

2015

Psychologists working in state psychiatric hospitals: An exploration of factors related to work engagement

Valerie Ignatenko

Follow this and additional works at: <https://researchrepository.wvu.edu/etd>

Recommended Citation

Ignatenko, Valerie, "Psychologists working in state psychiatric hospitals: An exploration of factors related to work engagement" (2015). *Graduate Theses, Dissertations, and Problem Reports*. 5855.
<https://researchrepository.wvu.edu/etd/5855>

This Dissertation is protected by copyright and/or related rights. It has been brought to you by the The Research Repository @ WVU with permission from the rights-holder(s). You are free to use this Dissertation in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you must obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/ or on the work itself. This Dissertation has been accepted for inclusion in WVU Graduate Theses, Dissertations, and Problem Reports collection by an authorized administrator of The Research Repository @ WVU. For more information, please contact researchrepository@mail.wvu.edu.

Psychologists working in state psychiatric hospitals: An exploration of factors related to work engagement

Valerie Ignatenko

Dissertation submitted to the College of Human Resources and Education at West Virginia University in partial fulfillment of the requirements for the degree of

Doctor of Philosophy
in
Counseling Psychology

Jeffrey Daniels, Ph.D., Chair
George Mamboleo, PhD.
Reagan Curtis, Ed.D.
Monica Leppma, PhD
Danielle Adamsky, PsyD

Department of Counseling Psychology

Morgantown, West Virginia
2015

Keywords: Psychologist, State psychiatric hospital, State mental hospital, engagement
Copyright 2015 Valerie Ignatenko

Abstract

Psychologists working in state psychiatric hospitals: An exploration of factors related to work engagement

Valerie Ignatenko

The role of psychologists working in state psychiatric hospitals has been ambiguous throughout most of the last century. State psychiatric hospitals continue to provide care to patients with severe mental illness, and psychologists remain employed in such settings. Eight factors related to work engagement for psychologists in state psychiatric hospitals were explored, including geographic region, length of time in the field, length of time at the hospital, number of clients seen per week, number of supervision hours per month, job ambiguity, autonomy, and perceived social support. Results found that psychologists are engaged in their work in state hospitals, and three of the assessed factors, job ambiguity, autonomy, and perceived social support, were found to be significant predictors of work engagement. The identification of these three factors as predictors of work engagement in state hospitals highlights the need for hospital administrators to clearly define job roles, and for psychologists to ensure that they feel certain about their job role. Job ambiguity was found to offer the strongest negative prediction of work engagement. Further, the need for opportunity to socially interact with colleagues within the hospital is critical, and should be reinforced by hospital administration and encouraged by graduate training programs. A moderate level of autonomy was found to be the most predictive of work engagement, and offers new insights on how managers can approach the supervision of psychologists.

Table of Contents

| | |
|---|----|
| Definition of Acronyms and Terms..... | 5 |
| Chapter 1: Introduction..... | 7 |
| Nature of state hospitals..... | 7 |
| State hospitals today..... | 12 |
| Types of patients served in state hospitals..... | 14 |
| Interventions..... | 16 |
| Psychologists in state hospitals..... | 24 |
| Conclusion..... | 32 |
| Chapter 2: Literature review..... | 34 |
| Work Engagement..... | 34 |
| Definition..... | 34 |
| Burnout..... | 36 |
| Definition..... | 36 |
| Relationship between burnout and engagement..... | 38 |
| Factors related to burnout and work engagement..... | 43 |
| Job demands-resources model..... | 44 |
| Personality traits..... | 50 |
| Work environment..... | 50 |
| Workload..... | 52 |
| Autonomy..... | 53 |
| Social Support..... | 53 |
| Age/length of time in the field..... | 55 |
| Other..... | 55 |
| Engagement and burnout of psychologists..... | 56 |
| Hazards of burnout and lack of engagement..... | 59 |
| Job Ambiguity..... | 63 |
| Rationale..... | 64 |
| Chapter 3: Methods..... | 66 |
| Design..... | 66 |
| Participants..... | 67 |
| Dependent Variable..... | 68 |
| Independent Variables..... | 71 |
| Demographic Questionnaire..... | 71 |
| Job Ambiguity Scale..... | 71 |
| Factual Autonomy Scale..... | 74 |
| Multidimensional Scale of Perceived Social Support..... | 74 |
| Procedures..... | 75 |
| Recruiting Participants..... | 75 |
| Randomization procedures..... | 76 |
| Informed Consent Procedures..... | 77 |
| Confidentiality..... | 77 |
| Resources..... | 77 |
| Benefits to Participants..... | 77 |

| | |
|--|-----|
| Risks to participants..... | 78 |
| Analyses..... | 78 |
| Missing Data..... | 79 |
| Outliers..... | 79 |
| Power..... | 80 |
| Chapter 4: Results..... | 81 |
| Preliminary Analysis..... | 81 |
| Table 1: Geographic Regions..... | 81 |
| Table 2: Descriptive Statistics..... | 82 |
| Table 3: Correlations..... | 83 |
| Analysis..... | 83 |
| Research Question 1..... | 83 |
| Research Question 2..... | 85 |
| Table 4: Coefficients..... | 87 |
| Table 5: Model Summary..... | 88 |
| Research Question 3..... | 88 |
| Outliers..... | 90 |
| Table 6: Model Summary without outliers..... | 91 |
| Post-Hoc Analysis..... | 91 |
| Chapter 5: Discussion..... | 93 |
| Hypothesis 1..... | 94 |
| Hypothesis 2..... | 95 |
| Hypothesis 3..... | 97 |
| Factors that were found to be significant..... | 100 |
| Autonomy..... | 100 |
| Perceived Social Support..... | 101 |
| Job Ambiguity..... | 102 |
| Factors found to not be significant predictors..... | 103 |
| Years in the field/Years in the hospital..... | 103 |
| Number of clients seen per week..... | 104 |
| Number of supervision hours per month..... | 106 |
| Geographic region..... | 107 |
| Implications..... | 108 |
| Social support..... | 109 |
| Autonomy..... | 111 |
| Job Ambiguity..... | 112 |
| Patient Care..... | 114 |
| Strengths, Limitations, and Future Directions..... | 114 |
| Strengths..... | 114 |
| Limitations..... | 118 |
| Future Directions..... | 120 |
| Conclusion..... | 122 |
| References..... | 123 |
| Appendix A: Scale Items..... | 147 |
| Appendix B: Informed Consent..... | 151 |
| Appendix C: Communication with potential participants..... | 153 |

| | |
|----------------------------------|-----|
| Appendix D: Permissions..... | 155 |
| Definition of Acronyms and Terms | |

Definition of Acronyms

UWES: Utrecht Work Engagement Scale; measures self-reported work engagement; Schaufeli & Bakker, 2006.

JAS: Job Ambiguity Scale; measures self-reported job ambiguity; Breugh & Colihan, 1994.

FAS: Factual Autonomy Scale; measures self-reported autonomy; Spector & Fox, 2003.

MSPSS: Multidimensional Scale of Perceived Social Support; measures perceived social support; Zimet, Dahlem, Zimet, & Farley, 1988).

Definition of Terms

Work Engagement: “A positive, fulfilling, work-related state characterized by vigor, dedication, and absorption. Vigor means that employees have high energy levels and great mental resilience. Dedication means being strongly involved in work and being enthusiastic about and proud of one’s work. Finally, absorption means being fully concentrated on the work tasks and having the feeling that time flies” (Schaufeli & Bakker, 2010, p. 10).

Job Ambiguity: A lack of understanding of the fit and function within a working environment (Foote, Seipel, Johnson, and Duffy, 2006).

Social Support: A broad term that includes the ways that different people behave in the social environment (Hegleson, 2003). Supportive resources that can be emotional, tangible, companionship, or informational, in which a person believes and receives care, comfort, and assistance from another person(s) (Social support, 2015).

Perceived Social Support: "...typically measured by asking people to what extent they believe people in their network are available to help them..." (Hegleson, 2003, p. 27). It is different than received support, in which support is received from others, in that perceived social support is the perception that support is available if needed (Hegleson, 1993, 2003)

State psychiatric hospitals employ psychologists to fulfill a variety of roles in clinical and administrative care. These roles, however, have been difficult to define for psychologists, and other disciplines often do not understand the role of psychologists (Ishiyama et al., 1962; Sommer & Clancy, 1958; Wood, Rogers, McCarthy, & Lewine, 1994). Additionally, working in a state psychiatric hospital is different than other types of work settings where psychologists may be employed, offering different opportunities and challenges to a professional (Snyder, Clark, & Tuomi, 2012). The purpose of this research study is to determine the extent to which psychologists are engaged in their work in state psychiatric hospitals, and to determine factors that predict work engagement for psychologists. Exploration of the literature indicates many factors that are involved in work engagement, including autonomy, social support, caseload, and job ambiguity (Bakker, 2011; Bakker & Demerouti, 2008; Bogaert, Clarke, Willems, & Modelaers, 2012; Breugh & Colihan, 1994; Corrigan, Hess, & Garman, 1998; Demerouti & Bakker, 2006; Geczy, Sultenfuss, & Donat, 1990; Schaufeli & Salanova, 2011; Spector & Fox, 2003). These factors will be assessed to determine their relationship to work engagement. State psychiatric hospitals were chosen as a researchable work setting due to their long history in psychiatric care and continued presence throughout the United States providing care to those with persistent mental illness. Other worksites have been previously researched, but state psychiatric hospitals have been neglected in the literature.

Nature of State Hospitals

A psychiatric hospital is a hospital that specializes in the treatment of serious mental disorders. The primary focus of such a hospital is treatment for mental disorders rather than for medical issues. Psychiatric hospitals are not typically the treatment of choice for most people with severe mental illness or their advocates, and many objections have been raised regarding the

practices at psychiatric hospitals. Many patients at psychiatric hospitals are committed there involuntarily, as they have indicated that they are harmful to themselves or to someone else (Mental Illness Policy, 2013; Szasz, 2011). Other people may be patients with medical and psychological co-morbidity, who have severe and/or disturbing pathology or who have extreme suicidal or violent tendencies. The patients in this setting are in need of intensive, acute treatment (World Health Organization, 2007). At the present time, psychiatric hospitals are widely varied, and can be short term or long term, serve as a crisis stabilization unit or as a permanent placement for those who need daily mental health care. The number of residents present at any given time in a psychiatric hospital has decreased over the past 30 years (Blader, 2011; Sharfstein & Dickerson, 2009; Torrey, 1997).

State psychiatric hospitals have a history of providing custodial care to patients with an emphasis on medication management and minimizing the need for evidence-based treatments and therapeutic interventions (Bartholomew & Kensler, 2010; Szasz, 2011). Change can be difficult in a state system as there are hierarchies of command and administration that has limited contact with patients (Bartholomew & Kensler, 2010). Additionally, people who have been with the state for the longest amount of time have the most say into how it is run. While this can be good for those who have earned this power, it can be detrimental to the introduction of new and evidence based treatments in favor of the old standard way of doing things (Smith & Bartholomew, 2006). Further, it can be difficult for patients to have the willingness to engage in treatment when they are court mandated or committed to treatment (Bartholomew & Kensler, 2010).

State hospitals have provided treatment to the mentally ill for over 200 years. Over the course of time, the public view of state hospitals has shifted, as has the focus of treatment and

intervention within the hospital (Osborn, 2009). When the state hospital system first began, the hospitals were referred to as asylums and were offered as places where those with mental illness could go in order to stay safe and not harm themselves or others. However, over time, asylums got a bad name due to the poor treatment of the mentally ill and the public fear associated with the stigma of mental illness. Much of the change in treatments and perceptions of state hospitals changed with the view of human behavior and society's views on insanity (Osborn, 2009).

Early in history, Hippocrates suggested that symptoms of mental illness were a product of an imbalance of "humors" in the body, including blood, phlegm, etc. Later, prior to the 1700s, religion provided an explanation of mental illness. It was believed that mental illness was caused by Satan, and those suffering from mental illness were under the influence of demonic forces that were causing their symptoms. People with mental illness were cared for at that time by their families or by the community, often ending up in jail or in public poorhouses. It was not until 1766 that the idea of a hospital for the mentally ill was proposed. In 1773, the Eastern State Hospital (originally known as the Eastern Lunatic Asylum of Virginia) opened and was the first hospital of its kind. The hospital cared for people with mental illness, although it did not provide any treatment or interventions (D'Antonio, 2014; Early psychiatric hospitals and asylums, 2014; Osborn, 2009).

The 19th century brought about the enlightenment of the American people and the ideas of Benjamin Rush that suggested mental illness was caused by a disorder of the vascular system. Rush ordered that the veins of people with mental illness should be opened in order to restore the imbalance in the blood. This procedure was known as blood-letting, and was common in the state hospitals for a period of time. In 1853, Philippe Pinel suggested a moral treatment of the mentally ill, claiming that mental illness has both a medical and a psychological origin and that it

was unacceptable to punish and restrain mentally ill patients. Instead, Pinel suggested instilling hope and treating patients with compassion. William Tuke had similar ideas to Pinel, developing the York Retreat in which patients learned self-control without the use of drugs or bleeding methods (D'Antonio, 2014; Osborn, 2009).

Dr. Thomas Story Kirkbridge is credited with providing a unified treatment for the mentally ill, and many of his principles continue in state hospitals today. During his reign as superintendent of psychiatric hospitals between 1841 and 1883, Kirkbridge proposed the Kirkbridge model in which state hospitals were located on the outskirts of a moderately sized town, accessible by a railroad, and included enough land for the hospital to be self-sustaining through farming and industry (Historic Asylums, 2013; Osborn, 2009). Kirkbridge stated that all wards and wings of the hospital must be properly ventilated and lit. He separated the aggressive patients from those who were calmer. Kirkbridge also stated that the buildings and grounds of state hospitals should have aesthetic value so that patients and visitors can be calm and reassured (Early psychiatric hospitals and asylums, 2014; Kirkbridge Buildings, 2013; Osborn, 2009).

Following the first Kirkbridge Model hospital, many more hospitals came into being from the 1840s through the 1860s. Dorothea Dix started the push for states to pay for the care of the patients at the hospitals in order that all people, rich or poor, would be able to receive quality care. She advocated for the state hospital, stating that those with mental illness needed to be cared for in society, and that it was the responsibility of the state to provide such a place for them (D'Antonio, 2014; Early psychiatric hospitals and asylums, 2014).

Patients residing in early state hospitals lived regimented, structured lives. This included waking up early in the morning, taking medications, eating breakfast, and then engaging in activities around the hospital (i.e., gardening, groups). Many patients engaged in work activities

at the hospital. Restraint was rarely used, as the moral treatment of the mentally ill era introduced the idea that patients could learn more from mistakes and from their environments. Despite the benefits of being in a state hospital, many patients did not want to be there and would engage in acting out behaviors (i.e., self-injury, aggression, etc.) making life in the state hospital very difficult (D'Antonio, 2014; Osborn, 2009).

By 1890, the number of people in state hospitals had significantly increased due to the increase in the population in the US and the increase of diagnosed cases of mental illness. This led to more costs and a state hospital system in financial trouble. Due to these population increases and the decreased number of staff, the moral treatment of the mentally ill began to decline. In the early 20th century, the view that mental illness was curable changed. Patients would stay at the state hospital for very long periods of time and show limited responsiveness to treatment. The view became that mental illness was not curable. This change in attitude made the focus less on the moral treatment of the mentally ill and more on custodial care.

Administrators started to focus more on chemical restraint and medicines for the mentally ill and forgot about the interventions originally designed to treat the patients in moral and humane ways. Psychiatrists began promoting “mental hygiene”; offering preventative measures for mental illness instead of treatment later. The institutions were full of attendants that provided little consideration and care to patients and were often not trained in how to deal with mental illness. Patients were often seen as hopeless and incurable, and were “warehoused” for life in the state hospitals (Early psychiatric hospitals and asylums, 2014; Osborn, 2009).

By 1945, there was a push to decrease the use of state hospitals and to increase the number of outpatient clinics and community supports for people with mental illness. The goal of community outreach was to prevent people from developing a mental illness. The National

Mental Health Act of 1946 changed some treatment. In the 1950s milieu therapy became popular and in the mid-1950s the first generation of antipsychotic medication was marketed. Utilizing the new medications and other new treatments, mentally ill patients began to be viewed as having the potential to leave a hospital setting at some point. In 1960 the US Supreme court ruled on the case *Shelton v Tucker*, 364 U.S.479 (1960; as cited in Wood, 2010), initiating the ruling known as the least restrictive alternative. This ruling specifically stated, “Even though the government purpose be legitimate and substantial, that purpose cannot be pursued by means that broadly stifle fundamental personal liberties when the end can be more narrowly achieved.” This indicated that people could only be committed to a state hospital if no other treatment would be possible for the patient. This ruling facilitated the deinstitutionalization of psychiatric patients from of the state hospitals(D’Antonio, 2014; Early psychiatric hospitals and asylums, 2014; Osborn, 2009; Wood, 2010).

The challenges faced by state hospitals since their inception may be a reason why they have been neglected from the literature. In any case, state hospitals have changed their practices and operate differently now than they did in the past.

State Hospitals Today

State hospitals today continue to exist in many of the ways that have been traditional, but now the goal is discharge to the community. State hospitals do provide treatment to patients and operate under the assumption that people with a mental illness can be successful in the community. Many state hospitals operate using the “recovery model” in which patients strive for wellness and set their own therapeutic goals, although most continue to operate under the “medical model” treating symptoms, pathology and illness, and deferring to a psychiatrist for all needs. There are far fewer state hospitals at the present time than ever before.

Manderscheid, Atay, and Crider (2009) analyzed the trends in state psychiatric hospitalization between the years 2002 and 2005. Prior to the 2000s, admissions to state psychiatric hospitals were low, starting with significant declines in the 1950s and the 1970s. In the 1950s, antipsychotic medications were used to treat and maintain patients with chronic mental illness so that they could be more functional in the community. Around this same time, the deinstitutionalization movement occurred that advocated for the humane treatment of the mentally ill and the need for community based treatments for the mentally ill. In the 1980s and the 1990s, experts in the field estimated that the state hospital system would see an increase in admissions due to the increase in the elderly population and the increased number of cases of severe mental illness that are seen in society. Manderscheid et al. (2009) noted that between the years 2002 and 2005, there was a 21.5% increase in admissions to state hospitals in the US, the first increase in admissions since 1971. Data were collected from the Center for Mental Health Services that reported on the admission and discharge rates for state hospitals in all 50 of the US states. Eleven states were found to have a significant increase in admissions during the years between 2002 and 2005, and staff of state hospitals in these eleven states were interviewed in order to determine the cause of the increase in admission rates. Staff of state hospital facilities indicated that they believed that the increase in residents and admission was due to forensic admissions and to declines in the availability of affordable community housing and community based treatment providers. The increase in admission rates to state hospitals reported by Manderscheid et al. (2009) and the continued use of state hospitals indicates the need for research in this type of setting in order to improve the quality of care offered to patients.

Types of Patients Served in State Hospitals

People with severe mental illnesses are high users of inpatient services (Junghan & Brenner, 2006) and account for 75% of total mental health costs annually (Rothbard, Chatre, Zubritsky, Fortuna, Dettwyler, Henry, & Smith, 2012). It has been said that state hospitals have a “revolving door syndrome” in which patients are discharged but shortly return to either jail or to the hospital (Osborn, 2009).

Snyder, Clark, and Jones (2012) indicated that state psychiatric hospitals tend to utilize group therapy as the main therapeutic intervention, outside of medication, due to underfunding and understaffing. Emond and Rasmussen (2012) also indicated that the treatment of choice in such settings is group therapy. Psychologists, then, face the challenge of providing evidence-based group therapy to patients, while there is little evidence and research indicating the efficacy of such treatments in state psychiatric hospital settings. Snyder et al. (2012) interviewed 55 psychology directors and 72 psychology providers of group therapy to patients in state psychiatric hospitals to determine their ability to implement evidence based group therapy, their opinions about the use of group therapy in such settings, and to better understand the ways that psychologists adapt interventions to a group setting with inpatients. In their internet-based, semi-structured, qualitative survey of psychologists providing group therapy to patients in state psychiatric hospitals, Snyder et al. (2012) found that psychologists provide three to four therapeutic groups to patients each week, and of these, 60.6% were thought to follow evidence based treatment recommendations. However, most of the psychologists indicated that modifications and adaptations were made to fit the needs of the inpatient psychiatric population, including providing more relevant examples, slowing the pace, providing more reminders, setting limited group goals, and providing handouts for the group. While a wide array of therapeutic groups were noted by participants, Cognitive Behavioral Therapy (CBT) groups and

skill building groups were the most frequently reported type of group therapy offered by psychologists.

Olfson, Ascher-Svanum, Faries, and Marcus (2011) assessed the characteristics of patients who are at increased risk for readmission to state hospitals. Participants for this study all had a diagnosis of schizophrenia and were part of a larger research study that assessed the efficacy of a new antipsychotic medication. A total of 1,460 patients participated, and were followed from the time that they started the antipsychotic medication trial to their first psychiatric hospitalization due to symptoms of schizophrenia. Of the original 1,460, 203 (14%) of the patients were hospitalized. Olfson et al. (2011) used adjusted hazard ratios (AHR) to determine that age of first treatment with antipsychotic medication was likely to be associated with risk of hospital admission (AHR=2.16, 95% CI=1.49-3.11), as were having a psychiatric hospitalization in the past year (AHR=1.56, 95% CI=2.23-4.00), having a diagnosable alcohol disorder (AHR=1.56, 95% CI=1.16-2.10), or a drug disorder (AHR=1.50, 95% CI=1.13-2.00), the presence of tardive dyskinesia (AHR=1.55, 95% CI=1.07-2.23), and low social functioning (AHR=1.45, 95% CI=1.03-2.04).

The types of patients found in state psychiatric hospitals is relevant to the current dissertation because many of the patients serviced in state hospitals exhibit the most severe pathology of mental illnesses. Research has indicated that professionals who have the highest rates of face to face time with difficult patients are among those with the highest rates of burnout (Lasalvia et al., 2009), placing those who work in state hospitals at risk for burnout, or lack of work engagement.

Interventions

While the current dissertation does not look specifically at clinical interventions in state hospitals, questions were asked of study participants about their workload. For that reason, as well as to provide a solid foundation for understanding what occurs in state psychiatric hospitals, clinical interventions are discussed.

Two factors are involved in changes to the state psychiatric hospital treatment modalities in recent years: the progressive decline of inpatient treatment in favor of community interventions, and federal policies dictating the number of hours of treatment required for patients in inpatient settings (Snyder, Clark, & Jones, 2012). Group therapy often focuses on promoting ward stability, interpersonal skills, symptom reduction and preparation for discharge (Emond & Rasmussen, 2012). Early in the history of state hospitals, the purpose of group therapy was curative; therapists followed psychoanalytic principles and believed that mental illness was caused by faulty parenting or ego impairment, and participation in groups would “cure” mental illness. However, with the improvements in antipsychotic medication, the focus moved from groups being curative to being therapeutic. Yalom (1983) proposed that inpatient groups should have the purpose of engaging patients in therapy, to encourage talking as a means of therapy, to work on interpersonal problems and to decrease anxiety related to being at the hospital. Yalom (1983) described the inpatient ward as a social environment in which patients have the opportunity to practice new behaviors and skills with both peers and staff. This practice allows them to find ways to better adapt to the community at large. A variety of methods, interventions and theoretical orientations are used in group therapy in inpatient settings, including in state hospitals. There is no standard formula for interventions that have proven efficacious, and research continues to determine the best mode of treatment for patients in these settings (Emond & Rasmussen, 2012). Additionally, little research exists about empirically

validated treatment for use in long-term facilities and in long-term treatment (McDonnell et al., 2010).

Providing individual psychotherapy to patients with schizophrenia, as opposed to group therapy and psychopharmacology, has been an idea only considered within the past 20 years (Rector & Beck, 2001). Cognitive-behavioral therapy (CBT) has been the most frequently cited form of therapy to provide to those with schizophrenia (Rector & Beck, 2001), although other researchers have indicated that social skills training, family therapy and supportive therapy may also be beneficial (Huxley et al., 2003; Mueser, Deavers, Penn, & Cassisi, 2013; Mueser et al., 2006).

Rector and Beck (2001) reviewed the literature on utilizing CBT for use with schizophrenia, and found seven randomized, controlled trial studies that test the efficacy of CBT with this population. Findings indicate that when CBT is added to routine care (pharmacology and active case management), patients with schizophrenia who received CBT had reduced scores on measures of positive and negative symptoms and demonstrated a greater reduction in overall psychopathology than did those who received routine care only (Garety, Fowler, Freeman, Bebbington, Dunn, & Kuipers, 2008; Kuipers, Garety, Dunn, Bebbinton, Fowler, & Freeman, 2002). Rector and Beck (2001) indicated that while these two studies do point to CBT as efficacious in the treatment of symptoms in schizophrenia, they stated also that post treatment and follow-up treatment raters knew which of the two groups participants belonged in and this may have biased the results. Additionally, neither study tested the relationship of the medication to treatment outcome, as different medications may have different effects on treatment outcome for individuals.

Beck and Rector (2000) addressed the limitations of the two previously mentioned studies in that participants were randomly assigned to groups either receiving CBT with routine care or routine care only, and medications were assessed throughout the course of the study. Participants who received CBT ($n=42$) engaged in 20 therapy sessions across a six month period and findings were similar to previous findings (Garety et al., 2008; Kuipers et al., 2002), indicating that CBT and routine care is more efficacious than routine care alone. Rector and Beck (2001) stated that this may be true, but Beck and Rector (2000) did not offer a comparison therapy group utilizing an orientation other than CBT.

Studies in which researchers compare CBT to other forms of therapy do not compare CBT to other theoretical orientations and interventions, but instead compare manualized CBT to specific skill training and to supportive counseling. Haddock, Tarrier, Morrison, Hopkins, Drake, and Lewis (1999) compared the combination of CBT and routine care to routine care in an inpatient setting with 21 patients who recently experienced an increase in psychotic symptoms. Findings indicate that those patients who received CBT plus routine care had better outcomes on measures of positive symptoms than did either of the two comparison groups directly following the intervention. Two years after intervention, no significant differences were found between the two groups.

Samarasekera et al. (2007) compared CBT plus routine care to “befriending therapy” and routine care. They defined “befriending therapy” as sympathetic conversation about pleasant or neutral topics. Twenty sessions were provided to both participant groups over a period of nine months. A total of 74 patients completed all 20 sessions. Those who participated in CBT plus routine care had lower scores on measures of symptoms and on scales of depression than did those who received “befriending therapy”. Pinto, La Pia, and Mennella (1999) also compared

CBT plus routine care to supportive counseling plus routine care, as well as to routine care only. Supportive counseling involved basic psychoeducation, crisis management and patient advocacy. Treatment was provided over a period of six months, and all participants were said to have limited response to traditional treatment using antipsychotic medication. Both CBT plus routine care and supportive counseling plus routine care demonstrated improvement in overall symptoms over routine care alone, however, those in the CBT plus routine care condition demonstrated lower scores on measures of positive symptoms than either of the two comparison groups, and these lower scores were consistently found to remain six months after treatment. In the Pinto et al. (1999; as cited by Rector & Beck, 2001) study, though, the number of sessions that patients received was not standardized. There were patients in each group that received a greater number of therapy sessions than others in their group and in other groups. This may limit the validity of the results of this study.

Drury et al. (1996; as cited in Rector & Beck, 2001) provided 12 weeks of intensive individual and group CBT to a group of patients with schizophrenia. The outcomes of this intervention were compared to informal, supportive therapy plus routine care over the same time period. Supportive therapy included leisure and social activities as well as informal support on an as needed basis. Both groups did show improvement over time, however, those receiving CBT had lower scores on measures of the positive symptoms of schizophrenia and on measures of delusional conviction than did those in the supportive therapy group. At the 6-month follow up, 95% of the patients who received CBT noted that their symptoms were in remission, whereas only 44% of the patients who received supportive therapy indicated the same. A limitation of this study involves measuring only broad domains of functioning on a four-point Likert scale that

may have failed to capture the construct the authors were attempting to measure (Rector & Beck, 2001).

The studies reviewed by Rector and Beck (2001) were said to have the following strengths: reliable diagnoses of patients, reliable and valid measurement tools, standardized, manual-based CBT interventions, monitoring of the effects of medications, and valid control conditions. Weaknesses of these studies are cited as the absence of both representative sampling and blind ratings, the absence of multidimensional symptoms measurement tools, failure to control for between-group differences and the failure to monitor adherence to the treatment manual by the CBT therapists. The studies are also not clear in their targeting of other symptoms of schizophrenia outside of psychotic symptoms. Therefore, researchers can tentatively say that CBT could be efficacious in the treatment of the symptoms of schizophrenia, however, additional studies that address the weaknesses of these studies is necessary in order to have more accurate and reliable results.

Despite the mixed results of studies on CBT for psychosis, Tarrier (2010) stated that CBT has proven to be the most efficacious form of psychotherapy for psychotic disorders. He argued that mixed results may stem from lack of methodological rigor and large effect sizes. No other specific form of intervention has had positive results as has CBT, and further research is necessary to better understand effective interventions for psychosis.

Favrod, Maire, Bardy, Pernier, and Bonsack (2011) tested the effects of a metacognitive training program on the symptoms and awareness of patients with schizophrenia. The metacognitive training uses cognitive behavioral interventions and teaching patients to think about their behavior in order to assist patients in recognizing and identifying cognitive distortions and to utilize problem solving skills to change negative thoughts. Patient participants

($n=18$) were recruited from an outpatient clinic in France, with inclusion criteria including the presence of a diagnosis on the schizophrenia spectrum and the current experience of hallucinations and delusions. All interventions were administered in a group format with 60 minute sessions. Patients were asked to discuss cognitive distortions and work together to develop problem solving skills to change thinking patterns. The group met once per week for eight months. Participants completed a self-report scale at the end of each session and assessed the following on a 6-point Likert scale: interest in the session, usefulness of the session, and effect on psychotic symptoms. Additionally, each patient chose a target delusion and also rated the impact and interference of the delusion using the same scale. Patients were also assessed pre and post intervention using the following scales: Psychotic Symptom Rating Scales (Haddock et al., 1999), Positive and Negative Syndrome Scale (Kay et al, 1988), and the Scale to Assess Unawareness of Mental Disorder (Amador et al., 1993). Results indicate that patients improved on the delusional thoughts scale ($z=-3.09, p=.002$) and experienced decreased interference of hallucinations ($z=-1.88, p=.006$). While this study does demonstrate that therapeutic interventions can be useful in decreasing the interference of psychotic symptoms, the sample size was rather small to make generalizations and the method of statistical analysis is unclear. The authors reported z scores, but did not indicate that any statistical tests were run and what these scores mean to the research. Additionally, there is no control group comparison, indicating that the improvements noted in the patient participants may or may not have been due to the interventions. Despite these limitations, this study has been included as it demonstrates that group therapy is frequently used in psychiatric settings, and it demonstrates that interventions are being explored, but are still in early stages for patients with schizophrenia.

Dialectical behavioral therapy (DBT) is a treatment that was developed to decrease self-injury and suicidal behavior in people with Axis II disorders, specifically borderline personality disorder (McDonnell et al., 2010; Shearin & Linehan, 1994). It has also been noted to decrease the length of stay for psychiatric hospitalizations for this same group (Verheul, Van Den Bosch, Koeter, DeRidder, Stijnen, & Van Den Brink 2003; Miller, Rathus, DuBose, Dexter-Mazza, & Goldklang, 2007; Trupin, Steward, Beach, & Boesky, 2002).

McDonnell et al. (2010) studied the outcomes of DBT for adolescent patients in a long-term psychiatric hospital. A DBT program was adapted for patients on an adolescent inpatient unit, and DBT was the standard of care for all patients in varying intensities. Patients received more intensive DBT treatment when suicidal behaviors were more intense, whereas those without a self-harm history received DBT as part of the milieu setting. Some patients with a severe history of suicidal behavior and self-injury received milieu DBT, group and individual therapy. A total of 106 adolescent patients (ages 12 to 17) participated in the program. Data were gathered on the number of episodes of suicidal or self-injurious behaviors, the number of psychotropic medications used on patients compared to the number used upon admission, and the number of times that the seclusion room was used. Results from repeated measures ANOVA indicate that overall functioning increased in the patients and the number of medications [$F(1,97)=55.89, p<.01$] and self-injurious behaviors (no statistic reported) decreased. There was no change in the use of the seclusion room.

It is unclear of the diagnoses of all of the patients on the ward receiving the DBT. DBT has proven efficacious for use only with borderline personality disorder (McDonnell et al., 2010) and the authors of this research made it unclear if all of the patients had been given this diagnosis. The authors also did not make it clear how interventions were provided to the patients

(i.e., in group or individual format, which interventions from DBT were used). They stated that participants either received milieu DBT, milieu and DBT training group, or milieu DBT, training group and individual DBT therapy, but they did not indicate how decisions were specifically made for which participants received the different types of treatment and how many of the participants were in each group.

Psychopharmacotherapy is the main treatment for people with schizophrenia. However, Huxley, Rendall, and Sederer (2000) suggested that medication management of the symptoms of schizophrenia can be helpful to the patient but has limited effects on the social effects of the disorder. Huxley et al. (2000) suggested that psychotherapy and skills training help to fill the gap that medication cannot touch. A meta-analysis of the current literature was conducted, and 70 studies focusing on utilizing interventions other than medication management for the treatment of schizophrenia were found. Of these 70 studies, most ($n=61$) involved controlled designs. In all of the studies, patients were administered psychopharmacotherapy for symptoms, and therapeutic interventions served as an adjunct to such medications. Huxley et al. (2000) looked at literature on group therapy and individual therapy for patients with schizophrenia. Many articles were found for group therapy (26 out of 70), but there were far fewer for individual therapy (11 out of 70). Huxley et al. (2000) indicated that the use of individual therapy for patients with schizophrenia and similar psychotic disorders decreased in the 1970s following the negative outcomes of research studies at the time (Grinspoon, 1969; McKeever, May, & Tuma, 1965). These studies indicated that psychotherapy had little bearing on how quickly patients' symptoms subsided and the speed of discharge. They argued that psychopharmacology, instead, encouraged faster recovery. However, research studies since that time have proven that psychotherapy can provide invaluable skills and education to patients.

For example, Boczkowski, Zeichner, and DeSanto (1985) compared psychoeducational interventions to both a behavioral intervention and a control group in order to determine which intervention resulted in medication adherence in psychiatric patients. Twelve patients were placed in each group, and findings indicate that those patients who received behavioral interventions were more medication adherent than those in the other two groups, immediately following the interventions, as well as one and three months later [$(F(2, 32) = 4.97, p < .01)$]. The remaining four studies assessed by Huxley et al. (2000) found similar results, indicating that behavioral interventions do demonstrate efficacy with a psychiatric population.

Psychologists in State Hospitals

Snyder et al. (2012) found that, on average, there were 8.74 psychologists working in each state hospital on both civil and forensic units. This indicates that the number of psychologists providing services in state hospitals is low, especially when comparing this to the number of beds available for patients. For example, the average number of civil commitment beds in Pennsylvania's six state hospitals, as of June 2013, is 192 (Deegan, 2013). The average number of forensics beds between the two state hospitals in Pennsylvania offering forensic services is 112 (Deegan, 2013). Snyder et al. (2012) gave little mention of psychologists' roles in the hospitals, although it is indicated that lack of resources and staffing account for much of psychologists' time being spent in group therapy. This may or may not be a good option, as the authors indicated that very little research is available on the outcomes of such practices for this setting and population. Research indicates that when employees are understaffed and have large caseloads, burnout is possible. When staff are burned out, patient care suffers. The goal, then, is to avoid burnout and work toward having staff who are engaged in their work (Schaufeli &

Bakker, 2010). This dissertation will assess whether psychologists are engaged in their work in state psychiatric hospitals.

The role of psychologists and counselors has been ambiguous throughout the past century in psychiatric hospitals (Sommer & Clancy, 1958; Wood, Rogers, McCarthy & Lewine, 1994). Much of the research in this area is quite dated, but warrants discussion regardless. The dated material indicates the need for updated research in this area. The psychologist has a difficult role, in that she/he is neither a prescribing physician nor a front line staff member. Instead, the psychologist fills a professional role that is often misunderstood within the hospital system (Sommer & Clancy, 1958; Wood et al, 1994). For these reasons, job ambiguity has been identified as a variable that could be related to work engagement in the current dissertation. Psychiatric hospitals generally continue to operate under the medical model in which medications and psychiatry are the basis of most interventions, and the goal is more to prevent patients from acting out as opposed to recovering (Geczy, Sultenfuss & Donat, 1990). In general, psychologists offer patients individual and group therapy, work as a member of an interdisciplinary team to establish treatment goals, conduct psychological assessments of patients and offer support to other team members (Wood et al, 1994). Psychologists also assess intellectual capacity, determine personal strengths of the patient and assist in diagnosis (Wechsler, 1944). Some psychologists in the psychiatric hospital may conduct research and/or may supervise students or other psychologists (Snyder et al., 2012; Sommer & Clancy, 1958).

Geczy, Sultenfuss, and Donat (1990) described the role of psychologists in a state mental hospital, and indicated that few psychologists continue to work in such settings. They alluded to the idea that the work in state hospitals may leave psychologists feeling burned out, as opposed to feeling engaged in their work. They argued, though, that the need for psychologists in state

mental hospitals is greater than ever in order to meet the needs of those with chronic mental illness and to develop and utilize new and effective treatment modalities. Geczy et al. (1990) stated that in state mental hospitals, psychology positions are the least likely to be filled and have the greatest amount of turnover of all professional disciplines. They stated that few psychologists seek to work in state mental hospitals, and those who do, quickly find that they become easily frustrated and discouraged. It does not need to be this way, however. State hospital work can be very rewarding, and offers “considerably more intellectual stimulation, challenge, flexibility, variety of task, and opportunity to work as a part of a team than can be found in many work settings” (Geczy et al., 1990, p. 392). Psychologists also have the opportunity to directly impact the lives of the patients served. However, this is often overlooked and often does not come across due to other challenges in this role. Geczy et al. (1990) described the major challenges to a psychologist working in a state mental hospital, including administrative and organizational problems, having to defer to psychiatrists for clinical authority, lack of resources, departmental conflicts, and administrators with no clinical experience. Graduate schools rarely prepare psychologists for these types of challenges.

Corrigan, Hess, and Garman (1998) assessed how well prepared graduates of psychology training programs were for work in a state psychiatric hospital. Fifty-five psychologists participated in the study and were asked to indicate their training as well as their current job responsibilities. Findings indicated that much of psychologists’ time was spent doing paperwork and administrative duties. While about 50 percent of participants indicated being trained in cognitive behavioral approaches, 60 percent of participants indicated that they now operate using more integrative models due to the needs of their patients. This indicates that both training programs and state psychiatric hospitals employing psychologists would benefit from reassessing

the work of psychologists in such settings and better aligning psychologists' strengths with job responsibilities.

Snyder et al. (2012) also described the challenges faced by psychologists working in state psychiatric hospitals, including the difficulties in implementing evidence based treatments in a group format. These frustrations may leave psychologists feeling burned out. Snyder et al. (2012) stated that due to state hospitals being underfunded and understaffed, individual interventions are far fewer than are group interventions in order to try and meet the needs of all patients. They noted that evidence based group therapy has had some empirical support in outpatient settings, but application to inpatient settings has been under-researched. In order to determine how frequently evidence based interventions are being used, and in what format (group vs. individual), Snyder et al. (2012) surveyed psychologists and psychology department directors. The approach was primarily exploratory and was based on what practitioners considered to be evidence based group therapy as opposed to adhering to a manualized intervention. A total of 55 psychology department directors from state hospitals responded and 72 staff psychologists responded to the survey. Psychology directors indicated that, on average, psychologists at their institution spent five to six hours in group therapy per week, and they indicated that, on average, about 60% of the groups made use of evidence based treatments. Directors also indicated that there was a low level of monitoring to make sure that group therapy met the criteria of evidence based treatment. Only 30% of directors indicated any type of monitoring for this. Group leader psychologists indicated that they believed that 82.3% of their groups could be considered to utilize evidence based treatment. However, the majority of the psychologists indicated that modifications and adaptations needed to be made to the evidence based treatments in order to utilize these in group therapy in an inpatient setting, including

making adaptations that are relevant to more than one diagnosis, providing structure and helping patients set attainable goals, mixing materials from several evidence based treatments, and having resources available in order to be able to properly administer the treatments. This research study is relevant to the current study, as the current study involves state psychiatric hospitals in which group therapy is the staple of active treatment. However, Snyder et al. (2012) did not give clear definitions of what was meant by evidence based treatment, and did not give guidelines for what would be classified as such. Instead, they asked directors and psychologists to provide a subjective opinion of what constitutes evidence based treatment and how this is provided at different locations. They also did not provide any outcome data from the hospitals and/or the groups that were discussed in the survey.

Ishiyama, Denny, Pbada, and Vespe (1962) examined the role of the psychologist in a state psychiatric facility, and attempted to clarify and define the psychologist's role in this setting. Data for this study were collected in one Ohio state hospital in the early 1960s. While this research occurred over 50 years ago, it continues to be a relevant representation of the struggles for role clarification for psychologists working in state psychiatric facilities (Snyder et al., 2012). Ishiyama et al. (1962) indicated that there is a need to clarify the role of psychologists in psychiatric hospitals, as psychologists are often instructed to do anything that is psychologically beneficial to the patient. This instruction creates the atmosphere where psychologists often cross into the roles of other disciplines, including social work and recreational activities, and often has left psychologists feeling unsatisfied in their role and their work. Surveys were given to psychologists working in state psychiatric hospitals and asked questions regarding the role of psychologists, such as "what does a ward psychologist do?", and "what does a ward psychologist not do?" The same surveys were given to members of other

professional disciplines, and to a group of patients. The questions on the surveys were left intentionally vague in order to elicit greater response from participants. Results identified themes that characterized the perception of psychologist roles on the ward. Themes included psychological evaluation, psychological treatment, administration, consulting, and counseling. Additional findings indicated that both patients and staff viewed psychologists as having more positive than negative attributes and to have more of a positive than a negative role on the ward. Overall, the authors stated that the role of the ward psychologist involves psychological evaluation, although this is not the most important role. Participants indicated that providing psychological treatment is a more important role of the ward psychologist. The authors noted that there is some confusion over the role of psychologists in a ward setting, and many staff noted that they do not understand where psychologists fit in the authority hierarchy and often confused psychologist roles with that of psychiatrists. Patients indicated that they did not understand why psychologists were not more proactive in discharge planning and implementation. While Ishyama et al.'s (1962) study was conducted 50 years ago, the confusion about the role of psychologists in a state psychiatric hospital setting persists at the present time (Snyder et al., 2012; Geczy, Sultenfuss, & Donut, 1990).

Sommer and Clancy (1958) suggested that one of the reasons why it can be difficult to define the role of the psychologist in a state psychiatric hospital is because much of what the psychologist does with patients is not relevant to front line staff (i.e., nurses). Psychologists conduct psychological assessments, looking at intellectual factors and the development of psychosis, which offer little to direct nursing staff in dealing with patient behaviors. Additionally, nursing staff rarely know the extent of psychotherapy sessions. Psychologists must document the sessions, but many of the nuances and dynamics of the therapeutic relationship and

setting are unknown to front line personnel. The psychologist's clinical knowledge and education also do not translate well to the state psychiatric hospital. Psychologists are afforded very little authority over front line staff, and often are forced to defer to the psychiatrist when deciding on clinical issues. While psychologists can and do provide consultation to other disciplines, it is ultimately the psychiatrist who provides clinical direction. This may challenge a psychologist's feeling of autonomy in his or her work. Lack of autonomy has been found to be related to burnout for professionals (Adebayo & Ezeanya, 2010). In state psychiatric hospitals, if psychologists feel a lack of autonomy in their work, they are unlikely to experience work engagement. When a worker is engaged, she or he is enthusiastic in her/his work, and puts forth her/his best effort. Lack of autonomy may cause workers to not be enthusiastic, and ultimately, patient care suffers. The current dissertation will investigate the role of autonomy in work engagement for psychologists working in state psychiatric hospitals.

The history of the state psychiatric hospital reinforces the role of the psychiatrist as the ultimate authority. In the early 1900s, psychiatrists and other physicians were quite separate from other staff; eating in separate dining rooms and living in separate areas. No other staff were considered to be their equals. Psychologists did not enter the realm of the state psychiatric hospital until the 1940s. Psychologists were then seen to be intellectual equals with psychiatrists, but many psychiatrists felt threatened by them. Both doctoral and master's level psychologists received the title of doctor at that time, and had many of the same perks (i.e., access to case files) as the psychiatrists. These privileges of status and power did not translate well in the state psychiatric hospital. Psychologists were soon regarded as less than psychiatrists and did not receive the respect provided to the psychiatrists. Psychologists soon became isolated from the other disciplines at the hospital, with their role in research, supervision of interns, and

assessment being seen as lacking value to the hospital (Sommer & Clancy, 1958). Research indicates that isolation from others, and lack of social support on the job can lead to burnout (Nowack & Hanson, 1983). Sadly, the misperceptions and lack of understanding of psychologists in state psychiatric hospitals has not changed much since 1958 (Geczy et al., 1990; Snyder et al., 2012). For this reason, it is necessary for research to be conducted in this area.

Bowers, Allan, Simpson, Jones, and Whittington (2008) assessed the morale of workers on inpatient psychiatry units in the United Kingdom. Previous literature has suggested that the morale of workers in such work settings has been low (Standing Nursing, Midwifery Advisory Committee, 1999; as cited in Bowers et al., 2008), which has been attributed to a high level of demand and a low level of job resources. Results of low morale have been found to include high levels of illness and absence of the workers (Standing Nursing, Midwifery Advisory Committee, 1999; as cited in Bowers et al., 2008) and an increase of violence against staff (Chaplin, McGeorge, & Lelliott, 2006; Kindy, Peterson, & Parkhurst, 2005; McGeorge, Lelliott, & Stewart, 2000; Noble & Rogers, 1989). Bowers et al. (2008) defined morale as including low stress and burnout, low absenteeism and staff turnover, and high satisfaction with work. The authors assessed the level of morale of inpatient psychiatric workers in 136 acute psychiatric wards between 67 hospitals by using the Maslach Burnout Inventory (Maslach & Jackson, 1981), as they indicated that the dimensions of burnout are correlated with the dimensions of morale. The Patient-Staff Conflict Checklist (Bowers, Douzenis, & Galeazzi, 2005) was used to determine the frequency of conflict while on the ward, and results of this were collected for a period of six months. Additionally, the Attitude to Personality Disorder Questionnaire (Bowers & Allan, 2006; Bowers et al., 2005) was used as it had been previously found to relate to job performance, stress, and burnout, as was the Ward Atmosphere Scale (Moos, 1997). Data were

analyzed using multiple regression analysis. Despite the results from previous literature, Bowers et al. (2008) found that the morale of workers in inpatient psychiatry was higher than expected. Individual scores on the Maslach Burnout Inventory were significantly lower than assessment norms for the sample surveyed ($R^2 = .040, p < .001$). This result indicates that work engagement in these types of settings is also possible, as burnout is seen often as the polar opposite of work engagement. Bowers, Douzenis, and Galeazzi (2005) introduced the idea that work engagement is possible for those who work in state psychiatric hospitals. Previous research has focused only on employees experiencing burnout. The positive reframe of this concept allows researchers and clinicians to look more at how to keep workers engaged, rather than looking at what to avoid so that workers are not burned out. While the Bowers et al. (2005) study is not specific about the personnel assessed, it is likely that this research is supportive of the current study's research questions regarding psychologist work engagement.

Conclusion

State psychiatric hospitals continue to provide treatment and care to people with severe mental illness. Over the past century, the treatment of the mentally ill has become more humane; however, many of the interventions and disciplinary roles have remained stagnant. Psychologists are trained to provide both individual and group psychotherapy to people in need, however, in state psychiatric hospitals, psychologists face challenges to their clinical authority. Psychologists are often asked to defer to psychiatrists on clinical decisions, their role is minimized in favor of pharmacological interventions, and many spend much of their time completing paperwork rather than providing direct clinical services. Clinical services that are provided are often in the form of group therapy, psychoeducation, and skill building, although some individual therapy may be provided. Previous research has indicated that psychologists

working in state psychiatric hospitals may not feel as prepared for work after training as in other settings. The role of psychologists in state psychiatric hospitals may be ambiguous to the psychologist, to workers in other disciplines, and to administration. Research also indicates that psychologists working in state psychiatric hospitals may experience burnout due to factors such as lack of social support, large caseloads and lack of autonomy. However, other research has indicated that work engagement is possible in state hospitals, and it is essential that hospitals aspire to keep their workers engaged.

The purpose of the current study is to further investigate specific factors related to work engagement for psychologists working in state psychiatric hospitals. Specifically, focus areas include job ambiguity, autonomy, social support, length of time in the field, and geographic region of psychologists working in state psychiatric hospitals in order to determine how these affect their engagement in work.

Chapter 2: Literature Review

Psychologists working in state psychiatric hospitals have the potential to be engaged in their work, or to experience professional burnout. In this chapter, burnout and engagement are discussed. A definition of both is provided, as well as how both burnout and work engagement affect the workplace. Work engagement and burnout is compared and contrasted in order to better clarify the construct of work engagement. Factors related to both work engagement and burnout are discussed, including factors associated with the job demands-resources model of work engagement, as well as geographic region, length of time in the field, length of time working in a state hospital, and job ambiguity.

Work Engagement

Definition. Maslach and Leiter (1997) stated that the workplace can be the major source of burnout for professionals and that it is important for organizations to try and understand the ways in which they can promote engagement with work for their workers. Engagement is the energy, involvement and efficacy associated with one's work, and is the opposite of the three components of burnout (exhaustion, cynicism, and inefficiency). Engagement means that one is psychologically connected to one's work (Breevaart, Bakker, Demerouti, & Hetland, 2012).

Schaufeli and Bakker (2010) defined engagement as:

a positive, fulfilling, work-related state characterized by vigor, dedication, and absorption. Vigor means that employees have high energy levels and great mental resilience. Dedication means being strongly involved in work and being enthusiastic about and proud of one's work. Finally, absorption means being fully concentrated on the work tasks and having the feeling that time flies. (p. 10)

Bakker et al. (2008) stated that work engagement is a separate concept from workaholism. They indicated that workaholics tend to spend much of their time thinking about work when they are not at work, and tend to work excessively hard. In contrast, workers who are engaged in their work lack the compulsive drive of the workaholic, and they are able to separate work from other areas of their lives. While engaged workers do work hard and are involved in their work, they are not compelled to work and do not have the inner drive of the workaholic. Workaholics do not have fun at work and working actually increases their stress, increasing the risk of physical and mental ailments. Engaged workers do not have the same problems; as they see work as fun and their stress levels are lower (Hallberg & Schaufeli, 2006).

The first author to describe work engagement was Kahn (1990), who defined “personal engagement” as the “...harnessing of organization member’s selves to their work roles: in engagement, people employ and express themselves physically, cognitively, emotionally, and mentally during role performances” (p. 694). He indicated that he based his ideas on Goffman’s (1961; as cited in Kahn, 1990) work in which it was suggested that behaviors are indicative of people’s attachment to their role as a worker. Workers who are engaged may embrace their role and integrate components of their worker role into their personal identities. Kahn (1990) expanded on the work of Goffman (1961; as cited in Kahn, 1994) through looking at organizational factors and psychological components that exist within the workplace, as opposed to just individual differences in worker engagement.

An identified problem in becoming engaged in work and leading to burnout includes a professional having different opinions and ideals than the organization for which she/he works. The mission statement may be in conflict with the professional’s values, causing the person to feel less commitment to the organization (Schaufeli, Leiter, & Maslach, 2009).

Burnout

Definition. Burnout is a construct of professional work that has been well investigated throughout the past 35 years. In some European countries, burnout is considered to be a mental health diagnosis (Schaufeli, Leiter & Maslach, 2009). Research on the burnout of human services began in the 1970s (Maslach et al., 2001; Pines & Maslach, 1978). One of the first definitions of burnout came from Pines and Maslach (1978), who defined burnout as “a syndrome of physical and emotional exhaustion, involving the development of negative self-concept, negative job attitudes, and loss of concern and feeling for clients” (p. 233). The definition of burnout has not changed much in the 30 years of burnout research. A more current definition of burnout is given by Maslach, Schaufeli and Leiter (2001; p. 398) who defined burnout as “a psychological syndrome in response to chronic interpersonal stressors on the job.”

Maslach (1982), in her multidimensional model of burnout, stated that there are three major components of burnout: emotional exhaustion, depersonalization, and decreased sense of personal accomplishment. Depersonalization has also been referred to in some literature as cynicism, and will be used interchangeably with depersonalization in this section. Maslach stated that these three components of burnout are a unique type of job related stress because they develop out of interactions with others (Maslach, 1982, p. 3). Emotional exhaustion is defined as a response to a situation where a professional gets involved in the life of a client and may overextend her/himself and begin to feel overwhelmed (Maslach, 1982, pp. 3-4). Exhaustion is the most widely reported of the three components due to the fact that exhaustion is physically experienced and can be identified (Maslach et al., 2001). The exhaustion component refers to the physical, mental and emotional exhaustion experienced by people who are under stress (Maslach et al., 2001). The professional may feel a lack of energy and may feel emotionally

drained. When this occurs, professionals may withdraw from their work, may find that they need to spend less time with clients or to care less about clients, leading to the component of depersonalization, part of the cynicism component of burnout.

While detachment from clients is one symptom of depersonalization, it is not the only. Depersonalized professionals may tend to develop negative views of clients, to be unable to recognize client strengths, may become cynical about client abilities, etc. (Maslach, 1982, pp. 3-4; Maslach et al., 2001). Professionals may then begin to feel guilty over their negative views of clients and begin to believe that they are ineffective in their jobs. This is what Maslach (1982) referred to as a decreased sense of personal accomplishment. The decreased positive regard for others is the most recognizable, most serious and commonly experienced symptom of burnout (Maslach, 1982). Inefficiency results from exhaustion and cynicism, and refers to a person's feelings of incompetence, lack of reward, and difficulty understanding the reasons for entering the field (Maslach et al, 2001).

Burned out professionals are hazardous in the workplace. The worker suffers, as does the organization as a whole, the coworkers and the clients served. Maslach et al. (2001) stated that burnout increases a professional's negative feelings about clients and about the job itself. The burned out professional may experience feelings of depression and anxiety, may have failing health and may have more difficulty dealing with day-to-day stressors. Researchers indicate that work performance declines when a professional is working and is also burned out (Lee & Ashforth, 1990; Nowack & Hanson, 1983; and Wright & Bonett, 1997). The professional also faces a number of hazards related to burnout, including substance abuse, emotional disturbance and potential suicide risk.

Suran and Sheridan (1985) stated that burnout in psychologists is inevitable. They stated that there are four developmental stages through which psychologists go during the course of professional development. The first is referred to as identity versus confusion, and describes that period of time when psychologists begin to examine the type of professional they wish to be. This usually occurs before entering a training program, and education and training are very important to the development of professional self at this stage of development. The second stage is referred to as competency versus inadequacy and refers to the process of when psychologists begin to question how they compare to others in the field and to doubt their own abilities. A good mentor is critical at this stage of development. The third stage is referred to as productivity versus stagnation and refers to the period of time in which the psychologist attempts to balance personal and professional life and begins to question her/his choices in both areas. The final area is referred to as redirection versus disillusionment and refers to the period of time when psychologists begin to question career choices and to rethink the field. If at any time the psychologist does not master the task of a developmental stage, she/he runs the risk of developing burnout.

Relationship between engagement and burnout. Kahn's (1990) ideas have branched into two differing ideas about work engagement: (1) that burnout and engagement exist on a continuum, and (2) that engagement and burnout are polar opposites. Schaufeli and Salanova (2011) proposed that work engagement and burnout exist on a continuum, and stated that these constructs have been found to be negatively related with correlations ranging from $-.30$ to $-.65$. Bakker et al. (2008) described the differences between work engagement and burnout.

Maslach and Leiter (2008) presented the results from what they referred to as a longitudinal study that identified two types of indicators for early assessment of work

engagement and burnout. A total of 466 organizational employees were assessed using a measure of burnout, the Maslach Burnout Inventory- general Scale (Schaufeli, Leiter, Maslach, & Jackson, 1996) and a measure of the six areas of worklife, the Areas of Worklife Scale (Leiter & Maslach, 2000, 2004) twice in a one year period. Results indicate that workers who demonstrated workplace incongruity at Time 1 were found to have higher rates of burnout at Time 2 than were those found to have workplace congruity at Time 1 ($X^2=71.93$; $p<0001$). There was no relationship between the length of time that workers had been employed and whether they demonstrated a consistent or inconsistent pattern of burnout/engagement. These findings indicate that burnout and engagement are both constant over time.

Maslach and Leiter (2008) described the burnout-engagement continuum in the workplace. They stated that there are three interrelated dimensions of the continuum, which include exhaustion-energy, cynicism-involvement, and inefficacy-efficacy (Maslach & Leiter, 2008). These three interrelated dimensions of the continuum relate to the three dimensions of burnout as well as to the three dimensions of work engagement. The authors suggested that the purpose of looking at work engagement is to have a desired goal for any type of burnout intervention. In other words, looking at factors that increase work engagement, such as job demands or job resources, helps to prevent burnout. While these authors asserted the above noted claims, I will choose to focus the current study on only work engagement. Work engagement has more of a positive focus than does burnout, and has been less researched. Focusing on burnout looks at what is missing in the work environment. However, work engagement looks at what already exists and focuses on how to use what exists to better engage workers. A review of Maslach and Leiter's (2008) work, however, is necessary and relevant, as this is the formative research for both burnout and work engagement. Since there is more

research on burnout than on work engagement, research on burnout can be reviewed in order to gain a better understanding of what has been done and what directions research can go in for the future.

Schaufeli, Taris, and van Rhenen (2008) investigated whether workaholism, burnout, and work engagement are three different constructs or if they all exist along the same continuum, by looking at both internal and external validity of these three constructs. Five hundred eighty-seven managers were assessed. Workaholism was assessed using the Work Addiction Risk Test (Robinson, 1999) and the Workaholism Battery (Spence & Robbins, 1992). Burnout was assessed using the Dutch version of the Maslach Burnout Inventory-General Survey (Schaufeli, Leiter, Maslach, & Jackson, 1996). Work engagement was assessed using the UWES (Schaufeli et al., 2002). Structural equation modeling using maximum likelihood estimation was used to assess the uniqueness of the three constructs. Three models were used in the modeling, the first assuming that all three constructs loaded onto one factor, the second assuming that two of the three constructs loaded onto the same factor, and the third assuming that none of the constructs loaded onto the same factor. The goodness of fit statistic and the root mean square error of approximation (RMSEA) were used to assess internal validity. When the three constructs were allowed to correlate, goodness of fit was met (339.45, $p < .001$) and RMSEA met criteria for the third model, indicating that the three constructs are unique from each other. Correlations were found between burnout and workaholism ($r = .53$) and negatively between burnout and work engagement ($r = -.65$). There was no significant correlation between workaholism and work engagement.

Many authors have stated that burnout and engagement are polar opposites of one another. Maslach and Leiter (1997) agreed that burnout and engagement are two concepts

addressing the polar opposites of one's attitude toward work, and redefined burnout as, "an erosion of engagement with the job, whereby energy turns into exhaustion, involvement turns into cynicism, and efficacy turns into ineffectiveness" (p. 89). Demerouti, Mostert, and Bakker (2010) assessed the accuracy of this assumption in a study utilizing confirmatory factor analysis in order to determine whether one instrument could measure both burnout and engagement, or if separate instruments were necessary to measure these two constructs. The three components of each construct were compared; for burnout these concepts were emotional exhaustion, cynicism, and depersonalization; for engagement the three concepts were dedication, vigor, and absorption. The Maslach Burnout Scale- General Scale (MBI-GS) (Schaufeli, Leiter, Maslach, & Jackson, 1996) was used to assess the components of burnout, and the Utrecht Work Engagement Scale (UWES) (Schaufeli & Bakker, 2003, 2010) was used to assess the components of engagement. Demerouti et al. (2010) found that while some of the components of each construct did line up to be polar opposites, other components did not. For the purposes of the present study, this author is concerned only with the engagement of psychologists in the workplace setting of state psychiatric hospitals, and therefore will use only the scale of engagement. Caution is used to ensure that a lack of engagement does not necessarily indicate burnout, as recommended by Demerouti et al. (2010). Bakker et al. (2008) also argued that work engagement is a separately operationalized construct that can be studied independently of burnout. However, Bakker et al. (2008) indicated that the two concepts are related.

Work engagement is not the same concept as job satisfaction. Instead, work engagement involves elements of pleasure derived from work whereas job satisfaction is more related to a more passive form of worker well-being (Bakker, 2011). Work engagement also differs from motivation in the workplace, in that work engagement involves a cognitive and affective process

(absorption and vigor), in addition to motivation (or dedication) (Bakker, 2011). Research findings have illustrated that work engagement leads to better work performance than any other construct tested in the past (Bakker, 2011). In general, work engagement is thought to be a stable construct, with workers engaged in their jobs over a consistent period of time. However, some recent researchers have questioned the stability of work engagement, and instead have proposed that work engagement fluctuates from day to day (Bakker, 2011). Bakker (2011) indicated that work engagement encompasses both state and trait factors; that work engagement can be measured for its stability over time as well as its daily fluctuations.

Bakker (2011) noted four reasons why engaged workers have better job performance than do nonengaged workers, including experiencing more positive emotions, better health, more internal resources, and the ability to spread their work satisfaction with others. Several researchers have found that workers who are engaged have greater work performance. For example, Bakker, Demerouti, and Verbeke (2004) found that job demands predicted burnout, which in turn predicted work performance. Employees who were found to be experiencing high rates of burnout were found to have poor job performance. Additionally, the authors found that job resources predicted work engagement which then predicted job performance. Workers who were engaged were found to have better job performance. Similar results were found in studies conducted by Salanova, Agut, and Peiro (2005), and by Xanthopoulou, Bakker, Demerouti, and Schaufeli (2009).

Numerous authors have noted that when workers are engaged, they tend to be more enthusiastic about their work and have more energy to complete their work. Engaged workers may often state that they feel like time flies when they are working, due to their immersion in their tasks (Bakker et al., 2008; Macey & Schneider, 2008; May, Gilson, & Harter, 2004; and

Schaufeli & Bakker, 2009). The idea of work engagement came from a positive psychology/recovery model perspective that criticized psychology and like disciplines for being too pathologically focused, looking only at what was wrong with people instead of what was right. Work engagement countered the negative perspective of burnout research, looking instead at how workers can stay well instead of looking at the things that made them burn out. For this reason, only work engagement will be assessed in the current dissertation.

Factors Related to Work Engagement and Burnout

Bakker (2011) described the continuing needs of research on work engagement. He stated that researchers continue to disagree on a conclusive definition of engagement. Most researchers use the definition described above that was determined by Schaufeli and Bakker (2004), although some state that a behavioral component is necessary (Macey et al., 2009).

In early burnout research, Pines and Maslach (1978) investigated the psychological dimensions of burnout. Findings indicated that not only do professionals provide services to others who are extremely vulnerable to burnout, but also that professionals experiencing burnout are more likely to have detached concern for clients, to use intellectualization as a way of distancing from client concerns, to withdraw from clients and want to spend less time working directly with clients and to turn to other staff as an attempt to shift responsibility.

In separate early studies, Maslach identified that the most commonly reported symptom of burnout is exhaustion. Interviews from this time described the ways in which professionals attempted to deal with the exhaustion that they experienced at work, and the ways in which this exhaustion affected their work. The concepts of cynicism on the job and work inefficiency began to develop (Maslach et al., 2001). Due to the overwhelming response to early interviews and the recognition that burnout is indeed a problem in the field of psychology and social

services, the Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981) was developed in order to better assess the rates of burnout in professionals and to better understand the experience of burnout. The MBI continues to be the choice of assessment instruments for burnout at the present time, and has been modified to accommodate not only social service jobs, but also jobs in education and other fields. It also has been translated to different languages in order to be used in countries other than the US (Maslach et al., 2001).

In his 1990 study, Kahn investigated work engagement utilizing qualitative research measures, specifically using grounded theory, with two different working populations ($n=32$), looking for ways that people engage in their work, express their personal selves through work, and how workers disengage from their work environments. Based on the findings of his research, Kahn (1990) proposed three theme areas: meaningfulness, safety, and availability, as the initial components of work engagement.

Job resources-demands model. Bakker and Demerouti (2008) suggested an overall model of work engagement. Their model has its base in the job demands-resources model (Bakker & Demerouti, 2007; Demerouti et al., 2001), specifically following the assumptions that job resources improve motivation and lead to work engagement, and that job resources are more important and have more motivational potential when job demands are high. Job resources include factors like social support from colleagues, perceived support from supervisors, feedback on performance, autonomy, and learning opportunities (Bakker and Demerouti, 2008; Bakker, 2011; Schaufeli and Bakker, 2004; Freaney and Fellenz, 2013). The model also assumes that job and personal resources are associated and that personal resources, like job resources, are predictive of work engagement. These assumptions are based on previous research done in the field (Xanthopoulou et al., 2007).

Researchers have identified two factors that contribute to work engagement: job resources and personal resources. Job resources refer to what the job provides to the worker, and include supervisor and peer support, receiving performance feedback, task variety, etc. (Bakker & Demerouti, 2008). Researchers have found that there is a positive association with job resources and work engagement (Bakker, 2011). The concept of job resources involves factors such as social support from colleagues, perceived support from supervisors, feedback on performance, autonomy, and learning opportunities. Schaufeli and Bakker (2004) stated that job resources include components of work that help to ease job demands and increase the potential of completing goals. Job resources may be physical, social, or other aspects of the job, and often lend to helping the worker grow as both a person and as a professional. Job resources are thought to motivate workers both intrinsically, in that engagement in work helps the employee personally develop, and extrinsically, as they are helpful in achieving the goals of the job (Bakker, 2011).

Personal resources refer to intrinsic beliefs in which individuals believe that they have some control and power within their environment. They are related to resiliency, to locus of control, and to coping skills (Hobfoll, Johnson, Ennis, & Jackson, 2003), and have been found to have positive associations with work engagement (Albrecht, 2012; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009). Personal resources refer to what the person already has inside of her/himself that helps get the job done, and include optimism, self-efficacy, and resilience (Hobfoll et al., 2003). Workers who are engaged have better work performance because they often experience positive emotions at work, they have better health, they create their own resources, and they share their feelings of engagement with others (Hobfoll et al., 2003).

The Job Demands-Resources (JD-R) model (Schaufeli & Bakker, 2004) is an effort to explain both the well-being and the ill-health of workers, and to assess the potential antecedents

and consequences of each. This model breaks work of any type down into two types: job demands and job resources (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Schaufeli & Bakker, 2004; Hakanen et al., 2008). Van den Broeck, Vansteenkiste, DeWitte, and Lens (2008) asserted that job resources may encourage motivation in the workplace in order to better deal with the demands of the job, as well as to satisfy the psychological needs of competency and belongingness. Job demands refer to those aspects of a job that require sustained physical and/or psychological effort and are therefore associated with certain physiological and/or psychological costs. Factors related to job demands include workload, work intensity, job stress, working with difficult patients, effective management, and organization of work environment (Freudenberger, 1990; Maslach et al., 2001; Langbelle, Innstrand, Aasland, and Falkum, 2011; Leiter and Maslach, 2009; McClaine and Hanlon, 2010).

Xanthopoulou, Bakker, and Fischback (2013) assessed the role of personal resources in dealing with work demands, and determined how these personal resources influence work engagement. The personal resources of self-efficacy and optimism are used in the study, and the authors hypothesized that employees with high levels of personal resources will have greater work engagement. Self-efficacy and optimism were chosen for examination due to previously completed research linking these constructs to engagement (Xanthopoulou et al., 2009). A total of 163 participants were assessed for engagement in their work at an electronics company in the Netherlands. This was a convenience sample for the authors, and the sample consisted primarily of men (80%). The emotional demands of the workplace were measured using a six-item scale developed by Bakker, Demerouti, and Schaufeli (2003); emotion rule dissonance was assessed using Zapf et al.'s (2003) scale; self-efficacy was assessed using Schwarzer and Jerusalem's (1995) self-efficacy scale; and optimism was assessed using the Life Orientation Test-Revised

(Scheier et al., 1994). Work engagement was assessed using the Utrecht Work Engagement Scale (Schaufeli, Bakker, & Salanova, 2006). Using hierarchical multiple regression, findings indicate that self-efficacy ($t=1.11, p<.05$), but not optimism, buffered the emotional demands of work, promoting work engagement. This indicates that work engagement is highest when both emotional demands and self-efficacy are high. For the current study under discussion, this is an important finding. While many may believe that working in a psychiatric hospital would be extremely stressful and workers would easily burn out, the finding of the Xanthopoulou et al. (2013) study indicates that this may not matter. The personal resources that employees bring to work, specifically self-efficacy, are more important than the actual stress and emotional demands of the job.

Freaney and Fellenz (2013) investigated the role of relational resources in work engagement. Relational resources are defined as perceived supervisor support, social support from peers, prosocial impact on others, and autonomy. In their study, Freaney and Fellenz (2013) surveyed 152 midwives working in Ireland using the Utrecht Work Engagement Scale (Schaufeli et al., 2002) to measure work engagement, Grant's (2008) prosocial impact scale to measure perceived prosocial impact, two subscales of Russell's (1987) social provisions scale to measure social support, Eisenberger et al.'s (2002) Perceived Organizational Support Scale to measure perceived supervisor support, and Morgeson and Humphrey's (2006) work design questionnaire to measure the construct of autonomy. Confirmatory factor analysis indicated that all of the assessed variables were distinct ($\chi^2(419) = 738.98, p < .001, CFI = .918, RMSEA = .066$). The model was then tested to determine the direct effects of the variables, which demonstrated a very good fit to the data ($\chi^2(37) = 71.7, p < .01, CFI = .97, RMSEA = .07$), and the variables

explained 49 percent of the variance in work engagement, indicating that there is a relationship between the variables and work engagement.

Additional research indicates reciprocal relationships between job resources, personal resources, and work engagement (Xanthopoulou et al., 2009). Mauno, Kinnunen, and Ruokolainen (2007) examined the role of job demands and resources as predictors of work engagement. Over a period of two years, the authors administered questionnaires at two different times in order to assess work engagement over time. Findings indicate that the vigor and dedication components of work engagement were found frequently in workers and these were constant over time. Findings also indicate that job resources were predictive of work engagement, more so than job demands. Schaufeli, Bakker, and Van Rhenen (2009) examined the role of job demands and resources in the prediction of both burnout and work engagement, and also in the frequency of sickness absenteeism. In a longitudinal study, 201 telecom managers were assessed for burnout and work engagement, and their absentee records were reviewed. Managers were assessed at one-year intervals, as both burnout and work engagement are said to be fixed, constant traits. Job demands and resources were assessed using shortened versions of the Questionnaire on the Experience and Evaluation of Work (Bakker, Demerouti, De Boer, et al., 2003; Bakker, Demerouti, & Schaufeli, 2003; Bakker, Demerouti, Taris, et al., 2003; Bakker et al., 2004). A scale that assesses work-home interference (Peeters, De Jonge, Janssen & Van der Linden, 2004) was also used to assess job demands. Burnout was assessed with of the Dutch version (Schaufeli & Van Dierendonck, 2000) of the Maslach burnout inventory—general survey (MBI-GS; Schaufeli, Maslach, Leiter, & Jackson, 1996). Work engagement was assessed using the vigor and dedication scales of the Utrecht work engagement scale (UWES; Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002). Structural equation

modeling using maximum likelihood estimation methods was used. Findings indicate that increases in job demands and decreases in resources were predictive of burnout, whereas increases in job resources were predictive of work engagement. Further, burnout was positively associated with predicted sickness absenteeism, while engagement negatively predicted sickness absenteeism.

Hakanen, Schaufeli, and Ahola (2008) tested the relationship of job demands and job resources on burnout and work engagement levels in Finnish dentists ($n=2,555$). Job resources were assessed using the Dentists' Experienced Job Resources Scale (DEJRS; Gorter, te Brake, Eijkman, & Hoogstraten, 2006); job demands were assessed using Karasek et al.'s (1998) Job Content Instrument, and the Dentists' Experienced Work Stressors Scales (DEWSS; Gorter et al., 1999). The physical work environment was assessed using Hakanen et al.'s (2005) scale, while home resources were assessed using the Family/partner support scale (Peeters & Le Blance, 2001). Home demands were assessed using the Quantitative Home Demands Scale (Montgomery, Peeters, Schaufeli, & den Ouden, 2003), and work engagement was assessed using the UWES (Schaufeli et al., 2002). The Maslach Burnout Inventory (Maslach & Jackson, 1981) was used to measure burnout. Additional factors such as organizational commitment and depression were also assessed in this study. Findings indicate that job demands had a direct cross-lagged effect on depression ($b=.24, p<.001$) and job resources were directly associated with organizational commitment ($b=.21, p<.001$). Findings also supported that job resources are related to work engagement, but job demands are related to burnout.

There have been only a few studies that have indicated a relationship between work engagement and job performance (Demerouti & Bakker, 2006; Bakker & Demerouti, 2008), and those that have been completed are often qualitative, as opposed to quantitative, offering little

empirical data (Bakker & Demerouti, 2008). However, there has been some research that indicates that work engagement does lead to better job performance due to an increase in positive emotions (Schaufeli and Van Rhenen, 2006), good health (Demerouti et al., 2001), and having the ability to create one's own resources (Fredrickson, 2001).

Personality traits. Freudenberg (1990) stated that often people come to psychology with a narcissistic need for achievement and recognition, and look to their work as a way to gain personal fulfillment. Professionals who come to psychology for this reason may often feel that they do not need support from others and that they do not need to practice self-care. These attitudes set up the professional for burnout. Freudenberg (1990) asserted that personality factors are a large part of what contributes to burnout in individuals. He stated that individuals who hold very high expectations of themselves and others around them, who may be perfectionists and who take on too much at work are perfect examples of people who will become burned out.

Work environment. Maslach and Leiter (1997) and Maslach et al. (2001) identified that instead of personality factors being the cause of burnout, perhaps the job fit for the individual is more important. This approach looks more at the ways in which the individual interacts with the work environment, and moves away from blaming the individual for burnout and instead focuses more on the organizational structure in relation to the person. Job stress has been identified as the biggest source of distress for a clinician and the end result is that client care suffers (Guy, Poelstrad & Stark, 1989). Because client care suffers and clients are aware of this, the number of malpractice suits increases when clinicians are under stress (Thoreson, Miller & Krauskopf, 1989). Research indicates that burnout is more related to the situation of the work environment than to individual personality factors. In a study of 190 clinical psychologists who were

administered the Therapist Belief Scale, the Maslach Burnout Inventory, the Personal Resources Questionnaire and a demographic questionnaire, Emery, Wade and McLean (2009) found that all three categories of burnout as defined by Maslach (1982) were related to work setting: emotional exhaustion ($B=-.19, p<.02$), depersonalization ($B=-.16, p<.05$), and personal accomplishment ($B=-.27, p<.001$). While employers may not be willing to recognize the situational factors due to bureaucratic administrative structures that exist, the individual experiencing burnout will be unable to decrease the feelings of burnout without a change in the environmental structure (Maslach, 1982, pp. 9-10).

Bogaert, Clarke, Willems, and Mondelaers (2012) examined the relationship between environment and work engagement for nurses employed in psychiatric hospitals. While nursing and psychology are different disciplines, the work environment for both is similar in a psychiatric hospital. Working in inpatient settings holds unique challenges for all employees, regardless of discipline (Bogaert et al., 2012). Three hundred fifty-seven nursing staff, which included registered nurses, licensed practical nurses, and psychiatric aides in two Belgian psychiatric hospitals, were assessed for work engagement. The authors compared the findings of the work engagement assessments to measures of the work environment, using the Revised Nursing Work Index (NWI-R; Aiken & Patrician, 2000; as cited in Bogaert et al., 2012). Workload was assessed using a 6-item Likert type scale assessing the intensity of the workload. Participants were asked to indicate the intensity of their workload using this scale. Job satisfaction was assessed using a similar scale, as were the intention to stay at the hospital and intention to stay in the field. Work engagement was assessed using the 9-item Utrecht Work Engagement Scale (UWES; Schaufeli et al., 2002). Findings indicate that 10% of employees were strongly dissatisfied with their jobs. Participants rated work intensity overall with a mean

score of 2.35 ($SD=.61$), which the authors considered to be moderate, and the mean score for work engagement was 4.66 ($SD=1.16$), which the authors considered to be relatively high. The findings of good job satisfaction and relatively high work engagement were contrary to the authors' hypotheses, which assumed that work in such intense and difficult inpatient settings would be less rewarding for employees.

Workload. Maslach et al. (2001) stated that six areas of the workplace are related to burnout: workload, control, reward, community, fairness (Lasalvia et al., 2009), and values. The most commonly reported issue related to burnout in the workplace is work overload. Professionals who experience work overload are more likely to experience the feeling of exhaustion, leading to cynicism and inefficiency.

Langballe, Innstrand, Aasland and Falkum (2011) found that workload affected burnout rates in men ($B=-.07, p<.05$) specifically in a study investigating burnout rates of physicians in Norway. Participants were gathered from a national registry of physicians on two separate occasions; 2003 ($n=683$) and 2005 ($n=523$). All participants were administered the Oldenburg Burnout Inventory as well as questions about workload and work-home conflicts. The authors identified, however, a separate and stronger predictor of burnout for female physicians; work-home conflict ($B=.22, p<.001$). Women who had difficulty finding balance between work and home and who found that more time was devoted to work were more likely to develop symptoms of burnout. Leiter and Maslach (2009) also found that workload was related to emotional exhaustion in nurses. A participant pool of 667 Canadian nurses were administered the Maslach Burnout Inventory, the Areas of Worklife Scale and the Turnover Intentions Measure in order to investigate the role of burnout in turnover among nursing staff. Findings indicate that workload

was correlated to emotional exhaustion ($r=-.60, p<.05$). Workload/caseload will be one factor that is investigated in the current dissertation.

Autonomy. Additionally, lack of autonomy (Adebayo & Ezeanya, 2010) has been found to be related to the development of burnout (Maslach et al, 2001). Shirom, Nirel and Vinokur (2010) administered the Shirom-Melamed Burnout Measure, the Overload Scale and an autonomy scale, as well as asked questions about the number of work hours and the number of patients to a group of 890 physicians in one of six specialty areas (ophthalmology, dermatology, otolaryngology, gynecology, general surgery, and cardiology). Structural equation modeling and Pearson product moment correlational coefficients were used for statistical analysis. The authors found that a high workload was directly related to high burnout rates in physicians ($P=.57, p<.05$), while high rates of autonomy were directly related to low rates of burnout ($P=-.21, p<.05$). In this study, the authors identified that autonomy not only is protective against burnout, but also can act as a mediating factor to burnout when workload was high. For this reason, autonomy will be assessed in the current study to determine its relationship with work engagement.

Social support. The developmental model of burnout (Maslach et al, 2001; Onder & Basim, 2008) states that burnout develops over time, and that each of the categories leads step-wise to the next category of burnout. This model looks more at constructs like workload, support from others and autonomy. The current dissertation was conceptualized utilizing the developmental model of burnout, and therefore looking at such constructs as social support fits this model.

Social support is a broad term that includes the ways that different people behave in the social environment (Hegleson, 2003). Supportive resources that can be emotional, tangible,

companionship, or informational, in which a person believes and receives care, comfort, and assistance from another person(s) (Social support, 2015). Social support can be either perceived or received. Perceived social support "...typically measured by asking people to what extent they believe people in their network are available to help them..." (Hegleson, 2003, p. 27). It is different than received support, in which support is received from others, in that perceived social support is the perception that support is available if needed (Hegleson, 1993, 2003). A measure of received social support would be to look at what specifically one person did for another person and keep a tally of these actions. Research comparing perceived social support and received social support have found that perceived social support is more strongly related to quality of life than is received social support (Hegleson, 2003). This could be because perceptions are different for everyone and can be subjective, while measuring received social support is more of an objective measure. In the current study, perceived social support was measured in order to determine whether participants felt that they had support from others, despite whether this support was received or not.

Nowack and Hanson (1983) surveyed resident assistants (n=43) in university settings to investigate burnout. Participants were gathered from a university and all were students who were employed part time by the university to be in charge of a floor in a student residence hall. Participants were administered the Maslach Burnout Inventory, the Self-Care Inventory, the Social Support Questionnaire, and the Hopkins Symptoms Checklist to determine psychological distress. Job performance was assessed by floor members who completed a 16 item evaluation of job performance regarding the resident assistant's availability, sensitivity, floor participation, advising, interpersonal skills, and enforcement of rules.

Age/length of time in the field. Research has found that age is related to levels of burnout. Older individuals who have been working in the field or at the job for longer periods of time are less likely to experience symptoms of burnout than are those who are new to the field and who are younger. In the current dissertation, participants will be asked how long they have been in the field, as well as how long they have been working in a state hospital, in order to determine if this is a factor related to work engagement. Ackerley, Burnell, Holder & Kurdek, (1988) surveyed 562 licensed psychologists in order to gain a better understanding of the factors related to burnout in psychologists and to determine the severity of burnout that psychologists experience. Participants were administered demographic questionnaires, the Maslach Burnout Inventory, and the Psychologist's Burnout Inventory. Findings indicate that age is related to levels of burnout in all categories of burnout, and that younger clinicians experience more burnout than do older clinicians ($F(1,502) = 6.40, p < .05$). Vredenburg, Carlozzi & Stein (1999) also surveyed psychologists to investigate demographic factors related to burnout. 521 licensed psychologists completed both a demographic questionnaire and the Maslach Burnout Inventory. Age was found to be inversely correlated with the emotional exhaustion component of burnout ($r = -.29, p < .05$) and the depersonalization component of burnout ($r = -.29, p < .05$) using Pearson product moment coefficients.

Other factors. Schaufeli et al. (2006) explored the relationship between work engagement and professional group using the UWES, Pre-existing data from ten countries was used, with a total of 14,521 participants assessed. Of the multiple professions chosen, the lowest scores were found in blue collar workers, as well as in social workers and counselors ($M = 3.89$), and health care workers ($M = 3.94$). Psychologists were not included in this investigation, and would likely fall into both the categories of counselors and health care workers. For this reason,

the level of work engagement for psychologists is questionable, and should be further investigated.

Engagement and Burnout of Psychologists.

There has been limited research looking at burnout rates of psychologists and counselors in psychiatric hospitals. This is likely due to the marginalization of psychologists in such settings and the predominant use of the medical model. Only one study was found that involved psychologists as participants; however, in this study psychologists made up the smallest group of participants and were combined with psychiatrists. Caldwell, Gill, Fitzgerald, Sclafani and Grandison (2006) surveyed 88 hospital staff at five hospitals from the disciplines of nursing ($n=42$, 53.2%), social work ($n=22$, 27.8%), and psychiatry and psychology ($n=13$, 16.5%). Participants were administered three scales; the Maslach Burnout Inventory (MBI), the Nursing Work Index (NWI), and the Ward Atmosphere Scale (WAS). The MBI assessed for the three categories of burnout: emotional exhaustion, depersonalization and personal accomplishment. The NWI included the subscales of nurse, nurse control and nurse/physician relationship. The WAS included 10 subscales that assessed the involvement of patients, support given to patients from other patients, spontaneity encouraged of patients by staff, autonomy of patients, the extent that patients learn practical skills, the extent to which patients learn about their own feelings and problems, anger and aggression issues on the ward, the clarity of what is expected of patients, and how much control the staff exerts over patients. Findings indicate that the highest rates of both emotional exhaustion and depersonalization were found in nursing staff (Emotional exhaustion: $M=23.38$; Depersonalization: $M=7.02$), followed by social workers (Emotional exhaustion: $M=20.64$; Depersonalization: $M=4.05$) and psychologists and psychiatrists had the lowest rates (emotional exhaustion: $M=14.00$; depersonalization: $M=6.08$). When compared

with ward atmosphere characteristics, the two categories that had a significant association with burnout for all three disciplines included anger and aggression on the ward ($F=3.25, p=.045$) and order and organization on the ward ($F=3.14, p=.049$). While psychologists represented the group with the lowest rates of burnout in this study, they also made up the smallest group, and psychologists were not teased out from psychiatrists in this participant group. For this reason, this study is unlikely a true representation of the burnout rates of psychologists in psychiatric facilities.

Corrigan, Holmes and Luchins (1995) investigated burnout rates of 47 employees at a state psychiatric hospital using the MBI, the Modified Social Support Questionnaire, the State Trait Anxiety Inventory-Trait version, the Health History Questionnaire, the Barriers to the Implementation of Behavior Therapy Scale and the Needs Assessment Inventory. Participants were 60% nursing staff, and the remaining 40% was comprised of clinical staff: psychologists, physicians, social workers and other hospital staff. No significant differences were found between nursing staff and clinical staff in terms of emotional exhaustion ($F(1, 37), p=.10$). Clinical staff, however, reported higher levels of personal accomplishment than did nursing staff [$(F(1, 37) = 4.95, p < .05)$]. This indicates that rates of emotional exhaustion for nursing staff are similar to those of clinical staff and direct comparisons can be made between the disciplines.

Much of the burnout research that has been conducted in psychiatric hospitals involves nursing staff. This research will be discussed here as many of the factors involved in psychiatric nurse burnout likely also applies to psychologists working in similar facilities. Hanrahan, Aiken, McClaine and Hanlon (2010) investigated, using the Maslach Burnout Inventory and the Practice Environment Scale-Nurse Work Index (PES-NWI), the relationship of organizational factors in psychiatric hospitals to burnout of nursing staff. These work factors included the quality of the

work environment, effective management, and positive relationships with physicians and higher ratios of nurse to patient. Nurse to patient ratio was associated with the emotional exhaustion component of burnout [$B=-6.10$ (1.59), $p=.001$], indicating that workload is an important factor contributing to the burnout of psychiatric nurses. Depersonalization was associated with overall composite scores on the PES-NWI ($B=-2.70$), however none of the variables were found to have a significant relationship with the personal accomplishment category.

Oddie and Ousley (2007) also investigated the burnout rates in psychiatric hospitals by sampling psychiatric nursing staff ($n=115$) and occupational therapists ($n=9$). All participants were current staff members on one of three wards in a medium security psychiatric hospital. Participants were administered a modified version of the Psychiatric Nurse Occupational Stress Scale (PNOSS), the Maslach Burnout Inventory (MBI) and a demographic questionnaire. Mean scores on each of the categories of the MBI were placed into severity indexes for each category of burnout: Emotional Exhaustion: low (mean scores 0-13), moderate (mean scores 14-20), high (mean scores 21+); Depersonalization: low (mean scores 0-4), moderate (mean scores 5-7), high (mean scores 8+); and Personal accomplishment: low (mean scores 34+), moderate (mean scores 33-29), high (mean scores 0-28). Participants in this study overwhelmingly had high scores in the emotional exhaustion component of burnout ($M=23$, $SD=10.9$). Scores were on average moderate in both the depersonalization category ($M=7$, $SD=6.7$) and the personal accomplishment category ($M=35$, $SD=8.2$). When burnout scores were compared to work factors, emotional exhaustion correlated with organizational/administrative factors ($r=0.439$, $p<.01$), limited resources ($r=0.313$, $p<.01$), staff conflicts ($r=0.287$, $p<.05$), and patient care ($r=0.248$, $p<.05$). Depersonalization correlated with organization/administrative factors ($r=0.419$, $p<.01$), limited resources ($r=0.325$, $p<.01$), and staff conflicts ($r=0.291$, $p<.05$).

Personal accomplishment was correlated with organization/administrative factors ($r=-0.383$, $p<.01$) and staff conflicts ($r=-0.337$, $p<.01$). Organizational and administrative factors and staff conflicts seemed to play the biggest role in burnout for these staff.

Hazards of Burnout and Lack of Engagement

Burnout in all types of settings has been stated to be hazardous to the burned out individual, to the organization, to the profession as a whole and to clients. Working while burned out also increases the professional's risk of being served a malpractice suit (Thoreson et al., 1987), due to the increased likelihood of making mistakes (Crane, 1998). Professionals who have been the subject of one malpractice suit are likely to be the subject of future suits. Decreasing burnout can help (Crane, 1998). However, burnout is not a dichotomous construct and can affect different people in different ways (Tebandeke, 2008).

Maslach et al. (2001) stated that burnout can lead to increased feelings of negativity about the job and about the clients served. Research related to the hazards of burnout has focused mainly on two things: how burnout affects job performance and how it affects a burned out individual's health. Research findings indicate that burnout is related to decreased productivity in the workplace, absenteeism, turnover at the job site, and a reduced commitment of workers to the job. Additionally, burned out workers are likely to be contagious, and their negativity is likely to "spillover" to other workers (Maslach et al., 2001). Additionally, research has found that burnout often affects a person's health much like the effects caused by stress in general. Further, it has been found that burned out individuals are more likely to abuse substances, experience more anxiety and depression, and have difficulty coping with life stressors, than those who are not experiencing burnout (Maslach et al., 2001). Freudenberger and Robbins (1979) stated that the symptoms of burnout may include, "depression, loneliness,

the inability to relate to patients, family, friends: feelings of emptiness, omnipotence, cynicism, paranoia...” (p. 275).

In psychology there has been little research conducted on the ways in which burnout affects the clients served by the burned out practitioner. Freudenberger (1990) stated that burnout can lead to impairment in professionals, and that impairment can lead to physical and mental health problems, substance use, and professional misconduct. Guy, Poelstra and Stark (1989) surveyed 318 psychologists using the Psychotherapist Information Survey and found that 74.3% of these psychologists self-reported symptoms of burnout and distress during the past three years. Of these, 74.3%, 36.7% reported that they believed that their own distress decreased patient care, and 4.6% said that it resulted in inadequate care of patients. Burnout places professionals at risk of providing poor care to clients. They may not be functioning professionally at the level that they should, practicing outside of competency areas, and may do harm to clients (Everall & Paulson, 2004).

Burnout has many effects on the individual. Professionals experiencing symptoms of burnout have also been found to oversmoke and to overeat (Sakharov & Farber, 1983). A common, but ineffective, coping strategy that people, including professionals in the health services field, may turn to in times of stress is alcohol. Findings have indicated that substance abuse worsens the impact of burnout in professionals, and also makes depressive symptomology greater (Thoreson, Miller & Krauskopf, 1989). Thoreson, Miller and Krauskopf administered the Psychologist Health Questionnaire to 379 psychologists in order to better understand the distress and coping strategies of professionals. They found that between 6 to 9% of psychologists have diagnosable drinking problems. Ten percent of the psychologists in this sample were also found to be in “distress”, through either family/home related problems or

burnout at work. Significant correlations were found between distress and life variables such as relationship satisfaction ($r=.31, p<.0001$), depression ($r=-.35, p<.0001$) and satisfaction with parenting ($r=.16, p<.001$). This indicates that those psychologists who have positive relationships with family indicated lower levels of distress, but those who indicated experiencing symptoms of depression had higher levels of distress.

A direct relationship has been found between physical health and burnout in professionals (Kahill, 1988; Leiter, 2005). Leiter (2005) sampled 545 nurses from three health care institutions in one Canadian city, and administered the Maslach Burnout Inventory-General Scale, the Areas of Work Life Scale, and the Personal Risk Scale. Correlations were found between physical symptoms and multiple burnout risk factors, including: control ($r=-.185, p<.001$), job risks ($r=.247, p<.001$), workload ($r=-.417, p<.001$), verbal abuse ($r=.219, p<.05$) and exhaustion ($r=.584, p<.001$). This indicates that nurses who perceive that they have little control over their work, are at high risk when on the job, have a large workload, experience verbal abuse and who are exhausted, experience more physical symptoms and are at greater risk for professional burnout.

Kahill (1988) conducted a thorough review of existing research on burnout and found that physical symptoms, including increased days off from work due to colds and flues, fatigue, sleep difficulties and other somatic complaints, were the most frequently cited symptoms of burnout. Kahill (1988) identified numerous studies relating the two concepts, with significant correlations ranging from $-.16$ to $-.44$. Direct relationships have been found between feelings of physical exhaustion, headaches and gastro-intestinal problems (Beck & Gargiulo, 1983; Jayaratne & Chess, 1983; Rottier, Kelly & Tomhave, 1983; Rubington, 1984; Kahill, 1988). Burnout has also been found to be related to sleeping problems, particularly when emotional and

physical exhaustion are present. Brand et al. (2010) sampled 2,231 participants through an internet based study in order to better understand the relationship between burnout, depressive symptoms, satisfaction with life and sleep complaints. Participants were administered the Insomnia Severity Index, the German version of the Satisfaction with Life Scale, the German version of the Tedium Scale, a social context questionnaire developed for this study and a demographic questionnaire that asked questions about general demographics as well as about employment length, position, etc. Sleep complaints were significantly correlated ($p < .001$) to emotional exhaustion, including such complaints as difficulty falling asleep ($r = .55$), difficulty maintaining sleep ($r = .60$) and worrying about sleep ($r = .83$). As emotional and physical complaints increased, sleep complaints increased as well (From $B = .56$ to $B = .69$, $p < .001$). Overall satisfaction with life predicted lower sleep complaints ($B = -.14$, $p < .001$).

A Finnish study investigated the burnout rates of physicians of all disciplines ($n = 3,133$). Participants were administered the Maslach Burnout Inventory as well as questions related to their perceived health status. Psychiatrists in general reported that they felt more burned out than did physicians of other disciplines (Psychiatrists: 89%; Child Psychiatrists: 96%; Outpatient psychiatrists: 97%; Other physicians: 73%). Additionally, psychiatrists as a whole expressed more emotional exhaustion (84%) than did other doctors (60%). Psychiatrists were also less likely to report their self-perceived health as “good” than were other medical doctors (Psychiatrists: 63.9%; Child psychiatrists: 60.4%; Other physicians: 78.7%). Results also indicate that depression and burnout had a moderately positive correlation among specialists in the field of psychiatry ($r = .41$, $p < .001$), and that child psychiatrists had the highest rates of suicide attempts of all medical doctors in this survey (Child psychiatrist: 8.3%; Psychiatrist: .6%; Other physician: .7%) (Korkeila et al., 2003). While many studies investigating the health

effects of burnout use self-report measures, Grossi, Perski, Evengard, Blomkvist, and Orth-Gomer (2003) collected blood samples of female professionals and found that those who were experiencing symptoms of burnout had enhanced inflammatory responses and oxidative stress. Systolic blood pressure has also been found to be higher in burned out professionals, and a negative relationship has been found to salivary cortisol levels for those professionals with high rates of burnout (Moya-Albiol, Serrano, & Salvador, 2010).

Job Ambiguity

Job ambiguity can be described as a lack of understanding of the fit and function within a working environment (Foote, Seipel, Johnson, and Duffy, 2006). Handy (1976; as cited in Blumenthal, Lavender, and Hewson, 1998) indicates that job ambiguity arises when there is uncertainty in the mind of either the worker or the organization about how one's work is evaluated, the scope of promotion, the scope of responsibilities, or the expectations of the worker from others. Job ambiguity is relevant to the current dissertation as it has been indicated in research that psychologists working in state hospitals experience job ambiguity. Research has indicated that job ambiguity, which is also known as role clarity in some research, has negative effects on workers, including increased job stress and increased risk for burnout (Blumenthal, Lavender, and Hewson, 1998).

Because job ambiguity has been found to be related to burnout, research in this area will be discussed here. As burnout is often seen as the counterpoint to work engagement, it is likely that job ambiguity is also related to work engagement. Blumenthal, Lavender, and Hewson (1998) studied the relationship between role clarity and burnout in workers at group homes for those with intellectual disabilities. Eleven group homes were targeted, with a total of 106 participants. Questions about role clarity were provided, and the Maslach Burnout Inventory

was used to assess burnout. Correlations were found between role clarity and burnout, specifically in the areas of emotional exhaustion ($r=.035, p<.01$) and depersonalization ($r=.22, p<.01$).

Celik (2013) investigated the relationship between job ambiguity and burnout for school vice-principals. A total of 200 participants completed the Maslach Burnout Inventory, the Role Conflict and Role Ambiguity Questionnaire, and the Job Satisfaction Survey. Structural equation modeling indicated that there is a relationship between job ambiguity and job performance, specifically that when job ambiguity is high, job performance is low. Burnout was found to be a mediator between job ambiguity and job performance.

Papastylianou, Kaila, and Polychronopoulos (2009) investigated the relationship between role ambiguity and burnout for teachers. Teachers from 79 schools in Greece were recruited for a total of 562 participants, who were administered the Maslach Burnout Inventory, the Role Conflict and Role Ambiguity Scale, and the Center for Epidemiological Studies Depression Scale. Using regression, a significant relationship was found between role ambiguity and burnout was found ($\beta=.152, p<.001$), indicating that role ambiguity predicts burnout for teachers in this study.

While none of these studies specifically study psychologists, a link has been made between job ambiguity and burnout, warranting further research. Due to the focus on positive psychology methods in the current dissertation, job ambiguity will be assessed in the context of work engagement.

Rationale

The purpose of the current study is to better understand the factors involved in work engagement for psychologists working in state mental hospitals. While the trend in mental

health treatment is to minimize the care necessary from a state mental hospital, psychologists continue to work and treat patients in such settings. Psychological work in a state hospital is different than in other settings, and therefore should be examined separately from other settings. Little research has examined the work engagement patterns of psychologists in state hospital settings, and what has been completed is outdated (Ishiyama et al., 1962; Sommer & Clancy, 1958; Wood, Rogers, McCarthy, & Lewine, 1994). Updated research will not only enable training programs to better prepare psychologists for work in state mental hospitals, but also will allow hospitals to make the best use of the psychological resources at their disposal. Looking at engagement will allow psychologists in training to better prepare for work in this setting, and to inform other disciplines and administration of the engagement trends of psychologists.

Chapter 3: Methods

The work of psychologists in state psychiatric hospitals has been understudied in recent years. Research that exists indicates that psychologists are often misunderstood by colleagues and administration, and may experience role ambiguity in their jobs. They may also experience factors that have been found to be related to burnout, including a lack of autonomy in their roles, support from colleagues, and large caseloads, and therefore may not be highly engaged in their work. The current study assessed the work engagement of psychologists working in state psychiatric hospitals, and identified factors that are predictive of work engagement in these settings. Eight factors that were identified by previous literature to be predictive of work engagement, region, job ambiguity, autonomy, social support, length of time in the field, length of time at a state hospital, number of individual therapy clients seen per week, and number of supervision hours per month, were assessed.

Research questions for the current study were as follows:

1. To what extent are psychologists engaged in their work in state psychiatric hospitals?
2. Do autonomy, job ambiguity, social support, geographic region, years spent working in the field, years spent working in the hospital, number of clients seen per week, and number of supervision hours per month predict work engagement for psychologists working in a state psychiatric hospital?
3. To what extent do psychologists report job ambiguity in their work at state psychiatric hospitals, and how does job ambiguity relate to work engagement?

Design

This study used quantitative methods with a within-subjects, correlational design. Correlational designs are nonexperimental research studies in which the relationship between

constructs is assessed. Variables are not manipulated, but instead are identified and observed in their natural state. Participants are not grouped into control and experimental groups (Tabachnick & Fidell, 2007, p. 3). Utilizing this design, specifically using survey methods, has both its strengths and limitations. Correlational designs tend to be fast and easy, allowing greater access of research questions to a wider range of participants (Correlational Studies, 2014; Field, 2005, p. 110). Correlational designs also offer the ability to determine relationships between variables, and also can identify relationships that were not hypothesized (Field, 2005, pp. 110; Inferential Statistics, 2014; Tabachnick & Fidell, 2007, p. 3). However, the questions answered by participants are subjective, and participants have the ability to influence the results of the survey based on their answers to the questions (Field, 2005, p. 109; Correlational Studies, 2014). Additionally, correlational designs do not imply causation, and can only suggest relationships instead of conclusively determining an effect (Inferential Statistics, 2014; Tabachnick & Fidell, 2007, p. 3). The aim of the current dissertation was to find relationships between the dependent variables and work engagement. Future research could offer a great exploration of the effects of these relationships. For these reasons, a correlational design was appropriate for this research.

Participants

Participants in this study were comprised of working psychologists who are currently employed at a state psychiatric hospital. Non-psychologists and those psychologists who are not currently working or who are current students, including predoctoral interns, were excluded from the study. Participants could be from any race, gender, religious, and political affiliation. Only participants who speak the English language were included in this study.

Participation in the current research study was voluntary. Participants had the option of participating in the research study, and were not coerced in any way to participate. Participants

also had the option of terminating the survey at any time. If an individual chose to participate in this study, she/he was directed to the qualtrics.com web site at which the study survey can be found. Participants were recruited from 65 state psychiatric hospitals throughout the United States. Participants received the letter entitled, "Letter to Potential Participants" that can be found in Appendix C. A-priori power analysis indicated that a total of 109 participants was necessary to achieve adequate statistical power, with a desired power of .80 and a desired effect size of .15; $p < .05$. This number was determined through the use of G*Power 3.1.5 software (Faul, Erdfelder, Lang, & Buchner, 2007; Faul, Erdfelder, Buchner, & Lang, 2009). A total of 118 participants completed the survey, and 94 were complete; without missing data.

Dependent Variable

The Utrecht Work Engagement Scale (UWES; Schaufeli & Bakker, 2006). The independent variable (IV) was work engagement, which will be measured using the 17-item Utrecht Work Engagement Scale (UWES). The UWES is the most commonly used instrument to measure work engagement and is currently free for use. The UWES includes three subscales, which assess the worker's vigor, dedication, and absorption while on the job. Each of the 17 items is rated on a scale ranging from 0 to 6, with 0 indicating *never* and 6 indicating *always*.

The UWES has been validated in many countries, including the United States (Schaufeli & Bakker, 2006), China (Yi-Wen & Yi-Qun, 2005; as cited in Bakker et al., 2008), Finland (Hakanen, 2002; as cited in Bakker et al., 2008), Japan (Shimazu et al., 2008; as cited in Bakker et al., 2008), Greece (Xanthopoulos, Bakker, Demerouti, & Kantas, 2009; as cited in Bakker et al., 2008), South Africa (Storm & Rothmann, 2003; as cited in Bakker et al., 2008), Spain (Schaufeli et al., 2002; as cited in Bakker et al., 2008), and in the Netherlands (Schaufeli & Bakker, 2003; as cited in Bakker et al., 2008).

The original scale consisted of 17 items, and was found to have sound internal consistency reliability coefficients, using Cronbach's alpha, in the range of .80 to .90 (Demerouti, Bakker, de Jonge, Janssen, & Schaufeli, 2001; Duran, Extremera, & Rey, 2004; Montgomery, Peeters, Schaufeli, & Den Ouden, 2003; Salanova, Schaufeli, Llorens, Peiro, & Grau, 2001; Schaufeli & Bakker, 2004). Further, the UWES has been found to be an unbiased instrument, making it acceptable to use with various racial groups (Storm & Rothmann, 2003; Schaufeli et al., 2006).

The UWES was used to measure work engagement, and the Maslach Burnout Inventory-General Survey (MBI-GS; Schaufeli, Leiter, Maslach, & Jackson, 1996) was used. An iterative process was used to shorten the UWES. The item that best characterized one of the subscales on the basis of face validity was first selected. This item was then regressed against the remaining items on that subscale. Following the regression, the item with the highest *R* value was added to the shortened scale, and then was added to the first item. The sum of the two items was then regressed against the remaining subscale items, and this process continued for the remainder of the items until no further substantial variance was explained by an additional item.

The three subscales, as well as the total score, were found to have good internal consistency and test-retest reliability. For the vigor scale, Cronbach's alpha ranged between .60 and .88 with a median of .77 for the ten countries; for the dedication scale, Cronbach's alpha ranged between .75 and .90 with a median of .85; and for the absorption scale, Cronbach's alpha ranged from .66 and .86 with a median of .78. Cronbach's alpha for the total score on the 9-item scale ranged from .85 to .92 with a median of .92.

Mills, Culberson, and Fullagar (2012) analyzed the UWES to determine factor structures and reliabilities, as well as to critique the method by which both the 17-item and the 9-item

scales were developed. The reasons for this analysis stemmed from concerns in the literature regarding the use and validity of the measures. For example, Shirom (2003) noted concern with the high intercorrelations among the three subscales. Further, Mills et al. (2012) wanted to provide additional support for the use of the 9-item scale, as only two studies had previously validated the shortened scale (Schaufeli et al., 2006). In the first of two studies conducted by Mills et al. (2012), 344 students participated in completion of the UWES. Exploratory factor analysis was used on the UWES-17 to assess the scale. Mills et al. (2012) argued that the original scale authors used only confirmatory factor analysis to validate the scale, and that exploratory factor analysis should also have been used in order to ensure that the factors and constructs were thoroughly investigated. Findings indicate that scores exhibited good internal consistency reliability ($\alpha=.92$). Parallel Analysis, as well as traditional factor analytic procedures, were used to determine the number of factors yielded by the measure. Mills et al. (2012) found that four factors were revealed through the factor analysis. Further investigation was completed to narrow the factors down to the three factors originally proposed by the original scale authors (Schaufeli et al., 2002). Mills et al. (2012) indicated that their model was found to be tolerable, although not ideal ($df=4.49$, RMSEA=.09, CFI=.88). The UWES-9 was subject to similar analyses, and was found to possess good reliability as well ($\alpha=.88$). Three factors were also identified through exploratory and confirmatory factor analyses. The authors noted that the model used in confirmatory factor analysis was a better fit for the UWES-9 than for the UWES-17 ($df=452.69$; $p<.01$). They also noted that the factor loadings for the UWES-9 were cleaner than those of the UWES-17. In a second study, Mills et al. (2012) further compared the UWES-17 and the UWES-9. Different samples were used and results were analyzed using confirmatory

factor analysis. The models supported the internal consistencies for all factor structures. Construct validity was supported for the UWES-17 and the UWES-9.

Independent Variables

Eight independent variables were assessed; job ambiguity, autonomy, social support, caseload, supervision hours, geographical area, length of time in the field, and length of time at a state hospital. Job ambiguity was assessed using the Job Ambiguity Scale, and autonomy was assessed using the Factual Autonomy Scale. Social support was assessed using both the total score on the Multidimensional Scale of Perceived Social Support (MSPSS). The Demographic Questionnaire assessed the following five variables: caseload, supervision, geographical area, length of time in the field, and length of time at a state hospital.

Demographic Questionnaire. A demographic questionnaire comprised of five questions was utilized to target five variables and was completed in order to gain additional data from participants. Participants were asked in which region of the country they are located, how many clients they see per week for individual therapy, how many hours per month they spend in supervision, how long they have been working in the field, and how long they have been working at the state hospital. These questions targeted the variables of caseload, supervision, geographical area, length of time in the field, and length of time at a state hospital.

Job Ambiguity Scale (JAS; Breugh & Colihan, 1994). The JAS was utilized to determine whether psychologists are clear about their job roles in state psychiatric hospitals. Research has indicated that the job role of psychologists tends to be ambiguous in the work setting of state psychiatric hospitals (see chapter 1), and is hypothesized to be related to work engagement. Breugh and Colihan (1994) stated, "...role ambiguity is negatively associated with employee satisfaction and performance because it is an inherently noxious state and because it

interferes with the performance of job duties” (p. 193). The JAS is a 9-item scale that asks participants to rate their responses on a 7-point Likert type scale. A response of 1 indicates that the participant *strongly disagrees* with the statement, and a response of 7 indicates that the participant *strongly agrees* with the statement. Scores range from 9 to 63, with higher scores indicating better role clarity on the job and lower scores indicating greater job ambiguity. All items are worded positively. See Appendix A for specific items.

The JAS assesses three unique areas of job ambiguity: performance criteria, work method, and scheduling (Breugh & Colihan, 1994). *Performance criteria* refers to the employee’s understanding of what is expected of her/him from supervisors, coworkers, and administration. Breugh and Colihan (1994) indicated that when workers are uncertain of what is expected of them, their work suffers. *Work method ambiguity* refers to the extent that workers understand the procedures in which they are to complete their work. When workers do not understand this, difficulties in the workplace occur, including unnecessary stress and work not getting completed. *Scheduling ambiguity* refers to knowing which tasks to prioritize on the job and also to managing time and job demands. Workers experiencing scheduling ambiguity may not understand what the most important aspect of work to their administrators is, and therefore may feel confused in the workplace (Breugh & Colihan, 1994).

Breugh and Colihan (1994) conducted a series of studies to determine the psychometric properties of the JAS. In study 1, Breugh and Colihan (1994) assessed construct validity of test items with 100 employees using formerly validated ambiguity instruments as well as instruments to assess job satisfaction and supervisor satisfaction scales. The scales were administered two times, one month apart in order to assess test-retest reliability. All three subareas of the JAS were found to have moderately high test-retest reliability: work method ambiguity ($r = .54$,

$\alpha=.88$), scheduling ambiguity ($r=.65$, $\alpha=.88$), and performance criteria ambiguity ($r=.80$, $\alpha=.93$). Goodness of fit was used to determine the overall fit of the three factor model. The goodness of fit index for the three factor model was .89, which indicates that the model is generally a good fit for the constructs. Finally, in study 1, Breugh and Colihan (1994) assessed construct validity. Work method and performance criteria ambiguity were significantly correlated with work satisfaction and job performance, and all three categories of job ambiguity were significantly correlated with satisfaction with supervisor. In a second study, Breugh and Colihan (1994) replicated the construct validity assessment using a larger sample ($n=343$). Results of this study were consistent with those of study 1, indicating evidence of construct validity of the three proposed categories of role ambiguity.

In a third study, Breugh and Colihan (1994) assessed the validity of the entire scale by experimentally manipulating the variables. A total of 52 participants completed the assessments and were randomly assigned to one of eight experimental groups. A work task that would be ambiguous if information was not provided was developed (origami) and some groups were given instructions and others were not. Varying levels of instruction were also given, with some groups given all of the necessary information and other groups given very little information. Findings indicate that those participants who were given many instructions and experienced low job ambiguity reported having less method ambiguity than those who received few instructions and experienced high job ambiguity ($F(1, 44) = 11.79, p < .01$), less scheduling ambiguity ($F(1, 44) = 45.89, p < .01$), and less performance criteria ambiguity ($F(1, 44) = 15.30, p < .01$). These results indicate that job ambiguity is related to job performance, demonstrating that the JAS exhibits acceptable validity.

Factual Autonomy Scale (FAS; Spector & Fox, 2003). The FAS was used in this study to determine the degree of autonomy that psychologists feel they have in their jobs, and to better understand the relationship between autonomy and work engagement. Lack of autonomy has been found as a factor contributing to worker burnout (see Chapter 2), and likely is related to engagement. The FAS is a 10-item scale in which participants are asked to rate their agreement on a 5-point Likert type scale. A score of 1 indicates that the statement *never applies* to them, and a score of 5 indicates that the statement applies to them *extremely often or always*. Scores range between 10 and 50, with higher scores indicating higher degrees of autonomy on the job, and lower scores indicating lack of autonomy. See Appendix A for specific assessment items.

Spector and Fox (2003) compared the FAS with the already validated Job Diagnostic Survey autonomy scale to determine the validity of the FAS. Findings indicated that the FAS demonstrated greater convergent and discriminant validity, although correlated less to job satisfaction. In the first study, 106 employees completed assessments. They were paired with their supervisors, who also completed the FAS, the Job Diagnostic Survey, and a survey of job satisfaction. Findings indicate that the FAS demonstrated adequate internal consistency reliability ($\alpha=.81$) and evidence of adequate convergent validity between supervisors and employees ($r=.53, p<.05$).

The Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet & Farley, 1988). The MSPSS was used in the present study to determine social support as perceived by the participants. Lack of perceived social support has been shown to be related to burnout (see Chapter 2) and is likely related to work engagement as well. The MSPSS is a 12-item measure and assesses perceived social support from three different sources: family, friends and significant other. It is generally simple to use and takes very little time to complete.

Participants are asked to rate their endorsement of the 12 items on a Likert scale ranging from *very strongly disagree* (1) to *very strongly agree* (7). The questions deal with the perceived support from family, friends and significant other, with higher score endorsements indicating a higher perceived social support. In the current dissertation, the category related to “friends” was changed to “coworkers” with the permission of the original author (see Appendix D: Permissions). The word friend was replaced with the word coworker in all relevant questions. Overall score was reported. Higher overall scores will indicate that the participant perceives greater social support from others.

The MSPSS has also been found to exhibit adequate evidence of reliability and validity. Zimet et al. (1988) administered the MSPSS to 275 Duke University students in order to test validity and reliability of the overall assessment as well as of the subscales. The subscales of support from significant other and support from friends were found to be correlated with each other ($r = .63$), while there was not a strong correlation between the support from family subscale and the other two subscales ($r = .24$ (significant other), $.34$ (friends)). Internal consistency reliability was determined using Cronbach’s coefficient alpha, which was $.88$ for the entire scale. This indicates overall good internal consistency.

Procedures

Recruitment and Distribution

Participants were recruited from the psychology departments at various state psychiatric hospitals across the United States. The investigator sent a personal letter via email to psychology department directors in 65 randomly selected state psychiatric hospitals in order to request assistance from staff. This email included the letter to potential participants (Appendix C), and psychology directors were asked to forward this letter to department members once approval

from the institution is granted. Members of psychology departments were asked to complete the online survey and were provided with a link to the survey. The investigator was available to answer the questions of both department directors and members, and contact information was provided. The investigator responded to questions within two business days.

The first group of emails targeted 25 state hospitals randomly chosen from the five demographic regions, and a follow up email was sent two weeks later. After the first distribution, 67 participants had completed the survey. Emails were sent to 10 additional state hospitals, with a follow up two weeks later. An additional 23 participants completed surveys during this time. This process occurred three more times, targeting 10 new state hospitals each round. A total of 65 state hospitals were contacted during the five rounds of recruitment emails. The final three rounds of recruitment yielded an additional 28 completed surveys, with 118 total responses. All surveys were answered anonymously.

Randomization procedures. A list of state hospitals across the United States was developed, and each of the state hospitals was plotted on a map in order to determine locations in which concentrations of state hospitals are found. The country was divided into five regions, based on location as well as based on concentrations of state hospitals. Five state hospitals were randomly chosen from each of the five regions for the original 25 requests. For the additional four rounds of 10 requests, two state hospitals from each region were randomly selected. The regional distribution was as follows: Region 1- WA, OR, CA, NV, ID, UT, AZ, HI, AK; Region 2- WY, CO, NM, ND, SD, NE, KS, OK, TX, MT; Region 3- MN, IA, MO, AR, LA, WI, MI, IL, MS, IN; Region 4- KY, TN, AL, GA, OH, WV, VA, NC, SC, FL; Region 5- ME, VT, NH, CT, MA, RI, NY, NJ, PA, MD, DE.

Informed consent procedures. When participants logged on to the survey website, they indicated their willingness to be involved in the research study, and were informed of the nature of the study and the procedures. It is essential that participants are informed of all of the procedures of the study, the goal of the study, and what is expected of them prior to their agreement to participate (Farber, 2006). When participants agreed to participate in the study, they accessed the qualtrics.com link provided in their introduction letter. There, participants were provided with an electronic copy of an informed consent form, and the researcher contact information. Participants had the option of printing out this information, if they chose to do so. The researcher was available to answer any relevant questions. The informed consent provided a brief background of the research question, discussed the reasons for their selection in the study, described the risks and benefits associated with participation in the study, and outlined the detailed procedures. Participants were asked to indicate their acknowledgement of the informed consent before continuing to the survey. The informed consent form can be found in Appendix B.

Confidentiality. The researcher did everything possible to ensure confidentiality. Participants were not asked to provide their name or other identifying information as part of the research study. On the informed consent form, they instead were asked to acknowledge and agree to the procedures, but no names or signatures were necessary.

Resources. There were no direct costs to participants for this study, except for the short period of time (about 15 minutes) that it took to complete the survey.

Benefits to participants. There were no direct benefits of participation in this study. Participation in the study may lead to better understanding of the experience of psychologists in

state hospitals and could lead to better preparation of students and better use of resources by hospital administration in the future.

Risks to participants. This study was considered to be minimal risk, as participants experienced few risks, other than possible slight discomfort over answering questions about the stress of their jobs.

Analyses

Hypothesis 1: Psychologists are engaged in their work in state psychiatric hospitals, as measured with the UWES.

Hypothesis 2: All eight factors (geographic region, years working in the field, years working at the hospital, number of clients seen per week, number of supervision hours per month, autonomy, job ambiguity, and social support) contribute significantly to work engagement for psychologists working in state psychiatric hospitals, as measured on the scales described above.

Hypothesis 3: Psychologists in state hospitals report high levels of job ambiguity, as measured with the JAS, and job ambiguity will significantly contribute to work engagement, as measured with the UWES.

The criterion variable was work engagement, as measured by the total score of the UWES. Predictor variables included job ambiguity, autonomy, caseload, supervision hours, geographic region, length of time working in a state hospital, length of time working in the field, and social support. Job ambiguity was assessed using the JAS and autonomy by the FAS (described above). Social support was assessed using the MSPSS, and caseload, length of time in the field, length of time at a state hospital, and supervision hours was assessed through use of the demographic questionnaire. Stepwise hierarchical multiple regression methods will be used ($Y_i = (b_0 + b_i X_i) + e_i$), in which all predictor variables entered into the model at the same time, and

the R^2 value of the full model was assessed. Variables were systematically removed from the model based on the smallest contributed variance. The changes in the R^2 values with the removal of each variable was assessed in order to determine how much variance could be attributed to each variable, as well as which variables accounted for the greatest variance in the model while using the fewest number of variables (Field, 2005; Howell, 2002). This analysis allowed for examination of the unique contribution of each of the factors in order to better understand the factors that influence the work engagement.

Missing Data. Efforts were taken to discourage missing data. Participants were asked at the start of the survey to make every effort to answer all of the questions. If participants decided that they did want to answer one or more questions on the survey, they have the option of discontinuing their participation. Participant surveys that are not fully completed were deleted from the analysis (listwise deletion) (Field, 2005; Howell, 2002).

Outliers. Outliers were assessed to see how much they affected the outcome of the study. They were entered into the analyses as is, and also were removed from the analyses. All scores were assessed to determine the mean and standard deviations. The scores were assessed to determine whether they could be considered normally distributed. In this case, the majority of the scores would fall within +/- 1 standard deviation from the mean score. The skewness and kurtosis of the distribution was assessed and described. Scores were plotted to determine which scores fall within one standard deviation both above and below the mean score. Scores that fell beyond three standard deviations of the mean score were also plotted, and these scores were considered outliers (Field, 2005, pp. 67, 75). Outliers were assessed to determine whether outliers were caused by a data entry error or an error in the assessment procedures. Statistical analysis was completed both with and without the outliers as part of the analysis to determine the

effect of the outliers on the results. Outliers were reported and thoroughly described regardless of their influence on the study's results, and explanations were made for the occurrence of these cases (Outliers, 2014; Stevens, 1984).

Statistical Power. Using G*Power 3.1.5 software (Faul et al., 2007, 2009), a total sample size of 109 participants was necessary in order to achieve a moderate effect size ($f^2=.15$), with $\alpha = .05$ and power of .80.

Chapter 4: Results

Preliminary Analysis

A total of 118 participants responded to the survey request, and 94 completed the entire survey. Participants from all five geographic regions responded to the survey, with the largest number of cases originating from region 5 (see Table 1).

Table 1

Geographic Regions

| Region | Included States | Number of Participants |
|---------------|---|-------------------------------|
| 1 | Washington, Oregon, California, Nevada, Idaho, Utah, Arizona, Hawaii, Alaska | 11 |
| 2 | Wyoming, Colorado, New Mexico, North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Texas, Montana | 32 |
| 3 | Minnesota, Iowa, Missouri, Arkansas, Louisiana, Wisconsin, Michigan, Illinois, Mississippi, Indiana | 11 |
| 4 | Kentucky, Tennessee, Alabama, Georgia, Ohio, West Virginia, Virginia, North Carolina, South Carolina, Florida | 21 |
| 5 | Maine, Vermont, New Hampshire, Connecticut, Massachusetts, Rhode Island, New York, New Jersey, Pennsylvania, Maryland, Delaware | 43 |

Missing data was present on 24 of the surveys, or 21% of the original sample, leaving 94 cases for analysis. Cases with missing data were removed from the analysis using listwise deletion methods (Field, 2005, p. 70). Participant answers ranged widely, with large standard deviations (See Table 2).

Table 2

Descriptive Statistics

| Variable | Mean | Standard Deviation | Range |
|--------------------------------------|-------------|---------------------------|--------------|
| Work Engagement (UWES) | 78.56 | 18.03 | 7-119 |
| Autonomy (FAS) | 26.37 | 7.76 | 10-50 |
| Job Ambiguity (JAS) | 53.28 | 8.06 | 7-63 |
| Social Support (MSPSS) | 65.73 | 12.80 | 12-84 |
| Number of clients seen weekly | 6.19 | 5.94 | 0-30 |
| Hours of supervision monthly | 10.09 | 24.64 | 0-160 |
| Years working in the field | 8.01 | 8.27 | <1-40 |
| Years working at the hospital | 6.39 | 6.94 | <1-30 |

**n*=94

Significant correlations were found between multiple variables in the regression model. However, the coefficients are generally small, indicating that the variables likely measure different constructs. For example, a small significant negative correlation was found between the Multidimensional Scale of Perceived Social Support (MSPSS) total score and the Factual Autonomy Scale (FAS) total score ($r = -.25, p < .05$). The largest correlation found between variables was between years in the field and years at the hospital ($r = .79, p < .05$). These two variables do measure a similar construct, professional time, but measure different aspects of this

construct, time in the field versus time at the hospital. For this reason, this moderate correlation does not suggest collinearity of variables and does not appear to invalidate the results. Given the high correlation between these variables, however, future researchers may eliminate years in the field as a variable. Several of the variables also significantly correlated with the outcome variable, the UWES total score. The FAS total score, region, number of clients seen per week, and years at the hospital were all significantly correlated with the UWES total score ($p < .05$). The correlation coefficients for these variables, though, were moderate to small ($r = -.42, -.19, -.22, .17$, respectively). The JAS total score and the MSPSS total score had moderate significant correlation coefficients with the outcome variable ($r = .51, .55$, respectively; $p < .05$) (see Table 3).

Table 3
Correlations

| Variable | UWES Total | FAS total | JAS total | Region | Clients | Supervision | Years field | Years hospital | MSPSS total |
|---------------------|------------|-----------|-----------|--------|---------|-------------|-------------|----------------|-------------|
| Pearson Correlation | | | | | | | | | |
| UWES total | 1.00 | | | | | | | | |
| FAS total | -.42** | 1.00 | | | | | | | |
| JAS total | .51** | -.40** | 1.00 | | | | | | |
| Region | -.19 | .30** | .09 | 1.00 | | | | | |
| Clients | -.22* | .41** | -.28** | .26* | 1.00 | | | | |
| Supervision | -.09 | .32** | -.10 | .17 | .31** | 1.00 | | | |
| Years field | .15 | -.15 | .03 | -.07 | -.01 | -.04 | 1.00 | | |
| Years hospital | .17* | -.21* | .09 | -.07 | .00 | -.08 | .79** | 1.00 | |
| MSPSS total | .55** | -.25* | .35** | -.08 | -.10 | .05 | .08 | .14 | 1.00 |

*= $p < .05$ **= $p < .01$

Analyses

Research Question One: To what extent are psychologists engaged in their work in state psychiatric hospitals?

The first research question asked to what extent psychologists are engaged in their work in state hospitals. The means and standard deviations of the study results were compared to the

original findings of the Utrecht Work Engagement Scale (UWES; Schaufeli & Bakker, 2006). Possible scores on the UWES range from 7 to 119, with higher scores indicating higher work engagement (Demerouti, Bakker, Janssen, & Schaufeli, 2001; Duran, Extremera, & Rey, 2004; Montgomery, Peeters, Schaufeli, & Den Ouden, 2003; Salanova, Schaufeli, Llorens, Peiro, & Grau, 2001; Schaufeli & Bakker, 2004). The mean score on the UWES for the current study was 78.56, with a standard deviation of 18.03. The manual for the UWES (Schaufeli & Bakker, 2002; Schaufeli & Bakker, 2003, p. 39) suggests scoring categories in order to determine the level of work engagement. Very high scores fall in the 95th percentile or higher; high scores fall between the 75th and the 95th percentile; average scores fall between the 25th and the 75th percentile; low scores fall between the 5th and 25th percentile; and very low scores range from 0 to the 5th percentile. The mean scores of the current study have a percentile rating of 66, indicating that, overall, the psychologists in the current study are engaged at an average rate in their work in state hospitals. This finding supports hypothesis one.

The standard deviation of the study results, 18.03, is rather large, and indicates that the scores are spread out widely around the mean (Field, 2005, p. 6). Actual total scores ranged from 17 to 112, indicating that while some participants were very highly engaged in their work, others were not at all engaged. The majority of the scores fell between two standard deviations of the mean, 42.50 to 114.62, however, three scores fell three standard deviations below the mean, and two scores fell four standard deviations below the mean. This indicates that, while 95% of psychologists in this sample are engaged in their work, 5% of the psychologists are not at all engaged. The distribution of scores for the data has a negative skew, as the majority of scores fall in the upper range of work engagement (Field, 2005 pp. 8-9). It could also be described as a

platykurtic distribution due to the large standard deviation, as the distribution of scores is flat (Field, 2005 p. 9).

When outliers were removed from the model (described below), the distribution of scores stayed closer to the mean, and findings still indicate that participants are highly engaged in their work at state hospitals. Four cases were found to have work engagement scores that were more than two standard deviations below the mean, while one case was found to have a work engagement score more than two standard deviations above the mean. These extreme cases were not found to include outliers on any of the same other scales.

Research Question Two: Do autonomy, job ambiguity, social support, geographic region, years spent working in the field, years spent working in the hospital, number of clients seen per week, and number of supervision hours per month predict work engagement for psychologists working in a state psychiatric hospital?

The second research question explored factors that were hypothesized to be predictive of work engagement for psychologists working in state hospitals. This question assessed all of the variables included in the study to determine prediction potential. Hierarchical linear regression was used to determine the order of importance of variables and to better understand the unique contribution of each of the variables (Howell, 2002, pp. 565-570).

All variables were entered into the regression model at the same time, using the forced entry method, with the criterion variable of work engagement (UWES), and the predictor variables of autonomy (FAS), job ambiguity (JAS), social support (MSPSS), region, number of clients seen per week, hours of supervision per month, years in the field, and years at the hospital. Following the analysis, the three variables with significant contributions were entered into the regression equation using the forward stepwise method. These variables were the FAS

total score, the JAS total score, and the MSPSS total score. The other five variables, region, number of clients per week, number of years in the field, number of years at the hospital, and number of supervision hours per month, were not found to be significant and were not entered into the model any further. The individual contributions of the significant variables were then assessed. For the FAS total score, $B = -.49$ ($p < .05$), with β of $-.21$. This indicates that when all other predictors were removed from the equation, the FAS total score remained a significant predictor of work engagement. The same is true for the other two remaining variables; JAS total score ($B = .65$, $\beta = .29$, $p < .01$), and the MSPSS total score ($B = .55$, $\beta = .12$, $p < .05$) (See Table 4). When entered alone, the FAS total score accounted for 18% of the variance in the model. The FAS total score and the JAS total score together accounted for 32% of the variance, and the addition of the MSPSS total score brought the percentage explained variance up to 45%. The regression analysis demonstrates that each of the contributions is significant to the prediction of work engagement. The JAS total score appears to have the greatest contribution to the prediction of work engagement of all of the remaining variables (See Table 4).

Table 4

Coefficients

| Model | B | β | t |
|---------------|----------|---------------------------|----------|
| 1. (Constant) | 104.54** | | 17.33** |
| FAStotal | -.99** | -.42 | -4.49** |
| 2. (Constant) | 45.68* | | 3.13* |
| FAStotal | -.61 | -.26 | -2.77 |
| JAStotal | .92** | .41 | 4.36** |
| 3. (Constant) | 20.53 | | 1.45 |
| FAStotal | -.49 | -.21 | -2.48 |
| JAStotal | .65** | .29 | 3.29** |
| MSPSStotal | .55** | .12 | 4.67** |

* = $p < .05$ ** = $p < .01$

Note: All beta coefficients are standardized

Changes to F were also significant at each step of the model (Model 1: 20.14; Model 2: 19.02; Model 3: 21.85; $p < .05$) (See Table 5).

Table 5

Model Summary

| Model | R | R square | Adjusted R square | R square change | F change |
|-------|-----|----------|-------------------|-----------------|----------|
| 1 | .42 | .18 | .17 | .18 | 20.14** |
| 2 | .57 | .32 | .31 | .14 | 19.02** |
| 3 | .67 | .45 | .44 | .13 | 21.85** |

**= $p < .01$

F values for all three of the models were significant. The *F* value for Model 3, including the variables of the FAS total score, the JAS total score, and the MSPSS total score, was 24.94 ($p < .01$). A partial correlation demonstrates the unique effect that a predictor has on the outcome when other variables are held constant (FAS: $-.19$; JAS: $.26$; MSPSS: $.36$). The partial correlation for the FAS was found to be negative ($-.19$), indicating that as autonomy increased, work engagement decreased. The opposite was true for social support ($.36$); as social support increased, so did work engagement. The JAS measured job ambiguity, however, higher scores indicated lower job ambiguity. For this analysis, this indicates that when scores are higher on the JAS ($.26$) and job ambiguity is low, work engagement increases. Thus, results suggest the null hypothesis may be rejected for the second research question.

Research Question 3: To what extent do psychologists report job ambiguity in their work at state psychiatric hospitals, and how does job ambiguity relate to work engagement?

The third research question asked, to what extent do psychologists report job ambiguity in their work at state psychiatric hospitals, and how does job ambiguity relate to work engagement? Job ambiguity was assessed using the Job Ambiguity Scale (JAS; Breugh &

Colihan, 1994). Scores on the JAS range from 9 to 63, with lower scores indicating higher job ambiguity. The mean score for the current group of participants was 53.28 with a standard deviation of 8.06. No formal norms exist for this scale (Breugh, 2015, personal communication), however, the scale has been validated for use with multiple populations (Breugh & Colihan, 1994). The distribution of scores can be assessed. The majority of the scores fall toward the upper end of the distribution, giving the distribution a negative skew (Field, 2005, pp. 8-9). This indicates that participants in this study scored high on the JAS, suggesting low levels of job ambiguity. Five scores fell below two standard deviations of the mean. While the majority of scores fell in the higher range indicating low job ambiguity, these five participants indicated that they continue to experience ambiguity in their roles as psychologists in state psychiatric hospitals.

The results of this research indicate a relationship between job ambiguity, as measured by the JAS, and work engagement, as measured by the UWES. Significant correlations were found between JAS results and UWES results ($r=.51, p<.01$). The hierarchical regression model eliminated all but three variables during analysis. JAS total scores were one of the variables that remained in the model, as it significantly contributes to the prediction of work engagement. Specifically, when the JAS total score variable was added to the model, there was a significant R^2 change (.14), and a significant F change (19.02, $p<.01$). Table 5 reviews the model summary for this analysis. The JAS total score variable entered the regression analysis in Model 2. The JAS total score had the largest effect in predicting work engagement of all variables, as indicated in Table 4 ($\beta=.29; p<.05$). Job ambiguity accounts for 14% of the variance in the equation. Therefore, results of this study support the third hypothesis.

Outliers

A second analysis was completed in order to determine the role of outliers in the significant prediction of work engagement. The scores were plotted to determine which scores on each scale had values that were more than two standard deviations from the mean score. Outlying scores on each individual scale were assessed, and then all scales were compared to one another to determine if a pattern of cases was present. Four cases had outliers on two or more scales, although the scales were not the same for any two cases. These cases were removed from the analysis. The forced entry method of hierarchical multiple regression was used to determine if the removal of these four cases made a difference in the results of the study.

No differences were found in significant correlations between predictor variables, nor between predictor variables and criterion variable. Differences were found when looking at the unique contribution of each variable, however. Only two variables were found to be significant to the prediction of work engagement in this model; autonomy, as measured by the FAS, and perceived social support, as measured by the MSPSS. Job ambiguity was not found to be a significant predictor of work engagement for this model, as it had been when the outliers were left in the model. To confirm this analysis, all of the variables were again entered into the analysis and analyzed using forward stepwise analysis. Again, autonomy and perceived social support were the only variables found to be significant (see Table 6), and together they accounted for 37% of the variance. In this analysis, the MSPSS total score appeared to have the greatest contribution to the prediction of work engagement ($\beta=.49$), and accounted for the greatest amount of explanation of the variance of the two significant variables found.

Table 6

Model summary of analysis without four cases that include outliers

| Model | R | R Square | R Square Change | F Change | Sig F Change |
|--------------|----------|-----------------|------------------------|-----------------|---------------------|
| 1 | .55 | .30 | .30 | 38.01 | .00 |
| 2 | .61 | .37 | .07 | 9.88 | .00 |

Model 1= MSPSS total

Model 2=MSPSS total and FAS total

The analysis was then run for a third time, and eliminated all of the cases that included an outlier on any of the scales. This left a total of 70 cases. Again, hierarchical multiple regression was used to analyze the data, using the forced entry method. After the removal of the outlying cases, the two variables found above, the MSPSS total score and the FAS total score, were the only two variables to be found significant. Hierarchical multiple regression using forward stepwise methods was then completed. In this analysis, the MSPSS total score and the FAS total score accounted for 27% of the variance in the model. The MSPSS total score again contributed the most to the prediction of work engagement ($\beta=.35$), over the FAS total score ($\beta=-.28$).

Post-Hoc Analysis

The a-priori power analysis indicated that in order to achieve power of .80, 109 participants were needed. Since 94 cases were used in the analysis, a post-hoc power analysis was completed to determine the actual effect size of the analysis. Effect size was calculated two different ways. The first was utilizing the equation: $f^2 = R^2 / 1 - R^2$. The second was utilizing G*Power 3.1.5 software. Correlations between variables, as well as correlations of each of the predictor variables with the outcome variable, were entered into G*Power 3.1.5 software to

calculate effect size. Both calculations provided an effect size of .82. Effect size was then utilized in G*Power 3.1.5 software to calculate power. Input parameters in the G*Power 3.1.5 software included the effect size f^2 of .82, the α error probability of .05, and the sample size of 94. This indicates a very strong effect, and indicates that the results of this analysis would not likely happen by chance.

Chapter 5: Discussion

The purpose of this study was to determine the extent to which psychologists are engaged in their work in state hospitals, and what factors contribute to the prediction of work engagement. State hospitals do not always have the best reputation with the public (Osborn, 2009), and little psychological research has been conducted within the state hospital system over the past 20 years (Snyder, Jones, & Clark, 2012). However, state hospitals continue to provide treatment to the mentally ill (Osborn, 2009), and research in this setting is necessary to improve patient care. Psychologists in state hospitals are valuable employees as they provide therapeutic treatment to patients in both individual and group format, complete psychological evaluations of patients, offer clinical consultation to a multidisciplinary treatment team, and develop and implement behavioral and treatment care plans. Research has indicated that job performance across various fields improves when workers are engaged (Bakker, 2011). For this reason, it is necessary to promote work engagement for psychologists and identify factors related to engagement in order to promote quality patient care.

Based on previous literature, eight factors were chosen as predictor variables; geographical area, supervision hours per month, number of clients seen per week, number of years in the field, number of years at the hospital, perceived social support, autonomy, and job ambiguity. Job ambiguity was assessed specifically in order to determine the extent to which psychologists in state hospitals believe that their job roles are clear, and how job ambiguity predicts work engagement. Previous research has indicated the likelihood of job ambiguity for psychologists in such settings (Ishiyama et al., 1962; Sommer & Clancy, 1958; Wood et al., 1994), however, this research is long outdated. An aim of this research was to provide information to educators and hospital administrators to better train and retain engaged psychologists in state hospitals, and to improve and maintain good quality treatment for patients.

In this chapter, each of the hypotheses is discussed, and the factors included are explored. The usefulness of the results and implications for practice are explored. Strengths and limitations of the current research are discussed, and future directions for research are suggested. **Hypothesis 1:** Psychologists are engaged in their work in state psychiatric hospitals, as measured with the UWES.

Psychologists who participated in this study are engaged in their work in state psychiatric hospitals, as measured with the Utrecht Work Engagement Scale (UWES). This finding is consistent with previous research findings in which psychologists were found to have the lowest burnout rates of all disciplines within a hospital (Caldwell, Gill, Fitzgerald, Sclafani & Grandison, 2006). It is also consistent with research indicating that the morale of workers in state hospitals is high (Bowers et al., 2008). However, this finding contradicts the results of other burnout research. Burnout can be defined as “a psychological syndrome in response to chronic interpersonal stressors on the job” (Maslach et al., 2001, p. 398). Burnout is conceptualized as the polar opposite of work engagement (Maslach & Leiter, 2008). Work engagement can be defined as “a positive, fulfilling work-state characterized by vigor, dedication, and absorption” (Schaufeli & Bakker, 2010, p. 10). Examining burnout literature allows for the comparison of the current results to those found in the current study, and determine how these constructs exist along the burnout-work engagement continuum.

LaSalvia et al. (2009) indicated that those professionals who work with difficult patients have the highest rates of burnout. State hospitals provide care to these difficult patients who exhibit the most severe pathology (Snyder, Clark, & Jones, 2012). Additionally, Geczy, Sultenfuss, and Donat (1990) stated that due to burnout, psychologist positions in state psychiatric hospitals are the hardest to fill and have the greatest amount of turnover of all

disciplines. These same authors indicated that psychologists often become discouraged in their work and terminate their employment. The discrepancy between the findings of this study and the findings described in the previous literature may be related to changes in the state hospital system and the role of psychologists in the system over time. The Geczy et al. article was published in 1990, leaving a 25 year gap between it and the current study. Prior to the current study, there was very little research on work engagement for psychologists or for those working in state psychiatric hospitals.

While the average scores on the UWES assessment do appear to confirm Hypothesis 1, it is noteworthy to look also at the range of scores derived from the assessment. Some psychologists indicated that they are not very highly engaged, while others reported high levels of work engagement. More psychologists did indicate a moderate to high level of engagement; however, there were some who reported low levels of engagement. This could potentially suggest that there are differences between hospitals and/or between state programs that may influence a psychologist's work engagement. However, analysis of this supposition is not possible, given limitations in the data collected. When outliers were removed from the equation, psychologists were still found to be experiencing high rates of work engagement. This indicates that overall, with the exception of a small few, psychologists in state hospitals are highly engaged in their work in state hospitals.

Hypothesis 2: All eight factors (geographic region, years working in the field, years working at the hospital, number of clients seen per week, number of supervision hours per month, autonomy, job ambiguity, and social support) contribute significantly to work engagement for psychologists working in state psychiatric hospitals, as measured on variable described above.

The predictor variables included in the assessment were chosen based on assertions from previous literature indicating their significant prediction of work engagement. All eight variables were entered into the regression analysis at the same time. In the regression analysis all but three variables were removed; autonomy, job ambiguity, and perceived social support, identifying these as significant predictors of work engagement. The remaining five variables were not found to be significant predictors of work engagement. Thus the findings offer partial support for the hypothesis.

Previous literature indicates that the variables of autonomy (Adebayo & Ezeanya, 2010; Kahill, 1988; Leiter, 2005), job ambiguity (Breugh & Colihan, 1994), and perceived social support (Nowack & Hansen, 1983; Thoreson, Miller, & Krauskopf, 1989) each individually predict work engagement; therefore the results of the current study are consistent with the existing literature. However, few previous studies examined these variables in a sample of psychologists. Other populations included nursing staff in both medical and psychiatric settings (Adebayo & Ezeanya, 2010; Leiter, 2005), and university resident assistants (Nowack & Hansen, 1983). The results from the previous literature are comparable to those of this study dealing with psychologists as they assess helping professionals who often provide services to difficult populations. Differences between work settings may add confounds to the comparison, however, a baseline for engagement and its relationship to job ambiguity, autonomy, and social support can be established. Thoreson, Miller, and Krauskopf (1989) surveyed psychologists to assess the relationships between home/family life and burnout. Those psychologists who indicated having positive relationships with family had lower levels of burnout. The findings of the Thoreson et al. (1989) study support the findings of the current study in which perceived social support is a significant predictor of work engagement. The current study, then, extends

the findings that each of the assessed variables plays a role in the prediction of work engagement for psychologists in state hospitals.

The analysis also assessed the outcome of the analysis when outliers were not present in the model. When this was completed, job ambiguity was no longer found to be a significant predictor of work engagement for psychologists in state hospitals. Those cases were the ones that could have been representative of psychologists indicating that they were very engaged or not at all engaged in their work, and who found their job to be totally ambiguous or not at all ambiguous. Only four of the cases had outliers on two or more scales, indicating that it is unlikely that the same cases had outliers on multiple scales forming a sub-population of unengaged psychologists. Instead, it is likely that these results show the range of experiences that psychologists can have while working in state hospitals. While the data does include outliers, analyses should be run with these outliers included, as they likely are more representative of this diverse population.

Hypothesis 3: Psychologists in state hospitals report high levels of job ambiguity, as measured with the JAS, and job ambiguity will significantly contribute to work engagement, as measured with the UWES.

Hypothesis 3 was partially supported by the results of the current study. Results suggest that participants felt that, overall, they experience high rates of job clarity and low rates of job ambiguity, which does not support hypothesis 3. Psychologists working in state hospitals in the US seem to know what they are supposed to be doing when on the job, when they are supposed to do certain tasks, and how to accomplish those tasks. These results contradict the findings of previous research, which found that the role of psychologists in state hospitals is, indeed, ambiguous (Ishiyama et al., 1962; Sommer & Clancy, 1958; Wood et al., 1994). Since previous

research on job ambiguity is outdated with the most recent being over 20 years old (1994), it is possible that the roles of psychologists have become better defined with the passage of time.

Although the first part of hypothesis 3 regarding the extent to which psychologists experience job ambiguity was not supported, job ambiguity was found to be a significant predictor of work engagement, therefore partially supporting hypothesis 3. The JAS total score was found to be significantly predictive of scores on the UWES in the negative direction. This means that when participants found their job roles to be ambiguous, they were more likely to also indicate low levels of work engagement. When job ambiguity was low, work engagement was high. This finding is consistent with previous research. Blumenthal, Lavender, and Hewson (1998) found a negative correlation between job clarity and burnout. Participants experiencing low rates of job clarity in their study indicated the experience of high burnout rates. Celik (2013) found burnout to be a mediator between job ambiguity and job performance. When job ambiguity is high, burnout occurs and job performance suffers.

Work engagement is made up of three components, vigor, dedication, and absorption (Schaufeli & Bakker, 2006). It would be very difficult to be dedicated to a job, perform it with any vigor, or become absorbed in the job if one does not know what to do to complete the job. It is likely that as a worker begins to know what the job requires, she/he takes pride in the work being done and work engagement increases. The worker will likely want to do a good job and will put forth effort, may become personally invested, and could put in extra time to make sure the task is completed to the best of one's ability. When a worker does not understand the job requirements and job ambiguity exists, it would be difficult for someone to take pride in that work. There would be chaos and misunderstandings, and workers might just put in their time, without investing much of themselves in their work. This would be a lack of work engagement.

It is likely that psychologists want to be engaged in their work. Becoming a psychologist takes a great deal of training, and the work requires psychologists to integrate their learning into the way that they approach others. Psychology is a professional position, which instills pride amongst its members (APA, 2014; Campion, 2015). It is also a personal position. Psychologists often begin training in the field due to life experiences or personal issues (Baddeley, 2011; Epstein & Bower, 1997). Being a psychologist requires one to use personality traits and characteristics on the job (Wampold, 2015; Whitbourne, 2011). When a psychologist's job is ambiguous, the skills and talents of the psychologist are minimized, the psychologist likely loses pride in her/his work, personal reasons for working in the field are minimized, and work engagement decreases. When a psychologist is able to fully utilize her/his skills and become invested in the work being done, work engagement is high.

Cervoni and DeLucia-Waack (2001) assessed role conflict and job ambiguity as predictors of job satisfaction for school counselors. School counselors provide similar services to students as psychologists provide to patients in state hospitals, such as providing individual and group counseling to those they serve, being available for emotional support, and conducting evaluations, and therefore comparisons can be made. Cervoni and DeLucia-Waack (2001) found that job ambiguity was negatively associated with job satisfaction, meaning that when job ambiguity was high, job satisfaction was low. Additional research supports the finding that job satisfaction is at its highest when job ambiguity is low (Burnham & Jackson, 2000; Perera-Diltz & Mason, 2008). Direct associations have been found between job satisfaction and work engagement (Moura, Orgambidez-Ramos, & Goncalves, 2014). Findings from these previous research studies indicate that when workers are satisfied with their jobs, they are likely engaged in their work. Job ambiguity prevents engagement and likely job satisfaction. Psychologists in

state psychiatric hospitals indicated that they are engaged with low levels of job ambiguity, and therefore, they are likely happy in their jobs at the current time.

When outliers were removed from the analysis, though, job ambiguity was not found to be a significant predictor of work engagement. This could indicate that job ambiguity may not have as significant effect on work engagement as originally suggested, and therefore all components of hypothesis 3 would be rejected. It could also indicate that working in a state hospital is different for everyone, and the analysis that includes the outliers is likely a representation of this population in such a unique and diverse setting.

Factors that were Found to be Significant

Autonomy. Autonomy in the work place has been identified by several authors to be predictive of work engagement, while a lack of autonomy has been related to the opposite of work engagement, burnout. Adebayo and Ezeanya (2010) found a relationship between lack of autonomy and burnout. Similarly, Shirom, Norel, and Vinokur (2010) found a correlation between high rates of autonomy and low rates of burnout, and concluded that autonomy is a protective factor against burnout. Kahill (1988) and Leiter (2005) asserted that when autonomy is low, professionals have been noted to experience a greater number of physical ailments, and exhibit symptoms of burnout that are hazardous to the professional, the workplace, and the patients served. Said in a different way, autonomy in the work place is likely related to work engagement, and low autonomy is likely negatively correlated with high work engagement.

The results of the current study, identifying autonomy as a significant predictor of work engagement, are consistent with the previous literature. Interestingly, though, participants in the current study who indicated high levels of work engagement also indicated moderate amounts of autonomy. A moderate range of autonomy indicates that psychologists generally feel that they

have the ability and permission to attend to their work responsibilities on their own, yet still need direction and supervision from management. Psychologists may like having a structure or guidelines to follow on the job, while having autonomy in the way they meet their guidelines and follow their structure. This finding runs counter to previous research that shows that high autonomy is related to higher work engagement (Adebayo & Ezeanya, 2010), and this topic should be further explored in future research. This discrepancy may be present in the current study and not previous research due to the fact that no other studies have used a population of psychologists in state hospitals. This may shed some light on differences between professionals and/or disciplines within the mental health field. More exploration is necessary in this area.

Perceived social support. In the current study, social support was found to be a significant predictor of work engagement. Psychologists indicated that, on average, they believe that they have high degrees of support from family, friends, and coworkers. Scores on the Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet & Farley, 1988) ranged from moderate to high support levels, indicating that, overall, psychologists in state hospitals do know how to ask for and accept support from others, and that this support is available to them. Psychologists who felt that they had high degrees of social support were more likely to be engaged in their work. This result is consistent with Nowack and Hanson's (1983) findings, which indicate that social support was found to play a role in burnout, as satisfaction with one's support network predicted both depersonalization and personal accomplishment. Participants in the Nowack and Hanson (1983) study consisted of university resident assistants. Those who indicated a lack of satisfaction with their support network were more likely to experience symptoms of burnout, including depersonalization, while those who were satisfied with their support network were more likely to experience work engagement, including feelings

of personal accomplishment. Nowack and Hanson (1983) found that the size of one's support network also predicted personal accomplishment.

The results of the Nowack and Hanson (1983) study can be considered consistent with the results of the current study despite the differences in population. There has been some research on the relationship between work engagement and social support, however, it has been limited. The construct of social support is identified as an important factor in the prediction of work engagement, as evidenced by similar results between different populations supporting this relationship. Thoreson, Miller, and Krauskopf (1989) sampled psychologists, and found that psychologists who had positive relationships with family had lower levels of distress than those without positive family relationships. The results of the current study and those from previous research indicate that perceived social support, both within the work place and outside of the workplace, is a positive predictor of work engagement.

Job ambiguity. The third factor identified in the current study to be a significant predictor of work engagement was job ambiguity. Job ambiguity, again, can be defined as “a lack of understanding of the fit and function within a working environment” (Foote et al., 2005, p. 206). Hypothesis 3 outlines the role of job ambiguity in the current study. Briefly, the results of the current study suggest that participants felt overall that they experience high rates of job clarity and low rates of job ambiguity. These results contradict the findings of previous research, which found that the role of psychologists in state hospitals is, indeed, ambiguous (Ishiyama et al., 1962; Sommer & Clancy, 1958; Wood et al., 1994). The Job Ambiguity Scale (JAS) total score was found to be significantly predictive of scores on the UWES in the negative direction. In fact, the JAS was found to be the strongest predictor of work engagement of any of the factors included in the analysis. This finding is consistent with previous research.

Interestingly, when outliers were removed from the models, job ambiguity was found to not be a significant predictor of work engagement for psychologists working in state hospitals. Looking at this analysis, hypothesis 3 would then be rejected outright. However, including the outliers is worthwhile, as it is unlikely that all psychologists have the same experiences while working in state hospitals. As previously noted, state hospitals have been said to be a unique and diverse environment. What occurs for one psychologist in a state hospital on any given day will be different than what occurs for a psychologist in that same hospital on that same day. Including outliers in the analysis allows for a better representation of the work engagement trends of psychologists in such a unique and diverse working environment.

Factors Found to not be Significant Predictors of Work Engagement

Contrary to previous literature, the variables of the number of clients seen per week, the number of supervision hours per month, years in the field, years at the hospital, and geographic region were not found to be statistically significant predictors of work engagement. Large differences were found in scores related to the number of clients seen per week and the number of supervision hours per month, which may have affected statistical significance in this study. Each variable will be discussed in detail below.

Years in the field/years at the hospital. Ackerley et al. (1988) found a significant inverse correlation between years spent working in the field of psychology and burnout. This suggests that professionals who have been working as psychologists for a longer length of time were less likely to experience burnout than were those professionals with less work experience. Said in a different way, professionals with more work experience may be more engaged in their work than are those with less experience. The findings of the Ackerley et al. (1988) study were

neither confirmed nor denied in the current study. Neither years in the field nor years at the hospital were found to be significant predictors of work engagement.

The lack of support for previous research and non-significant statistical results in the current study are possible because there was not an equal distribution of scores related to the time spent in the field. For example, the mean for years working in the field was 8.01 years, with a standard deviation of 8.27, while the scores ranged from less than one year to forty years. This would indicate that the majority of participants had less time working in the field, with a few outlying responses of more experience. In order for this to have been a more accurate predictor of work engagement, an equal distribution of scores is necessary. However, the tendency for survey respondents to have less time working in the field and at the hospital is telling for the current study. It is possible that psychologists do not tend stay at state hospitals long-term. When psychologists first begin working in a job, they are likely engaged and want to do well. After a period of time, they may burn out and leave the job. Only a few psychologists may stay at a state hospital for a long period of time. The current results support this idea, with the limited number of responses from participants who have worked at the state hospital for over 12 years (beyond two standard deviations from the mean). Another explanation could be that those who completed the survey were a biased sample. People with more years of experience may have less time or inclination to participate in research, whereas newer psychologists may be more willing and eager.

Number of clients seen per week. Participants in the current study indicated that, on average, they saw about six patients per week for individual therapy. The range of scores, though, was between 0 and 30. This could potentially suggest that the roles and job duties of psychologists across hospitals vary significantly, and a psychologist from one state may not

expect his or her job to be the same should they relocate to another state. It could also suggest that some psychologists do more assessment than they do therapy, or perhaps provide supervision to other psychologists more than they do individual therapy with patients. The number of assessments done per week and the number of supervision hours provided were not assessed in the current study. For these reasons, statistical significance may have been affected.

Research indicates that the number of clients seen per week can effect work engagement. Ackerley et al. (1988) conducted a study of psychologists to determine factors related to burnout. Their findings indicated that professionals who were experiencing symptoms of burnout were likely to have less individual psychotherapy clients than those who were not experiencing burnout. A direct inverse association was found between time spent conducting psychotherapy and the experience of burnout symptoms. Additionally, psychologists who indicated symptoms of burnout were more likely to see patients with psychotic disorders, patients with negative attitudes, and seeing many patients with abuse/rape issues. Similarly, Wohlford-Lotas (2005) found that psychologists who provided more hours of individual psychotherapy had higher ratings on the burnout construct of personal accomplishment than did those who had fewer psychotherapy hours.

The current study does not support the above described research. In neither the Ackerley et al. (1988) nor the Wohlford-Lotas (2005) studies is there mention of support or other interventions intended to decrease burnout rates for psychologists. It is possible that in the time since both of these publications, other methods have been put into place for psychologists in order to decrease burnout rates and increase rates of engagement. Additionally, the current study did not ask the types of patients that are seen for individual therapy. It is possible that the participants in the current study do not conduct therapy with patients who have psychotic

disorders, patients with negative attitudes or with abuse/rape issues, as suggested by Ackerley et al. (1988). It is possible that the clientele of state hospitals have changed in current years, or that new therapeutic interventions, such as more evidence-based and manualized treatments, are being employed to reduce the stress placed on psychologists. It could also be possible that psychologists now have more opportunity to practice self-care while in the workplace than they were able to do in the past. These ideas are areas that could be researched further in the future.

Additionally, the number of assessments completed each week and the number of supervision hours provided to others were not assessed in the current study, and these may be factors that could have affected significance. Future research could be ask further questions about the tasks completed by psychologists on a weekly basis, including therapy, assessments, supervision to others, and group therapy, in order to determine the effect of each on work engagement.

Number of supervision hours per month. The number of supervision hours received per month was assessed as a potential predictor of work engagement in the current study. Contrary to previous research, supervision was not found to be a significant predictor of work engagement. Previous literature indicates that psychologists who receive a greater number of hours of supervision experience a greater number of burnout symptoms (Wohlford-Lotas, 2005). This would indicate that supervision is negatively associated with work engagement, which does not support the hypothesis of the current study. The findings of the current study indicate that participants received between zero and 35 hours of supervision per month. This is a large range of supervision. Again, this could indicate that the role of psychologists varies between hospitals. It also could indicate that some participants did not read the question properly or were giving random answers, as 35 supervision hours in a month is a lot of hours. This number does not

seem realistic, especially in a state psychiatric hospital which has been cited as often being understaffed (Snyder et al., 2012; Wood et al., 1994; see chapter 1, p. 22). It is also likely that some psychologists receive more supervision than others, leading to the wide spread of scores on this question. Psychologists working toward licensure may need more supervision than those who are not working toward licensure. Psychologists who struggle and have a hard time on the job may also receive more supervision than others. The large range also indicates that some psychologists have no supervision at all, while others spend the majority of their time in supervision rather than spending it with patients. This could be a reflection of different psychology programs within different hospitals across the US, or it could reflect varying skill levels of the psychologists on staff. Further research on the effects of supervision on work engagement is warranted.

Geographic region. Geographic region was assessed as a potential predictor variable in order to increase generalizability potential. The US was divided into five geographic regions, and hospitals were randomly selected from within each of these five groups. Responses came from all five of the geographic regions, indicating that the results of this study are representative of the experiences and opinions of psychologists in state hospitals from all areas of the US. The results, though, were not found to be a significant predictor of work engagement. There is no previous research to support or challenge geographic region as a predictor of work engagement. This variable was chosen in order to get a wider sample of participants and to determine the extent to which region plays a role in work engagement. The results of the current study indicate that it does not.

Geographic region may not be a significant predictor of work engagement because, while other variables have demonstrated that there are differences between state hospital psychology

programs, there is likely a standard set of procedures and policies that are universal across hospitals. Where a psychologist works has less to do with work engagement than what is done on the job. Another consideration could be training factors. All APA-accredited professional psychology graduate programs follow the same training standards. Students in APA-accredited schools on one side of the country would have similar training to those on the other side of the country.

Implications

The results of this research study reintroduce state hospitals to the research arena, as there has been very little research conducted in this setting over the past 20+ years. Implications of the results affect multiple groups of people, including graduate students and their training programs. Work in a state hospital is different than other settings where a psychologist may be employed, offering different opportunities and challenges that may not have been anticipated by students and graduate programs (Snyder, Clark, & Tuomi, 2012). Corrigan, Hess, and Garman (1998) assessed the preparedness of psychology graduates in state hospitals and found that these graduates had to adapt their therapeutic styles to meet the needs of their patients, using interventions from multiple theoretical orientations, and some that were not empirically validated. Implications of this research will assist training programs in making students aware of this unique working environment, and ways to remain engaged in such a setting.

Implications of this research also apply to psychologists currently working in state hospitals. While results indicate that psychologists who work in state hospitals experience high levels of work engagement, maintaining this work engagement is essential. The implications of this research allow for better understanding of how to maintain this work engagement over time.

The results also have implications for supervisors and hospital administrators who would benefit from having an understanding of the factors related to work engagement for their employees. There are many hazards of burnout to the workplace, and supervisors and administrators should make efforts to maintain work engagement. They should also be alert for workers who appear to be burned out. Proactive approaches to increase work engagement could be utilized, such as fostering positive relationships between staff members as well as with supervisors and managers, ensuring that open communication occurs in order to give psychologists a chance to discuss challenges they may be having, providing positive affirmations and feedback regarding the psychologists' work, and being sure to highlight each individual psychologist's unique skills and utilizing them effectively (Heathfield, 2015). Administrators should also be aware of the "spillover effect" of burnout, in which negative attitudes tend to spread from one employee to another (Bakker, 2011).

Finally, implications extend to patient care. Previous research indicates that burnout can be hazardous to patient care (Freudenberger, 1990). Work engagement, then, could be thought to be beneficial to patient care, although additional empirical research is necessary to support such a claim.

The implications of the study can be divided into three major focus areas, which correspond to the factors found to be significant in the prediction of work engagement; social support, autonomy, and job ambiguity.

Perceived social support. Social support has long been established as a factor related to psychological wellness (Granello, 2001; Lipton, Cohen, Fischer, & Katz, 1981; Nicklett, Heisler, Spencer, & Roslind, 2013; Wong, 2003). Lack of social support has also been linked to burnout (Nowack & Hanson, 1983). Social support is critical both within and outside of the workplace in order to prevent burnout (Hays-Thomas, 2003). Social support has been found to buffer job related stress (Fusilier, Ganster, & Mayes, 1987), as well as promote general health and wellness (Stansfeld, Shipley, Head, Fuhrer, & Kivimaki, 2013). It has been suggested that the relationships developed in the workplace add to the experience of work, for both good and bad (Gersick, Bartunek, & Dutton, 2000). Further, workers tend to feel more confident in the work that they do when they have the support and friendship of coworkers (Gersick, Bartunek, & Dutton, 2000). There are two types of social support identified in the literature; perceived and received social support. Perceived social support measures the extent to which a person feels that support is available to her/him. Received social support is what is actually received. Perceived social support has been found to have more of a relationship with quality of life, and therefore was used in the current research (Hegleson, 1993, 2003).

Graduate training programs should stress the importance of social support to health, well-being, and engagement, and could make opportunities available to students to increase their support network. Students should make efforts to network with peers and colleagues. Students interested in state hospital work would also benefit from networking with hospital employees.

Psychologists in state hospitals would benefit from increasing their social support both at work and outside of work. Psychologists may benefit from having regular lunches with colleagues, attending department parties and gatherings, and consulting with trusted colleagues on patient cases. They may benefit from talking with colleagues about their struggles and stress.

Psychologists may also benefit from enriching their life outside of work with social support by spending time with family and friends, and engaging in activities that are not work related.

Supervisors and hospital administrators should give psychologists the time and opportunity to foster supportive relationships with peers and colleagues. Administrators could organize events to increase social support, such as department gatherings and lunch hours. Administrators could also foster a collaborative environment, allowing time for psychologists to consult with peers and colleagues on patient cases.

Autonomy. The results of this study indicate that psychologists reporting moderate levels of autonomy had high scores for work engagement. Previous research indicates that lack of autonomy is related to burnout (Adebayo & Ezeanya, 2010). Autonomy has also been associated with positive outcomes. In a study of the experienced barriers to success for ethnic minority students, Clark, Mercer, Zeigler-Hall, and Dufrene (2012) identified that for both ethnic minority and majority students, autonomy was one of the factors associated with academic engagement and ultimately academic success.

Students and graduate programs should also be aware of the finding in the current study that moderate levels of autonomy were found in participants with high scores on work engagement. Students should be given varying levels of autonomy while in school in order to determine what level is right for them. Graduate training programs could use the information found in this study to better prepare students for supervision of others by teaching how students can provide their supervisees with varying levels of autonomy.

Psychologists currently working in state hospitals should also be aware of how much autonomy they have in their work. Given that this research study indicates that moderate levels of autonomy are important for work engagement, psychologists could assess their current level

of autonomy and ask for more or less, as needed. Psychologists may also be able to off-set imbalances in autonomy by giving directions, consultations, and professional support to peers and colleagues.

Supervisors and administrators should also assess the level of autonomy given to psychologists. Supervisors could modify the levels of autonomy given to psychologists in order to promote high work engagement. They also could be open to feedback about autonomy and how to best meet psychologists' needs.

Job ambiguity. Job clarity is important in any work setting, including state hospitals. A poignant quote from Sengupta (2011, p. 1) reads, "Ambiguity makes employees work in circumstances where there is no clear goal, outcome or path."

Cohen (2015) reviewed a report from the National Association of State Mental Health Program Directors, entitled "The Vital Role of State Psychiatric Hospitals" (July 2014), in which suggestions are made to maintain and improve the work being done in state hospital systems across the US. An excellent read for any state hospital worker, graduate school student, or other interested party, Cohen (2015) stressed the unique ability of state hospitals to stabilize crises quickly and to provide rapid and accurate diagnoses, as well as the need to continue to teach emotional self-management skills. These diverse experiences in state hospitals likely involve and are led by the psychologists who work there. Job clarity is essential in order to complete these tasks.

Graduate programs should provide students with a clear picture of what work in a state hospital is like. However, due to the fast-paced, ever-changing nature of that work, students should be taught how to deal with, manage, and clarify job ambiguity. Students may benefit from talking with psychologists currently working at state hospitals, and potentially shadowing

them for a period of time to better understand their role in this system. Psychologists working at state hospitals could speak to graduate classes to inform students of the work that is done in state hospitals.

Psychologists working in state hospitals should be clear on the roles and responsibilities of their jobs. This study indicates that job ambiguity is low among the respondents. Psychologists would benefit from maintaining this low status of job ambiguity by clarifying their roles to people in other disciplines and to patients, as well as asking questions when job roles are unclear. Psychologists could provide instructional seminars for other disciplines in order to inform them of the role of psychology in the hospital. They could also provide consultation to employees from other disciplines and clarify their roles in all interactions.

Janson, Militello, and Kosine (2008) assessed factors related to job satisfaction for school counselors. The need for such research was identified by the changes that were being made to the roles of school counselors, and the lack of understanding that schools have about what school counselors do. This is similar to the role ambiguity previously described about psychologists in state psychiatric hospitals (Ishiyama et al., 1962; Sommer & Clancy, 1958; Wood et al., 1994). Findings of the Janson et al. (2008) study indicate that role clarity is among the factors that school counselors indicated to be associated with their job satisfaction. The authors suggested educative seminars with principals and other teachers in order to make better use of the school counselors' abilities within the school, and to best serve the students. This would likely also increase school counselors' work engagement. Similar recommendations could be applied in state hospitals to inform other disciplines about the roles of psychologists in order to fully utilize the skill sets available, and to make the best quality treatment available to patients.

Supervisors and administrators should be sure that workers are clear on their roles and responsibilities and have the opportunity to ask questions and receive clear answers as needed. Research in the area of job ambiguity suggests that supervisors and managers provide clear purposes, goals, expectations, and responsibilities to employees, as well as establish clear levels of authority and decision making abilities (Wood, 2010). Supervisors and managers should ensure that goals and outcomes are clearly defined for psychologists. If further direction is needed for completing these tasks, supervisors and managers should be available and prepared to assist as needed.

Patient care. The current results have implications for patient care. Lack of work engagement, or burnout, can be hazardous to patient care, in that negative feelings for patients may increase (Maslach et al., 2001), and psychologists may be more detached with patients (Pines & Maslach, 1978). While there is no literature describing the effects on patients when psychologists are highly engaged, it is likely the opposite of what was described above, when psychologists experience burnout. Psychologists may develop more positive feelings toward patients and help patients to develop healthy attachments. Patients, then, would likely show greater improvement, although this relationship needs empirical support.

Strengths, Limitations, and Future Directions

Strengths. This study has many notable strengths. First and foremost, this research study achieved a very high effect size of .82, which is rare in psychological studies. This indicates that the variables found significant in this study strongly affect work engagement. Effect size has been said to be the “discrepancy between the null hypothesis, H_0 , and the alternate hypothesis, H_1 ” (Cohen, 1992 p. 98), and is an indication of “...how wrong the null hypothesis is likely to be” (Cohen, 1992 p. 99). Cohen (1992) provided an index of effect sizes,

and indicated that .10 is considered to be a small effect size, .30 a medium effect size, and .50 a large effect size. The current study has an overall effect size of .82, which, following Cohen's (1992) guidelines, is very high. Such a high effect size warrants further research in this area, and directs those affected (see implications section) to strongly consider the recommendations provided based on these results.

The research found statistically significant results, and the results supported two out of three hypotheses. The results have some generalizability potential, and used instruments that were reliable, valid, and empirically tested. Further, I, the primary investigator, am currently employed in the psychology department at a state hospital. As results were made clear, they could be immediately implemented into practice. Also, some of the participants were easily recruited due to this association. I also have inside information on the workings of a state hospital and was able to choose appropriate literature and measurement tools based on this employment experience.

This study targets a population that has been neglected in recent research. Psychologist work engagement has not been a topic of research, nor has work in state hospitals. While work engagement has been assessed in many other settings, state hospitals and psychologists are not typically part of these assessments. For this reason, the current study establishes the groundwork for future research in this area and with this population. Additionally, there was little previous research assessing the prediction of work engagement using multiple predictors, as in this study. Previous research identified predictors that stood alone or with one other variable only.

The number of participants was originally thought to be a limitation, but instead turned out to be a strength. Only 94 of the 118 responses were usable due to missing data (roughly 20% unusable). A-priori power analysis indicated that a total of 109 participants were necessary in

order to achieve adequate power. However, the lower number of responses did not affect the effect size of the analysis. Post-hoc power analysis indicated a very large effect size of .82

Strong internal validity existed in this study. The hospitals contacted were randomized, decreasing the potential for selection bias. All responses were anonymous, and there is no way to trace the results to any one participant. The assessment was given on a one-time only basis, and therefore threats such as history and maturation were not possible. Assessment measures were given to each participant in the same way, online, accessed through a link provided to them in their welcome letter. All participants received the same welcome letter, accessed the same link, and utilized the same survey (Christ, 2007).

Internal validity was also demonstrated through the use of empirically validated measurement tools. The UWES has been validated and is available for use in 17 different languages. It has repeatedly demonstrated good internal consistency, stability, and factorial validity (Schaufeli & Salanova, 2007). It has been tested with other measures that assess work engagement, and has done an adequate job of accurately measuring work engagement (Schaufeli & Salanova, 2007). The FAS has demonstrated convergent validity when compared with other sources, as well as discriminant validity when correlated with similar scales. It has also demonstrated adequate internal consistency reliability and consistency between measures (Spector & Fox, 2003). The JAS has demonstrated good construct validity of test items, and the entire scale has moderately high test-retest reliability (Breugh & Colihan, 1994). The MSPSS has been tested for reliability and validity, and has been found to exhibit adequate internal consistency and test-retest reliability (Zimet et al., 1988).

The current study also demonstrated evidence of external validity. Fernandez-Hermida, Calafat, Becoña, Tsertsvadze, and Foxcroft (2012) described three ways to assess for external

validity; looking at generalizability, applicability, and predictability. They call this system the GAP system. Generalizability refers to the extent to which the study results are able to apply to a wider group. In the current study, participants were not asked to identify themselves or give identifying information. Hospitals were divided into regions across the US, and were randomly contacted. Therefore, the study results are representative of psychologists in state hospitals across the US (Howell, 2005, p. 3). The US was divided into five geographic regions and surveys were completed by participants in each of these five geographic regions. A total of 65 state hospitals were included.

Applicability refers to the ability of study results to be applied to different settings and different population groups (Fernandez-Hermida et al., 2012). The results of the current study apply only to psychologists working in state psychiatric hospitals in the US. Results do not apply to any other setting or group of professionals. However, the results do apply to psychologists in state hospitals anywhere in the US, regardless if the hospital was targeted for participation in this study. Predictability refers to the extent to which the study results are meaningful within the field of study or to the population on which the research was conducted (Fernandez-Hermida et al., 2012). The results of the current study have implications within the field of psychology that could benefit students, current working psychologists, and supervisors and administrators within state hospitals (see above implications). Additionally, the current study results have implications for patient care. The current study meets the GAP criteria for external validity as described by Fernandez-Hermida et al. (2012), adding another strength to this research.

The results of this study have strong implications for students, graduate training programs, psychologists working in state hospitals, supervisors and administrators, and patients served in state hospitals (see above).

Limitations. There are only so many state hospitals in the US. I targeted as many as I could find, which totaled 65. It is uncertain how many psychologists work in each of the state hospitals. Protocol was followed exactly during the recruitment phase. Many state hospitals employ master's level clinicians in their psychology departments. I received multiple emails from master's level psychology staff members inquiring whether they could participate in the study. Sadly, I had to turn away these participants, as the criteria for participation was that one must be a psychologist. It is also uncertain how many master's level clinicians, as well as doctoral interns who were also not part of the inclusion criteria, did participate in this survey who did not contact me. This problem could be eliminated if future researchers are very clear about who should complete the survey. For example, they could put the inclusion criteria into the instructions on the survey website so that there would be no confusion. This limitation could have played a role in generalizability, limiting how the results of this study can generalize to psychologists in state hospitals across the US.

The total number of responses, 118, took over three months to collect, which seems like a long period of time to wait for a sample of this size. Access to computers may have affected response rates. The ability of psychologists to easily access computers and internet services while working in state hospitals is unclear. Since the request for participation was sent to their work emails, it is unclear whether participants would engage in surveys after working hours on a personal computer. Additionally, it cannot be assumed that all participants have access to the internet in their homes.

The use of online surveys has been found to have limitations in the areas of recruitment, sampling, and the rate of responses (Puleston, 2011). Typical response rates vary between authors, but range from 10-50% (Sheehan & McMillan, 1999; Jin, 2011; De Bruijne & Wijnant, 2014). Research has indicated that participant recruitment has been found to be significantly lower than anticipated when using online surveys, because the email requests for these surveys are often viewed as unsolicited invitations and/or junk/spam mail (Harris, 1997; Jin, 2011; Puleston, 2011). People receive more emails inviting them to participate in surveys than ever before in the past, and often these emails are not even opened, and instead immediately deleted (Puleston, 2011). Also, it is easier for participants to discontinue an online survey than it is in other methods of surveying (Jin, 2011). Research has indicated that survey responses are higher when participants receive the survey in the postal mail, rather than through email (Pit, Vo, & Pyakurel, 2014). Pre-contact with participants has also been noted as a method to increase response rates (Pit et al., 2014), however that did not occur in the current study.

Additionally, all of the survey measures used self-report methods. Participants were asked to respond based on their own subjective responses to the survey questions. Self-report assessments have inherent limitations related to validity, as participants are not always truthful in their answers, and may respond in ways that they believe they “should” respond. Credibility of self-report assessments, then, is an issue, as it is uncertain the motives of the participants answering the questions. They may also be deceiving themselves, unknowingly, which then is reflected in their assessment answers (Paulhus & Vazire, 2009).

Further, the current study offered no external benefits to participants, such as monetary compensation or entry into a raffle to win a prize. Research has indicated that incentives, both monetary and nonmonetary, help to increase response rates to surveys (Pit et al., 2014).

Additionally, the larger the incentives, the more willingness participants have to complete surveys (Pit et al., 2014).

Internal validity may have played a role in the study results, as no variables were manipulated or controlled, and there is the strong likelihood that other variables that were not included in the analysis may have made a significant prediction of work engagement. However, the chosen instruments exhibit strong psychometric properties, which strengthens the internal validity of this study.

Future Directions

Future studies may be able to find more efficient ways to recruit participants and encourage participation, and may assess the usefulness of handling missing data in a way other than listwise deletion. It is also recommended to better clarify the participation criteria in order to better target only the intended population. Additionally, more respondents may be able to be recruited if the researcher talked with the respondents directly, either over the telephone or in person, in order to get a better understanding of their work role and their degree of engagement in their work, as well as to promote participation in the research. It may also be interesting to include qualitative measures into the analysis in order to understand the constructs within the setting in which they occur. Multiple methods of recruitment may also be beneficial, in order to target those psychologists without easy access to computers in their workplace.

Future researchers may also find it valuable to develop a comparison study of work engagement targeting psychologists in other work settings as well as state psychiatric hospitals and comparing the work engagement trends between these. This would allow for a better understanding of work engagement in state hospitals as well as in other settings, and may reveal factors related to work engagement that were not evident in the current research.

Exploratory research may be warranted in order to determine other factors related to work engagement. As the three identified variables in this analysis accounted for less than half of the variance in the outcome, there are likely multiple other factors related to this construct. The literature suggests additional factors that could be involved in the prediction of work engagement for psychologists working in state psychiatric hospitals. Schaufeli and Bakker (2004) developed the job demands-resources model of work engagement, in which a balance must be found between the demands of the job and the resources provided on the job. Job resources refer to things such as social support, feedback from supervisor, autonomy, and learning opportunities (Bakker & Demerouti, 2008). Job demands refer to workload, work intensity, and working with difficult patients (Maslach et al., 2001). The current study attempted to target variables from both job resources and job demands, however did not assess the balance between the two. This balance could be a factor of its own. Future research could explore this variable in relation to work engagement for psychologists.

Personal resources were also not assessed in the current study. Personal resources refer to intrinsic beliefs that one has some control over her or his environment, and includes factors such as resiliency, locus of control, self-efficacy, coping skills, and optimism (Hobfoll et al., 2003). Personal resources have been linked to work engagement (Xanthopoulou et al., 2007), and could be explored as additional variables in future research. Personality factors have also been cited as being related to work engagement (Freudenberger, 1990), however, specific personality factors have not been identified. Future research could identify specific personality factors related to work engagement of psychologists employed in state psychiatric hospitals.

A discrepancy was found between the assertions of past literature and the results of this study in the area of job ambiguity. The most current of the previous literature is 20 years old,

with other literature dating back to the 1950s and 1960s. Unlike in the previous literature, psychologists in this study do not indicate that their job roles are ambiguous. Future researchers could explore this contradiction and determine what changes have occurred in the role of psychologists and the understanding of this role over the past 20 years. Future research could also investigate differences between state hospitals, if any, across the U.S. Findings from this study suggest that differences may be present, but this is unclear at this time.

Conclusion

The results of the current research study offer new insights on the work engagement trends of psychologists working in state hospitals. Implications of these results extend to students, graduate training programs, psychologists working in state hospitals, supervisors and administrators, and patients cared for in state hospitals. This study opens up the research arena to many new directions related to state hospitals, psychologist work engagement, and factors related to work engagement.

References

- Ackerley, G. D., Burnell, J., Holder, D. C., & Kurdek, L. A. (1988). Burnout among licensed psychologists. *Professional Psychology: Research and Practice, 19*(6), 624-631.
- Adebayo, S. O., & Ezeanya, I. D. (2011). Task identity and job autonomy as correlates of burnout among nurses in Jos, Nigeria. *International Review of Social Sciences and Humanities, 2*(1), 7-13.
- Albrecht, S. L. (2012). The influence of job, team, and organizational level resources on employee well-being, engagement, commitment, and extra-role performance: Test of a model. *International Journal of Manpower, 33*(7), 840-853.
- Amador, X. F., Strauss, D. H., Yale, S. A., Flaum, M. M., Endicott, J., & Gorman, J. M. (1993). Assessment of insight in psychosis. *Journal of Psychiatry, 150*(6), 873-879.
- American Psychological Association (2014). What do practicing psychologists do? Retrieved March 18, 2015 from <http://www.apa.org/helpcenter/about-psychologists.aspx>
- Baddeley, J. (2011). Psychologists and their mental illnesses. Retrieved March 18, 2015 from <https://www.psychologytoday.com/blog/embracing-the-dark-side/201106/psychologists-and-their-mental-illnesses>
- Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art. *Journal of Managerial Psychology, 22*, 309-328.
- Bakker, A.B. (2011). An evidence-based model of work engagement. *Current Directions in Psychological Science, 20*(4), 265-269.
- Bakker, A. B., Demerouti, E., & Verbeke, W. (2004). Using the job demands-resources model

- to predict burnout and performance. *Human Resource Management*, 43(1), 83-104.
- Bakker, A. B. & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, 13(3), 209-223.
- Bakker, A. B., Schaufeli, W. B., Leiter, M. P., & Taris, T. W. (2008). Work engagement: An emerging concept in occupational health psychology. *Work & Stress*, 22(3), 187-200
- Bartholomew, T. & Kensler, D. (2010). Illness management and recovery in state psychiatric hospitals. *American Journal of Psychiatric Rehabilitation*, 13(2), 105-125.
- Beck, C. L., & Gargiulo, R. M. (1983). Burnout in teachers of retarded and nonretarded children. *Journal of Educational Research*, 76(3), 169-173.
- Beck, A. T. & Rector, N. A. (2000). Cognitive therapy of schizophrenia: A new therapy for the new millennium. *American Journal of Psychotherapy*, 54(3), 291-300.
- Blader, J. C. (2011). Acute inpatient care for psychiatric disorders in the United States, 1996 through 2007. *Archives of General Psychiatry*.
- Blumenthal, S., Lavender, T., & Hewson, S. (1998). Role clarity, perception of the organization, and burnout amongst support workers in residential homes for people with intellectual disabilities: A comparison between a National Health Service trust and a charitable company. *Journal of Intellectual Disability Research*, 42(5), 409-417.
- Boczkowski, J. A., Zeichner, A., & DeSanto, N. (1985). Neuroleptic compliance among chronic schizophrenic outpatients: An intervention outcome report. *Journal of Consulting and Clinical Psychology*, 53(5), 666-671.
- Bogaert, P. V., Clarke, S., Willems, R., & Mondelaers, M. (2012). Staff engagement as a target for managing work environments in psychiatric hospitals: Implications for workforce stability and quality of care. *Journal of Clinical Nursing*, 22, 1717-1728.

Bowers, L., Allan, T., Simpson, A., Jones, J., & Whittington, R. (2008). Morale is high in acute inpatient psychiatry. *Social Psychiatry, 44*, 39-46.

- Brand, S., Beck, J., Hatzinger, M., Harbaugh, A., Ruch, W., & Holsboer-Trachsler, E. (2010). Associations between satisfaction with life, burnout-related emotional and physical exhaustion, and sleep complaints. *The World Journal of Biological Psychiatry, 11*, 744-754.
- Breaugh, J. A. & Colihan, J. P. (1994). Measuring facets of job ambiguity: Construct validity evidence. *Journal of Applied Psychology, 79*(2), 191-202.
- Breevaart, K., Bakker, A.B., Demerouti, E., & Hetland, J. (2012). The measurement of state work engagement: A multilevel factor analytic study. *European Journal of Psychological Assessment, 28*(4), 305-312.
- Bowers, L. I., Douzanis, A., Galeazzi, G. M., Forghieri, M., Tsopelas, C., Simpson, A., & Allan, T. (2005). Disruptive and dangerous behavior by patients on acute psychiatric wards in three European centres. *Social Psychiatry: Psychiatric Epidemiology, 40*(10), 822-828.
- Bowers, L. I., & Allan T. (2006). The attitude to personality disorder questionnaire: Psychometric properties and results. *Journal of Personality Disorders, 20*(3), 281-293.
- Burnham, J. J. & Jackson, C. M. (2000). School counselor roles: Discrepancies between actual practice and existing models. *Professional School Counseling, 4*(1), 41-50.
- Caldwell, B., Gill, K., Fitzgerald, E., Sclafani, M., & Grandison, P. (2006). The association of ward atmosphere with burnout and attitudes of treatment team members in a state psychiatric hospital. *American Journal of Psychiatric Rehabilitation, 9*, 111-129.
- Campion, M. (2015). Why I'm proud to be an I/O psychologist. *Society for Industrial and Organizational Psychology*. Retrieved March 18, 2015 from <http://www.siop.org/tip/backissues/tipjul96/CAMPION2.aspx>
- Celik, K. (2013). The effect of role ambiguity and role conflict on performance of vice

- principals: The mediating role of burnout. *Eurasian Journal of Educational Research*, 51, 195-214.
- Cervoni, A., & DeLucia-Waack, J. (2011). Role conflict and ambiguity as predictors of job satisfaction in high school counselors. *Journal of School Counseling*, 9, 1-30.
- Chaplin, R., McGeorge, M., & Lelliott, P. (2006). Violence on inpatient units for people with learning disability and mental illness: The experiences of service users and staff. *British Journal of Developmental Disabilities*, 52(103), 105-115.
- Clark, C. R., Mercer, S. H., Zeigler-Hill, V., & Dufrene, B. A. (2012). Barriers to the success of ethnic minority students in school psychology graduate programs. *School Psychology Review*, 41(2), 176-192.
- Cohen, F. (2015). A report on state psychiatric hospitals: Review. *Correctional Mental Health Report*, Retrieved March 2, 2015 from www.nasmhpd.org.
- Cohen, J. (1992). Statistical power analysis. *Current Directions in Psychological Science*, 1(3), 98-101.
- Correlational Studies (2014). Retrieved May 4, 2014 from <http://psychology.about.com/od/researchmethods/a/correlational.htm>.
- Corrigan, P. W., Hess, L., & Garman, A. N. (1998). Results of a job analysis of psychologists working in state hospitals. *Journal of Clinical Psychology*, 54, 11-18.
- Corrigan, P. W., Holmes, E. P. & Luchins, D. (1995). Burnout and collegial support in state psychiatric hospital staff. *Journal of Clinical Psychology*, 51(5), 703-710.
- Crane, M. (1998). Why burned-out doctors get sued more often. *Medical Economics*, 75(10), 210-218.
- D'Antonio, P. (2014). History of psychiatric hospitals. Retrieved May 4, 2014 from

<http://www.nursing.upenn.edu/nhhc/Welcome%20Page%20Content/History%20of%20Psychiatric%20Hospitals.pdf>

De Bruijne, M., & Wijnant, A. (2015). Improving response rates and questionnaire design for mobile web surveys. Retrieved March 15, 2015 from

<http://poq.oxfordjournals.org/content/early/2014/11/14/poq.nfu046.short?rss=1>

Deegan, J. A. (2013). Pennsylvania state hospital system length of stay, demographics, & diagnoses report for June 30, 2013. Retrieved December 28, 2013 from

http://www.dpw.state.pa.us/ucmprd/groups/webcontent/documents/report/p_035141.pdf.

Demerouti, E., Bakker, A. B., De Jonge, J., Janssen, P. P. M., & Schaufeli, W. B. (2001).

Burnout and engagement at work as a function of demands and control. *Scandinavian Journal of Work, Environment & Health*, 27, 279-286.

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86(3), 499-512.

Demerouti, E., Mostert, K., & Bakker, A. (2010). Burnout and work engagement: A thorough investigation of the independency of both constructs. *Journal of Occupational Health Psychology*, 15(3), 209-222.

Demerouti, E., & Bakker, A. B. (2006). Employee well-being and job performance: Where we stand and where we should go. In J. Houdmont, & S. McIntyre (Eds.), *Occupational Health Psychology: European Perspectives on Research, Education and Practice (Vol. 1)*, Maia, Portugal: ISMAI Publications.

Demerouti, E., Bakker, A. B., deJonge, J., Janssen, P. P. M., & Schaufeli, W. B. (2001). Burnout and engagement at work as a function of demands and control. *Scandinavian Journal of Work Environmental Health*, 27(4), 279-286.

- Duran, A., Extremera, N., & Rey, L. (2004). Engagement and burnout: Analyzing their association patterns. *Psychological Reports, 94*(3), 1048-1050.
- Early psychiatric hospitals and asylums (2014). Retrieved May 4, 2014 from <http://www.nlm.nih.gov/hmd/diseases/early.html>
- Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P. D., & Rhoades, L. (2001). Reciprocation of perceived organizational support. *Journal of Applied Psychology, 86*, 42–51.
- Emery, S., Wade, T. D., & McLean, S. (2009). Associations among therapist beliefs, personal resources and burnout in clinical psychologists. *Behavior Change, 26*(2), 83-96.
- Emond, S. & Rasmussen, B. (2012). The status of psychiatric inpatient group therapy: Past, present, and future. *Social Work with Groups, 35*(1), 68-91.
- Epstein, R., & Bower, T. (1997). Why shrinks have problems. Retrieved March 18, 2015 from <https://www.psychologytoday.com/articles/200909/why-shrinks-have-problems>
- Everall, R. D. & Paulson, B. L. (2004). Burnout and secondary traumatic stress: Impact on ethical behavior. *Canadian Journal of Counselling, 38*(1), 25-35.
- Farber, N. K. (2006). Conducting qualitative research: A practical guide for school counselors. *Professional School Counseling, 9*(5), 367-375.
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*, 175-191.
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods,*

41, 1149-1160.

- Favrod, J., Maire, A., Bardy, S., Pernier, S., & Bonsack, C. (2011). Improving insight into delusions: A pilot study of metacognitive training for patients with schizophrenia. *Journal of Advanced Nursing*, 67(2), 401-407.
- Fernandez-Hermida, J. R., Calafat, A., Becona, E., Tsertsvadze, A., & Foxcroft, D. R. (2012). Assessment of generalizability, applicability, and predictability (GAP) for evaluating external validity in studies of universal family-based prevention of alcohol misuse in young people: Systematic methodological review of randomized controlled trials. *Addiction*, 107(9), 1570-1579.
- Field, A. (2005). *Discovering Statistics using SPSS, 2nd Edition*. Thousand Oaks, CA: Sage Publications Ltd.
- Foote, D. A., Seipel, S. J., Johnson, N. B., & Duffy, M. K. (2005). Employee commitment and organizational policies. *Management Decision*, 43(2), 203-219.
- Freeney, Y., & Fellenz., M. R. (2013). Exploring antecedents from a relational perspective: Work engagement, job design, and the role of the social context at work. *Human Relations*, 66(11), 1428-1445.
- Freudenberger, H. J. & Robbins, A. (1979). The hazards of being a psychoanalyst. *The Psychoanalytic Review*, 66(2), 275-296.
- Freudenberger, H. J. (1990). Hazards of psychotherapeutic practice. *Psychotherapy in Private Practice*, 8(1), 31-34.
- Fusilier, M. R., Ganster, D. C., & Mayes, B. T. (1987). Effects of social support, role stress, and locus of control on health. *Journal of Management*, 13(3), 517-528.
- Garety, P. A., Fowler, D. G., Freeman, D., Bebbington, P., Dunn, G., & Kuipers, E. (2008).

- Cognitive-behavioral therapy and family intervention for relapse prevention and symptom reduction in psychosis: Randomized controlled trial. *The British Journal of Psychiatry*, 192(6), 412-423.
- Geczy, B., Sultenfuss, J. E., & Donat, D. C. (1990). Psychologists in state mental hospitals: recommendations. *Professional Psychology: Research and Practice*, 21(5), 392-397.
- Gersick, C. J. G., Bartunek, J. M., & Dutton, J. E. (2000). Learning from academia: The importance of relationships in professional life. *Academy of Management Journal*, 43, 1026-1044.
- Gonzalez-Roma, V., Schaufeli, W. B., Bakker, A. B., & Lloret, S. (2006). Burnout and work engagement: Independent factors or opposite poles? *Journal of Vocational Behavior*, 68, 165-174.
- Gorter, R. C., Albrecht, G., Eijkman, M. A. J. & Hoogstraten, J. (2006). Job resources in Dutch dental practice.. *International Dental Journal*, 56(1), 22-28.
- Granello, P. F. (2001). A comparison of wellness and social networks in different age groups. *Adultspan Journal*, 3(1), 12-22.
- Grant, A. M. (2008). Designing jobs to do good: Dimensions and psychological consequences of prosocial job characteristics. *Journal of Positive Psychology*, 3: 19-39.
- Grinspoon, L. (1969). The utility of psychotherapy in schizophrenia. *International Journal of Psychiatry*, 8(4), 727.
- Grossi, G., Perski, A., Evengard, B., Blomkvist, V., & Orth-Gomer (2003). Physiological correlates of burnout among women. *Journal of Psychosomatic Research*, 55(4), 309-316.

- Guy, J. D., Poelstra, P. L., & Stark, M. J. (1989). Personal distress and therapeutic effectiveness: National survey of psychologists practicing psychotherapy. *Professional Psychology: Research and Practice*, 20(1), 48-50.
- Haddock, G., Tarrier, N., Morrison, A. P., Hopkins, R., Drake, R., & Lewis, S. (1999). A pilot study evaluating the effectiveness of individual inpatient cognitive-behavioral therapy in early psychosis. *Social Psychiatry*, 34, 254-258.
- Hakanen, J. J., Schaufeli, W. B., & Ahola, K. (2008). The job demands-resources model: A three-year cross-lagged study of burnout, depression, commitment, and work engagement. *Work & Stress*, 22(3), 224-241.
- Hallberg, U. E. & Schaufeli, W. B. (2006). 'Same same' but different? Can work engagement be discriminated from job involvement and organizational commitment? *European Psychologist*, 11(2), 119-127.
- Hanrahan, N. P., Aiken, L. H., McClaine, L. & Hanlon, A. L. (2010). Relationship between psychiatric nurse work environments and nurse burnout in acute care general hospitals. *Issues in Mental Health Nursing*, 31, 198-207.
- Harris, C. (1997). *Developing online market research methods and tools*. Paper presented to ESOMAR Worldwide Internet Seminar, Lisbon, Portugal.
- Hays-Thomas, R. (2003). The significance of work relationships. *The Psychologist-Manager Journal*, 6(2), 111-113.
- Helgeson, V. S. (1993). Two important distinctions in social support: Kind of support and perceived versus received. *Journal of Applied Social Psychology*, 23(10), 825-835.
- Helgeson, V. S. (2003). Social support and quality of life. *Quality of Life Research*, 12, (supplement 1), 25-32.

Historic Asylums (2013). Retrieved December 22, 2013 from

<http://www.rootsweb.ancestry.com/~asylums/>.

Hobfoll, S. E., Johnson, R. J., Ennis, N., & Jackson, A. P. (2003). Resource loss, resource gain, and emotional outcomes among inner city women. *Journal of Personality and Social Psychology, 84*(3), 632-643.

Howell, D. C. (2001). *Statistical Methods for Psychology, 5th edition*. Duxbury: Thomson Learning.

Huxley, N. A., Rendall, M. M., & Sederer, L. (2000). Psychosocial treatments in schizophrenia: A review of the past 20 years. *Journal of Nervous and Mental Disease, 188*(4), 187-201.

Huxley, P., Reilly, S., Robinshaw, E., Mohamad, H., Harrison, J., Windle, B., & Butler, T. (2003). Interventions and outcomes of health and social care service provision for people with severe mental illness in England. *Social Psychiatry, 38*, 44-48.

Inferential statistics (2014). Retrieved May 4, 2014 from

<http://aspsychology101.files.wordpress.com/2009/09/m9-inferential-statistics-spearman-rank-correlation-coefficient.pdf>

Ishiyama, T., Denny, J. M., Pbada, R., & Vespe, R. (1962). The role of the psychologist on mental hospital wards as defined by the expectant-others. *Journal of Clinical Psychology, 18*(1), 3-10.

Janson, C., Militello, M., & Kosine, N. (2011). Four views of the professional school counselor-principal relationship: A q-methodology study. *Professional School Counseling, 11*(6), 353-361.

Jayarathne, S., & Chess, W. A. (1983). Job satisfaction and burnout in social work. In B.A. Farber (Ed.) *Stress and burnout in the human service professionals* (pp. 129-141). New York:

Pergamon Press.

Junghan, U. M.; Brenner, H. D. (2006). *Acta Psychiatrica Scandinavica*, 113(429), 24-32.

Kahill, S. (1988). Symptoms of professional burnout: A review of the empirical evidence.

Canadian Psychology/Psychologie Canadienne, 29(3), 284-297.

Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692-724.

Karasek, R., Brisson, C., Kawakami, N., Houtman, I., Bongers, P., Amick, B. (1998).

Journal of Occupational Health Psychology, 3(4), 322-355.

Kay, S. R., Opler, L. A., Lindenmayer, J. P. (1988). Reliability and validity of the positive and negative syndrome scale for schizophrenia. 23(1), 99-110.

Kindy, D., Petersen, S., & Parkhurst, D. (2005). Perilous work: Nurses' experiences in psychiatric units with high risks of assault. *Archives of Psychiatric Nursing*, 19(4), 169-175.

Kirkbridge Buildings (2013). Retrieved December 22, 2013 from

<http://www.kirkbridebuildings.com/>.

Korkeila, J A., Toyry, S., Kumpulainen, K. Toivola, J., Rasanen, K., & Kalimo, R. (2003).

Burnout and self-perceived health among Finnish psychiatrists and child psychiatrists: A national survey. *Scandinavian Journal of Public Health*, 31(2), 85-91.

Kuipers, E., Garety, P., Dunn, G., Bebbington, P., Fowler, D., & Freeman, D. (2002). CBT for psychosis. *The British Journal of Psychiatry*, 181(6), 534.

Langballe, E., Innstrand, S., Aasland, O., & Falkum, E. (2011). The predictive value of individual factors, work-related factors, and work-home interaction on burnout in female and male physicians: A longitudinal study. *Stress And Health: Journal Of The*

- International Society For The Investigation Of Stress*, 27(1), 73–85.
- Lasalvia A. L., Bonetto, C., Bertani, M., Bissoli, S., Cristofalo, D., Marrella, G., Ceccato, E., Cremonese, C., DeRossi, M., Lazzarotto, L., Marangon, V., Morandin, I, Zucchetto, M., Tansella, M., & Ruggeri, M. (2009). Influence of perceived organizational factors on job burnout: Survey of community mental health staff. *British Journal of Psychiatry*, 195(6), 537-544.
- Leiter, M. P., & Maslach, C. (2009). Nurse turnover: the mediating role of burnout. *Journal of Nursing Management*, 17, 331-339.
- Leiter, M. P. (2005). Perception of risk: An organizational model of occupational risk, burnout and physical symptoms. *Anxiety, Stress and Coping*, 18(2), 131-144.
- Lipton, F. R., Cohen, C., Fischer, E., & Katz, S. E. (1981). Schizophrenia: A network crisis. *Schizophrenia Bulletin*, 7(1), 144-151.
- Macey, W. H. & Schneider, B. (2008). Engaged in engagement: We are delighted we did it. *Industrial & Organizational Psychology*, 1(1), 76-83.
- Manderscheid, R. W., Atay, J. E., & Crider, R. A. (2009). Changing trends in state psychiatric hospital use from 2002 to 2005. *Psychiatric Services*, 60(1), 29-34.
- Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behaviour*, 2, 99-113.
- Maslach, C., & Jackson, S. E. (1981a). Maslach Burnout Inventory. Palo Alto, CA: Consulting Psychologists Press.
- Maslach, C. (1982). *Burnout: The cost of caring*. Englewood Cliffs, NJ: Prentice-Hall.
- Maslach, C. & Leiter, M. P. (1997). *The truth about burnout: How organizations cause personal stress and what to do about it*. USA: Jossey-Bass.

- Maslach, C., Schaufeli, W. B. & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397-422.
- Maslach, C. & Leiter, M. P. (2008). Early predictors of job burnout and engagement. *Journal of Applied Psychology*, 93(3), 498-512.
- Mauno, S., Kinnunen, U., & Ruokolainen (2007). Job demands and resources as antecedents of work engagement: A longitudinal study. *Journal of Vocational Behavior*, 70, 149-171.
- May, D. R., Gilson, R. L., & Harter, L. M. (2004). The psychological conditions of meaningfulness, safety, and availability and the engagement of the human spirit at work. *Journal of Occupational & Organizational Psychology*, 77(1), 11-37.
- McDonell, M. G., Tarantino, J., Dubose, A. P., Matestic, P., Steinmetz, K., Galbreath, H., McClellan, J. M. (2010). A pilot evaluation of Dialectical Behavioral Therapy in adolescent long-term inpatient care. *Child & Adolescent Mental Health*, 15(4), 193-196.
- McGeorge, M., Lelliott, P., & Stewart, J. (2000). Managing violence in psychiatric wards: Preliminary findings of a multi-centre audit. *Mental Health & Learning Disabilities Care*, 3(11), 366-369.
- McKeever, W. F., May, P. R. A., & Tuma, A. H. (1965). Prognosis in schizophrenia: Prediction of length of hospitalization from psychological test variables. *Journal of Clinical Psychology*, 21(2), 214-221.
- Mental Illness Policy (2013). Retrieved December 22, 2013 from <http://mentalillnesspolicy.org/studies/state-standards-involuntary-treatment.html>
- Miller, A. L., Rathus, J. H., DuBose, A. P. Dexter-Mazza, E. T., & Goldklang, A. R. (2007). Dialectical behavior therapy for adolescents. In L. A. Dimeff & K. Koerner (eds.) *Dialectical behavior therapy in clinical practice: Applications across disorders and*

- settings*, pp. 245-263. New York: Guilford Press.
- Mills, M. J., Culbertson, S. S., & Fullagar, C. J. (2012). Conceptualizing and measuring engagement: An analysis of the Utrecht Work Engagement Scale. *Journal of Happiness Studies, 13*, 519-545.
- Montgomery, A. J., Peeters, M. C. W., Schaufeli, W. B. & Den Ouden, M. D. (2003). Work-Home Interference among Newspaper Managers: Its Relationship with Burnout and Engagement. *Anxiety, Stress & Coping, 16*: 195-211.
- Moos, R. H. (1997). *Evaluating treatment environments: The quality of psychiatric and substance abuse programs, 2nd edition*. New York: John Wiley & Sons.
- Morgeson, F. P., & Humphrey, S. E. (2006). The Work Design Questionnaire (WDQ): Developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal of Applied Psychology, 91*(6), 1321-1339.
- Moura, D., Orgambidez-Ramos, A., & Goncalves, G. (2014). Role stress and work engagement as antecedents of job satisfaction: Results from Portugal. *Europe's Journal of Psychology, 10*(2), 291-300.
- Moya-Albiol, L., Serrano, M. A. & Salvador, A. (2010). Burnout as an important factor in the psychophysiological responses to a work day in teachers. *Stress and Health, 26*, 382-393.
- Mueser, K. T., Meyer, P. S., Penn, D. L., Clancy, R., Clancy, D. M., & Salyers, M. P. (2006). The illness management and recovery program: Rationale, development, and preliminary findings. *Schizophrenia Bulletin, 32*(1), S32-43.
- Mueser, K. T., Deavers, F., Penn, D.L., & Cassisi, J. E. (2013). Psychosocial treatments for schizophrenia: Annual review of clinical psychology. *Clinical Psychology, 9*, 465-497.
- Nicklett, E. J., Heisler, M. E, M., Spencer, M. & Rosland, A. M. (2013). Direct social support

- and long-term health among middle-aged and older adults with type 2 diabetes mellitus. *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, 68(6), 933–943.
- Noble, P. & Rodger, S. (1989). Violence by psychiatric in-patients. *The British Journal of Psychiatry*, 155, 384-390.
- Nowack, K. M., & Hanson, A. L. (1983). The relationship between stress, job performance, and burnout in college student resident assistants. *Journal of College Student Personnel*, 23, 545-550.
- Oddie, S. & Ousley, L. (2007). Assessing burnout and occupational stressors in a medium secure service. *The British Journal of Forensic Practice*, 9(2), 32-48.
- Olfson, M., Ascher-Svanum, H., Faries, D. E., & Marcus, S. C. (2011). Predicting psychiatric hospital admission among adults with schizophrenia. *Psychiatric Services*, 62(10), 1138-1145.
- Onder, C., & Basim, N. (2008). Examination of developmental models of occupational burnout using burnout profiles of nurses. *Journal of Advanced Nursing* 64(5), 514–523.
- Osborn, L. A. (2009). From beauty to despair: The rise and fall of the American State Mental Hospital. *Psychiatric Quarterly*, 80(4), 219-231.
- Outliers (2014). Retrieved March 8, 2014 from: http://www.sagepub.com/upm-data/52387_MOD_5.pdf.
- Papastylianou, A., Kaila, M., & Polychronopoulos, M. (2009). Teachers' burnout, depression, role ambiguity and conflict. *Social Psychology Education*, 12, 295-314.
- Paulhus, D. L. & Vazire, S. (2009). The self-report method. In R. W. Robins, R. C. Fraley, & R. F. Krueger (eds) *Handbook of research methods in personality psychology* (pp. 224-239).

New York: Guilford.

- Peeters, M. C. W., de Jonge, J., Janssen, P. P. M., van der Linden, S. (2004). Work-home interference, job stressors and employee health in a longitudinal perspective. *International Journal of Stress Management, 11*, 305–322.
- Peeters, M., & Le Blanc, P. M. (2001). Towards a match between job demands and sources of social support: A study among oncology care providers. *European Journal of Work and Organizational Psychology, 10*, 53–72.
- Perera-Diltz, D. M., & Mason, K. L. (2008). Ideal to real: Duties performed by school counselors. *Journal of School Counseling, 6*(26), 42-78.
- Pines, A. & Maslach, C. (1978). Characteristics of Staff Burnout in Mental Health Settings. *Hospital & Community Psychiatry, 29*, 233-237.
- Pinto A., La Pia S., Mennella R. (1999). Cognitive-behavioral therapy for clozapine clients with treatment-refractory schizophrenia. *Psychiatric Services, 50*, 901-904.
- Pit, S., Vo, T., Pyakurel, S. (2014). The effectiveness of recruitment strategies on general practitioner's survey response rates - a systematic review. *BMC Medical Research Methodology, 14*(1), 1-14.
- Puleston, J. (2011a) Market Research Game Theory. Bellevue, WA: Global Market Insight, Inc.
- Rector, N. A. & Beck, A. T. (2001). Cognitive behavioral therapy for schizophrenia: An empirical review. *Journal of Nervous & Mental Disease, 189*(5), 278-287.
- Robinson, B. E. (1999). The work addiction risk test: Development of a tentative measure of workaholism. *Perceptual Motor Skills, 88*(1), 199-210.
- Rothbard, A., Chhatre, S., Zubritsky, C., Fortuna, K., Dettwyler, S., Henry, R., & Smith, M.

- (2012). Effectiveness of high end users program for persons with psychiatric disorders. *Community Mental Health Journal*, 48(5), 598-603.
- Rottier, J., Kelly, W., & Tomhave, W. K. (1983). Teacher burnout- small and rural school style. *Education*, 104(1), 74-79.
- Rubington, E. (1984). Staff burnout in a detox center: An exploratory study. *Alcoholism Treatment Quarterly*, 1(2), 61-71.
- Russell, D., & Cutrona, C. E. (1987). *The Social Provisions Scale: A multidimensional measure of perceived social support*.
- Sakharov, M. & Farber, B. A. (1983). A critical study of burnout in teachers. In B.A. Farber (Ed.), *Stress and burnout in the human service professions* (pp. 65-81). New York: Pergamon Press.
- Salanova, M., Agut, S., and Peiro, J. M. (2005). Linking organizational resources and work engagement to employee performance and customer loyalty: The mediation of service climate. *Journal of Applied Psychology*, 90(6), 1217-1227.
- Salanova, M., Grau, R., Llorens, S. & Schaufeli, W.B. (2001). Exposición a las tecnologías de la información, burnout y engagement: El rol moderador de la autoeficacia profesional. [Exposure to information technology, burnout and engagement: The moderating role of self-efficacy]. *Revista de Psicología Social Aplicada*, 11, 69-90.
- Samarasekera, N., Kingdon, D., Siddle, R., O'Carroll, M., Scott, J. L., Sensky, T., Barnes, T. R. E., Turkington, D. (2007). Befriending patients with medication-resistant schizophrenia: Can psychotic symptoms predict treatment response? *Psychology & Psychotherapy: Theory, Research, & Practice*, 80(1), 97-106.
- Sengupta, D. (2011). Five ways to deal with ambiguity at work. Retrieved March 15, 2015 from

http://articles.economicstimes.indiatimes.com/2011-09-09/news/30135702_1_top-brass-innovation-ambiguity

Sharfstein, S. S. & Dickerson, F. B. (2009). Hospital psychiatric for the twenty-first century.

Health Affairs, 28(3), 685-688.

Schaufeli, W.B., Salanova, M., Gonzalez-Roma, V. & Bakker, A.B. (2002). The

measurement of burnout and engagement: A confirmatory factor analytic approach.

Journal of Happiness Studies, 3, 71-92.

Schaufeli, W. B., Leiter, M. P., C. Maslach, & S .E. Jackson (1996). Maslach Burnout Inventory

– General Survey. In C. Maslach, S.E. Jackson & M.P. Leiter, *The Maslach Burnout*

Inventory (3rd.ed) – Test Manual. Palo Alto: Consulting Psychologists Press.

Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship

With burnout and engagement: A multi-sample study. *Journal of Organizational*

Behavior, 25(3), 293-315.

Schaufeli, W., & Bakker, A. (2003). Utrecht Work Engagement Scale: Preliminary manual,

Version 1. *Utrecht University, Occupational Healthy Psychology Unit*.

Schaufeli, W. B., & Bakker, A. B. (2003). *Test manual for the Utrecht Work Engagement Scale*.

Unpublished manuscript, Utrecht University, the Netherlands. Retrieved from

<http://www.schaufeli.com>

Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement

with a short questionnaire: A cross-national study. *Educational and psychological*

measurement, 66(4), 701-716.

Schaufeli, W. B., Taris, T. W., & Van Rhenen, W. (2008). Workaholism, burnout, and work

engagement: Three of a kind or three different kinds of employee well-being? *Applied*

- Psychology: An International Review*, 57(2), 173-203.
- Schaufeli, W. B., Bakker, A. B., & Van Rhenen, W. (2009). How changes in job demands and resources predict burnout, work engagement, and sickness absenteeism. *Journal of Organizational Behavior*, 30, 893-917.
- Schaufeli, W. B., Leiter, M. P., & Maslach, C. (2009). Burnout: 35 years of research and practice. *Career Development International*, 14(3), 204-220.
- Schaufeli, W. B. & Bakker, A. B. (2010). Defining and measuring work engagement: Bringing clarity to the concept (p. 10-24). In M.P. Leiter & A.B. Bakker (Eds.) *Work engagement: A handbook of essential theory and research*. New York: Psychology Press.
- Schaufeli, W. & Salanova, M. (2011). Work engagement: On how to better catch a slippery concept. *European Journal of Work and Organizational Psychology*, 20(1), 39-46.
- Schroevers, M. J., Helgeson, V. S., Sanderman, R., Ranchor, A. V. (2010). Type of social support matters for prediction of posttraumatic growth among cancer survivors. *Psycho-Oncology*, 19(1) 46-53.
- Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neurocism (and trait anxiety, self-mastery, and self-esteem): A reevaluation of the Life Orientation Test. *Journal of Personality and Social Psychology*, 67 (6), 1063-1078.
- Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston, *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp. 35-37). Windsor, UK.
- Shearin, E. N. & Linehan, M. M. (1994). Dialectical behavior therapy for borderline personality disorder: Theoretical and empirical foundations. *Acta Psychiatrica Scandinavica*, 379, 61-68.

- Sheehan, K., & McMillan, S. (1999). Response variation in e-mail surveys: An exploration. *Journal of Advertising Research, 39*, 45-54.
- Shirom, A. & Ezrachi, Y. (2003). On the discriminant validity of burnout, depression, and anxiety: A re-examination of the burnout measure. *Stress & Coping, 16*(1), 83.
- Smith, R., & Bartholomew, T. (2006). Will hospitals recover? Implications of a recovery-orientation. *American Journal of Psychiatric Rehabilitation, 9*, 85–100.
- Snyder, J. A., Clark, L. M., & Tuomi, N. (2012). Provision and adaptation of group treatment in state psychiatric hospitals. *Professional Psychology: Research and Practice, 43*(4), 395-402.
- Social support (2015). What is social support? Retrieved April 13, 2015 from <http://psychologydictionary.org/social-support/>.
- Sommer, R., & Clancy, I. L. W. (1958). Ambiguities in the role of clinical psychologist in a mental hospital. *Journal of Clinical Psychology, 14*(3), 264-268.
- Spence, J. T., & Robbins, A. S. (1992). Workaholism: Definition, measurement, and preliminary results. *Journal of Personality Assessment, 58*(1), 160-178.
- Spector, P. E. & Fox, S. (2003). Reducing subjectivity in the assessment of the job environment: Development of the Factual Autonomy Scale (FAS). *Journal of Organizational Behavior, 24*, 417-432.
- Stansfeld, S. A., Shipley, M. J., Head, J., Fuhrer, R., Kivimaki, M. (2013). Work characteristics and personal social support as determinants of subjective well-being.
- Stevens, J. P. (1984). Outliers and influential data points in regression analysis. *Psychological*

- Bulletin*, 95(2), 334-344. Storm, K. & Rothmann, S. (2003). A psychometric analysis of the Maslach Burnout Inventory-General Survey in the south African police service. *South African Journal of Psychology*, 33(4), 219-226.
- Suran, B. G., & Sheridan, E. P. (1985). Management of burnout: Training psychologists in professional life span perspectives. *Professional Psychology: Research and Practice*, 16(6), 741-752.
- Szasz, T. (2011). The myth of mental illness: 50 years later. *The Psychiatrist*, 35, 179-182.
- Tabachnick, B. G., and Fidell, L. S. (2007). *Using Multivariate Statistics*, 5th edition. Boston: Pearson.
- Tarrier, N. (2010). Cognitive behavior therapy for schizophrenia and psychosis: Current status and future directions. *Clinical Schizophrenia & Related Psychoses*, 14(3), 176-184.
- Tebandeke, A. Z. (2008). Dissertation: Walden University. *The relationship among sense of coherence, job burnout and health status of hospital psychiatric workers*.
- Thoreson, R. W., Miller, M., & Krauskopf, C. J. (1989). The distressed psychologist: Prevalence and treatment considerations. *Professional Psychology: Research and Practice*, 20(3), 153-158.
- Torrey, E. F. (1997). *Out of the Shadows: Confronting America's Mental Illness Crisis*. New York: John Wiley and Sons. Retrieved December 22, 2013 from <http://www.pbs.org/wgbh/pages/frontline/shows/asylums/special/excerpt.html>.
- Trupin, E. W., Stewart, D. G., Beach, B., & Boesky, L. (2002). Effectiveness of dialectical behavior therapy program for incarcerated female juvenile offenders. *Child and Adolescent Mental Health*, 7(3), 121-127.

- Van den Broeck, A., Vansteenkistie, M., De Witte, H., & Lens, W. (2008). Explaining the relationships between job characteristics, burnout, and engagement: The role of basic psychological need satisfaction. *Work & Stress, 22*(3), 277-294.
- Verheul, R., Van Den Bosch, L. M., Koeter, M. W., DeRidder, M. A., Stijnen, T., Van Den Brink, W. (2003). Dialectical behavior therapy for women with borderline personality disorder: 12-month, randomized clinical trial in the Netherlands. *The British Journal of Psychiatry, The Journal of Mental Science, 182*, 135-140.
- Vredenburgh, L. D., Carlozzi, A. F., & Stein, L. B. (1999). Burnout in counseling psychologists: Type of practice setting and pertinent demographics. *Counseling Psychology Quarterly, 12*, 293–302.
- Wampold, B. E. (2015). Qualities and actions of effective therapists. *American Psychological Association Continuing Education*. Retrieved March 18, 2015 from <https://www.apa.org/education/ce/effective-therapists.pdf>
- Wechsler, D. (1944). *The measurement of adult intelligence*. The Williams and Wilkins Company.
- Whitbourne, S. K. (2011). 13 qualities to look for in an effective psychotherapist. Retrieved March 18, 2015 from <https://www.psychologytoday.com/blog/fulfillment-any-age/201108/13-qualities-look-in-effective-psychotherapist>
- Wohlford-Lotas, C. A. (2005). Predictors of burnout among Ohio licensed psychologists using the Maslach Burnout Inventory. *Union Institute and University, ProQuest, UMI Dissertations Publishing*.
- Wong, S. T. (2014). What type of social support influences self-reported physical and mental health among older women? *Journal of Aging and Health, 26*(4). 663.

- Wood, K. A., Rogers, J. H., McCarthy, S. M. & Lewine, R. R. J. (1994). Psychologists in public inpatient psychiatric settings: Ethical dilemmas. *Professional Psychology: Research and Practice*, 25(3), 234-240.
- Wood, E. (2010). Nuts & bolts on guardianship as last resort: Basics on when to file & how to maximize autonomy. *American Bar Association Commission on Law and Aging presentation for National Legal Resource Center, May 12, 2010*. Retrieved December 22, 2013 from http://www.nclc.org/images/pdf/conferences_and_webinars/webinar_trainings/presentations/2010/presentation_may12.pdf
- World Health Organization (2007). Community mental health services will less social exclusion, says WHO. Retrieved March 25, 2012 from <http://www.who.int/mediacentre/news/notes/2007/np25/en/index.html>
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2009). Reciprocal relationships between job resources, personal resources, and work engagement. *Journal of Vocational Behavior*, 74, 235-244.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2009). Work engagement and financial returns: A diary study on the role of job and personal resources. *Journal of Occupational & Organizational Psychology*, 82(1), 183-200.
- Xanthopoulou, D., Bakker, A. B., & Fischback, A. (2013). Work engagement among employees facing emotional demands: The role of personal resources. *Journal of Personnel Psychology*, 12(2), 74-84.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, 14, 121-141.

Yalom, I. D. (1983). *Inpatient Group Psychotherapy*. New York: Basic Books, Inc.

Zapf, D., & Einarsen, S. (2003). Individual antecedents of bullying. In S. Einarsen, H. Hoel, D.

Zapf & C. L. Cooper (Eds.), *Bullying and emotional abuse in the workplace:*

International perspectives in research and practice (pp. 165-184). London: Taylor &

Francis.

Zimet, G.D., Dahlem, N.W., Zimet, S.G. & Farley, G.K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, 52, 30-41.

Appendix A: Scale Items

Demographic Questionnaire

1. Please indicate the region of the country in which you work:

- a. WA, OR, CA, NV, ID, UT, AZ, HI, AK
 - b. WY, CO, NM, ND, SD, NE, KS, OK, TX, MT
 - c. MN, IA, MO, AR, LA, WI, MI, IL, MS, IN
 - d. KY, TN, AL, GA, OH, WV, VA, NC, SC, FL
 - e. ME, VT, NH, CT, MA, RI, NY, NJ, PA, MD, DE
2. How many clients do you see for individual therapy per week, on average? _____
 3. How many hours per MONTH do you spend in supervision? _____
 4. How many years have you been working at the state psychiatric hospital? _____
 5. How many years have you worked as a psychologist? _____

Job Ambiguity Scale (Breugh & Colihan, 1994)

Please respond to the following items on a 7-point continuum:

1=disagree strongly

2=disagree

3=disagree slightly

4=neutral

5=agree slightly

6=agree

7=agree strongly

Work Method Ambiguity

1. I am certain how to go about getting my job done (the methods to use)
2. I know what is the best way (approach) to go about getting my work done
3. I know how to get my work done (what procedures to use)

Scheduling Ambiguity

1. I know when I should be doing a particular aspect (part) of my job
2. I am certain about the sequencing of my work activities (when to do what)
3. My job is such that I know when I should be doing a given work activity.

Performance Criteria Ambiguity

1. I know what my supervisor considers satisfactory work performance
2. It is clear to me what is considered acceptable performance by my supervisor
3. I know what level of performance is considered acceptable by my supervisor

Factual Autonomy Scale (FAS; Spector & Fox, 2003).

Please rate the following on a 5-point scale:

1=never

2=rarely

3=sometimes

4=quite often

5=extremely often or always

In your present job, how often do you have to ask permission...

1. To take a rest break?
2. To take a lunch/meal break?
3. To leave early for the day?
4. To change the hours you work?
5. To leave your office or work station?
6. To come in late to work?
7. To take time off?

How often do the following events occur in your present job?

8. How often does someone tell you what you are to do?
9. How often does someone tell you when you are to do your work?

10. How often does someone tell you how you are to do your work?

Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet & Farley, 1988)

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

(**Note** The “friends” category will be changed to read “coworkers”)

Circle the “1” if you **Very Strongly Disagree**

Circle the “2” if you **Strongly Disagree**

Circle the “3” if you **Mildly Disagree**

Circle the “4” if you are **Neutral**

Circle the “5” if you **Mildly Agree**

Circle the “6” if you **Strongly Agree**

| Circle the “7” if you Very Strongly Agree | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | SO |
|--|--|---|---|---|---|---|---|---|-----|
| 1. | There is a special person who is around when I am in need. | | | | | | | | |
| 2. | There is a special person with whom I can share my joys and sorrows. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | SO |
| 3. | My family really tries to help me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Fam |
| 4. | I get the emotional help and support I need from my family. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Fam |
| 5. | I have a special person who is a real source of comfort to me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | SO |
| 6. | My friends really try to help me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Fri |
| 7. | I can count on | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Fri |

| | | | | | | | | | |
|-----|---|---|---|---|---|---|---|---|-----|
| 8. | my friends when things go wrong. I can talk about my problems with my family. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Fam |
| 9. | I have friends with whom I can share my joys and sorrows. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Fri |
| 10. | There is a special person in my life who cares about my feelings. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | SO |
| 11. | My family is willing to help me make decisions. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Fam |
| 12. | I can talk about my problems with my friends. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Fri |

Appendix B: Informed Consent

The informed consent will be provided to participants on the qualtrics.com website where the survey is located. Participants must indicate agreement to the informed consent before proceeding to the survey.

Purpose of this study.

The purpose of this research is to investigate the role of psychologists working in state psychiatric hospitals. Specifically, the intent is to better understand whether psychologists are engaged in their work in such settings, and to determine factors that predict engagement. Eight factors will be explored, including job ambiguity, autonomy, social support, supervision hours, length of time in a state hospital, length of time in the field, and geographic region. The results of this research can help to clarify the role of psychologists working in state psychiatric hospitals to better prepare students in training for such work, and to better inform administrators and other disciplines within state systems of how to best utilize the resources that psychologists have to offer.

Procedures of this research study.

You have been recruited to participate in this study due to your employment in a state psychiatric hospital and your training as a psychologist. Once you have reviewed this informed consent and indicate your agreement, you will proceed to the study survey. The survey is completed in no more than 20 minutes, and can be completed in one sitting. Please do not skip any items. If you have any questions about the study, about the survey, or would like a copy of the research results, please contact the investigator with the contact information listed at the end of this form.

Participant rights

Participation in this research study is voluntary. You are not required to participate. You also have the right to terminate the survey at any time.

Benefits of participating in this research study.

There may be no direct benefit to you by participating in this study; however, the results of this study could benefit other psychologists in the future. Your participation is greatly appreciated.

Potential risks of participating in this research study.

This study is considered to be a minimal risk study and no known risk factors have been identified.

Confidentiality.

Your confidentiality in this study is assured. You will not be asked to provide any identifying information. If you choose to contact the researcher with questions or requests, the information that you choose to provide will not be associated with study data in any way.

By clicking on the “I Agree” button below, you agree to all of the procedures and limits of this study. You have the opportunity to ask the researcher any questions that you have via email at vignaten@mix.wvu.edu. You also can contact the faculty advisor, Dr. Jeffrey Daniels, at Jeffrey.Daniels@mail.wvu.edu. Please do not hesitate to use this contact information. Your participation is greatly appreciated.

I agree

I disagree

Appendix C: Communication with participants

Letter to psychology department directors.

Dear psychology department director:

My name is Valerie Ignatenko and I am a doctoral candidate at West Virginia University in the Counseling Psychology department. I am contacting you for assistance in seeking research participants for my dissertation project focusing on work engagement for psychologists working in state psychiatric hospitals. This has been an under-researched area in recent years, and my aim to better understand factors related to work engagement for psychologists working in state psychiatric hospitals. This information will hopefully inform administrators and other disciplines within state psychiatric hospitals about the resources that psychologists can provide, and to better prepare students for work in such settings.

I ask that you forward the attached letter (“Letter to Potential Participants”) to your staff psychologists in order to make them aware of this study. Thank you in advance for your time and consideration. Please do not hesitate to contact me for additional information via email: vignaten@mix.wvu.edu, or my faculty advisor, Dr. Jeffrey Daniels:

Jeffrey.Daniels@mail.wvu.edu.

Sincerely,

Valerie Ignatenko

Letter to potential participants.

Dear potential research participant:

I am contacting you to request your participation in my doctoral dissertation research study. You have been identified as a potential participant due to your training as a psychologist and your employment in a state psychiatric hospital. The goal of my research study is to better understand factors related to work engagement for psychologists working in state psychiatric hospitals. The purpose of the study is to better inform administrators and other disciplines within state systems of the resources that psychologists can provide, and to better prepare psychology graduate students for work in such settings.

The survey can be found on qualtrics.com and will take no more than 20 minutes of your time. Participation is voluntary. Please do not hesitate to contact me with any questions, concerns, or if you would like a copy of the research results. I can be reached via email: vignaten@wvu.edu, as can my faculty advisor, Dr. Jeffrey Daniels: Jeffrey.Daniels@mail.wvu.edu. Thank you for your time and your participation.

Sincerely,

Valerie Ignatenko

Appendix D: Permissions

Hi Valerie,

You are welcome to use the MSPSS in your dissertation research and to change Friends to Co-workers. I've attached a copy of the scale with scoring information on the 2nd page. Also attached is a document listing several articles that have reported on the psychometric characteristics of the MSPSS.

I hope your research goes well.

Best regards,
Greg Zimet

=====
Gregory D. Zimet, PhD
Professor of Pediatrics & Clinical Psychology
Section of Adolescent Medicine
Indiana University School of Medicine
Health Information & Translational Sciences
410 W. 10th Street, HS 1001
Indianapolis, IN 46202
USA
Phone: +1-317-274-8812
Fax: +1-317-274-0133
e-mail: gzimet@iu.edu

<http://pediatrics.iu.edu/center-hpv-research/about-us/>

<http://pediatrics.iu.edu/sections-and-faculty/adolescent-medicine/our-team/faculty/bio-zimet/>

From: Ignatenko, Valerie [<mailto:vignatenko@pa.gov>]
Sent: Tuesday, June 24, 2014 12:20 PM
To: Zimet, Gregory D
Subject: MSPSS

Hi Dr. Zimet-

My name is Valerie Ignatenko, and I am a doctoral student at West Virginia University. I am trying very hard to complete my dissertation, and I would like to use the MSPSS . I am looking at the social support of psychologists who are working in state psychiatric hospitals. Would I be able to use the MSPSS and change the category of friends to coworkers? No other changes would be made to the questions or other categories.

Thanks for your help!
Valerie Ignatenko