, or happiness), self-concept (self-esteem, perceived competence, or locus of control), and physical health (body mass index (BMI), eating habits, exercise frequency). They found that



participants' that their perceived social support was strongly associated with their well-being. The strength of the relationships with well-being varied by the different sources of support. Teachers and school personnel support had stronger associations than other sources of support, such as friends and family.

These findings suggest the importance of belonging to the training environment in the current study. Due to the training environment consisting of teachers, advisors, and supervisors, support from them could be associated with an increased sense of belonging among trainees, which may be associated with an increased sense of well-being. Overall, the findings suggest that social support is a significant contributor to the well-being of individuals.

**Sense of belonging's impact on physical health.** A sense of belonging can have an impact on a person's physical health. Begen and Turner-Cobb (2012) examined the role of social belonging and self-esteem in acute physical health and mood in young adolescents. They found that higher levels of inclusive belonging were associated with few physical health symptoms.

The importance of belonging and health can be seen even at a biological/neurotransmitter level where belongingness has been demonstrated to impact the physical mechanisms that contribute to stress reactions (Blackhart et al., 2007; Miller, Chen, & Cole, 2009). For instance, cortisol is a glucocorticoid hormone secreted by the adrenal gland and is known as the stress hormone because it has a strong correlation to psychological distress (Dickerson &

Kemeny, 2004). Elevated levels of salivary cortisol secretion were found in studies of individuals in response to stressful events, distress, and negative affect, both acute and chronic (Dickerson & Kemeny, 2004; Erickson, Drevets, & Schulkin, 2003).

Similarly, belonging has been demonstrated to impact biological mechanisms like those mentioned above that are associated with psychological distress. Given salivary cortisol's strong association to psychological distress, Blackhart and colleagues (2007) conducted a study to determine whether socially rejected individuals would exhibit significantly higher salivary cortisone in response to acute social rejection than accepted individuals. They measured salivary cortisol before and after social rejection/acceptance manipulation for objective assessment of psychological distress subsequent to peer rejection with an adult population. The findings showed that rejected participants exhibited significantly higher cortisol than accepted participants, indicating that social rejection or a lack of belonging results in psychological distress at a hormonal level. Examining a preschool children population, Gunnar et al. (2003) found similar findings by asking boys and girls to report "liking or disliking" their peers. The participants who received low numbers of "liked" nominations and high numbers of "disliked" selections (socially rejected children) showed significantly higher salivary cortisol than children in the non-rejected group. These studies provided biological evidence that supported Maslow (1954) as well as Mosak and

Maniacci (1999) positions that state a sense of belonging was a basic human need that led to physically healthier individuals.

**Sense of belonging's impact on mood.** Belonging also can impact a person's mood. Along with their findings concerning the impact of belonging on physical health, Begen and Turner-Cobb (2012) found that higher levels of inclusive belonging were associated with lower levels of negative affect. Additionally, higher levels of overall perceived belonging were associated with higher reports of positive affect (Begen & Turner-Cobb, 2012).

The age of Begen and Turner-Cobb (2012) participants ranged from 11 to 14 years and belonging was assessed in several life domains (home, school, and community). Belonging in each life domain had various degrees of effect on physical symptoms and mood. Greater home and community belonging was associated with fewer physical symptoms. Greater home and school belonging were most associated with less negative affect while further analysis found school belongingness to be specifically associated with positive affect (Begen & Turner-Cobb, 2012). These findings from Began and Turner-Cobb (2012) study showed that the impact that a sense of belonging in important life domains can have on an individual's physical and emotional health. Based on the finding regarding the association between belonging to the school environment and mood suggested that the importance of trainees and belonging to the training environment could promote better mood, increased positive affect, and less negative affect.

According to Individual Psychology, individuals who do not feel this sense of belonging may feel social rejection (Manaster & Corsini, 2009). Blackhart et al. (2007) examined the association between social rejection with depressed mood, anxiety, self-esteem, and overall mood. Their findings revealed that rejected individuals reported significantly more depressed mood and hurt feelings than accepted individuals. The findings suggested that accepted or individuals with a sense of belonging experienced better psychological/emotional health.

Peluso, Carleton, Richter, et al. (2011) also found that student satisfaction with their advisory relationship and current weekly hours worked predicted depression symptoms for graduate students in experimental programs. Specifically, a decrease in satisfaction with the advisory relationship was associated with an increase in depression and increased hours worked per week were associated with increased depression (Peluso, Carleton, Richter, et al., 2011).

The aforementioned research demonstrated that one's health is related to a sense of belonging in several important life domains such as school, home, community, and relations with teachers, advisors, and peers (Began & Turner-Cobb, 2012; Blackhart et al., 2007; Chu et al., 2010; Gunnar et al., 2003; Peluso, Carleton, Richter, et al., 2011). Such findings provide evidence for the relationship between sense of belonging and health. Therefore, it is the belief of

the current study that sense of belonging can act as a moderating factor to health concerning the potential detrimental experiences that trainees may face in their training environment.

### **Trainees, Stress, and Overall Health**

The stress associated with the training environment can be detrimental to trainees' health. These potential detriments include burnout, secondary/vicarious trauma, alienation and isolation among the training environment, and emotional as well as psychological distress (Hunter, 2012; McLean et al., 2003; Rosenberg & Pace, 2006). In fact, McLean et al. (2003) found that several potential negative health outcomes (i.e., secondary traumatization, burnout, and emotional exhaustion) that could result from the training environment. McLean et al. (2003) found that trainees who had less clinical experience were at increased risk for the above negative health outcomes. This finding was due to trainees who most likely had limited clinical experience compared to professionals.

Others have found the prevalence of detrimental health outcomes such as depression in the training environment of psychology graduate students (Holzman, Searight, & Hughes, 1996; Peluso, Carleton, & Asmundson, 2011). For instance, in a survey of personal psychotherapy use among graduate students in American Psychological Association (APA) certified clinical programs, 38% and 59% of students receiving therapy did so for depression and adjustment or developmental issues respectively (Holzman et al., 1996). It was not known

whether these levels of distress reflected stressors associated with the graduate training but given the high level of adjustment issues and other studies findings about therapists' burnout and well-being (Hunter, 2012; McLean et al., 2003) some concerns about the training experience of trainees should arise.

Similarly, others have found that a considerable prevalence of depressive symptoms among psychology graduate students (Peluso, Carleton, & Asmundson, 2011). Peluso, Carleton, and Asmundson (2011) assessed the prevalence of current depressive symptoms among psychology graduate students across various programs: clinical, experimental, counseling, and educational programs. Furthermore, they aimed to determine the relationship between depression and various indices of academic functioning such as research productivity, funding, and the academic advisory relationship. They found that a substantial proportion (33%) of their sample of psychology graduate students reported clinically significant symptoms of depression with six percent of those reports indicating significant clinical impairment. Students in psychology education programs reported the highest depression scores, followed by students in experimental psychology programs, counseling, and finally clinical students. They noted that these findings exceeded the prevalence of depression in studies of other healthcare providers such as medical students (Dahlin, Joneborg, & Runeson, 2005) and nursing students (Williams, Hagerty, Murphy-Weinberg, & Wan, 1995). The findings suggested that psychology graduate students appeared to be

prone to depression more so than health care providers (Haddad, Walters, & Tylee, 2007).

### **Trainees' Training Environment Stressors**

The mere position of being a trainee compared to a licensed professional presents a potential problem in the training environment due to the increased chance of the student experiencing stress and/or anxiety (Friedlander, Keller, Peca-Baker, & Olk, 1986). For instance, Friedlander and colleagues (1986) argued that counselor trainees played a subordinate role to their supervisors. Friedlander et al. (1986) examined how this subordinate role affects trainees' self-statements, anxiety level, and performance in a sample of graduate student counselors. They presented participants with several dilemmas that may arise in the training environment: conflict (the supervisor recommended action contradictory to the trainee's intended action), no conflict (the supervisor supported the trainee's intended action), control (no supervisory input), or neutral (the supervisor stated that the trainee's intent and the opposing option were equally valid). Friedlander et al. (1986) found that trainees experienced more anxiety in relation to their beliefs of self-efficacy and performance. This finding suggested that trainees were likely to experience increased stress and anxiety because they felt that they had limited experience as a therapist and hence less self-efficacy. In addition, this limited experience made them feel more as a subordinate to their supervisors. The subordinate role did not allow trainees to

feel comfortable expressing themselves if they felt their supervisors were unsupportive. The trainees' limited experience made them feel uncomfortable in asserting themselves with their supervisors. This difficult trainee-supervisor relationship likely leads to stress and anxiety due to potential uncertainties concerning clinical situations.

### **Stresses Related to the Trainees' Dual Role**

Two additional negative health experiences that trainees are at risk for in the training environment are burnout and secondary traumatic stress (STS). Burnout is defined as the emotional exhaustion that gradually emerges after long-term work with difficult clients (McLean et al., 2003). Burnout has been associated with social isolation, alienation, and loneliness were found to be associated with higher mortality rates (Stephoe, Shankar, Demakakos, & Wardle, 2013), increased experiences of physical and emotional pain (Brown, Sheffield, Leary, & Robinson, 2003), as well as anxiety and anger (Baumeister & Tice, 1990; MacDonald & Leary, 2005).

STS is defined as psychological symptoms that mimic post-traumatic stress disorder resulting from indirect exposure to another person's traumatic experiences (Baird & Kracen, 2006). STS often occurs when a helper has symptoms that are similar to the traumatized person that he or she is attempting to help (Baird & Kracen, 2006). Galek, Flannelly, Greene, and Kudler (2011) examined the association between working with traumatized clients and social



support from family and co-workers and burnout and STS. Galek et al. (2011) found that the number of years working in a current position was the strongest indication of burnout and the number of hours working with traumatized clients was the strongest predictor of STS. Specifically, more hours working with traumatized clients significantly increased one's chances of experiencing STS and the more years worked in a helper position increased the chances one would experience burnout. Trainees often provide service to traumatized clients, thus it is the belief of the current study that trainees are at increased risk for the physical and psychological pains that can come along with STS.

Similarly, McLean et al. (2003) also investigated the psychological distress in therapists who identified themselves working primarily with traumatized clients. The primary aim of McLean et al. (2003) study was to examine the association of therapist beliefs and vicarious trauma, burnout, and trauma symptomatology. Therapists who had been recently and directly traumatized and who predominantly worked with children experienced higher levels of burnout than those therapists working with traumatized children who had not experienced a recent direct trauma (McLean et al., 2003). Contrastingly, working with adults was not found to have an impact on therapists' experience of burnout if the therapist had recently experienced a direct trauma (McLean et al., 2003).

However, McLean et al. (2003) found that the highest level of burnout was

reported by therapists who had a recent and direct trauma and split their workload between both traumatized adults and children. This finding suggested that keen attention should be paid to therapists because if they experienced great distress recently than there was an increased chance of them experiencing burnout.

Although McLean et al. (2003) found therapists beliefs about their work tended to be the most important contributor to burnout and vicarious trauma, they concluded that recent significant stress, higher clinical workload, and less clinical experience may additionally render therapists more prone to negative consequences such as secondary traumatization, burnout, and emotional exhaustion. This echoes findings of Baird and Kracen (2006) that the amount of exposure (hours with trauma clients, percentage on caseload, and cumulative exposure) to traumatic material of clients increases the likelihood of STS.

Furthermore, caseloads of predominately traumatized clients and a therapist with recent personal trauma were associated with burnout and vicarious trauma (McLean et al., 2003). In fact, Baird and Kracen (2006) in a synthesis of research concerning vicarious trauma also found that a personal history of trauma was strongly linked to the development of vicarious trauma in therapists. This suggests that clinical setting and self-care of therapists is important. The latter being most salient to the current study as it is hypothesized that a sense of belonging to the training environment maintains several key elements to protecting the health of trainees.

### **Racial Minority Trainees and Training Environment Stress**

Another issue that concerns peer relations of trainees and their sense of belonging is ethnicity. Trainees in psychology graduate school programs likely find limited diversity among the student body. In fact, Clark, Mercer, Zeigler-Hill, and Dufrene (2012) reviewed survey data from the National Association of School Psychologist for the 2004-2005 school year and found that only seven percent of school psychologists identified themselves as belonging to an ethnic minority group. This suggests that there are some areas in the field of psychology that minorities are largely underrepresented, which could ultimately affect trainees' sense of belonging. Clark et al. (2012) examined factors that may serve as barriers to the success of ethnic minority psychology graduate students by assessing their academic, social, and emotional experiences. Clark and colleagues (2012) found that ethnic minority graduate students reported lower levels of belongingness than did ethnic majority students. Additionally, belongingness was significantly related to academic engagement in both ethnic minority and majority graduate students (Clark et al., 2012).

Clark and colleagues (2012) found microaggression as the main source limiting the sense of belonging of ethnic minorities. Microaggression was defined as brief everyday exchanges that send denigrating messages to people of color because they belong to a racial minority group, often unconsciously delivered in the form of subtle snubs, or dismissive looks, gestures, and tones (Sue, et al.,

2007). Although the idea of microaggressions was not the focus of the current study, results concerning ethnicity could be an area for future researchers looking to assess belonging among said populations.

### **Possible Effects of Not Addressing Trainee Health**

The health and coping of psychologists or trainees should be a significant concern given that burnout and stress are just a few of the potential detrimental experiences that have been shown to impair a psychologist's ability to empathize with clients, to increase apathy toward clients, and to result in depersonalization of the clients (Skorupa & Agresti, 1993).

### **Belonging to the Training Environment as Protection against Health**

#### **Problems**

Graduate training environments can provide supports to ease the potential health difficulties experienced by trainees. These elements of the training environment concern the interpersonal relationships that exist in the trainee's environment such as relationships with peers and supervisors/advisors. There likely has to be a sense of belonging in these relationships and not just a good relationship. Trainees who feel a sense of belong would feel a sense of comfort where they feel they could be themselves, speak their thoughts and feelings freely without fear of prosecution, as well as feel accepted for whom they are and what they bring to the relationship. In fact, Galek and colleagues (2011) found that supervisory support and family support were most associated with burnout in the

lives of psychology graduate trainees. Specifically, the more trainees' believed that they had social support from their supervisor the least likely they were to experience burnout. Such a finding indicates that a sense of belonging to the supervising and/or advising relationship serves as a protective factor against experiencing some of the detrimental effects (i.e., burnout and STS) that can result from working with traumatized clients.

Similarly, others have commented that the graduate advising relationship profoundly affects the trainee's professional development (Schlosser & Gelso, 2001). Advisors typically facilitate their advisees' progress through the program, work with students on research requirements (i.e., dissertations), and serve in other capacities for their students such as providing clinical supervision and facilitating professional development (Schlosser, Knox, Moskovitz, & Hill, 2003). Peluso, Carleton, Richter, et al. (2011) found that student satisfaction with their advisory relationship was a significant predictor of depression symptoms, whereupon a decrease in satisfaction with the advisory relationship was associated with an increase in depression.

Similarly, Schlosser et al. (2003) did a qualitative examination of the graduate advising relationship from the advisee's perspective. Schlosser and colleagues (2003) findings revealed that 10 students were satisfied and six were unsatisfied with their advising relationship. These two groups differed on several aspects of the advisory relationship such as the ability to choose their advisors, the

benefits and costs associated with their advisory relationship, the frequency of meetings with their advisors, as well as how conflict was dealt with in the advising relationship. For instance, the satisfied students described their advising relationship as positive while the unsatisfied students described their relationship as negative or neutral and businesslike and shallow. Those found to have positive advising relationships could be described as ones in which the members have a good rapport, process conflict openly, ability to choose their advisor, had frequent individual meetings whether regularly scheduled or spontaneous, discussed program requirements and research, comfortableness disclosing aspects of their personal lives, and work together to facilitate the advisee's process through the graduate program and development as an emerging professional (Schollosser et al., 2003).

These findings are similar to Peluso, Carleton, Richter, et al. (2011) who did a study of psychology graduate students from clinical, experimental, counseling, and education programs regarding students' perceptions of their advisory relationship and the advising they received in specific training areas. Peluso, Carleton, Richter, et al. (2011) found that for clinical students, advising on self-care and balance of professional/academic life and personal domains for maintaining health was the greatest predictor of their satisfaction with and perceived quality of their advisor relationship. Overall, these findings from Schollosser et al. (2003) and Peluso, Carleton, Richter, et al. (2011) indicate that

trainees' who have a sense of belonging with their advising relationship (feels comfortable talking about professional and personal matters as well as conflict) have an increased perception of personal health and satisfaction. As a result, advising relationships is an important area of observation for psychology graduate students where extra efforts should be taken by all parties (students, advisors, and graduate institutions) to increase trainees' sense of belonging in this arena.

On the other hand, Schlosser and colleagues (2003) found that unsatisfied students' advising relationships could be described as ones in which the members were assigned to work together upon entry into the doctoral program, worsened over time, had infrequent individual meetings with their advisors (e.g., once or twice as a master), did not typically involve career guidance, felt cautious talking about their professional and/or personal lives with their advisors, having to go elsewhere to have their advisory needs met, and avoidance of conflict and/or discussions surrounding conflict. This finding is in direct opposition to the idea of a sense of belonging and suggest that trainees who do not have this sense of belonging experience dissatisfaction with their advisory relationship. Furthermore, such a dissatisfactory relationship could potentially contribute to students not communicating with advisors unless absolutely necessary thus socially isolating them to a large degree, which MacDonald and Leary (2005) found to be associated with negative health comes.

Trainees' training environment also consists of peer relationships.

Relationships with peers can have a profound effect on trainees' health, whereupon a sense of belonging among peers can be a good indication of positive health. Buhrmester (1990) investigated the contributions of stressful life events and resources (social support and social problem-solving skills) to predicting changes in children's adjustment. Buhrmester (1990) found consistent evidence over the two-year life span of the longitudinal study that the intimacy of friendship is integrally related to adjustment and interpersonal competence during adolescence. Adolescents whose friendships were rated (by self and friend reports) as companionate, disclosing, and satisfying reported that they were more competent, less hostile, more sociable, less anxious, less depressed, and had a higher self-esteem compared to peers involved in less intimate friendships (Buhrmester, 1990). These findings suggest that belonging with peers in a manner that results in intimate friendships determines good mental health.

Furthermore, a higher sense of belonging was associated with more autonomy, which subsequently was found as a significant predictor of both academic engagement and emotional distress (Clark et al., 2012). Autonomy's association with increased sense of belonging is likely a reflection of Kitchen et al. (2012) definition of a sense of belonging that includes social comfort. When people are comfortable they typically have a sense of autonomy. In summary, Clark et al. (2012) found that the greater the sense of belonging, the greater the autonomy, which led to less emotional distress experienced. These findings



illustrate the importance of belonging in a psychology graduate school program to the health of trainees, which is the population and hypothesis of the current study.

The aforementioned research provided the bases for the current study. The early theories of belonging and subsequent research studies' findings investigating the phenomenon indicated the important link between belonging and overall health (physical, psychological, and emotional). Additionally, the research found that a sense of belonging was important to improved health of those in the field of psychology. Some of the research investigated sense of belonging in the relationship between advisors or supervisors and psychology trainees along with its impact on trainees' physical and psychological health. However, studies have yet to study psychology graduate trainees sense of belonging to the overall training environment, which includes school and practicum along with all its subsequent relationships (peers, supervisors, advisors, and teachers) and its impact on trainees overall health. The current study aim was to fill this gap in research by investigating trainees' sense of belonging to the overall training environment and its association with trainees' overall health.

## **Chapter III: Methodology**

### **Research Design**

The study was a quantitative design consisting of one sample and a survey methodology.

### **Participants**

Participants in the study were first to fifth year doctoral psychology graduate students in clinical programs throughout the United States ( $N = 132$ ). The populations from these institutes were suitable for the current study because they were currently on practicum and had practicum experience. Additionally, they had experience with other trainees and faculty, so it was possible to assess their educational environment. Therefore, it was possible to assess their belonging to the training environment. Students currently on internship were excluded because they would likely be full-time trainees in a completely different environment.

### **Recruitment Procedure**

The PI sent an email permission notice to several doctoral psychology program chairs at schools throughout the United States whose students are enrolled in doctoral graduate clinical psychology programs asking for permission to post the recruitment flyer and link to the survey on their institutes' respective list-serves (see Appendix D). The following sites agreed to post the recruitment notice: the Adler School of Professional Psychology, the Chicago School of

Professional Psychology, Argosy University, Boston College, Forest Institute in Missouri, University of Kansas, the Wright Institute of Berkley California, University of Illinois at Urbana-Champaign, and Loyola University Chicago.

The primary investigator distributed his recruitment flyer which contains the link to the study to several of his peers in the training environment (see Appendix C).

The recruitment notice and flyer contained a link to the online consent form and survey materials.

### **Measures**

There were six measures used in this study, three for the independent variables and three for the dependent variables. The three independent variables were measured by the Psychological Sense of School Membership Scale (PSSM; Goodenow, 1993), the Advisory Working Alliance Inventory – Student Version (AWAI-S; Schlosser & Gelso, 2001), and the Survey of Perceived Supervisory Support (SPSS; Kottke & Sharafinski, 1988). The three dependent variables were measured by the Penn State Worry Questionnaire (PSWQ; Meyer, Miller, Metzger, & Borkovek, 1990), the Cohen-Hoberman Inventory of Physical Symptoms (CHIPS; Cohen & Hoberman, 1983), and the Patient Health Questionnaire–9 (Spitzer, Kroenke, Williams, & Patient Health Questionnaire Primary Care Study Group, 1999). See Appendix F, G, H, I, J, and K for all scales.

**Sense of belonging.** The Psychological Sense of School Membership Scale (PSSM; Goodenow, 1993). The PSSM is an 18-item scale that was designed to measure youths' perceptions of belonging and psychological engagement in school. The reliability alpha score is .88. For the current study, the measure was utilized in sampling an adult population.

The SPSS was developed to measure employees' perceptions of supervisory support. The 16-item SPSS used a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). All but two items were positively worded. In a sample of 216 employees, coefficient alpha for the SPSS was .98.

The 30-item AWAI-S was constructed to measure the graduate advising relationship from the student's perspective. Three factors (rapport, apprenticeship, and identification-individuation) were extracted by factor analysis. There were 281 students enrolled in 13 APA-accredited counseling psychology doctoral programs indicated their level of agreement with AWAI-S items on a Likert scale from 1 to 5 (1 = *strongly disagree*, 3 = *neutral*, 5 = *strongly agree*; no anchors for responses 2 and 4). Additionally, 41 doctoral students completed the measure a second time, two weeks later. Results showed that the AWAI-S and its subscales exhibited sound estimates of internal consistency reliability and stability across the two week interval; the subscales correlated highly with the AWAI-S total score (*r*'s between .86 and .90) and moderately high with each other (*r*'s between .62 and .72) and both the AWAI-S and its subscales showed stability over the two

week retest period. Validity was established through correlations with Counselor Rating Form (CRF-S) and the RAM (O'Brian, 1998); correlations between the AWAI-S and the CRF-S were consistently positive, regardless of the length of the advisory relationship.

**Health measures.** The Cohen-Hoberman Inventory of Physical Symptoms (CHIPS; Cohen & Hoberman, 1983) measures participant's physical health. Participants rated the degree to which they are bothered or distressed by each of 39 common physical symptoms. Items were selected so as to exclude symptoms of an obviously psychological nature (e.g., felt nervous or depressed). The scale does, however, include many physical symptoms that have been traditionally viewed as psychosomatic (e.g., headache, weight loss). Each item is rated for how much that problem bothered or distressed the individual during the past two weeks. Evidence of reliability and moderate validity was established in two separate college student samples. Items on the CHIPS are rated on a 5-point scale from 0 (*not at all bothersome*) to 5 (*extremely bothersome*). Higher scores indicate a larger degree of physical symptoms that are experienced as bothersome and distressing. Reliability for the CHIPS had a Cronbach's alpha value of .88. Concerning validity, the Center for Disease Epidemiologic Studies Depression Scale (CES-D) is moderately correlated with the CHIPS ( $r = .44$ ).

The Penn State Worry Questionnaire (PSWQ; Meyer et al., 1990) was developed to measure the trait of worry. It consists of 16-items rated on a 1 to 5-

point scale (*not at all typical of me* to *very typical of me*). Interpretations of scores placed individuals in three categories: low worry (16-39), moderate worry (40-59), and high worry (60-80). The coefficient alpha for the final PSWQ was 0.93. The final scale was then administered to several additional samples of introductory psychology students. It was found that the PSWQ had good test-retest reliability as well as validity. It correlates predictably with several psychological measures reasonably related to worry, and does not correlate with other measures more remote to the construct.

The purpose of the Patient Health Questionnaire-9 (PHQ-9) was to briefly assess the presence of depressive disorder diagnoses as well as grade depressive symptom severity. Each of the nine items were scored on a 4-point scale ranging from 0 (*not at all*) to 3 (*nearly every day*). As a severity measure, the PHQ-9 score can range from 0 to 27. Interpretation ranges for the level of depressive symptoms severity were none (0-4), mild depression (5-9), moderate depression (10-14), moderately severe depression, severe depression (20-27). The internal reliability of the PHQ-9 is a Cronbach's alpha value of .89. All the previously mentioned scales were retrieved from the Adler School's library resources Psych Test database, which states that all test content may be reproduced and used for non-commercial research and educational purposes without seeking written permission. Distribution must be controlled, meaning only to the participants engaged in the research or enrolled in the educational activity. Any other type of

reproduction or distribution of test content is not authorized without written permission from the author and publisher.

### **Consent Procedure**

Once participants accessed the online consent form (see Appendix A), agreement to the consent form was needed to access the survey material. Given the possibility that participants could have experienced distressed while answering the survey questions about their training environment and about their overall health, at the end of the survey, they were encouraged to contact their program's advisor to discuss these issues or to contact local psychologists if they wished to seek additional therapy (see Appendix E).

### **Data Collection and Security**

Data for the online study was collected over a three-month period, from April to June 2014.

Data from the completed surveys were exported to a password protected spreadsheet file on a password protected laptop in the possession of the primary investigator. The laptop was stored in the residence of the primary investigator. No identifying information was collected. All results for this study were presented in aggregate form. No individual results are reported.

### **Data Analysis**

A series of correlations examined the relationships between multiple variables: sense of belonging, physical health, emotional health, and

psychological health.



## Chapter IV: Results

### Demographics

Table 1 presents the sample demographics. The total sample was  $N = 132$ . The age group with the most participants was 25–34 years old ( $n = 98$ ). There was limited ethnic diversity in the sample with the majority of participants identifying as white ( $n = 104$ ). Similarly, relationship status was divided into two categories single ( $n = 90$ ) and married ( $n = 35$ ) while the remaining participants did not answer ( $n = 7$ ). Regarding year of training, participants identified as first year ( $n = 14$ ), second year ( $n = 32$ ), third year ( $n = 39$ ), fourth year ( $n = 41$ ), and fifth year ( $n = 6$ ). Concerning training site, trainees reported being at various placements (see Table 2) with the most frequent being community mental health facilities ( $n = 28$ ).

### Descriptive Statistics

Descriptive statistics are presented in Table 3. The PSWQ mean score ( $M = 53.32$ ,  $SD = 14.97$ ) indicated that the participants experienced symptoms in the higher range of the moderate anxiety category. On the other hand, average scores concerning the physical health problems and depression measures suggested that participants were not experiencing significant problems with either. Additionally, participants' scores on belonging measures suggested that generally trainees felt a sense of belonging to their schools, supervisors, and advisors.

### Correlation Analysis

The analysis of the correlations among the belonging measures revealed that school belonging was significantly related to supervisor belonging ( $r = .28, p < .001$ ) and advisor belonging ( $r = .22, p = .02$ ). The effect size was small (below .30) for these relationships. The analysis revealed that there was no significant relationship between advisor belonging and supervisor belonging ( $r = .12, p = .23$ ). In general, students who felt that they belonged to their school also felt they belonged to their advisor and supervisor. However, those who felt that they belonged to their supervisor did not necessarily feel that they belonged to their advisor and vice versa.

Analysis of the correlations among the health measures (PSWQ, CHIPS, and PHQ-9) revealed that they all were significantly related at  $p < .001$ . The effect sizes were moderate, between .40 and .60. Consequently, these findings generally indicate that those who felt distress concerning depression also felt anxiety and physical distress.

The findings provided some support for hypothesis one, which stated that trainees who report a higher sense of overall belonging to the training environment (school, advisor, and supervisor) would report significantly better health. The correlation indicated a significant relationship between trainees sense of belonging and overall health, physical and psychological, ( $r = -.33, p < .001$ ). Thus, the greater the sense of overall belonging the greater overall health reported. The effect size of this finding was moderate, between .30 and .60.

Similarly, there was support for hypothesis two, which stated that trainees who reported a higher sense of belonging to the school would report better health. Findings revealed that school belonging was significantly related to the experience of depression ( $r = -.19, p = .05$ ), physical health problems ( $r = -.37, p < .001$ ), and anxiety ( $r = -.25, p = .01$ ) among trainees. Thus, trainees who reported a higher sense of belonging to their school environment also reported better overall health across the domains with the strongest effect being seen with physical health, anxiety, and depression respectively. Specifically, the effect size was moderate (between .30 and .60) for physical health. The effect sizes were small for anxiety as well as depression (below .30).

There was only partial support for hypothesis three that stated trainees who report a higher sense of belonging to their supervisor would report significantly better health across health measures. A sense of belonging to the supervisory relationship (supervisor belonging) was significantly related to trainees physical health ( $r = -.19, p = .05$ ). These findings indicated that trainees who reported a higher sense of supervisor belonging also reported better physical health. However, the effect size was small (below .30). Although increased supervisor belonging was found to be related to less reports of depression ( $r = -.13$ ) and anxiety ( $r = -.16$ ) among trainees, the findings were not significant.

There was partial support for hypothesis four, which stated that trainees who reported a higher sense of advisor belonging would report significantly better

health across health measures. A sense of belonging to the advisory relationship (advisor belonging) was significantly related to trainees physical health ( $r = -.23$ ,  $p = .02$ ). Thus, indicating that trainees who reported a higher sense of advisor belonging reported better physical health. The effect size of this relationship was small (below .30). Concerning depression and anxiety, trainees who reported higher advisor belonging reported lower depression ( $r = -.18$ ) as well as anxiety ( $r = -.06$ ). However, neither finding was significant.

## Chapter V: Discussion

The findings supported the hypothesis that trainees who reported a higher sense of overall belonging would report significantly better overall health. Additionally, the findings supported hypothesis two which stated that trainees who reported a higher sense of school belonging would report significantly better health across health measures. There was partial support for hypothesis three which stated that trainees who reported a higher sense of supervisor belonging would report significantly better health for only physical health. Similarly, there was partial support for hypothesis four which stated that trainees who reported a higher sense of advisor belonging would report significantly better health for only physical health. The findings are consistent with those of Kitchen et al. (2012) and Begen and Turner-Cobb (2012) and they support the theories of Maslow (1954) as well as Mosak and Maniaci (1999) whom believed that a greater sense of belonging contributes to better health outcomes.

An interesting, and yet somewhat expected finding, is that the trainees in psychology graduate school are experiencing a considerable level of anxiety. The trainees mean score on the PSWQ placed them in the higher range of the moderate anxiety category. Additionally, 37 of the 107 trainees had PSWQ scores that placed them in the high anxiety range. These findings suggest that trainees experience high anxiety, presumably because of the stress of their psychology graduate training. In fact, 34 trainees reported starting or seriously feeling a need

to take anti-anxiety medication as a result of their graduate training. This finding, although somewhat expected, is unfortunate. Training programs should be alerted that their trainees are experiencing high anxiety and consider if this level is acceptable and if trainees could be expected to learn and thrive as they train to be psychologists.

Despite high levels of anxiety found among trainees, the PHQ-9 mean score did not indicate that they were also experiencing depression. This finding was not consistent with that of Peluso, Carleton, Richter, et al. (2011) who found a decrease in satisfaction with the advisory relationship was associated with an increase in depression among a psychology graduate student population. A possible explanation for this finding in the current study could be the nature of the questions on the PHQ-9. The measure explores experiences concerning hopelessness and helplessness. Therefore, although trainees may have frequent anxiety about their training, they may not feel hopeless or helpless about their experiences. They would still feel that it is possible that they are capable of completing their training.

It appeared that the trainee's sense of belonging was associated with less physical and psychological difficulties. The effects of sense of belonging were observed with the psychological health measures (PHQ-9 for depression, PSWQ for anxiety, and CHIPS for physical health). This finding confirms the importance of positive relationships with supervisors and advisors for feeling less anxious and

depressed. An important finding is that sense of belonging with supervisors and advisors is associated with better physical health. It would appear that the psychological benefits of having positive relationships would also lead to better physical health. These findings highlight the idea that psychological and physical health are not independent; they are important domains that mutually influence each other.

It would appear that a sense of belonging to the school or training program in general has positive impacts on trainees' physical and psychological health. This finding is curious because whereas sense of belonging to an advisor or supervisor is understandable because the trainee feels that he or she belongs to another person, there is no one person that a trainee belongs to when he or she has a sense of belonging to a training program. This finding is consistent with those of Kitchen et al. (2012) and suggests that there is merit in assessing if a trainee feels a sense of belonging with the general training program. This finding suggests that it is the totality of the trainee's experience with the training program that fosters a sense of belonging. Thus, the trainee needs to feel a sense of belonging with not just the primary persons he or she trains under, i.e., the advisor and the supervisor, but with everyone and with all aspects of the training program.

The findings mirror that of Chu et al. (2010) where trainees who had a sense of belonging to teachers and school personnel support had stronger associations with overall health compared to their friends and family. It would

appear that trainees need to feel a sense of belonging to those who are integral to their training environment. Feeling a sense of belonging to support systems that are external to the training environment might not assist trainees with the tasks that they must address. It would appear that trainees need to feel a sense of belonging to their training environment and their advisors and supervisors because that setting and personnel are the sources of stress for the trainees. Trainees need to experience a sense of belonging with those who are instructing the trainee. This instruction experience is stressful so the trainee needs to experience a sense of belonging to those who are providing the instruction in order to mitigate the stress of that instruction.

### **Additional Findings**

Regarding the use of depression medication or a serious felt need to do so due to the stresses of graduate training, trainees' reports contributed to some interesting discussion. First, significant correlations were found across all health measures for those who reported being depression medication free (trainees who answered "no" to the question). These trainees were found to have significantly less reported health problems. This finding could indicate support for the study's design of linking anxiety, depression, and physical health under one umbrella term "health." Those who reported using depression medication or felt a serious need were expected to score higher on depression. However, given that they scored higher on the other health measures as well suggests that one of area of



health (physical, psychological, or emotional) impacts the others. Furthermore, this finding could be viewed as providing support for not attempting to isolate a specific area for treatment but to treat all possible areas of someone suffering from health problems as defined in the current study.

The depression medication free trainees had significantly more supervisor and advisor belonging. This finding could suggest that having more of a belonging relationship with supervisors and advisors may contribute largely to better health among trainees. If so, this information could be useful to supervisors and advisors as a means to assisting trainees overcome some of their health problems. For example, if trainees were transparent about taking medication or feeling a serious need to then perhaps their supervisors and advisors could assess their working relationship as well as improve it as a means of contributing to increase belonging along with subsequently increased health.

### **Implications of Findings**

Advisors or supervisors who notice that a trainee has worsening physical and psychological health should receive the necessary services. Addressing their sense of belonging may alleviate their physical and psychological health. Along with their above findings of reports of better health correlating with more belonging, Kitchen et al. (2012) found that physically active people were nearly 1.4 times more likely to have a greater sense of belonging than the physically inactive. This finding could be because physically active people tend to enter the

community more for their activity (i.e., going to the gym), which could contribute to them meeting more like individuals and increasing their sense of belonging.

### **Limitations**

Knowing the exact nature of anxiety or depression experienced by trainees was beyond the scope of this study. A follow-up study that assesses the exact nature could provide valuable information that training programs could use to implement change surrounding self-care/health.

Another limitation of the study is that trainees did not have to identify their graduate institution. This information was not requested in the demographic portion of the study so as to maintain confidentiality of the participants. However, if this information was acquired, it could have been useful to establishing curriculums that are supportive to the health of trainees. For instance, programs who trainees reported a higher sense of belonging and health could have been examined further in future research to develop similar approaches at institutes who trainees reported lower scores. Additionally, institutes along with current and future students may be interested in such information as a way to either promote/encourage students to attend a specific institute or a manner upon which students could select a program that fits their supportive needs.

Limited ethnic diversity was an additional limitation. It was stated in the review of literature that ethnic diversity was found to be very limited in psychology programs, which seemed evident in the current sample. A larger

ethnic sample could have provided information about minorities' sense of belonging and health. Moreover, said information may have been useful to programs as a way to make changes that would encourage the enrollment of more minority trainees. Furthermore, increased amounts of trainees in the field would serve clients well as it could provide them with practitioners from similar backgrounds and various treatment perspectives/approaches among many other benefits.

### **Future Implications**

The findings have several implications for current and future psychological practice and research. For instance, if trainees are reporting negative health outcomes, perhaps graduate schools could promote and/or provide services to treat such difficulties. Additionally, programs could have entities that specialize in belonging and depression as well as anxiety prevention assists in developing a curriculum that would maximize trainees' belonging and health. As previously mentioned, future research could benefit from asking questions to assess the exact nature of some of the health difficulties associated with the study to provide more precise areas of intervention. Similarly, future research that asks trainees to identify their graduate school could provide current and future trainees with a database to select a program that would meet their health needs. Such an ability to select a more probable supportive environment is beneficial to the field of psychology because it would likely increase the chances that trainees (current

and future practitioners) are in a healthy state. Consequently, such a healthy state could improve services provided to clients whose improvements could improve not only their lives but the lives of people they interact with as well as society in general.

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## Appendix A

### Online Consent

The Association between Belonging and Psychology Graduate Trainees' Health

You are invited to participate in a web-based online research study on the experience of psychology graduate school training from the trainee's perspective and the associations of said training with one's health. This study is conducted by me, Ronnie Doss, a 4<sup>th</sup> year Psy.D. student at the Adler School of Professional Psychology. This study will take approximately 15 minutes of your time.

Your decision to participate or decline participation in this study is completely voluntary and you have the right to terminate your participation at any time without penalty. You may skip any questions you do not wish to answer. If you do not wish to complete this survey just close your browser.

Your participation in this research will be completely anonymous and data will be presented as aggregate results. No individual results will be reported and no identifying information will be included. The consent form will be on an online webpage that is separate from the online survey. Your survey answers will be sent to a link at [www.surveymonkey.com/survey](http://www.surveymonkey.com/survey) where data will be stored in a password protected electronic format. I will not collect identifying information such as your name, email address, or IP address. Therefore, your responses will remain anonymous. No one will be able to identify you or your answers, and no

one will know whether or not you participated in the study. Likewise, your responses will not affect your relationship with your supervisors or school. Although your participation in this research may not benefit you personally, you may benefit indirectly by knowing that your responses are contributing to the knowledge base regarding how training environments can impact trainees' health. Some of the survey questions ask about relationships with others in the training environment and the experience of various health symptoms that may be distressing to you as you think about your experiences. Consequently, at the end of the survey, you are encouraged to contact your program's advisor to discuss these issues or to contact local psychologists if you wish to seek additional therapy.

If you have questions about this project, you may contact Ronnie Doss at 773-412-6488 and/or at [Rdoss@my.adler.edu](mailto:Rdoss@my.adler.edu). You may also contact my dissertation chair Peter Ji at 312-662-4354 and/or at [pji@adler.edu](mailto:pji@adler.edu). If you have any questions about your rights as a participant in this study or any concerns or complaints, please contact the Adler School of Professional Psychology Institutional Review Board at [irb@adler.edu](mailto:irb@adler.edu). Its contact is David Castro-

Blanco, [dcastroblanco@adler.edu](mailto:dcastroblanco@adler.edu), 312-662-4333 who you may contact as well.

**ELECTRONIC CONSENT:** Please select your choice below. You may print a copy of this consent form for your records. Clicking on the "Agree" button indicates that

- You have read the above information
  - You voluntarily agree to participate
  - You are 18 years of age or older
- Agree
- Disagree

Appendix B  
Demographic Questionnaire

Age

Q. Age: What is your age?

- 18-24 years old
- 25-34 years old
- 35-44 years old
- 45-54 years old
- 55+ years old

Ethnicity

Q. Ethnicity origin (or Race): Please specify your ethnicity.

- White
- Hispanic or Latino
- Black or African American
- Native American or American Indian
- Asian / Pacific Islander
- Other

Education

Q. Education: What year of training are you?

- First year
- Second year

- Third year
- Fourth Year
- Fifth Year

#### Household Composition

Q. Marital Status: What is your marital status?

- Single, never married
- Married or domestic partnership
- Widowed
- Divorced
- Separated

#### Practicum Setting

Q. Which type of training site are you currently training at?

- Child guidance clinic
- Community Mental Health
- Department/School Clinic
- Forensic/Jail
- Inpatient Psychiatric Hospital
- Medical Clinic/Hospital
- Outpatient Psychiatric Clinic/Hospital
- partial hospitalization/intensive outpatient programs
- private practice



- residential/group
- Schools
- University Counseling Center/Student Mental Health
- VA Medical Center
- Other

Q. Is your current area of graduate study located in the city that you would call your place of origin? (Did you grow up in the city)?

- Yes
- No

Q. How many other practicum students are at your site?

- 0
- 1
- 2
- 3
- 4+

Q. Have you received a prescription or taken medication for anxiety or felt a serious need to do so because of the stresses of your graduate training?

- Yes
- No

Q. Have you received a prescription or taken medication for depression or felt a serious need to do so because of the stresses of your graduate training?

- Yes
- No

Q. Do you have a professional mentor?

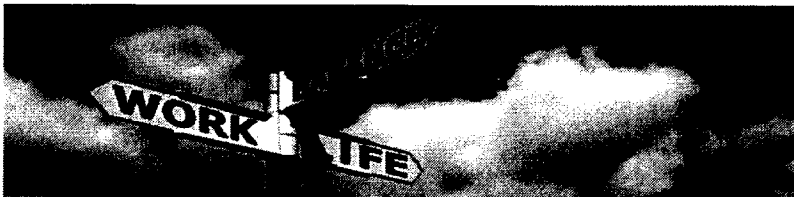
- Yes
- No

## Appendix C

### Psychology Graduate Trainee Research Study

**Are you a psychology graduate student?**

**Has the program dominated your life so much that you seem to need GPS for the cross streets below?**



**Finding the road to a satisfactory balance between work and life can be difficult, if not seemingly impossible. Well, here's your chance to make that right turn by participating in a research study**

The purpose of this research study is to determine the associations between the psychology graduate training environment and trainees' overall health. If you are interested, you may participate in the confidential study at

<https://www.surveymonkey.com/s/DossStudy>

For more information, please contact Ronnie Doss at [rdoss@my.adler.edu](mailto:rdoss@my.adler.edu) or (773) 412-6488. You can also contact my dissertation chair Peter Ji at 312-662-4354 and/or at [pji@adler.edu](mailto:pji@adler.edu). Additionally, you may the Adler School of Professional Psychology Institutional Review Board at [irb@adler.edu](mailto:irb@adler.edu), the study protocol # 14-057.

## Appendix D

### Recruitment Email to Program Chairs

Hi, my name is Ronnie Doss. I am a 4<sup>th</sup> year Psy.D. student at the Adler School of Professional Psychology. I would like to invite you to participate in my research study about the psychology graduate training environment and trainees' overall health. You may participate if you are a psychology graduate student enrolled in Psy.D. institutes. Additionally, you must be currently involved in class and clinical practicum experiences to be included in the study. Please do not participate if you are a student currently on internship because of the likelihood of your status as a full-time trainee in an environment different from the academic and practicum training environments of those trainees whom are not yet an intern. As a participant, you will be asked to give 15 minutes of your time to complete the series of questionnaires concerning your graduate training environment and overall health.

Although your participation in this research may not benefit you personally, you may benefit indirectly by knowing that your responses are contributing to the knowledge base regarding how training environments can impact trainees' health. Some of the survey questions ask about relationships with others in the training environment and the experience of various health symptoms that may be distressing to you as you think about your experiences. Consequently, at the end of the survey, participants are encouraged to contact their program's advisor to

discuss these issues or to contact local psychologists if they wish to seek additional therapy.

If you would like to participate in this research study, please click the following link <https://www.surveymonkey.com/s/DossStudy> and give your consent and access the study.

If you have questions later, please contact me at 773-412-6488 or [Rdoss@my.adler.edu](mailto:Rdoss@my.adler.edu). You may also contact my dissertation chair Peter Ji at 312-662-4354 and/or at [pji@adler.edu](mailto:pji@adler.edu). Additionally, you may contact the Adler School of Professional Psychology Institutional Review Board at [irb@adler.edu](mailto:irb@adler.edu). The study protocol # is 14-057.

## Appendix E

### Suggestion for Additional Services

Congratulations, you have reached the end of the survey. I thank you greatly for your time and participation. Now, as previously mentioned in the consent form, I would like to take this time to reiterate the importance of seeking additional services if you experienced distress while taking this survey. Due to the nature of some questions in the survey concerning your training environment and overall health, some distress is not uncommon. For this reason, if you experienced distress I encourage you to contact your program's advisor to discuss these issues or to contact local psychologists if you wish to seek additional therapy.

## Appendix F

## Psychological Sense of School Membership Scale

Circle the answer for each statement that is most true for you.

1) I feel like a part of my school.	Not at all true 1	2	3	4	Completely true 5
2) People at my school notice when I am good at something.	Not at all true 1	2	3	4	Completely true 5
3) It is hard for people like me to be accepted at my school.	Not at all true 1	2	3	4	Completely true 5
4) Other students in my school take my opinions seriously.	Not at all true 1	2	3	4	Completely true 5
5) Most teachers at my school are interested in me.	Not at all true 1	2	3	4	Completely true 5
6) Sometimes I feel as if I don't belong in my school.	Not at all true 1	2	3	4	Completely true 5
7) There is at least one teacher or adult I can talk to in my school if I have a problem.	Not at all true 1	2	3	4	Completely true 5
8) People at my school are friendly to me.	Not at all true 1	2	3	4	Completely true 5
9) Teachers here are not interested in people like me.	Not at all true 1	2	3	4	Completely true 5
10) I am included in lots of activities at my school.	Not at all true 1	2	3	4	Completely true 5
11) I am treated with as much respect as other students in my school.	Not at all true 1	2	3	4	Completely true 5
12) I feel very different from most other students at my school.	Not at all true 1	2	3	4	Completely true 5
13) I can really be myself at my school.	Not at all true 1	2	3	4	Completely true 5
14) Teachers at my school respect me.	Not at all true 1	2	3	4	Completely true 5
15) People at my school know that I can do good work.	Not at all true 1	2	3	4	Completely true 5
16) I wish I were in a different school.	Not at all true 1	2	3	4	Completely true 5
17) I feel proud to belong to my school.	Not at all true 1	2	3	4	Completely true 5
18) Other students at my school like me the way that I am.	Not at all true 1	2	3	4	Completely true 5

## Appendix G

## The Survey of Perceived Supervisory Support

Likert Scale: Strongly agree = 1, Strongly Disagree = 7

Items	1	2	3	4	5	6	7
1. My supervisor values my contributions to the well-being of our department.	1	2	3	4	5	6	7
2. If my supervisor could hire someone to replace me at a lower salary he/she would do so.	1	2	3	4	5	6	7
3. My supervisor appreciates extra effort from me.	1	2	3	4	5	6	7
4. My supervisor strongly considers my goals and values.	1	2	3	4	5	6	7
5. My supervisor wants to know if I have any complaints.	1	2	3	4	5	6	7
6. My supervisor takes my best interests into account when he/she makes decisions that affect me.	1	2	3	4	5	6	7
7. Help is available from my supervisor when I have a problem.	1	2	3	4	5	6	7
8. My supervisor really cares about my well-being.	1	2	3	4	5	6	7
9. If I did the best job possible, my supervisor would be sure to notice.	1	2	3	4	5	6	7
10. My supervisor is willing to help me when I need a special favor.	1	2	3	4	5	6	7



11. My supervisor cares about my general satisfaction at work.	1	2	3	4	5	6	7
12. If given the opportunity my supervisor would take advantage of me.	1	2	3	4	5	6	7
13. My supervisor shows a lot of concern for me.	1	2	3	4	5	6	7
14. My supervisor cares about my opinions.	1	2	3	4	5	6	7
15. My supervisor takes pride in my accomplishments.	1	2	3	4	5	6	7
16. My supervisor tries to make my job as interesting as possible.	1	2	3	4	5	6	7

## Appendix H

## Advisory Working Alliance Inventory – Student Version

These 30 items pertain to your perceptions about your relationship with your advisor. For the purposes of this study, the term advisor is referring to the faculty member that has the greatest responsibility for helping guide you through your graduate program (e.g. advisor, major professor, committee chair, dissertation chair). Please respond to the items using the following scale:

	Strongly Disagree	1	2	Neutral	3	4	Strongly Agree	5
1. I get the feeling that my advisor does <u>not</u> like me very much.	1	2	3	4	5			
3. I do <u>not</u> want to be like my advisor.	1	2	3	4	5			
5. My advisor helps me conduct my work within a plan.	1	2	3	4	5			
7. My advisor does <u>not</u> encourage my input into our discussions.	1	2	3	4	5			
9. I do <u>not</u> want to feel similar to my advisor in the process of conducting work.	1	2	3	4	5			
11. My advisor helps me establish a timetable for the tasks of my graduate training.	1	2	3	4	5			
13. I do <u>not</u> feel respected by my advisor in our work together.	1	2	3	4	5			
15. I feel like my advisor expects too much from me.	1	2	3	4	5			
17. Meetings with my advisor are unproductive.	1	2	3	4	5			
19. My advisor facilitates my professional development through networking.	1	2	3	4	5			
21. My advisor does <u>not</u> help me stay on track in our meetings.	1	2	3	4	5			
23. I learn from my advisor by watching her/him.	1	2	3	4	5			
25. I am an apprentice of my advisor.	1	2	3	4	5			
27. I consistently implement suggestions made by my advisor.	1	2	3	4	5			
29. My advisor does <u>not</u> educate me about the process of graduate school.	1	2	3	4	5			

*Thank you very much for your time!*

## Appendix I

## The Cohen-Hoberman Inventory of Physical Symptoms

**CHIPS**

Mark the number for each statement that best describes HOW MUCH THAT PROBLEM HAS BOTHERED OR DISTRESSED YOU DURING THAT PAST TWO WEEKS INCLUDING TODAY. Mark only one number for each item. At one extreme, 0 means that you have not been bothered by the problem. At the other extreme, 4 means that the problem has been an extreme bother.

HOW MUCH WERE YOU BOTHERED BY:

1. Sleep problems (can't fall asleep, wake up in middle of night or early in morning)	0	1	2	3	4
2. Weight change (gain or loss of 5 lbs. or more)	0	1	2	3	4
3. Back pain	0	1	2	3	4
4. Constipation	0	1	2	3	4
5. Dizziness	0	1	2	3	4
6. Diarrhea	0	1	2	3	4
7. Faintness	0	1	2	3	4
8. Constant fatigue	0	1	2	3	4
9. Headache	0	1	2	3	4
10. Migraine headache	0	1	2	3	4
11. Nausea and/or vomiting	0	1	2	3	4
12. Acid stomach or indigestion	0	1	2	3	4
13. Stomach pain (e.g., cramps)	0	1	2	3	4
14. Hot or cold spells	0	1	2	3	4
15. Hands trembling	0	1	2	3	4
16. Heart pounding or racing	0	1	2	3	4
17. Poor appetite	0	1	2	3	4
18. Shortness of breath when not exercising or working hard	0	1	2	3	4
19. Numbness or tingling in parts of your body	0	1	2	3	4
20. Felt weak all over	0	1	2	3	4
21. Pains in heart or chest	0	1	2	3	4
22. Feeling low in energy	0	1	2	3	4
23. Stuffy head or nose	0	1	2	3	4
24. Blurred vision	0	1	2	3	4
25. Muscle tension or soreness	0	1	2	3	4
26. Muscle cramps	0	1	2	3	4
27. Severe aches and pains	0	1	2	3	4
28. Acne	0	1	2	3	4
29. Bruises	0	1	2	3	4
30. Nosebleed	0	1	2	3	4
31. Pulled (strained) muscles	0	1	2	3	4
32. Pulled (strained) ligaments	0	1	2	3	4
33. Cold or cough	0	1	2	3	4

## Appendix J

## The Penn State Worry Questionnaire

Patient Name: \_\_\_\_\_ Date: \_\_\_\_\_

**The Penn State Worry Questionnaire (PSWQ)**

Instructions: Rate each of the following statements on a scale of 1 ("not at all typical of me") to 5 ("very typical of me"). Please do not leave any items blank.

	Not at all typical of me				Very typical of me
1. If I do not have enough time to do everything, I do not worry about it.	1	2	3	4	5
3. I do not tend to worry about things.	1	2	3	4	5
5. I know I should not worry about things, but I just cannot help it.	1	2	3	4	5
7. I am always worrying about something.	1	2	3	4	5
9. As soon as I finish one task, I start to worry about everything else I have to do.	1	2	3	4	5
11. When there is nothing more I can do about a concern, I do not worry about it any more.	1	2	3	4	5
13. I notice that I have been worrying about things.	1	2	3	4	5
14. Once I start worrying, I cannot stop.	1	2	3	4	5
15. I worry all the time.	1	2	3	4	5
16. I worry about projects until they are all done.	1	2	3	4	5

## Appendix K

## The Patient Health Questionnaire – 9

**PATIENT HEALTH QUESTIONNAIRE-9  
(PHQ-9)**

Over the last 2 weeks, how often have you been bothered by any of the following problems?  
(Use *✓* to indicate your answer)

	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself — or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

FOR OFFICE CODING 0 + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_  
=Total Score: \_\_\_\_\_

If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all	Somewhat difficult	Very difficult	Extremely difficult
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Appendix L

## IRB Full Approval Notice




April 5, 2014

Dear Ronnie Doss,

The Institutional Review Board evaluated the changes to your protocol #14-057, *The Association Between Belonging and Psychology Graduate Trainees' Health*. Your protocol has now received **Full Approval**. This decision means that you may proceed with your plan of research as it is proposed in your protocol.

Please note that if you wish to make changes to your protocol, you must provide written notification to the IRB in advance of the changes, co-signed by your Dissertation Chair, Dr. Ji. **You may not implement those changes until you have received a Full Approval letter from the IRB.** Please feel free to contact myself or other IRB committee members should you have any questions.

Best Regards,



David Castro-Blanco, Ph.D.  
Associate Professor  
Core Faculty, Psy.D. Program in Clinical Psychology  
Co-Chair, Institutional Review Board

Table 1  
*Demographics of Participants*

Variable	<i>n</i>	%
<b>Age</b>		
18-24 years old	19	14
25-34 years old	98	74
35-44 years old	12	9
45-54 years old	3	2
<b>Ethnicity</b>		
White	104	79
Hispanic or Latino	5	4
Black or African American	4	3
Native American	2	2
Asian/Pacific Islander	13	10
Other	2	2
<b>Training Year</b>		
First Year	14	11
Second Year	32	24
Third Year	39	30
Fourth Year	41	31
Fifth Year	6	5
<b>Marital Status</b>		
Single, never married	90	68
Married or domestic partner	35	27

Divorced	4	3
Separated	2	2
Current area of graduate study located in the city/place of origin (Did you group up in city of study)?		
Yes	23	17
No	109	83
Other practicum students at site		
0	15	11
1	10	8
2	17	13
3	15	11
4+	75	57
Have received a prescription or taken medication for anxiety or felt a serious need to do so because of the stresses of graduate training		
Yes	34	26
No	97	74
Have received a prescription or taken medication for depression or felt a serious need to do so because of the stresses of your graduate training		
Yes	23	17
No	109	83
Have a Professional mentor		
Yes	82	62
No	49	37

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*Note.* Total  $N = 132$  for all demographic categories.



Table 2

*Training Site Demographics of Participants*

Type of Site	<i>n</i>	%
Community Mental Health	28	21
Department/School Clinic	6	5
Forensic/Jail	19	14
Inpatient Psychiatric Hospital	1	1
Medical Clinic/Hospital	11	8
Outpatient Psychiatric Clinic/Hospital	6	5
Partial Hospitalization/Intensive	5	4
Private Practice	9	7
Residential/Group	6	5
Schools	9	7
University Counseling	21	16
VA Medical Center	5	4
Other	6	5
Total	132	100

*Note.* Total *N* = 132.

Table 3

*Means, Standard Deviations, and Pearson Correlations among Belonging and Health Measures*

Measure	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. School Belonging	65.15	10.21	–	.22*	.28**	–.19*	–.37**	–.25*
2. Advisor Belonging	107.62	24.23		–	.12	–.18	–.23*	–.06
3. Supervisor Belonging	87.19	17.77			–	–.13	–.19*	–.16
4. PHQ-9	7.32	4.47				–	.58**	.53**
5. CHIPS	31.19	18.87					–	.43**
6. PSWQ	53.32	14.97						–

*Note.* Total  $N = 132$ . \*  $p < .05$ . \*\*  $p < .01$ .