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Health Behaviors, Hardiness, and Burnout in Mental Health Workers

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Walden University
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Abstract

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by

Jeremiah Brian Schimp

MA, Bethel University, 2004

BA, Cornerstone University, 2002

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Burnout has emerged as a significant and costly issue in the modern workforce. Researchers have not fully explored the role of individual health behaviors and personality in burnout among mental health workers. The knowledge gap addressed in this study was the connection between health behaviors, what mental health workers do to take care of themselves, and hardiness, the characteristic way they perceive and interpret environmental challenges. The purpose of this study was to examine the influence of health behaviors and hardiness among mental health workers on the 3 dimensions of burnout as measured by the MBI-HSS: emotional exhaustion, depersonalization, and personal accomplishment. The conservation of resources model and the theory of hardiness provided the framework for selecting variables and interpreting the results. An online survey research design was used with a sample of mental health workers from two nonprofit mental health organizations. A total of 223 participants were recruited through invitations sent to their work e-mail addresses. Statistical analysis included 5 stepwise regression analyses run for each of the 3 burnout dimensions. The results indicated that hardiness was the strongest predictor and was retained in the final model for all the burnout measures. Anger/Stress, a health-compromising behavior, was significantly predictive of Emotional Exhaustion in the final model, and age was included in the final model for Depersonalization. These results suggest that mental health workers are better able to maintain their emotional energy and compassion for clients through the cultivation of hardiness and management of stress; the implications will inform the development of training materials focused on stress management and adapting to change.

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Dedication

To my wife, “Dolly”, the love of my life. Thank you for your unwavering support during this journey .

To my two special girls, Bella and Greta.

I love you all more than words can say.

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Chapter 1: Introduction to the Study

Burnout is the experience of emotional exhaustion and a reduced sense of personal accomplishment, and has emerged as a significant issue in the modern workforce (Lindblom, Linton, Fedeli, & Brynggelsson, 2006). Billions of dollars are spent replacing workers and paying leave time due to burnout. There are increased stress-related conditions and an increase in disability claims from work-related burnout. This condition wreaks havoc on energy, enthusiasm, and self-confidence and costs the worker and employer greatly (Leiter & Maslach, 2005). Although burnout research has been conducted across various populations and occupations, the focus of most research has been on those in human services (Ray, Wong, White, & Heaslip, 2013). Some researchers have found high burnout in mental health workers to approach 50% of those surveyed (Bressi et al., 2009).

While there is considerable research on the organizational conditions and processes that contribute to burnout, the influence of individual differences and lifestyle choices has not been well researched. Researchers of related fields in health psychology has suggested that health behaviors and personal hardiness may play a role in the ability to manage work-related stress and avoid the symptoms of burnout (Alarcon, Eschleman, & Bowling, 2009). This chapter includes a brief overview of the history of burnout, and especially the impact of burnout on mental health providers. Following this is the presentation of the problem of interest, purpose, research questions, the theoretical foundation and design. The scope, limitations, and implications for social change are also discussed.

Background

The experience of burnout in mental health workers is a significant issue in today's workforce. Burnout is generally defined as a condition by which a provider of services becomes emotionally and physically exhausted (Leiter & Maslach, 2005). With some researchers finding burnout rates in mental health workers as high as 50%, this issue is of critical importance (Lasalvia et al., 2009). Burnout leads to less personal satisfaction, poor job performance, mental health issues, physical health problems, and poor recipient care (Lasalvia et al., 2009; Pines & Aronson, 1988). Burnout can take many forms in those working in the social services and mental health field. Some people continue to work in the field, but are unhappy. Some express this unhappiness in their everyday work with clients and others simply leave the field for other career pursuits.

This condition is often conceptualized as a syndrome that affects the employee's psyche and emotional health (Maslach & Leiter, 2005). Burnout does not happen instantaneously, but through a gradual process of becoming emotionally, mentally, and physically exhausted as a result of the work of providing service to other people (Maslach & Leiter, 1997). The origin of burnout research began with Freudenberger's work with social service workers in the 1970s and early 1980s (Freudenberger, 1974). He coined the term *burn-out*, and it became the parlance to define the phenomena of work-related mental and emotional exhaustion.

Maslach (1976) conducted the first empirical research on burnout in the early 1970s to better understand how the phenomenon was affecting human service providers, such as teachers, social workers, and police officers. Maslach viewed burnout as a

syndrome and risk factor for those in the human services field (Maslach, 1982). Her work lead to the development of the Maslach Burnout Inventory (MBI) (Maslach, 1976; 1982).

Today, research on burnout among mental health staff continues. Recent researchers have focused on external contributing factors, such as organizational factors, trauma, and client issues. Current researchers have also focused on the impact of burnout on the recipients of mental health care services (Lasalvia et al., 2009). In exploring client trauma and provider burnout, Hardiman and Simmonds (2012) studied spiritual well-being and emotional exhaustion in mental health workers. Researchers continue to explore new variations on previous burnout research, including job satisfaction and compassion fatigue (Ray et al., 2013; Rossi et al., 2012). The exploration of physical health and burnout is increasing, with researchers finding higher levels of burnout share a relationship with increase physical health complaints (Kim, Ji, & Kao, 2011). Emerging researchers are also exploring ways to mediate or relieve the effects of burnout (Richards, Campenni, Muse-Burke, 2010; Putnik, de Jong, & Verdonk, 2011).

Mental health service workers have often been the subject of investigations of burnout. Today's mental health care system is the result of an evolving business model of managed care and controlled costs (Acker & Lawrence, 2009). Managed care has resulted in often stressful role confusion, increased paperwork, and organizational changes (Acker & Lawrence, 2009). Staff and overhead costs have been cut as the demand for services has increased, so that providers are often expected to do more with less (Acker, 2010). These socioeconomic conditions have produced considerable organizational stress at all

levels of the mental healthcare delivery system. Burnout is well documented in mental health workers (Korkeila et al., 2003; Lee, Lim, Yang, & Lee, 2011).

The effects of burnout can be great. Burnout has been shown to cause personal and professional difficulties (Ashtari, Farhady, & Khodaee, 2009). Job performance suffers, as those providing care to others have reported not being competent and unable to adequately perform their assigned job duties due to burnout (Ashtari, et al., 2009). Job performance directly and indirectly impacts the quality of recipient care. Burnout also results in negative views of recipients and low recipient satisfaction (Holmqvist & Jeanneau, 2006; Vahey, Aiken, Sloane, Clarke, & Vargas, 2004). Burnout not only affects work-related issues, but also penetrates into family, intimate relationships, and home life (Bakker, 2009; Rupert, Stevanovic, & Hunley, 2009).

With so much contemporary emphasis on the importance of physical health and well-being, there is still little research examining the relationship of health behaviors and burnout. Previous researchers have shed some light on the connection of burnout to physical health; but, these researchers were mostly in disciplines other than mental health. Gorter, Eijkman, and Hoogstraten (2000) were one of the few to draw a connection between burnout and poor physical health in dentists. Another more recent study among social workers, about half who worked in mental health, revealed increased levels of physical health problems in burned out staff (Lasalvia et al., 2009). Though these researchers did not look at health behaviors, they did show that burnout may directly impact the physical health of those providing human services (Lasalvia et al., 2009). In various fields burnout has been linked to the experience of physical diseases,

such as diabetes (Melamed, Shirom, Toker, & Shapira, 2006), compromised immune functioning (Mommersteeg, Keijsers, Heijnen, Verbraak, & van Doornen, 2006), infections (Mohren et al., 2003), and cardiovascular disease (Appels & Schouten, 1991; Kitaoka-Higashiguchi et al., 2009). However, little has been done to study how mental health workers' health behaviors influence burnout. This study is important in that it sought to add to the literature on this topic.

Similarly, there has been research on how individual differences play a role in the process of the development of burnout. Alarcon et al. (2009) conducted research that introduced the idea that burnout may in part result from personal factors. Burnout is a phenomena connected to one's behavior, attitude, and well-being. Individual differences such as a proactive personality, dispositional optimism, positive affectivity, self-esteem, and hardiness have a negative relationship with burnout. Hardiness, which is included in this study, has been found to moderate the effects of stress. Hardy individuals may develop ways to modify their thinking or environments to make work less stressful (Alarcon et al., 2009). In terms of differences in health behaviors, Ahola et al. (2012) found a positive correlation between health-compromising behavior choices and burnout. This sheds additional light on the relationship between individual differences and the development of burnout.

Problem Statement

Research on burnout is considerable; but, researchers have primarily focused on the organizational causes, consequences and remedies. Human services and mental health fields continue to be a key focus of the research because of the continuing work demands

and stresses (Leiter & Maslach, 2001; Morse, Salyers, Rollins, Monroe-DeVita, & Pfahler, 2012). The existing body of research has not fully explored the role of the individual behaviors and personality in responding to mental health work-related stress. The knowledge gap addressed in this study is the lack of research connecting burnout in mental health workers to what they do to take care of themselves (health behaviors) and how they perceive and interpret environmental challenges (hardiness).

Purpose of the Study

The purpose of this quantitative study was to examine the predictive relationship between health behaviors, hardiness, and burnout in mental health workers at nonprofit mental health organizations in a North Central United States metropolitan area. The constructs of health behaviors and hardiness represent two dimensions of individual differences that are important in health psychology (Alarcon et al., 2009; Gorter et al., 2000). Researchers have shown these constructs influence well-being, and response to stress, but have not been used to develop a predictive model of burnout in mental health workers. The independent (predictor) variables are the summary hardiness score, the two dimensions of health behaviors (*health-promoting*, which includes diet, preventative self-care and health care compliance; and *health-compromising*, which includes substance use and anger/stress) and selected demographics (age, gender, education level, years in the mental health field, and hours per week of direct client contact). The dependent (outcome) variables are the dimensions of burnout: emotional exhaustion, depersonalization, and personal accomplishment.

Research Questions and Hypotheses

I examined the extent to which demographic variables, health behaviors, and hardiness influence the perception of the three dimensions of burnout. The specific hypotheses that guided this research are:

1. Are any of the following self-reported demographic variables (age, gender, educational level, years in the field, and hours of client contact per week) significant predictors of the three dimensions of burnout, as measured by the MBI-HSS?

   $H1_{01}$: Demographic variables (age, gender, educational level, years in the field and hours of client contact per week) will not predict emotional exhaustion.

   $H1_{a1}$: Demographic variables (age, gender, educational level, years in the field and hours of client contact per week) will significantly predict emotional exhaustion.

   $H1_{02}$: Demographic variables (age, gender, educational level, years in the field and hours of client contact per week) will not predict depersonalization.

   $H1_{a2}$: Demographic variables (age, gender, educational level, years in the field and hours of client contact per week) will significantly predict depersonalization.

   $H1_{03}$: Demographic variables (age, gender, educational level, years in the field and hours of client contact per week) will not predict personal accomplishment.

   $H1_{a3}$: Demographic variables (age, gender, educational level, years in the field and hours of client contact per week) will significantly predict personal accomplishment.

2. To what extent does hardiness, as measured by the DRS-15, predict any of the three dimensions of burnout, as measured by the MBI-HSS?

   $H2_{01}$: The summary score of the hardiness scale will not significantly predict emotional exhaustion..

   $H2_{a1}$: The summary score of the hardiness scale will significantly predict emotional exhaustion.

   $H2_{02}$: The summary score of the hardiness scale will not significantly predict depersonalization.

   $H2a_{2}$: The summary score of the hardiness scale will significantly predict depersonalization.

   $H2_{03}$: The summary score of the hardiness scale will not significantly predict personal accomplishment.

   $H2_{a3}$: The summary score of the hardiness scale will significantly predict personal accomplishment.

3. To what extent do the three health-promoting behaviors (preventative care, diet, medical compliance) predict any of the three dimensions of burnout?

   $H3_{01}$: The health-promoting behaviors (preventative care, diet, medical compliance) do not significantly predict emotional exhaustion.

   $H3_{a1}$: At least one of the health-promoting behaviors (preventative care, diet, medical compliance) significantly predicts emotional exhaustion.

   $H3_{02}$: The health-promoting behaviors (preventative care, diet, medical compliance) do not significantly predict depersonalization.

$H3_{a2}$: At least one of the health-promoting behaviors (preventative care, diet, medical compliance) significantly predicts depersonalization.

$H3_{03}$: The health-promoting behaviors (preventative care, diet, medical compliance) do not significantly predict personal accomplishment.

$H3_{a3}$: At least one of the health-promoting behaviors (preventative care, diet, medical compliance) significantly predicts personal accomplishment.

4. To what extent do the two health-compromising behaviors (substance use, anger/stress) predict any of the three dimensions of burnout?

   $H4_{01}$: The health-compromising behaviors (substance use, anger/stress) will not significantly predict emotional exhaustion.

   $H4_{a1}$: At least one of the health-compromising behaviors (substance use, anger/stress) will significantly predict emotional exhaustion.

   $H4_{02}$: The health-compromising behaviors (substance use, anger/stress) will not significantly predict depersonalization.

   $H4_{a2}$: At least one of the health-compromising behaviors (substance use, anger/stress) will significantly predict depersonalization.

   $H4_{03}$: The health-compromising behaviors (substance use, anger/stress) will not significantly predict personal accomplishment.

   $H4_{a3}$: At least one of the health-compromising behaviors (substance use, anger/stress) will significantly predict personal accomplishment.

5. What is the best model that predicts the three dimensions of burnout?

$H5_{o1}$: There is no model using the identified independent variables that will predict emotional exhaustion.

$H5_{a1}$: There is a combination of independent variables that will significantly predict emotion exhaustion.

$H5_{o2}$: There is no model using the identified independent variables that will predict depersonalization.

$H5_{a2}$: There is a combination of independent variables that will significantly predict depersonalization.

$H5_{o3}$: There is no model using the identified independent variables that will predict personal accomplishment.

$H5_{a3}$: There is a combination of independent variables that will significantly predict personal accomplishment.

The variables in this study were measured through the use of established inventories. Emotional exhaustion, depersonalization, and personal accomplishment are measured with the Maslach Burnout Inventory-Human Services Survey (Maslach et al., 2010). The health-promoting and health-compromising behavior variables were measured through the use of Health Behaviors Inventory-20 (HBI-20; Levant, 2011). Overall hardiness is measured through the use of the Dispositional Resilience Scale-15 (DRS-15; Bartone, 2009). The five demographic variables were measured through a questionnaire that I developed.

Theoretical Framework for the Study

This study is rooted in the theoretical underpinnings of two distinct approaches to understanding how humans respond to stress: the Conservation of Resources model (COR) and the hardiness model. COR theory (Gorgievski & Hobfoll, 2008) has its origin in the work of Hobfoll and Freedy (1993) and brought to burnout research by Lee and Ashforth (1996). This was the work of understanding motivation and stress.

The major theoretical proposition of the COR theory is that people naturally seek to obtain and keep resources. Resources can be tangible and intangible, ranging from money and energy to skill and personal characteristics. The resources that are protected have some key value to the person. Burnout and COR theory are connected in that stress can result from the loss of employment related resources, including the physical and emotional energy needed to adequately fulfill one's job duties (Hobfoll & Freedy, 1993; Lee & Ashforth, 1996). The connection of COR theory and health behaviors was documented by Shirom (2009). Shirom made this connection by explaining that when people lose resources they often act on health-compromising behaviors to reduce any further losses. To temporarily manage stress someone might engage in drinking or smoking. Although unhealthy, health-compromising behaviors such as these give the temporary impression of retaining resources one holds. The relationship of resources and burnout are further covered in Chapter 2.

The concept and theory of hardiness was developed by Kobasa (1979) who developed a model and measure to identify the psychological factors that create a resistance to stress. The theory of hardiness proposes that there are individual differences

that explain why some people are negatively impacted by stress and others are not (Hobfoll & Freedy, 1993). Hardiness is defined as a stress and motivation theory, and is operationalized in terms of three dimensions: commitment, control, and challenge. These characteristics are seen as preventative psychological factors that enhance resistance to the consequence of stress (Kobasa, 1979; Maddi, 2006). The results of psychometric studies indicate that the summary measure (total score) is the most internally consistent. I used the total score rather than the three dimensions of hardiness (Bartone, 2007; Hystad, Eid, Laberg. Johnsen, & Bartone, 2009). Chapter 3 includes a discussion of this in more detail. There is a call in the literature to further explore the relationship between hardiness and burnout (Alarcon et al., 2009). Further discussion of the connection of hardiness to burnout is presented in Chapter 2.

Nature of the Study

I used a nonexperimental survey research design, as no interventions or treatment were involved in this study. An online survey design was chosen based on the chosen sampling strategy, expeditious nature of data collection and low financial cost. The primary benefit of a survey design is the ability to gather large amounts of self-report data in a short period of time (Kelley, Clark, Brown, & Sitzia, 2003). The availability of powerful statistical software can allow a researcher to examine large datasets and test complex relationships among variables.

The predictor or independent variables included demographic information, health behaviors, and hardiness. The demographic variables included age, gender, education level, years in the field, and number of hours per week of direct client contact. Health

behaviors that are both health-promoting and health-compromising were measured through use of the Health Behavior Inventory-20 (HBI-20; Levant, Wimer, & Williams, 2011). Hardiness was measured through the Dispositional Resilience Scale-15 (Bartone, 2007). Hardiness was measured as a summary score (Maddi, 2006). The dependent variable burnout was measured using the MBI-Human Services Inventory (Maslach, Jackson, & Leiter, 2010) with its three dimensions: emotional exhaustion, depersonalization, and personal accomplishment.

The methodology of this study involved seeking participants that were mental health workers at nonprofit organizations in a North Central United States metropolitan area. Participants were recruited through my direct contact with managers, directors, and human resource staff at mental health organizations. Organization contacts were initially contacted regarding their interest and ability to participate in this study. I provided cooperating organizations details on Institutional Review Board (IRB) approval and study methodology. I worked with organization management to send prepared initial and follow-up e-mails to their staff with an Internet link to the study inventories. The three inventories explained above and a demographic questionnaire were provided through SurveyMonkey.com, a secure Internet website for conducting research. I collected all survey data and conducted correlational and predictive analyses consistent with the above listed research questions.

Definitions

The following terms and definitions were used in this research study:

Burnout: A employment-related syndrome that "represents an erosion in values, dignity, spirit, and will – an erosion of the human soul" (Maslach & Leiter, 1997, p. 17), often related to work serving other people.

Compassion fatigue: Fatigue directly connected to work with recipients of mental health services that have experienced trauma (Boscarino, Adams, & Figley, 2010).

Conservation of Resources (COR): A theory rooted in the idea that people seek to obtain and retain resources; a theory of stress and motivation (Kobasa, 1979; Maddi, 2006).

Depersonalization: Depersonalization is defined as viewing clients as less than human or in other negative, callous ways (Leiter & Maslach, 1988).

Dispositional Resilience Scale-15: A short measure that seeks to quantify hardiness and resilience (Bartone, 1995).

Emotional exhaustion: Feeling no longer able to meet psychological demands of the job or clients and feeling overextended emotionally by one's work (Maslach, 1982; Maslach & Jackson, 1981).

Hardiness: A theory espousing that there are reasons that some people are negatively impacted by stress and others are not (Kobasa, 1979). Hardiness includes three personality components: commitment, control, and challenge. Commitment is the characteristic of being actively engaged in their pursuits and encounters. Control is a belief that one has influence over situations versus feeling powerless. Challenge is understanding that change is inevitable and part of growth (Kobasa, Maddi, & Kahn, 1982).

Health Behaviors: Health behaviors are often classified into two categories, health-promoting (i.e. physical activity, eating fruits and vegetables) and health-compromising (i.e. smoking; de Vries et al., 2008).

Health Behaviors Inventory-20 (HBI-20): A 20-item inventory designed to assess health behaviors, both health-promoting and health-compromising (Levant, 2011).

Mental health worker: A staff person who has received specific training in mental health and works in the mental health field, ranging from a mental health rehabilitation worker or peer specialist to mental health professional with a license (Office of the Revisor of Statutes, State of Minnesota, 2011).

Maslach Burnout Inventory (MBI): Fitting with Maslach's theory of burnout, the MBI measures three areas of burnout: emotional exhaustion, depersonalization, and personal accomplishment (Maslach, 1982). The stated purpose of the MBI-Human Services Survey (MBI-HSS; which this study uses) is to "assess the three aspects of the burnout syndrome: emotional exhaustion, depersonalization, and lack of personal accomplishment" (Maslach et al., 2010, p. 4) in human services workers.

Personal accomplishment: When staff feel poorly about their work quality and vocational accomplishments with a decreased belief in one's personal accomplishments which can lead to low level of confidence in one's ability to help others (Leiter & Maslach, 1988).

Assumptions

The execution of this study required certain assumptions that were important to consider and were necessary to conduct of non-experimental research like this. The first

assumption is that potential participants, mental health workers, of this study were interested in completing surveys on resiliency and health habits. It was assumed that all potential participants would respond accurately and honestly in the completion of demographic information and the three inventories. The accessible population utilized in this study was assumed to closely resemble mental health workers in other locations, based on similar work with clients, education, and years in the field.

Limitations

The first limitation of this study was that all participants were recruited from one North Central United States metropolitan area and were therefore not representative of the larger population of mental health workers. The second limitation was that all data were collected from online self-administered surveys sent to employees' work e-mail addresses. This included the potential that the e-mails from the study would be discarded and/or not be accurately completed. The third limitation of this study was the time commitment needed to complete the demographic information and three inventories, which might have discouraged busy professionals from participating or fully completing inventories.

The reliability of the data could have been impacted by social desirability bias. Questions contained in the burnout survey and health inventory included items that asked for a response which may not have been seen as social or professionally acceptable.

It is general knowledge that survey research is inherently weak when it comes to internal validity. First, as a correlational study, it is not known whether the hypotheses proposed in the study represent the directionality of the relationships between constructs

in the population; or if enough constructs have been represented in the proposed model. In other words, there is a risk that other explanations of the results may be equally as plausible as those found in this research (Nardi, 2003). Second, survey research has no random assignment to conditions and no control over any of the independent variable conditions (Kazdin, 2003; Sue & Ritter, 2007). To attempt to overcome the weaknesses of this survey design there was a detailed protocol with directions to navigate the survey, and straightforward instructions included. The original plan was to have a statement encouraging participants to take the survey in an undisturbed place. After assessing the workplace scenarios and environment in the organizations work setting this was not a realistic expectation.

When considering external validity it is important to remember that this study used convenience sampling. With convenience sampling there is no way to estimate sampling error (Kazdin, 2003). This study did not present significant limitations with regard to construct validity because fully developed and tested instruments were used. The three measures used in this study have documented psychometric properties.

Although the measures used in this study were acceptable based on previous applications, they have inherent and expected limitations. Bartone (1995) reported the test-retest reliability for the DRS-15 at 3 months was .52, and Cronbach's alpha=.71 in study of 213 undergraduate students (Hystad et al., 2009). The 3-week test-retest reliability of the DRS-15 with sample of 104 undergraduate students was .78 (Bartone, 2007). Bartone (2007) also broke out test-retest reliability into commitment, control, and

challenge with reliability being .75, .58. and .81. I focused on the hardiness summary score.

An exploratory factor analysis was conducted by Levant et al. (2011) to assess the reliability of the HBI-20. The HBI-20 internal consistency was found to be .72. The alpha scores for diet, medical compliance, anger/stress, preventative care, and substance use were .79, .68, .71, .69, and .70, respectively.

Maslach et al. (2010) in the MBI manual reports that the internal consistency by Cronbach's alpha was measured at .90, .79, and .71 for Emotional Exhaustion, Depersonalization, and Personal Accomplishment, respectively. Test-retest coefficients for the three dimension have varied among different studies, with results ranging from .50 for Depersonalization at a six-month follow-up to .82 for Emotional Exhaustion at a two to four week follow-up time. Although Emotional Exhaustion has good construct validity, Depersonalization and Personal Accomplishment are more limited.

Scope and Delimitations

This study only included those participants defined as mental health workers who reported having direct contact with recipients of their services. This included those participants defined as being able to provide mental health services through their education, training, and experience. The recruited participants were only in one geographical area, a North Central United States metropolitan area. Generalizability to the larger population of mental health providers is limited due to the reach of this study and pool of participants. The data gathered was limited to the Maslach Burnout Inventory-Human Services Survey (MBI-HSS) (Maslach et al., 2010), Dispositional

Resilience Scale-15 (DRS-15; Bartone, 2007), and Health Behavior Inventory (HBI-20; Levant et al., 2011) inventories.

There was a risk that the final model would not be fully specified. Areas related to this study topic that were not investigated included job satisfaction, employee retention/turnover, compassion fatigue, and vicarious trauma. The focus on burnout, hardiness, and health behaviors in this study were chosen because of the limited research in this area, the convenience of the sample, and cost effectiveness of the design.

Significance and Social Change Implications

Research on burnout has developed over the past several decades, but has not adequately addressed health and hardiness issues in mental health workers. This study added to the current accumulation of knowledge in the area of burnout in mental health providers. The unique contribution of this study was a focus on how burnout is affected by health-promoting and health-compromising behaviors and measured hardiness in those that provide mental health services. Though I did not deal with burnout prevention directly, I attempted to shed light on the need for greater attention to employee burnout and health needs in the mental health field.

This study contributed to positive social change by making an important contribution to literature on health behaviors and burnout of mental health workers. This study allowed for an understanding of this population's health needs and for the development of self-care interventions. The importance of addressing burnout is related to issues of personal and professional satisfaction, emotional distress, recipient care, and physical health (Barnett, Baker, Elman, & Schoener, 2007; Barnett & Cooper, 2009). The

implications for positive social change include promoting self-care and wellness for those working in the mental health field and providing evidence to employers to support burnout awareness and prevention initiatives.

The information gained from this study may be helpful in helping mental health organizations address health and wellness issues with staff who are exhibiting burnout or create burnout prevention programming for staff members. This study may be useful in clinics, nonprofit organizations, and other mental health care facilities that utilize mental health workers. The primary focus of this study was to examine the importance of mental health workers health behaviors and hardiness on burnout in the mental health care setting.

I plan to use the data and knowledge obtained through this study to educate area mental health organizations of the significance of burnout, including health behavior connections and possible protective factors. Through individual meetings, organizational trainings, and state mental health conferences I plan to share the findings and engage in discussions with managers and organizations to identify the signs and risks of burnout and handle burnout when it occurs.

Summary

Burnout is a significant concern in mental health workers. The causes of burnout have been extensively explored, and the costs of burnout are high and damaging to the worker and those under his or her care. However, there is little research on how the health behaviors and approach to stress influence perceptions of burnout. This study sought to fill part of this gap in the literature. I examined the relationship between health behaviors,

hardiness, and burnout in mental health workers. The next chapter provides a more detailed account of the evolution of burnout research, measurement of burnout, impact of burnout, and physical health implications. Chapter 2 also includes a detailed description of health behaviors and the theoretical framework of this study.

Chapter 2: Literature Review

Introduction

Burnout is a serious condition brought about by challenging workplace circumstances that has the potential to deplete one's psychological and physical resources. I focused on individuals working in the mental health field who may be experiencing burnout. Burnout, as seen throughout this review, contributes to mental and physical health issues, poor work performance, poor recipient care, and relationship problems (Pines & Aronson, 1988). This employment-related malady is referred to by Maslach and Leiter (1997) as a syndrome that "represents an erosion in values, dignity, spirit, and will – an erosion of the human soul" (p. 17). Burnout does not instantly appear; it is rather a slow and smoldering process. Burnout occurs over time as the affected person becomes exhausted and extended beyond his or her means, often in the context of meeting the needs of other people. In less psychological terms, burnout is like "a fire going out, a loss of energy, a flame going out, a battery out of power" (Salanova & Llorens, 2008, p. 59). The factors surrounding burnout are considered the fundamental contributors to the development of burnout (Pines & Aronson, 1988). This chapter details the history of burnout, measurement of burnout, physical health and burnout, mental health workers and burnout, and theoretical approaches of hardiness and individual differences.

The amount of literature on burnout that has developed over the years is impressive, with most Internet searches numbering in the 100s or 1000s. The purpose of this review was to provide an overview of the foundations of burnout research and its

progression to current studies and to better understand health factors related to burnout in mental health workers. Although many included articles are not directly related to mental health workers they informed the conceptualization and design of this study.

Literature Search Strategy

The academic search engines PsychInfo, Medline, PsychArticles, Google Scholar, Science Direct, EBSCO, and PubMed were used to find articles that make up this review. Keywords searched included, *burnout, job burnout, burnout* and *health*, *burnout* and *illness, burnout* and *mental health workers, burnout* and *mental health professionals, psychiatrists* and *burnout,* and *psychologists* and *burnout*. In addition, many resources were found in the reference lists of related journal articles. The date range of articles searched were from the early 1970 to the present.

For inclusion of an article in this review it required a connection to burnout in the work place, either in social services or another profession, if it spoke to the direction of this paper. When the word *burnout* is used it is only referring to measured burnout that was coined by Freudenberger (1974; 1975) and Maslach (1976), which will be discussed further below. Terms such as *stress, fatigue, job stress,* and *job dissatisfaction* were not used in this study. Although these are important factors they have the capacity to cause confusion between other mental health symptoms and employment issues (Iacovides, Fountoulakis, Kaprinis, & Kaprinis, 2003).

To begin this review of relevant literature it is important to look at a statement that foreshadows many years of research on burnout in mental health workers, professionals, and other providers.

> The burned-out provider is prone to health problems, psychological impairment, loss of self-esteem, and growing dissatisfaction with the job. However, the damaging impact of burnout goes beyond the individual caregiver. It can hurt the recipients, who receive less good services and are treated in a more dehumanized manner. It can hurt the institution, which gets less than optimal performance from its employees and has to struggle with the disruptive problems of absenteeism and high turnover. It can hurt the caregiver's family….. Indeed the costs of burnout for all of society are clearly too high. (Maslach, 1982, p. 73)

This statement 30 years ago laid the foundation for burnout research that would continue to this day. The cost seen in job dissatisfaction (Eriksson, Starrin, & Janson, 2008), absenteeism, job turnover, lost revenue, poor service, and psychological turmoil has been evidenced in research over the years (Leiter & Maslach, 2005). The physical health cost of burnout in mental health providers, however, has not received its due attention (Shirom, 2010).

History of Burnout

The symptoms behind burnout are not new, but the term burnout was developed within the last 40 years. It is commonly held that Freudenberger (1974) is the originator of burnout as a professional phenomenon. Freudenberger began the discussion on burnout in a seminal article on human service staff. This work introduced the key framework of burnout and the significance to the human and social services fields and began identifying what burnout looks like and the initial key symptoms. Freudenberger (1977) cited burnout as involving fatigue, irritability, being overworked, and boredom with the

job. At this early stage of burnout research physical health complaints were first introduced as a symptom, but not well defined. This initial look at burnout also included preventative measures and health factors, which foreshadow the direction of this study (Freudenberger, 1974).

The early research on burnout is considered the pioneering phase. This initial period of research "was exploratory and has the goal of articulating the phenomenon of burnout" (Maslach, Schaufeli, & Leiter, 2001, p. 399). This phase of research was generally not empirical, but observational in nature. Research involved personal experience, interviews, and observations. Freudenberger was known for writing on his own experiences of exhaustion and decreases in commitment, and those experiences of others. Maslach began exploring burnout in the 1970s as well, mostly from a non-empirical approach (Maslach & Schaufeli, 1993).

Freudenberger (1975) reported having developed the term burnout in the context of working at an alternative free clinic in New York City in the early 1970s. His early research was centered on his own personal experiences of being a psychoanalyst. Freudenberger explained his extensive work hours, feelings of exhaustion, and difficulty meeting the needs of the people he served (Freudenberger, 1975). Freudenberger began asking questions about this concept coined from drug users who use substances until burning out. His inquiry into the experiences of burned out human service workers would begin the serious look at burnout (Freudenberger, 1974).

The early research of Maslach was not as personal as that of Freudenberger, but exhibited some of the same methods. Maslach (1976; 1982) began studying burnout at

the University of California Berkley with her colleagues. Maslach's first work with burnout began in the early 1970s when little, if any, research focused on burnout or related symptoms. Research began with both quantitative and qualitative approaches to better understand how the phenomenon was affecting human service providers. Unlike Freudenberger, Maslach viewed burnout as a syndrome and risk factor for those in the human services field (Maslach, 1982). The seminal article on burnout (Maslach, 1976) brought burnout to a place of awareness and acknowledgement in human services. Maslach did not detail the research methods that were conducted in this original article. From this article on, Maslach began a more scientific study of burnout, leading to the development of the MBI (Maslach, 1976/1982).

Though not documented in detail Maslach conducted interviews with 200 employees in human service settings, from social workers to child-care workers to prison guards. These personal interviews and anecdotes served to form the foundation and definition of burnout. In addition to interviews Maslach (1976) also collected survey data, but this early data was not published in quantitative form (Maslach, 1976). The data collected and patterns found in personal interviews made their way into the development of the Maslach Burnout Inventory in the early 1980s (Maslach, 1982). This type of exploration yielded descriptions of burnout and better conceptualizations of what human service staff were experiencing. The common occurrence of burnout was established (Maslach & Schaufeli, 1993).

The definition of burnout has evolved considerably since its origin as a social psychological construct. Freudenberger (1974) used a dictionary definition to describe

the phenomenon, “to fail, wear out, or become exhausted by making excessive demands on energy, strength, or resources” (p. 159). Maslach (1978) initially described this problem as “an emotional exhaustion in which the staff person no longer has any positive feelings, sympathy, or respect for clients” (p. 113). A more updated definition provided by Maslach describes the construct as a “psychological syndrome that involves a prolonged response to stressors in the workplace” (Maslach, 2003, p. 189).

In the 1970s, the reasons for and causes of burnout were not well understood. Freudenberger (1977) initially blamed the employee for burning out by not maintaining proper self-care and work-life balance. He wrote about a time when he had to leave his involvement with the human service agency he started to take care of himself after burning out. Burnout was seen as a result of insecure employees overcommitting and over dedicating themselves to the job. It was believed that the employee did not fulfill himself or herself on other activities and used the job for personal satisfaction, thus leading to burnout. Freudenberger (1977) explained that “burn-out is on a treadmill of his or her own devising, even though he or she ascribes it to external forces” (p. 27). It is important to note that at the time this was mostly based on his own personal experience and observations.

Pines and Maslach (1978) reported how higher acuity patients, longer work hours, staff to patient ratio, time in direct care, and length of career in mental health played into higher burnout levels. Factors such as control, work environment, attitudes about patient care, and employment rank were found to be significant in relation to burnout in mental health staff (Pines & Maslach, 1978). The early sentiment was expressed as, “Staff who

liked their work very much have a smaller percentage of schizophrenic patients, worked fewer hours a day and spent less time in administrative work" (Pines & Maslach, 1978, p. 236). These early observations of burnout in human services launched further research into the precipitating factors in burning out. Maslach (1981) cited multiple examples of qualitative reports of police officers, nurses, teachers, and therapists experiencing burnout. Maslach (1976) called attention to many factors that are still being considered today. She initially looked at the causes of burnout, the effects of burnout on recipients of services, and the effects of burnout on the mental health or social service provider's mental and physical health. The foreshadowing of these issues is reflected in the literature through the decades that would follow (Leiter & Harvie, 1996).

The evolution of the study of burnout sought to better understand why social service employees burned out. Thomsen, Soares, Nolan, Dallender, and Arnetz (1999) conducted a study of 1,051 mental health workers measuring work-related exhaustion. The cross-sectional study pointed to the strong influence of organization factors, such as workload and professional development. Personal development factors also played a part of the study results. Lack of professional fulfillment was related to greater levels of exhaustion (Thomsen et al., 1999). In the social services field research began to further explore how the field itself may contribute to increasing stress and burnout among its staff. In a review of related studies, Lloyd, King, and Chenoweth (2002) explained that high rates of turnover, financial limitations, and organizational cultures compound the experience of burnout in social service staff. Role confusion and barriers to performing duties were also cited as factors leading to burnout. A recent cross-sectional study

(Lasalvia et al., 2009) conducted with 200 mental health workers using the Maslach Burnout Inventory-General Survey (MBI-GS) found that one fifth of the sample were burned out. The more direct time with recipients of services, low social support, and length of employment were critical to higher burnout.

The explosion of burnout research that would follow the work of Maslach in the 1970s would develop into exploration of many factors of burnout in various disciplines. The recent study of burnout has branched to hotel managers (Zopiatis, Constanti, & Pavlou, 2010), educators (Azeem, 2010), and banking employees (Khattak, Kahn, Arif, Minhas, 2011), among others. Although the awareness of burnout began in social service the tenets and dimensions of burnout are applicable to other fields (Maslach & Goldberg, 1998).

Compassion Fatigue and Vicarious Trauma

Burnout, as defined above, is based on the idea of a syndrome that develops from occupational stress, namely in those in the human services profession. Burnout research, despite its importance to understanding occupational stress, has not been linked directly with a specific stressor. In the field of mental health burnout has not been associated with work among clients that have experienced trauma (Sprang, Clark, & Whitt-Woosley, 2007). Burnout and compassion fatigue are different conditions that can afflict those in human services. It is significant to note that burnout is derived from ongoing employment stresses, including work with clients. Compassion fatigue, on the other hand is directly connected to work with recipients of mental health services (Boscarino et al., 2010). In contrast, the emergence of the construct compassion fatigue suggests a specific kind of

occupational stress that emerges from working with individuals suffering from the consequences of a traumatic event. Literature on this topic refers to compassion fatigue and vicarious trauma interchangeably (Boscarino et al., 2010).

The constructs behind vicarious trauma relate to the counselor's own trauma history, exposure to clients who have experienced trauma, quantity of work with trauma clients, and one's own ability to handle the emotional toll (Devilly, Wright, & Varker, 2009). Devilly et al. (2009) conducted a fairly extensive study with 152 mental health professionals in Australia. The varied and randomly selected professionals completed several measures to assess burnout and the effect of trauma, which included the Depression, Anxiety, and Stress Scale (DASS-21), TSI Belief Scale-Revision L (TSI-BSL), and the Copenhagen Burnout Inventory (CBI). Self-report history of traumatic events and demographic information was assessed. Contrary to recent research on vicarious trauma, this study revealed that trauma reported by clients was not a predictor of vicarious trauma or secondary traumatic stress (Devilly et al., 2009). Figley (1978; 2002) began his interest in compassion fatigue while studying Vietnam veterans and the effects of trauma from war. Although his interest focused on what would today be considered Post-Traumatic Stress Disorder (PTSD) he saw the effects of compassion fatigue. The concept of compassion fatigue was first discovered as he talked with soldiers who felt guilt over not helping enough when comrades needed assistance (Figley, 2002).

Boscarino et al. (2010) suggested that burnout and compassion fatigue/vicarious trauma are "separate phenomena" (p. 25) in the human services and mental health fields because of the specificity of the stressor, and the countertransference aspect found in

compassion fatigue but not in burnout. This is not to say that working with difficult client situations is not stressful, but other aspects of mental health care rise further to the top of concerns. Sprang et al. explained that the study of compassion fatigue and vicarious trauma are distresses that have been linked to specific human service recipient issues. The study involved a large sample of over 1,100 mental health workers. The participants took the Professional Quality of Life Scale (ProQOL) in an attempt to determine the relationships between compassion fatigue, compassion satisfaction, and burnout, a function of the scale (Boscarino et al., 2010).

The experiencing of vicarious trauma is most associated with the provision of therapeutic services to clients who have experienced previous trauma. Compassion fatigue has been defined by Figley (2002) as a form of burnout. Compassion fatigue, however, is a different concept and has different constructs. Exacted as a cost of caring, compassion fatigue is related to the emotional toll that providing therapeutic services takes on the provider. In addition, compassion fatigue is believed to grow out of the continual balance of exuding empathy and compassion on the hurting, but also maintaining a distance to protect oneself. The cost of compassion is often fatigue and the result of this fatigue can change a provider's ability and interest in continued compassion (Figley, 2002).

Measurement of Burnout

Burnout went from being a concept to a measured condition. The research and development during the early years prompted the need for a formal measurement tool. The MBI (Maslach & Jackson, 1981) was designed to assess various aspects of the

burnout syndrome in the human services professions. The measure was developed inductively using a factor analytic approach rather than generating an arbitrary set of items (Schaufeli, 2003). The MBI was developed from the more informal research that was conducted through observations, questionnaires, and interviews with human service professionals. The MBI was developed on the basis of the hypothesis that burnout involves emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach & Jackson, 1981)

The Original Inventory

The initial MBI was developed with 47 items based on the "attitudes and feelings that characterized a burned-out worker" (Maslach & Jackson, 1981, p. 100). The items were derived interviews and observations of people who were considered to be burned out. In general, the MBI was developed out of "hypothesized aspects of the burnout syndrome" (p. 100). Ideas for the inventory items were developed from work with employees who appeared and were characterized at the time with burnout syndrome. Before the MBI there as a general sense of what constituted a burned out person, but no empirical measurement tool. The larger inventory was given to a sample of 605 individuals employed in human service related professions, including teachers, nurses, police, psychologists, and social workers. The sample included 44 percent female and 56 percent male. The early version would be significantly reduced later to 25 questions. The 25 question inventory was given to another sample of 420 individuals, also in human service professions. Despite the design intention the MBI has been utilized in other professions (Leiter & Schaufeli, 1996).

The three dimensions of burnout in the MBI are emotional exhaustion, depersonalization of others, and negative views of personal accomplishments. The intent of the MBI was to have three separate dimensions of burnout. Each dimension is measured for frequency by use of a Likert scale (Maslach, 1982; Maslach & Jackson, 1981). Frequency is measured by a 7-point Likert scale. Emotional exhaustion is defined as feeling no longer able to meet psychological demands of the job or clients and feeling overextended emotionally by one's work (Maslach, 1982; Maslach & Jackson, 1981). In addition, emotional exhaustion can lead to negative perceptions and attitudes towards one's work and clients (Maslach, 1982). The emotional exhaustion dimension item that is the most significant factor loaded is related to being burned out. A sample question is "I feel emotionally drained by my work" (Maslach & Jackson, 1981, p. 102).

Depersonalization is defined as viewing clients as less than human or in other negative, callous ways (Leiter & Maslach, 1988). The description of depersonalization based on original non-empirical research is having a detached and impersonal approach to the consumers of one's services. An example MBI item of depersonalization is "I don't really care what happens to some recipients" (Maslach & Jackson, 1981, p. 103).

The third dimension is defined as personal efficacy. Burned out staff may feel poorly about their work quality and vocational accomplishments. Decreased belief in one's personal accomplishments leads to low level of confidence in one's ability to help others (Leiter & Maslach, 1988). An examples of an item in the personal accomplishment dimension is, "I have accomplished many worthwhile things in this job" (Maslach & Jackson, 1981, p. 102).

Other MBI Versions

Since the original development of the MBI there have been some subtle changes to accommodate other fields. The MBI-GS (General Survey) was designed for the larger population (Naude & Rothmann, 2004), thus not using specific references to clients, recipient, or students. Unlike the MBI-GS the MBI-HSS (Human Services Survey) is worded for those working in the helping profession. In addition, the MBI-ED (Educators) version refers to students in the inventory questions (Schaufeli, 2003).

MBI Reliability

The original MBI yielded very respectable initial reliability. Internal consistency for the MBI was measured using the Cronbach's coefficient alpha. The MBI sported internal consistencies of .83 and .84 for frequency and intensity, respectively. In addition, the coefficient for emotional exhaustion was .74 (Maslach & Jackson, 1981). Maslach and Jackson (1981) found that when test-retest reliability was measured among a sample (n=53) of individuals in social services (mental health workers, police, nurses, teachers, social workers, attorneys, psychologists, psychiatrists) the result was .82. The test-retest reliability was good for all three domains of burnout. The total study sample size of the initial MBI was n=1025. The psychometric properties of the MBI have been consistently good, especially in studies with employees in the helping professions. Most studies reveal an internal consistency in the consistent nature of .70 (Schaufeli, Bakker, Hoogduin, Schaap, & Kladler, 2001). In the case of the Schaufeli et al. (2001) study, 139 individuals (half of whom worked in human services and were college educated) seeking help for work-related problems were studied by administration of the MBI.

MBI Validity

Determining the validity of the original MBI involved distinct validation correlations. External correlation of MBI scores of mental health workers with ratings by their coworkers were conducted. The correlation for the MBI scores and the coworker ratings indicated a connection. Co-worker ratings of being emotionally drained and physically fatigued were predictors of high scores on emotional exhaustion. The only other dimension that was statistically significant was depersonalization, predicted by co-worker complaints about the recipients of services (Maslach & Jackson, 1981).

More recent studies of MBI validity have continued to report the integrity of the most widely used measure of burnout. A validation study of the MBI-GS by Taris, Schreurs, and Schaufeli (1999) found the three dimension model of burnout to be consistent with previous research, when looking at internal validity. External validity also revealed the three dimensions of burnout were supported through distinct correlates. A study of factorial validity by Vanheule, Rosseel, and Vlerick (2007) revealed a close fit of the 20-item MBI-HSS to the original MBI dimensions through confirmatory factor analysis. Vanheule et al. (2007) pointed to some difference in meanings that may be attributed to emotional exhaustion, depersonalization, and personal accomplishment based on a sample of human service professionals. Hallberg and Sverke (2004), in a Swedish study utilizing the Swedish translation of the MBI-HSS with human service professionals, explored construct validation. They found strong support for the three dimensional model of burnout among hospital workers

Other Measures of Burnout

Pines and Aronson (1981) created The Burnout Measure (BM) as another measure of burnout that focuses on the syndrome in various professions and the general population. Although the BM is the second most used instrument to measure burnout it is only incorporated in 5% of studies (Schaufeli et al., 2001). The BM is rooted out of a theory that views burnout as involving physical, emotional, and mental exhaustion (Pines, Aronson, & Kafry, 1981), in comparison to the MBI that just addresses emotional exhaustion, in addition to two other non-exhaustion related dimensions (Schaufeli & van Dierendonck, 1993). The BM is defined as a one-dimensional measure of burnout because it is only examining exhaustion, even though there are three kinds (Pines et al., 1981). The BM is scored with a single score, whereas the MBI has three separate scores (Enzmann, Schaufeli, Janssen, & Rozeman, 1998). The types of exhaustion in the BM are physical exhaustion, emotional exhaustion, and mental exhaustion. Unlike the MBI, the BM began with focus on various occupations and professions. The questionnaire was originally designed to identify burnout across a spectrum of populations.

The psychometrics of the BM are not plentiful according to Enzmann et al. (1998) and recent research has provided very limited information on this measure. The limited understanding of the validity of the BM has cast doubt over it. In fact, Enzmann et al. was unable to establish discriminant validity of the BM in their study. The internal consistency of the BM has been found to be in the .91 to .93 range, based on original research by Pines and fellow researchers. The BM and the MBI are strongly correlated

with each other. Emotional exhaustion and depersonalization on the MBI are most closely related to the BM (Schaufeli & van Dierendonck, 1993).

Since the inception of the BM the Burnout Measure, Short Version (BMS) was developed by Malach-Pines (2005). The BMS was developed with both Jewish and Arab samples in Israel. The occupations of the samples included nurses, managers, police officers, and students. The test-retest reliability of the BMS was around .89 and .74 at a 3-month follow up. Internal consistency of the BMS was also significant, with .87 and .85, for both ethnic samples respectively (Malach-Pines, 2005).

Less popular inventories to measure burnout in the general population are the Shirom-Melamed Burnout Measure (SMBM) and the less employment related Shirom-Melamed Burnout Questionnaire (SMBQ) (Lundgren-Nilsson, Jonsdottir, Pallant, & Ahlborg, 2012). The SMBM is focused on the measurement of burnout in the working population through assessment of cognitive weariness and physical fatigue. Shirom and Melamed (2006) found that among human service workers the SMBM and MBI-GS were highly correlated, with the SMBM at .74 and MBI-GS at .79. The SMBQ measures burnout on four dimensions, including cognitive weariness, physical fatigue, listlessness, and tension, though not directly related to employment (Lundgren-Nilsson et al., 2012).

Burnout in the Mental Health Profession

Several authors have suggested that that relationships in the mental health field are primed to lead to burnout (Maslach, 1982; Maslach & Jackson, 1981; Ohrt & Cunningham, 2012; Pines, Aronson, & Kafry, 1981). The key relationship challenge is that work with clients is first and foremost of critical importance. Every effort in the job

is to satisfy a need of the client. By nature, the relationship is one-way or asymmetrical. Instead of give and take, the relationship is all take. The profession requires this key component of helping, but without other supports for the provider, he or she is left highly vulnerable to burnout symptoms (Pines & Kafry, 1978). The value of selflessness is espoused and putting one's own needs last is a highly prized virtue of the helping professional. When selfless actions and a dearth of resources combine a formula for staff burnout is created (Leiter & Maslach, 2001).

When considering the helping profession one must take into account the type of individuals that choose this career. Though research has not extensively explored the characteristics of social service employee in relation to burnout, Pines and Aronson (1988) give us a glimpse of this connections. Those that enter social services often begin their careers with a sense of ambition and desire to effect change in others and the world. These caring and dedicated people often succumb to burnout after their idealistic expectations of others and themselves are not met. Often these individuals hold themselves to high standards. Recently, D'Souza, Egan, and Rees (2011) found a significant correlation between perfectionism and burnout in clinical psychologists. Perfectionism as a trait in psychologists and people in social services has not received much attention. Those that help others exhibit traits of unusual and unhealthy standards. When those standards are not achieved the helper is more susceptible to burnout (D'Souza et al., 2011).

Employment that involves work with other human beings is the focus of the majority of burnout research. With the focus of this study being on mental health workers

and professionals there are specific identified stressors that increase the need for research in this domain. The mental health care system has seen many changes over the past several decades and has evolved into a managed care environment. Managed care has resulted in changes that have brought about limited financial and staff resources. The care for clients has also been reduced as services are often expected to do more with less (Acker, 2010).

The burnout of mental health staff begs the question of what factors are most strongly connected to burnout. An extensive meta-analysis of over 3,600 mental health workers in 15 studies revealed that age was the most significant factor in experiencing the emotional exhaustion of burnout (Lim, Kim, Kim, Yang, & Lee, 2010). The authors suggested that older mental health workers have found ways to cope and avoid burnout, while younger workers are more likely to experience emotional exhaustion. Age was consistently a factor across the three dimensions of burnout, including emotional exhaustion, depersonalization, and personal accomplishment. Education also comes into play. Results of this study indicated that mental health workers with more education showed higher levels of emotional exhaustion, possibly due to greater professional expectations and providing services to more challenging clients. The study results also found that the number of years in the field has an effect on depersonalization and personal accomplishment, with longer career workers reporting less burnout than those newer to the field. Longer work hours were also found to be positively correlated to burnout, although no distinction was made about time with clients (Lim et al., 2010).

Burnout in the General Population

As mentioned above, the focus of early and most current burnout research is on human service workers (Maslach, 1981). Even though research on burnout started in human services there has been a shift in the last few decades to some limited research in the general population, though this is often difficult to define (Lindblom et al., 2006). For the purposes of this review the general population includes research that is not profession specific. The concept of burnout was originally developed in relation to the "people" professions, such as counselors, police officers, nurses, and social workers. Basically, the idea of burnout and the measurement of burnout was created around the emotional exhaustion that manifests from working with people in need (Maslach, 1982). The emotional exhaustion component is the feeling of depletion of ones' energy and resources that are used to care for recipients. This has been found to only be compatible with the human service professions (Taris et al., 1999). The popularity of the MBI spurred the use of the measure with populations in other fields. This use was not effective and led to modifications of wording (Schutte, Toppinen, Kalimo, & Schaufeli, 2000).

This division created a need for different measures. The MBI-GS was designed with similar constructs as the original MBI, but some wording was changed. References to recipients was eliminated, and emotional exhaustion became fatigue. The focus of the measure was designed to assess burnout related to social and non-social interactions in the workplace, in addition to competencies about the job itself. This stands in contrast to the MBI and MBI-HSS which measure all dimensions in relation to clients or recipients of services (Schutte et al., 2000; Taris et al., 1999).

Although not the focus of this study, the question of burnout in the general population has been considered. A large Finnish study (Ahola et al., 2006) collected data from 3,424 people in the general population. Use of the MBI-GS found relatively low incidence of burnout. Factors such as low education and low socioeconomic standing were associated with higher scores in women, while being unmarried predicted higher scores among men. These findings are inconsistent with a general population study that revealed 17.9% of the Swedish population having high burnout on the MBI-GS. The cut off scores have been a factor in differences between studies (Lindblom et al., 2006). Ahola et al. (2006) and Lindblom et al. (2006) found that older workers and women were at higher risk of burnout.

Physical illness and burnout in the general population was studied by Honkonen et al. (2006) from the Finnish population study (Ahola et al., 2006). Although burnout was low among the respondents of the survey health problems were significant. Burnout among the population was less than 3%, but 71% of those with burnout had no less than one physical illness. Burnout was most closely correlated with cardiovascular disease in men and musculoskeletal illness in women. The higher the level of burnout the higher the incidence of physical illness. The study used the MBI-GS and evaluations by physicians (Honkonen et al., 2006). Although this study was conducted with the MBI-GS and with a large European general population it informs the discussion of physical illness and burnout. In discussing the interaction of physical and mental factors in burnout it is vital to explore health beliefs and behaviors.

Impact of Burnout

Burnout and Work Performance

The focus of some research on burnout is targeted at understanding the impact this occupational hazard has on employees' job performance. Job performance is difficult to define and even more challenging to measure. The job performance of burned out mental health workers is a significant concern due to the involvement of client care. A study of 100 mental health workers (Ashtari, Farhady, & Khodaee, 2009) in Iran measured levels of burnout using the MBI and a measure of work competence. It was found that the mental health workers' ability to do their job effectively was jeopardized by burnout. Overall 20% of those surveyed indicated that they were not competent to do their assigned jobs. The effects of burnout increased reports of low job ability. Those with higher rates of burnout on the MBI indicated more inability to function in their current jobs. Job inability was connected to all three dimensions of the MBI, with job achievement most closely correlated with job inability. Although job satisfaction has been studied in relation to burnout these findings are unique in that they connect the effects of burnout with abilities to fulfill job roles. Emotional exhaustion is often accompanied by physical exhaustion and various physical symptoms. It is vital to consider the indirect impact of these physical complaints on work ability. In the mental health field work ability is critical considering the nature of and significance of human interactions (Ashtari et al., 2009). This study highlights the impact that burnout can have on mental health employees' capacity to respond effectively.

To compound the effects of burnout on job performance, burnout has been shown to affect cognitive functioning. Being burned out is shown to have daily functioning impact. Dutch researchers van der Linden, Kiejsers, Eling, and van Schaijk (2005) performed the first known exploration of cognitive disturbances in burned out individuals. Although not mental health workers, the teachers in the study were involved in human service. Burnout was calculated from the MBI participants' scores. Those with high burnout were found to have statistically significant deficits in executive functioning. Since executive function involves voluntary aspects of attention and inhibition these were measured through established instruments. Burnout was shown to reduce attention on daily tasks and resulted in being more easily distracted. Participants also suffered more inhibition errors on the Sustained Attention to Response Test (SART) (van der Linden et al., 2005).

Impact of Burnout on Recipients of Services

When looking at the importance of burnout among mental health workers the attention is often put on the staff person, not the consumer of services. When attempting to gain a good understanding of the effects of burnout it is critical to briefly survey the impact the cluster of symptoms can have on people in need of psychological care. Starting at the most basic level, Holmqvist and Jeanneau (2006) found a clinically significant correlation between feelings of burnout and negative perceptions of recipients and of the helping relationship. The strongest correlations found were between low energy and emotional exhaustion, and feelings of rejection and unhelpfulness.

On another level, recipients of services are affected by burnout in staff. When patients on a well-staffed and smooth running hospital floor were asked about their care satisfaction, patient satisfaction was markedly higher on units where nurses were supported and burnout was low. The inverse was true for higher burnout units. Well supported nurses and enough staff was reflected in changes in burnout levels and the perception of services by those being served (Vahey et al., 2004).

Family/Home Conflict

While the impact of burnout on social service employees has focused primarily on the individual, the emotional exhaustion that a burned out individual faces can spill over to the home. This impact on the home environment was seen very early on in burnout research. Pines, Aronson, and Kafry (1981) wrote about the depletion of emotional energy from emotional exhaustion as a factor in reducing the enjoyment of interpersonal relationships. However, early research by Maslach and Jackson (1985) revealed that employees who had children were less likely to experience burnout. The reasons cited include maturity, developed view of work, life stability, and less expectations of the workplace.

The emotional exertion used in many human service occupations can use up what emotional energy one has available. A recent study of about 500 American psychologists found that the presence of conflict between work and family responsibilities resulted in higher scores on all three dimensions of burnout, that is emotional exhaustion, depersonalization, and reduced sense of personal accomplishment (Rupert, Stevanovic, & Hunley, 2009). Rupert et al. (2009) found the greater the work – family conflict a

psychologist experienced the greater the negative feelings about his or her job. This conflict increased when work demands went up. This was the first known study of its kind to be conducted.

Bakker (2009) presented findings from two separate studies that delineate the impact of burnout on intimate partners. Although the populations studied were not mental health workers those included were in the helping professions (teachers and medical residents). The consequential spillover to one's partner is a very real concern. The results of surveying intimate partners of burned-out medical residents and teachers found that self-perceived health was low and depression was elevated. The medical residents that scored high on burnout also rated self-perceived health as low. This study followed up from a previous study by the same researcher that found a significant cross-over of job burnout between husbands and wives (Bakker, Demerouti, & Schaufeli, 2005). These studies point to the importance of addressing burnout and health factors among providers in the human services fields.

Mental Health and Burnout

The very nature of discussing burnout is in itself a discussion of mental health. Maslach's (1982) three dimensions of burnout are psychological in nature and point to disturbances in mental processes and perception. Although burnout itself is a mental health issue among mental health workers there is very little information available on co-occurrence of psychological problems, namely depression, outside of burnout syndrome. The reason that depression does not surface often in the burnout literature is that depression and burnout are technically different syndromes. Those with burnout do not

necessarily meet the criteria for depression, and those diagnosed with depression may not be burned out. In fact, research shows that most subjects meeting the criteria for burnout do not meet the diagnostic criteria for a depressive disorder (Iacovides et al., 2003).

Brenninkmeyer, Van Yperen, and Buunk (2001) conducted a study of 140 special education teachers that revealed that depression and burnout are most likely separate constructs. The y demonstrated through the use of the MBI for teachers, the Center for Epidemiologic Studies Depression Scale (CES-D), and measure of superiority that high burnout in the teachers coupled with low superiority resulted in more depression. Thus, those who were depressed were more likely to have lower feelings of superiority, but not burnout (Brenninkmeyer et al., 2001).

The research on depression and burnout has involved the study of more indirect relationships between the two. Ahola et al. (2006), in a large Finnish study, looked at the mediating effect of job strain and depression on burnout. They reported it was representative of the country's population and measured demographic information, health factors, depression symptoms, job strain, and burnout. High burnout and the presence of depression was found in those with the most significant disadvantages, including "older workers, those who were unmarried, those who had a manual occupational status, those who consumed large amounts of alcohol" (Ahola et al., 2006, p. 1025). In addition, those with high burnout also reported less physical activity and the presence of illness, either mental or physical. Despite using the MBI-GS, this study sheds little light on the interplay between burnout and depression. The corroborating factors make it difficult to determine the likely contributors to depressive symptoms, work-related or otherwise

(Ahola et al., 2006). Despite the difficulty of clearly distinguishing between burnout and depression it is understood that depression exists free of a specific context and burnout is generally employment-related (Bakker et al., 2001).

Physical Health and Burnout

The predominant, but limited research on health and burnout focuses almost exclusively on mental health concerns, though it is not covered in detail here. Studies that pertain to physical health and burnout among mental health workers are almost non-existent, if only referential in nature (Shirom, 2010). In addition, many of the studies on health and burnout are focused on other professions and disciplines. The research presented below gives credence to the serious consequences that burnout can have on one's physical health. These consequences are sourced from health related behaviors and the sheer impact of stress on physical systems (Melamed, Shirom, Toker, Berliner, & Shapira, 2006). Although not related to mental health workers these studies shed light on the validity of measuring burnout and determining important factors.

A significant study that connects physical health and burnout, as measured by the MBI, was conducted with Dutch dentists. Gorter et al. (2000) found that burnout in Dutch dentists was highly correlated with poor health. The data analysis was performed by comparing the high burnout group with reports of health complaints and behaviors. The results indicated that dentists in the study with a high risk of burnout reported being less healthy and exhibiting less healthy behaviors. High burnout was most highly correlated with alcohol consumption, low levels of physical activity, and unhealthy nutrition when working. It is not possible to say that poor physical health leads to burnout or that

burnout leads to poor physical health through the findings of this study (Gorter et al., 2000). However, the possible relationship between burnout and health behaviors gives cause to research further.

Few studies have been conducted that explore direct physical health concerns and burnout. A Dutch study found that a sample of people that met the criteria for burnout and were not currently able to work also had lower cortisol level in the morning. The lower levels of cortisol are known to be connected to fatigue and exhaustion. The physical connection that is cited in this study is the reduced activity of the hypothalamus pituitary adrenal (HPA) axis, leading to the physical complaints of those in the burnout group. Although previous researchers have shown opposite results, there appears to be some physical implications of severe burnout (Mommersteeg et al., 2006). In this review of literature related to physical health and burnout the consideration of vital exhaustion was included, as well as references to the effects of stress on the body.

Diabetes

Many studies have made reference to the physical health impact that burnout syndrome has, but few have begun to determine what specific health issues. Concerning diabetes, Melamed, Shirom, Toker, and Shapira (2006) found higher prevalence of diabetes in burned out employees. Melamed et al. (2006) followed 677 employed men and women for a period of 3 to 5 years. The participants were divided into low burnout and high burnout groups. At 5 years of follow up the high burnout group had higher incidence of diabetes development. To ensure the strength of the finding other factors (sex, age, smoking, alcohol use, job category, physical activity) were controlled for. The

high burnout group's level of burnout remained consistent over the years of the study. It is speculated that the prolonged experience of burnout symptoms may facilitate the development of diabetes (Melamed et al., 2006).

Immune System Functioning

It is well-established that burnout plays a part in compromising physical health. Physical health issues do not always need to be serious in nature to be detrimental to one's life. Poor immune functioning is the crux of increased susceptibility to infection and illness. Research is well-documented on the relationship between decreased immune functioning and the experience of chronic stress (Kiecolt-Glaser, McGuire, Robles, & Glaser, 2002). In severe cases of burnout in which employees were on sick leave there may be a physical link to experiencing illness (Mommersteeg et al., 2006). Mommersteeg et al. (2006) found elevated levels of IL-10, an anti-inflammatory cytokine connected to increased infections, in subjects with higher levels of burnout.

Further research on immune functioning continued to support the role of immune suppression in burnout. When comparing a burnout group and a healthy group higher levels of IL-10 were found, as in the 2006 study by Mommersteeg et al. The higher level of IL-10 is connected to the increased incidence of illness and viral infections found in burned out employees, especially those on sick leave. The causal factor is an increased sensitivity to infections by higher levels of IL-10 to manage exhaustion and stress (Mommersteeg, Heijnen, Kavelaars, & van Doornen, 2008).

Common Infections

As empirical research shows, burnout has clinically significant implications for decreased immune functioning. Mohren et al. (2003) reported evidence that workers in the probable burnout classifications had more common infections, using a longitudinal study. Common infections included in the study were cold-like symptoms, flu-like symptoms, and gastrointestinal symptoms. The most statistically significant finding was the rate of common infections when examining the difference between employees that did not exhibit symptoms of burnout and those with clinically significant burnout symptoms. Higher rates of gastroenteritis were reported in participants with higher MBI emotional exhaustion scores. While these results could also suggest a bidirectional relationship between illness and emotional exhaustion, this study gives cause for further research on the connections of common illnesses and infection to burnout (Mohren et al., 2003).

Obesity

With obesity linked to cardiovascular issues it makes sense to consider this possible connection. Armon, Shirom, Berliner, Shapira, and Melamed (2008) found that burnout does not present as a predicting factor for obesity in employees. Alternately, obesity in men and women does not have a relationship with experiencing burnout. Despite this lack of connection between burnout and obesity, the study of burnout and cardiovascular disease has yielded significant concern.

Cardiovascular Disease

The risk of cardiovascular disease (CVD) in people measuring high on burnout is a significant occupational health concern. Early research of job demands and occupational factors was studied by Johnson and Hall (1988) in Sweden. This research confirmed previous studies that pointed toward the influence of job strain, stress, and control on CVD. This study confirmed that those employees with high job demand, low levels of control, and low amounts of social support have a higher rate of cardiovascular health issues (Johnson & Hall, 1998).

Research on the burnout phenomenon and cardiovascular issues began with work by Appels and Schouten (1991). Since this time the research on CVD and myocardial infarctions (MI) has continued at a slow pace. Results of initial research pointed to evidence that a connection may exist between the prior experience of burnout and coronary issues. A large sample of male employees in the Netherlands were studied with a longitudinal design to determine the relationship between burnout and "vital exhaustion". Vital exhaustion has been defined by a general sense of fatigue, irritability, inability to cope with stress, and inability to fulfill regular job responsibilities (Appels & Schouten, 1991). Appels and Shouten (1991) found, at follow up 4 years later, 3 percent of participants having reported burnout at some point in their lives experienced an MI. This was double the rate of those not reporting burnout. Although this research supports a connection of burnout and CVD, there is comparatively little known in this area.

A 2003 study of burnout participants and a sample of healthy subjects pointed to a limited influence of burnout syndrome on the sympathetic-adrenergic-medullary (SAM)

axis, which influences heart rate and blood pressure (Vente, Olff, Van Amsterdam, Kamphuis, & Emmelkamp, 2003). Vente et al. (2003) found that burnout subjects, who had taken burnout-related sick leave, had higher resting heart rates. The higher heart rate measures remained significant for the duration of the study, even after being controlled for gender and age. In addition, the burnout subjects were measured to have higher systolic blood pressure. This study points to some evidence of the role burnout plays on the SAM axis and cardiovascular functioning.

A recent study using the MBI-GS confirmed a linkage between burnout and risk of arteriosclerotic disease in male managers (Kitaoka-Higashiguchi et al., 2009). Although this study has some limitations in terms of gender and job role it is the first study of its type to use the MBI-GS to explore burnout and increased risk for heart health issues. This longitudinal study found that burnout shows a connection with several risk factors for arteriosclerotic disease, including body mass index (BMI), high cholesterol, and weight (Kitaoka-Higashiguchi et al., 2009). The health impact of burnout has been questioned, and links have been made to the fact that burnout is derived from stress. An explanation given for cardiovascular health risks is the hypothalamic-pituitary-adrenal (HPA) axis model of stress. This model says that the intense and prolonged experience of employment-related stress continues to activate the HPA axis to handle the stress. In turn, this continued activation causes the body to build up fat stores and throw off the body's normal lipid levels. This is a preliminary explanation of how burnout may be linked to increased cardiovascular health concerns (Kitaoka-Higashiguchi et al., 2009). Another recent study conducted by Aboa-Eboule et al. (2007) found that employment related

factors may contribute to second cardiovascular events in middle-aged workers that return to their jobs. With these findings in mind it is critical to consider how health behaviors and job stress jeopardize cardiovascular health.

Burnout and Self-Rated Health

Self-rated health (SRH) is a concept that has shown to be a fairly consistent predictor of mortality, survival, and health related outcomes. The use of SRH has proved to be a significantly reliable predictor of global, overall health and mortality (Shirom, 2010). DeSalvo, Bloser, Reynolds, He, and Muntner (2005) conducted a meta-analysis of 22 studies that used a single self-rated health question to assess risk of mortality. Across studies, SRH was a consistent predictor of mortality. Individuals that indicated "poor" health had double the risk of death over those reporting having "excellent" self-rated health. The analysis controlled for age and co-morbidity issues that may have confounded the results.

Connected to burnout, Shirom (2002) postulates that good self-rated health "should be negatively linked to burnout because it represents a pivotal coping resource, reducing the impact of individuals' exposure to stressors on their burnout…" (p. 65). From an energy depletion viewpoint, people that are burned out face having less energy and therefore lower self-rated health (Shirom, 2010). Self-perceived health has proved to be a significant tool in the connection of burnout and overall physical health. A study of military personnel by Vinokur, Pierce, and Lewandowski-Romps (2009) found a relationship between SRH and burnout. It was found that SRH has a negative relationship

to burnout; SRH decreased as burnout symptoms increased. The reverse was also true; as SRH increased burnout symptoms decreased.

Mental Health Workers and Burnout

The research has clearly established burnout syndrome as a professional risk among those in the helping professions. Burnout among mental health workers and professionals has received continued attention in the professional literature. One dilemma in the burnout research is identifying what roles and positions qualify as a mental health worker or professional (Leiter & Harvie, 1996). For the purpose of this study Leiter and Harvie's (1996) definition will be used. Mental health workers are classified broadly as counselors, mental health social workers, psychologists, psychiatrists, occupational mental health workers, and psychiatric nurses. An additional criteria used in this study was that the mental health worker(s) must be engaged directly in work with people that have mental health issues (Leiter & Harvie, 1996). The research of the past two decades has looked at the impact of burnout in licensed psychologists (Ackerley, Burnell, Holder, & Kurdek, 1988), psychiatrists (Kumar, 2007; Kumar, Fischer, Robinson, Hatcher, & Bhagat, 2007), rehabilitation counselors (Maslach & Florian, 1988), marriage and family therapists (Rosenberg & Pace, 2006), correctional psychologists (Senter, Morgan, Serna-McDonald, & Bewley, 2010), and psychiatric nurses (Imai, Nakao, Tsuchiya, Kuroda, & Katoh, 2004) among many others. With the difficulty of classifying mental health workers within previous studies, this study follows established lines of distinction already drawn.

Psychologists/Counselors

Burnout of psychologists has been included in original work on burnout of mental health workers and has continued to be examined throughout the years (Ackerley et al., 1988; Maslach, 1976). In the beginning of burnout research the concern of how burnout symptoms could affect counselors surfaced. Without much research early on, the matters of awareness, detection, and prevention were key (Savicki & Cooley, 1982). Early research included psychologists in the general study of burnout in human service providers and did not differentiate their roles (Maslach, 1982). Early exploration into burnout in psychologists found high levels of one of the key burnout symptoms. Using the MBI, Ackerley et al. (1988) found that near 40% of psychologist surveyed exhibited marked emotional exhaustion. The scores on depersonalization and personal accomplishments were lower. The authors deemed that a significant number of psychologists were experiencing emotional exhaustion.

In contrast to mental health workers in other areas of the field, psychologists have been found to experience lower levels of burnout symptoms (Ackerley et al., 1988). When psychologists do experience burnout, it appears to be driven by stressful events. Psychologists in university counseling centers were found to have higher levels of emotional exhaustion when having experienced stressful events, such as a client threatening suicide. Consistent with previous research, the psychologists experienced low burnout overall (Ross, Altmaier, & Russell, 1989).

Psychologists

A decade later similar results to the Ackerley et al. (1988) study were found in another study of burnout in psychologists. The lower levels of burnout in psychologists in private practice have been attributed to increased levels of fiscal flexibility and autonomy (Vredenburgh, Carlozzi, & Stein, 1999). A study another ten years later confirmed key factors leading to burnout among psychologists. Psychologists with little autonomy, large workloads, long work hours, and difficult clients were more apt to show increased levels of burnout (Rupert & Morgan, 2005). Hours at work correlated strongly with emotional exhaustion in this study (Rupert, Stenanovic, & Hunley, 2009). The burnout factor also affects practicing psychologists that work with particularly difficult clients. Highly suicidal clients with intense interpersonal difficulties put a strain on psychologist emotions, personal self-care, and health (Webb, 2011).

A recent study of psychotherapists revealed that emotional exhaustion was related to over-involvement with clients. As previously mentioned, psychological work with recipients of therapy is emotionally taxing and requires a significant amount of caring. This correlational study by Lee, Lim, Yang, and Lee (2011) also showed that over involvement can have the opposite effect on psychotherapists' level of burnout. It is postulated that psychotherapists that are overinvolved may feel a sense of importance, thus enhancing personal accomplishment. Higher personal accomplishment drives down burnout on the MBI. As was found in previous studies, job stress for psychotherapists is a critical factor in burnout (Lee et al., 2011). Although most studies have alluded to related health factors and implications in therapists, the research has not shown adequate follow

up. As Shirom (2010) agues, there is little research on burnout and health compared to the expansive collection of studies on burnout in general.

Psychiatrists

The field of psychiatry is another profession included as a mental health worker in the present study. In the field of medicine psychiatrists are seen to be more susceptible to symptoms of burnout (Kumar, 2007). Coverage on burnout in psychiatrists has dated back to the early 1980s with an article conducted by Wise and Berlin (1981). Wise and Berlin (1981) reported two key stressors, organizational factors and severity of clients, as driving burnout in psychiatrists. The organizational factors stemmed from too few resources and role confusion. The effect of the severity of patients, patient suicide, and patient violence is consistent with original observations of Freudenberger (1974) and more current reports of Kumar, Hatcher, and Haggard (2005).

In recent years there has continued to be some limited research into burnout in practicing psychiatrists. A recently conducted study of New Zealand psychiatrists documented that high and moderate levels of burnout fell in the emotional exhaustion dimension of the MBI (Kumar, Fischer, Robinson, Hatcher, & Bhagat, 2007). Kumar et al.'s (2007) study results were comparable to another similar study of physicians with similar levels of burnout. Other recent articles cite several other potential factors of psychiatrist burnout, including on-call responsibilities, poor work environment, supervision responsibilities, low salaries, and increased workloads (Fothergill, Edwards, & Burnard, 2004; Kumar, 2007).

A significant stressor found in the literature is the effect of patient suicide on psychiatrists. The impact of a patient suicide on psychiatrists can have serious effects on mental health and in some cases has warranted the inclusion of PTSD symptoms (Fothergill et al., 2004; Ruskin, Sakinofsky, Bagby, Dickens, & Sousa, 2004). The experiencing of a patient suicide is fairly frequent for psychiatrists with 50% to 80% having to face this in their practice. The experience of patient suicide can lead to emotional and sleep problems, and even leaving the field (Kumar et al. 2005). A 2009 Italian study of psychiatrists found that emotional exhaustion was quite high, with 49% of 91 participants having a mean score of 21.33 for emotional exhaustion. The respondents with high burnout reported that working with difficult patients, having heavy workloads, and other organizational factors contributed to increased job stress (Bressi et al., 2009). Despite the existing literature on psychiatrists, scant research exists on the physical effects of burnout and factors such as patient suicide on psychiatrists.

Self-perceived health is a useful measurement when considering the role that health plays with burnout. In the case of self-perceived health Korkeila et al. (2003) assessed over 3,000 Finnish psychiatrists and child psychiatrists. Two significant findings from this study support the effort to further research burnout and health among mental health providers. The psychiatrists in this study were reported to think more often about burnout and were assessed to have higher levels of burnout than other physicians. In turn, the psychiatrists with higher levels of burnout also reported self-perceived health to be poorer and reported more health clinic visits for sickness than other physicians (Korkeila

et al., 2003). These findings stress the critical nature of health issue, which may be fairly unknown.

Shelter Workers

In addition to measuring burnout in psychologists and psychiatrists, those in other human services have been studied as well. Shelter workers fulfill the mental health worker role and work under psychologists. It goes without question that shelter workers experience stress in their work with clients. Brown and O'Brien (1998), in an early study of shelter workers, found that indeed they experience symptoms of burnout. Brown and O'Brien (1998) reported that job stress in shelter workers was most strongly related to the emotional exhaustion dimension of the MBI. The daily demands, time constraints, and intense client involvement among shelter workers revealed in this study solidified the role that burnout has across human service professions.

Marriage and Family Therapists

In the field of mental health workers marriage and family therapists have hardly been considered in terms of burnout. Marriage and family therapist are in the counseling sector of mental health workers. Rosenberg and Pace (2006) asked key questions related to burnout factors and predictors in marriage and family therapist. A small sample (<120) of therapists indicated that the use of the MBI produces similar results as when given to other human service workers, considering the factor structure.

As with similar research on mental health workers, marriage and family therapists in private practice settings reported lower levels of burnout then those in more controlled or restrictive employment settings. In addition, those therapists working more hours were

measured to have elevated emotional exhaustion and depersonalization. Although marriage and family therapists are a distinct division of mental health workers it is found that they differ little from other helping professionals (Rosenberg & Pace, 2006).

Correctional Psychologists

Burnout has been noted among psychologists in various settings, as described above, but one must consider those working in the justice system. A recent study by Senter et al. (2010) attempted to determine how burnout levels in 203 correctional psychologists compared to psychologists in other mental health areas. When given the MBI-HSS correctional psychologists reported higher levels of emotional exhaustion than similar doctoral level psychologists in the hospital, university, and Veteran's Affairs settings. This is reported to be the first known study on correctional psychologists in the correctional setting and job burnout.

Social Workers and Occupational Therapists

Burnout among social workers has been researched over the years and yielded marked burnout levels (Lloyd & King, 2004). Social workers often serve the most disadvantaged and marginalized people in society with little resources and support. Social workers, as human service professionals, are exposed to the emotional labor that others in health care are (Kim et al., 2011). Social workers in the mental health profession have especially shown susceptibility to burnout. The most common dimension of high burnout is emotional exhaustion (Lloyd & King, 2004). Lloyd and King also found that among a sample of social workers that depersonalization and personal accomplishment were low and high, respectively. This points to a similarity among other studies of mental health

providers. While giving of themselves and feeling emotionally exhausted they are able to maintain a sense of personal achievement and respect for those they serve.

With respect to physical health and burnout among social workers, Kim et al. (2011) found marked impact. The three-year longitudinal study of 258 social workers, of which half were employed in mental health, involved measurement with the Physical Health Questionnaire (PHQ) and the MBI-HSS. Burnout was most correlated with poor physical health. In contrast, the social workers with the lowest levels of burnout experienced the best physical health. Sleep problems and gastrointestinal issues were the most common physical complaints in the moderate and high burnout groups.

Mental Health Nurses

A group of providers that might not often come to mind when thinking of mental health workers are mental health or psychiatric nurses. Psychiatric nurses, along with other helping professionals experience the toll of meeting the emotional needs of recipients. A study of 785 public health nurses were divided into a mental health care group and control group who did not provide mental health services. Over 59% of the mental health nurses were experiencing burnout (Imai et al., 2004). Another recent study of community-based mental health nurses found that 36% experienced significant emotional exhaustion as measured by the MBI. The mitigating factor in this study was the effective utilization of clinical supervision, which was shown to influence lower levels of burnout (Edwards et al., 2006). A recent study by Sherring and Knight (2009) posited that support, supervision, academic level, and ability to make decisions was a

moderator of burnout in mental health nurses. In their study 41% of 166 nurses surveyed with the MBI were found to have elevated levels of emotional exhaustion.

As the research indicates there are significant concerns about burnout among a variety of mental health workers. The research above also indicates that no area of mental health work is exempt from the risk of burnout. When looking at burnout among staff in the mental health field we must consider how this syndrome interacts with physical health.

Health Psychology and Burnout

The study of burnout has significant implications for the well-being of mental health workers. A meta-analysis of the three dimensions of burnout in psychotherapists indicated that emotional exhaustion, in specific, has significant correlation with job satisfaction and intention to leave the field (Lee, Lim, Yang, & Min Lee, 2011). The key employment components found throughout related studies were job control, job stress, and over-involvement with clients. Samples of professionals providing direct mental health services to clients were found to have high job stress, which correlated most strongly with emotional exhaustion. The high job stress is connected to work with clients, which can lead to over-involvement (Lee et al., 2011). Lee et al. (2011) document that job satisfaction goes down as job stress and over-involvement go up. Although job satisfaction decreases, the intention to leave or turnover are not as significantly affected. It is postulated that psychotherapists and mental health workers are dedicated to their clients and thus results in less turnover.

Health Behavior

People are engaged in many different behaviors every day. Behaviors that involve health are considered health behaviors, either helpful or harmful to personal health. Health behaviors are defined as key ways that people interact with their own physical health (Krick & Sobal, 1990). Preventative health behaviors are defined as "any activity undertaken for the purpose of preventing or detecting disease or for improving health and well-being" (Conner & Norman, 1996, p. 2). Though this definition above is considered preventative health behavior, there are health behaviors that are detrimental to health.

Another way to look at this concept is to consider some behaviors as health-compromising and others as health-promoting. Behaviors that compromise health can include use of substances, risk taking, and poor eating habits (Schwarzer & Luszczynska, 2008). An individual engages in illness behavior when he or she is believed to be ill and seeking a way to become well again (Krick & Sobal, 1990). Sick-role behavior is when the ill individual engages in steps to receive medical attention and takes on the attributes of a person with an illness (Glanz, Rimer, & Lewis, 2002; Krick & Sobal, 1990).

Underneath the discussion of health behaviors and health behavior change is the fundamental assumption that individuals are able to control their behavior and make positive health changes (Schwarzer, 2008). Schwarzer et al. (2008) clearly defined health behavior change in terms of health regulation. "Health regulation refers to the motivational, volitional, and actional process of abandoning such health-compromising behaviors in favor of adopting and maintaining health-enhancing behaviors" (p. 2).

Though health behavior change was not included in the present study it is important to acknowledge that unhealthy behaviors can be changed for more health sustaining ones.

Many health concerns and causes of death can be linked to health related issues and actions, either taken or not taken, to prevent illness. A 2010 study of health behaviors in employed and health insured U.S. adults reports a high prevalence of health-compromising behaviors (Hughes, Hannon, Harris, & Patrick, 2010). These behaviors ranged from not receiving medical screening to inadequate nutrition and exercise. At the lower, but significant end of concern is a heavy alcohol consumption of 5.5% of the population (Hughes et al., 2010). Another work-related factor that has been directly connected to health behavior is working overtime hours. A recent study including a representative sample of the Dutch population of working adults demonstrates that those working beyond full-time hours are at a health disadvantage. Consumption of fruits and vegetable and participation in physical activity were markedly lower in workers reporting regular overtime hours. Subjective health ratings for these workers was also lower than those not working overtime (Taris et al., 2011).

When discussing health behaviors the literature often focuses on health behavior change. Although health behaviors are rarely discussed apart from change and change interventions this study will focus solely on the behaviors that lead to health or increased risk of illness. These health-compromising behaviors have the potential to negatively impact health. Health behaviors, either health-promoting or health-destroying, have significant impact and deserve attention. How work-related stress and burnout are coped with has the potential to alter one's physical health. It is thus imperative to explore the

relationship between health behaviors, and changing of undesirable behaviors, although behavior change is not included in the scope of this study. Research points to the understanding that people have the ability to make meaningful changes to their health behaviors (Conner & Norman, 1996). Since people have the ability to be aware of negative health behaviors, change is, in theory possible. The individual engaging in unhealthy behaviors can adopt actions that facilitate health. People engage in healthy behaviors by a process of "health self-regulation", a "motivational, volitional, and actional process of abandoning such health-compromising behaviors in favor of adopting and maintaining health-enhancing behaviors" (Schwarzer, 2008, p. 2).

The study of burnout and health behaviors that lead to illness has not been carefully researched as of yet (Shirom, 2010), but some studies have attempted to make these connections. A study by Nowack (1991) pointed to the connection of burnout and health habits leading to increased risk of illness. In fact, those employees who self-reported greater job stress (burnout) and exhibited less healthy coping strategies had higher incidents of physical health problems. Nowack and Pentkowski (1994) later corroborated their findings with female professionals in the dental field. Those professionals who reported lower implementation of healthy lifestyle habits (exercise, nutrition), increased use of drugs (prescription and non-prescription), and alcohol use reported increased job burnout, as measured by the MBI (Nowack & Pentkowski, 1994). The limited current research on health behavior and burnout prompted the direction of this study.

Measurement of Health Behavior

Early exploratory research on health protective behaviors focused on the health protective behaviors that are encouraged by the medical community. These easily measured behaviors include seeking and utilizing medical care, controlling weight, exercising, and following up with needed medical procedures (Harris & Guten, 1979).

Health behaviors are often researched from the health-promoting perspective, but involve health-compromising behaviors as well. The significant health behaviors that garner attention from the medical profession include cigarette smoking, physical inactivity, diet, and consumption of alcohol. Since health behaviors are fairly varied primary care often focuses on one type of behavior (Glasgow et al., 2005). Glasgow et al. and Prescription for Health (P4H) program identified the above four health behavior categories as those that lead most often to the development of illness. The measurement of health behaviors is as varied as health behaviors themselves. Methods of measuring physical activity can involve logs and questionnaires; assessing substance use involves frequency and amounts, and diet/nutrition measurement entails food diaries and records. Various measures and instruments have been developed to assess these behaviors (Glasgow et al., 2005). This study utilized the Health Behavior Inventory-20 (HBI-20). The HBI-20 is a measure of both health-compromising and health-promoting behaviors. The health-compromising areas are substance use and anger/stress. The health-promoting areas are preventative care, diet, and medical compliance (Levant et al., 2011).

Theoretical Framework: Conservation of Resources and Hardiness

The purpose of this study was to explore the influence of personality and health behaviors on the experience of burnout in mental health workers. The theoretical framework for this study came from two models, Conservation of Resources (COR) and hardiness. One is a model of stress (Hobfoll, 1989) and the other is a theory of personality characteristics (Maddi, 2006). Together they explain the relationship that employment-related demands and resources and personal fortitude or defeat can have upon burnout (Maddi, 2006; ten Brummelhuis, ter Hoeven, Bakker, & Peper, 2011). Further, these frameworks offer a predictive model, one that hypothesizes that the experience of burnout is regulated by individual differences (personality) and health behaviors (coping).

Conservation of Resources Theory

An explanation of the connection of burnout and health behaviors comes from the COR theory, a motivational theory (Gorgievski & Hobfoll, 2008; Hobfoll, 1989). The COR theory, also a model of stress and resource utilization, takes into account that people seek to experience pleasure and avoid the loss of resources, including psychological and social resources (Hobfoll, 1989; Hobfoll & Freedy, 1993). The foundation of COR theory is that people "strive to obtain, retain, foster, and protect resources" (Gorgievski & Hobfoll, 2008, p. 4). Resources that the COR theory refers to are tangible and intangible values that may have instrumental or intrinsic value to the individual. Resources may include personal or professional skills, objects, social support, energy, or roles, among countless others. People seek to preserve and cultivate these resources in their personal

and professional lives (Gorgievski & Hobfoll, 2008). Burnout and job-related stress are often equated. In COR theory stress results from three key life events—losing resources, being threatened with the loss of resources, and not acquiring resources when sought (Hobfoll & Shirom, 2000).

The COR model is also based on the cycle of resources, as explained by ten Brummelhuis, et al. (2011). As mentioned above, individuals seek to hold onto resources they have. Demands are "physical, social, or organizational aspects of the job that require sustained physical and/or mental effort" (Brummelhuis et al., 2011, p. 270). In the workplace, it is job demands that seek to deplete valuable resources. Brummelhuis et al. (2011) found that people possessing less resources and exposed to increased job demands will experience more loss. In addition, those with less social support, less organizational support, and fewer physical resources will be more susceptible to job stress and resource loss.

The theoretical connection of COR to the burnout syndrome in employment settings was developed by Hobfoll and Freedy (1993) and Lee and Ashforth (1996), when they hypothesized that job demands prompt the depletion of emotional and physical energies, such as resource loss. In keeping with the theory of burnout in the MBI the loss of energy is equated with the emotional exhaustion dimension. The loss cycle perpetuates the development of burnout, and burnout perpetuates the loss cycle. Those that are experiencing burnout are seen as less able to garner resources, including energy and support (ten Brummelhuis et al., 2011). COR theory also speaks to the idea of lack of return on one's investment. When a worker invests in his or her job, but fails to reap the

benefits or expected results a loss has occurred. Failure to acquire resources and gains from employment efforts leads to burnout (Hobfoll & Freedy, 1993). For people working in the human services the toll of unattained resources may be especially high. Burnout may be more prevalent among human service workers due to more limited career growth potential. Employees in these fields spend considerable resources (i.e. schooling, energy), which results in stress. The outcome of these investments to serve other people often has limited payoff (Hobfoll & Freedy, 1993).

Shirom (2009) gives a concise account of the connection, "people experiencing a loss of resources will try to limit further losses and thus engage in poor health behaviours" (p. 378). Examples of coping with burnout according to this theory are drinking, smoking, and unhealthy eating to seek temporary relief from stress, which could include burnout. According to the COR theory the burned out employee may be experiencing increased job demands and a lack of resources to effectively handle the stresses of his or her job duties or responsibilities (Shirom, 2009).

Lee and Ashforth (1996) began connecting the three dimensions of burnout to basic tenets of COR theory. They found that emotional exhaustion, depersonalization, and personal accomplishment were correlated with resources and job demands. More job demands were correlated with emotional exhaustion resources or the other two dimensions (Lee & Ashforth, 1996). Furthering COR theory's connection of stress, resource loss, and burnout, Janssen, Schaufeli, and Houkes (1999) applied the COR theory to the study of resources, employment-related demands, and self-esteem.

When considering the relationship workplace stress has to burnout it is also important to think of this relationship as possibly going in the opposite direction. A study of burnout and lifestyle factors found that non-burned out, but disengaged, workers reported more participation in physical exercise, but alcohol consumption and physical activity levels provided little insight into differences between burned out and non-burned out workers. While there are some connections between health behaviors and burnout, the research to date has been inconsistent (Peterson et al., 2008). Despite inconclusive data in this study and little other research, this area is important to consider when looking at burnout and health-promoting behaviors.

Hardiness Theory

Stress has a profound effect on the human experience. The influence of stress on physical illness has been studied for the last half century. The early general conclusion was that stress and illness are often related. This perplexing subject is challenging due to studies revealing that some people develop illness devoid of life stressors, others develop illness in the presence of life stress, and others do not develop illness in the face of significant stress. It has been suggested that personality comes into play when looking at why some stressed people get sick and others do not (Rabkin & Struening, 1976). The question of why stress more negatively affects some people than it does others had not been considered before three decades ago. Stress research starting with Kobasa (1979) has examined how personality and personal viewpoints affect the stress experience. The exploration of the role of personality arose out of the idea that some people do not develop illness even after experiencing much stress. At the critical development of this

discrepancy, Kobasa (1979) coined the term “hardiness” and identified the attributes of a hardy personality. The individual with a hardy personality was found to have less reports of illness and be less affected by stress.

Hardiness, as developed by Kobasa (1979) involved three key components, commitment, control, and challenge, with an overall hardiness score (Kobasa et al., 1982). These personality factors contribute to a resistance to stress and the corresponding ability to remain healthy. The committed individual resists the effects of stress by remaining connected to his or her life areas. The committed look past the stress to higher values and goals (Kobasa et al., 1982). The committed individual stays connected to the event or situation that is stressful rather than seeking to escape (Maddi, 2006). These commitments include social, employment, and family (Kobasa et al., 1982).

The hardy individual retains a sense of control when facing stress and stressful situations. In contrast the person more susceptible to physical illness relinquishes any control that does exist (Kobasa et al., 1982). When an individual possesses control he or she wants to be involved in the results of the situation causing stress (Maddi, 2006).

The hardy person also views stressful situations with a sense of challenge (Kobasa et al., 1982). With challenge brings opportunities for the hardy person (Maddi, 2006). Health is maintained by remaining flexible and working effectively with new situations (Kobasa, 1979).

Early research on hardiness focused on the role of hardiness and health. Stress has historically been linked to decreases in health, but with the advent of hardiness research this idea has been challenged. The hardy individual not only evidences greater resistance

to stress but to illness as well. Exhibiting and possessing characteristics of a hardy personality are considered to be a stable attribute. Stressful situations change and occur over time. Kobasa's (1982) study demonstrated that when someone experiences a stressful situation hardiness provides a barrier to medical and mental health symptoms (Kobasa et al., 1982). The hardy mental health worker may also be able to avoid letting his or her burnout affect job performance. About 28% of mental health counselors with high levels of emotional exhaustion and poor work setting were found to maintain a positive view of their clients, in a convenience sample of counselors in professional roles (Lee, Cho, Kissinger, & Ogle, 2010). Though Lee et al. (2010) did not explore hardiness, hardiness may offer an explanation of why some mental health workers burn out while others do not.

Health and hardiness are intertwined by the mediating presence of stress. When chronic or acute stress gets too intense and the prolonged bodily reaction can result in a breakdown of physical health. Hardiness is the buffer that reduces the detrimental effects of stress on the body. In effect, hardy attitudes can enable one to grow and learn from stressful experiences or situations, while maintaining one's health (Maddi, 2006).

The concept of hardiness has its indirect foundational roots in existential psychology. Based on the choices one makes in his or her life the future is determined (Maddi, 2002). The basis of hardiness is believed to be, not an inborn attribute, but an attitude that develops through interaction with others. Hardiness develops through learning and being encouraged to reframe stressful situations as an opportunity to grow.

In addition, the hardy individual learns from experiences that he or she can be successful against stress (Khoshaba & Maddi, 1999; Maddi, 2002).

The health benefits of hardiness and a hardy attitude in the face of stress have been promoted since Kobasa (1979) introduced this potential protective factor. The initial indication of the health and hardiness relationship was that higher levels of hardiness were a predictor of less illness. The possession of the three dimensions of hardiness (commitment, control and challenge) have a buffering effect on the development of illness, as measured by self-report of common mental and physical health symptoms and illnesses (Kobasa, Maddi, & Courington (1981). The moderating effect of hardiness on illness was thought to be influenced by healthy behaviors and lifestyle factors. Those with a hardy personality have been found to practice better self-care (Wiebe & McCallum, 1986).

Hardiness and burnout are connected through the relationship they hold to stress and the stress response. The three dimensions of burnout assessed in the MBI and the hardiness construct maintain a statistically significant relationship. Compared to other personality factors, such as optimism, self-esteem, locus of control, self-efficacy, emotional stability, and agreeableness, hardiness frequently shows the strongest association with burnout (Alarcon et al., 2009). Alarcon et al. (2009) indicated that burnout research conducted in the future should further explore the relationship between burnout and hardiness.

Summary

The focus of this literature review was to provide a framework by which to understand the history, development, measurement, and research on burnout. Further, this review summarized how this construct has been used to understand the consequences of working in demanding jobs, especially in the mental health field. Research supports the theory that the unique demands of providing mental health services (direct patient care, administrative tasks, and constrained resources) can provoke symptoms of burnout. Burnout creates health, emotional, and social consequences for the health care worker, as well as an impact on the quality of care for clients. What is not well understood is the relation of health behaviors to burnout in those working in the mental health field.

To explore the person-based antecedents of burnout from a health psychology perspective, the theories of hardiness (Kobasa, 1979) and Conservation of Resources (Hobfoll, 1989) were presented. How this study helps fill the gap of information on how burnout is connected to individual traits and health behaviors in mental health workers was addressed. This combined theoretical framework suggests that personality and choice of health behaviors can influence the amount of burnout that is experienced. In the next chapter, the methodology for exploring these relationships is presented.

Chapter 3: Research Method

Introduction

The purpose of this research was to examine the predictive relationship between health behaviors, hardiness, and burnout in mental health workers at nonprofit mental health organizations in a North Central United States metropolitan area. The participants of this study were selected using convenience sampling strategy from a population of mental health organization employees. Data were collected with an online survey instrument.

Three components of burnout (emotional exhaustion, depersonalization, and reduced personal accomplishment) were measured using the MBI-HSS (Maslach et al., 1996). Hardiness was measured using the DRS-15 (Bartone, 1995). Health-compromising and health-promoting behaviors were assessed using the HBI-20 (Levant, Wimer, & Williams, 2011). A brief demographic section was also included. The collected data were analyzed using SPSS version 21. Distributional properties of the data and descriptive statistics were compiled, followed by correlational and predictive analyses consistent with the research questions.

This chapter begins with the research questions that guided this study, the research design, a description of the methodology, sampling procedures, data collection strategies, and participant protection information. This chapter concludes with a description of each inventory used and the data analysis procedures conducted.

Research Design and Rationale

Research Questions

In an effort to examine the predictive relationship between health behaviors, hardiness and burnout in the mental health profession, this study focused on the following research questions:

1. Are any of the following self-reported demographic variables (age, gender, educational level, years in the field, and hours of client contact per week) significant predictors of the three dimensionsof burnout, as measured by the MBI-HSS?

   $H1_{01}$: Demographic variables (age, gender, educational level, years in the field and hours of client contact per week) will not predict emotional exhaustion.

   $H1_{a1}$: Demographic variables (age, gender, educational level, years in the field and hours of client contact per week) will significantly predict emotional exhaustion.

   $H1_{02}$: Demographic variables (age, gender, educational level, years in the field and hours of client contact per week) will not predict depersonalization.

   $H1_{a2}$: Demographic variables (age, gender, educational level, years in the field and hours of client contact per week) will significantly predict depersonalization.

   $H1_{03}$: Demographic variables (age, gender, educational level, years in the field and hours of client contact per week) will not predict personal accomplishment.

$H1_{a3}$: Demographic variables (age, gender, educational level, years in the field and hours of client contact per week) will significantly predict personal accomplishment.

2. To what extent does hardiness, as measured by the DRS-15, predict any of the three dimensions of burnout, as measured by the MBI-HSS?

   $H2_{01}$: The summary score of the hardiness scale will not significantly predict emotional exhaustion..

   $H2_{a1}$: The summary score of the hardiness scale will significantly predict emotional exhaustion.

   $H2_{02}$: The summary score of the hardiness scale will not significantly predict depersonalization.

   $H2a_{2}$: The summary score of the hardiness scale will significantly predict depersonalization.

   $H2_{03}$: The summary score of the hardiness scale will not significantly predict personal accomplishment.

   $H2_{a3}$: The summary score of the hardiness scale will significantly predict personal accomplishment.

3. To what extent do the three health-promoting behaviors (preventative care, diet, medical compliance) predict any of the three dimensions of burnout?

   $H3_{01}$: The health-promoting behaviors (preventative care, diet, medical compliance) do not significantly predict emotional exhaustion.

$H3_{a1}$: At least one of the health-promoting behaviors (preventative care, diet, medical compliance) significantly predicts emotional exhaustion.

$H3_{02}$: The health-promoting behaviors (preventative care, diet, medical compliance) do not significantly predict depersonalization.

$H3_{a2}$: At least one of the health-promoting behaviors (preventative care, diet, medical compliance) significantly predicts depersonalization.

$H3_{03}$: The health-promoting behaviors (preventative care, diet, medical compliance) do not significantly predict personal accomplishment.

$H3_{a3}$: At least one of the health-promoting behaviors (preventative care, diet, medical compliance) significantly predicts personal accomplishment.

4. To what extent do the two health-compromising behaviors (substance use, anger/stress) predict any of the three dimensions of burnout?

   $H4_{01}$: The health-compromising behaviors (substance use, anger/stress) will not significantly predict emotional exhaustion.

   $H4_{a1}$: At least one of the health-compromising behaviors (substance use, anger/stress) will significantly predict emotional exhaustion.

   $H4_{02}$: The health-compromising behaviors (substance use, anger/stress) will not significantly predict depersonalization.

   $H4_{a2}$: At least one of the health-compromising behaviors (substance use, anger/stress) will significantly predict depersonalization.

   $H4_{03}$: The health-compromising behaviors (substance use, anger/stress) will not significantly predict personal accomplishment.

$H4_{a3}$: At least one of the health-compromising behaviors (substance use, anger/stress) will significantly predict personal accomplishment.

5. What is the best model that predicts the three dimensions of burnout?

   $H5_{o1}$: There is no model using the identified independent variables that will predict emotional exhaustion.

   $H5_{a1}$: There is a combination of independent variables that will significantly predict emotion exhaustion.

   $H5_{o2}$: There is no model using the identified independent variables that will predict depersonalization.

   $H5_{a2}$: There is a combination of independent variables that will significantly predict depersonalization.

   $H5_{o3}$: There is no model using the identified independent variables that will predict personal accomplishment.

   $H5_{a3}$: There is a combination of independent variables that will significantly predict personal accomplishment.

Description of the Research Design

I used a nonexperimental survey research design method. This design was chosen based on the sampling strategy, expeditious nature of data collection and low financial investment (Creswell, 2003; Kazdin, 2003). Survey research has many positive features suited for this type of research. Survey research allows for the collection of real-life data from participants and the ability to gather significant amounts of data during a short time period (Kelley et al., 2003). Data were collected using the online survey instrument

Survey Monkey (http://www.surveymonkey.com). Permissions from the authors to use the selected measures and administer them electronically are documented in Appendix B. This allowed a large number of individuals to be invited to participate anonymously at a time and location of their convenience. The data were automatically collected in a password protected format, and was efficiently and cost-effectively available for data analysis.

Online survey methodology offers some key advantages and disadvantages. I benefited from the speed at which an online survey can be administered to potential participants. An online survey for this study allowed me to more easily access and analyze the collected data. This method also limited the logistics, financial expense of postage, expands the geographical reach, and minimized the time spent collecting and organizing paper surveys (Sue & Ritter, 2007).

Online surveys are convenient and accessible to participants. Participants were able to engage in the survey at the time of their choosing (Evans & Mathur, 2005). According to Sue and Ritter (2007), there are specific situations where Internet or online surveys are indicated. The sample being reached must have access to the Internet. In this study it was known that all potential participants had Internet access and e-mail as staff of an organization. Online surveys are a good choice when there is a need to gather information that may be sensitive or elicit a socially desirable response. Online surveys can be a good option when a convenience or non-probability sample is all that is needed. And last, online surveys may be the most effective method if the sample needed is fairly large and if it would be difficult to conduct face-to-face interviews (Sue & Ritter, 2007).

Online surveys for this study might have had some potential drawbacks. Since potential participants may have received many e-mails per day the survey invitation may have been screened as junk e-mail or simply ignored. Due to these factors there is the potential with online surveys to have poorer response rates. Although it could be argued that technology is often becoming increasingly user-friendly, there is the possibility that technological issues on the part of the computer and/or Internet connection or users could have interfered with completion of the survey. Cyber security and resulting privacy issues may have also been a concern for some participants (Evans & Mathur, 2005). I attempted to limit online survey issues through use of reminder e-mails after the initial invitation had been sent. I also used a survey format that is easy to understand and accessible through multiple Internet platforms. The online survey site Survey Monkey (http://www.surveymonkey.com) that was used is secure and protects privacy of respondents. I did not implement any interventions or treatments.

Threats to Validity

Anonymous survey research does have some notable disadvantages. While reliability can be assessed, this still requires the assumption that persons answering the survey are able to be honest and consistently self-report on internal states, attitudes, and perceptions. Internal validity is at greater risk than other forms of research that exert more control over research conditions (Babbie, 2001). In general, weak internal validity stems from forced responses on a Likert scale, which may not align with respondents' opinions or views on complex topics (Babbie, 200). The items of the survey that are often combined to create a scale may not accurately reflect the measurement of the construct

(Babbie, 2001). For this research, efforts to minimize these threats included the use of instruments with documented psychometric properties, and the intent to examine the internal consistency of the measures of this sample.

Survey research is also a fairly inflexible research design. As with this study, the parameters, procedures, and instruments were in place at the outset of the project. Little if any changes can be made to a survey study once it is underway (Babbie, 2001). Regarding external validity, a significant factor considered in survey research is the inability to control the response rate to the study. This kind of a survey research depends on self-selection, so that the final sample is non-random. The variability of the response rate may affect the response bias, and it is not known as to how similar or different the responses of the respondents and non-respondents are (Cozby, 1997).

Methodology

Population

This study was conducted in a North Central United States metropolitan area. The metropolitan area has many nonprofit mental health organizations that serve persons with mental illness. The mental health organizations that were included in this study vary in size, structure, and location around the city. Mental health organization A has mental health providers serving people with mental illness through community based, clinic, crisis, and residential services. Organization B has mental health staff working with recipients in residential and non-residential community-based programs. The organizations combined have approximately 900-1000 employees. Each mental health organization to be used focuses the majority of their services on people with a diagnosed

serious or serious and persistent mental illness, chemical dependency, traumatic brain injury, and related conditions. The organizations provide rehabilitative services, housing programs, case management, counseling, community services, psychological testing, counseling, and support to persons with mental illnesses.

Mental Health Credentials

The target population was mental health workers who could be described in terms of the credentials necessary to provide mental health services. The state of Minnesota requirements were chosen because they provide a broad definition of mental health workers. Positions of participants may have included case managers, therapists, peer specialists, counselors, psychologists, rehabilitation workers, and mental health practitioners. The highest level of credentials likely in the sample included staff licensed/certified as mental health professionals with either a masters or doctoral degree.

Minimum requirements of a mental health worker for the purposes of this study met either of two department of human services requirements. *Peer Specialist*, meaning a staff person who has been diagnosed with a mental illness or substance use disorder and has completed specific mental health training. Some of the areas of training include medication, functional assessment, recovery, substance use, mental illness, confidentiality, and consumer rights (Office of the Revisor of Statutes, State of Minnesota, 2011). *Rehabilitation Worker*, meaning someone who is "a staff person working under the direction of a licensed mental health professional or substance abuse professional in the implementation of rehabilitative mental health, substance use disorder services" (Office of the Revisor of Statutes, State of Minnesota, 2011, para. 40). This

staff person will also have completed training on "recovery concepts, consumer rights, consumer-centered individual treatment planning, mental illness, co-occurring mental illness and substance abuse, psychotropic medications and side effects, functional assessment, local community resources, adult vulnerability, and consumer confidentiality" totaling 30 hours over the previous 2 years (Office of the Revisor of Statutes, State of Minnesota, 2011, para. 43). Both of these minimum qualifications requires a high school diploma (Office of the Revisor of Statutes, State of Minnesota, 2011).

Sampling and Data Collection Procedures

The target population of this study was male and female mental health workers of a variety of ages, education levels, years in the field, and contact hours with recipients. The accessible population was mental health providers at several mental health organizations in one metropolitan area.

A nonprobability sampling strategy for recruiting participants was used because mental health workers were already a formed group (Creswell, 2009) convenient to me and the participants "opted in" to participate. A convenience sample of this specific population allowed for inferences to be drawn about the larger population of mental health workers (Kazdin, 2003).

This specific population was selected for the following reasons:

1. Availability of mental health workers currently employed in the field.
2. Accessibility of the participants to complete the surveys within a 3-4 week period of time.

3. The nonprofit mental health organizations to be surveyed are reflective of a wide variety of mental health services.

Ethical Procedures

I began the data collection process after the study was approved by the University Research Reviewer (URR) and IRB. The participants of this study were recruited through management contacts at specific nonprofit mental health organizations. These contacts were not involved in the recruiting process other than to coordinate or transmit the letter/invitation to participate in the study or give permission to send e-mail invitations.

I contacted management of mental health organizations about distributing an invitation e-mail to all employees of the organization with information to participate in the study. A letter (Appendix A) explaining the study and asking for permission to survey employees was sent to prospective organizations. After 2 weeks a follow up phone call or e-mail was to be made, as needed, to organizations who did not responded to the letter or e-mail. After interest and initial offers to participate had been obtained from organizations, a meeting or phone conversation was requested to address logistics of conducting the study, as needed.

After organizations permissions (see Appendix B) were granted, I formatted an e-mail that include an invitation to participate in a study about "stress and health in human service workers". I prepared this e-mail for each organization to send to an all staff distribution list. The e-mail included an Informed Consent letter (see Appendix C), which had been approval by Walden University, explaining that all data are confidential, participation is voluntary, and not connected to their employment or organization. The

questionnaires were accessed through a provided Internet link to a Survey Monkey website, an online survey site that displays and records survey data confidentially.

At 1 week after the initial invitation e-mail was distributed I coordinated with each organization contact to distribute a reminder e-mail. The reminder e-mail will included the link to the surveys. At 2 weeks from the initial invitation e-mail I coordinated a final e-mail reminder and thank you to those that participated. A week after the reminder e-mail the data collection ended.

The initial plan for inclusion in the study was marked by fully completed questionnaires and demographic information. Participants who did not report currently providing direct mental health care to clients were excluded from the study. It was assumed that some mental health positions involve only administrative duties, albeit rare. In the actual data analysis, study participants were removed if entire measures and/or demographic data was missing. Participants who did not report meeting the minimum criteria for a mental health worker, as detailed above, were excluded from the final sample included in the study, based on the demographic data collected.

Protection of the Participants

This study complied with all ethical research guidelines laid out by the American Psychological Association (APA) and those established by Walden University. Approval to collect data was obtained from the IRB of Walden University. The IRB approval number for this study was 01-16-14-0120031 with an expiration date of January 15, 2015. To inform each study participant of privacy and ethical conduct, a Letter of Informed Consent was included with the invitation (see Appendix C). The Informed

Consent document explained that participation in the study was completely voluntary for the participant and was in no way connected to current or future employment at their respective organizations. The informed consent letter outlined risks and benefits of participation in the study; and informed invitees that they could withdraw from the study at any time. Confidentiality was ensured in that no questions in the surveys expressly identified the participants. The demographic questionnaire was designed so that individual participants could not be identified through any single response. The participants were informed that their participation in this study will further understanding of self-care in the field of mental health by measuring health and stress issues among human service workers. No incentives were offered for participation in the study. A summary of the study findings were provided to those who requested a copy. To prevent identification with the data, participants were directed to e-mail me to request the summary. My e-mail address was provided in the invitation e-mail and at the end of the survey.

I collected data in part from mental health workers at my work environment. In order to avoid a conflict of interest my direct reports were not included in the study by being omitted from the e-mail invitation. The staff invited to participate in the study did not report in any way to me.

My research chair and I were the only individuals with access to the surveys and collected data. The research data were stored at my home on a secure electronic storage device. I did not retain any identifying information.

Sample Size

A power analysis was conducted using G*Power3.1 (Faul, Erdfelder, Buchner, & Lang, 2009) software to make a determination of the appropriate sample size. Based on 11 independent variables and power =.80, medium effect size (f2 = .10) a minimum sample size would be 179. There were 11 predictor variables used, which are age, gender, years in the field, academic degree, time spent in direct service to recipients, substance use, anger/stress, preventative care, diet, medical compliance, and hardiness.

Instrumentation

Several instruments were used in the conduct of this research. The selected instruments were used to measure experienced burnout, personal hardiness, and health behaviors of the participants.

Maslach Burnout Inventory-Human Services Survey (MBI-HSS). The Human Services Survey version of the MBI was used to measure burnout in the sample of mental health workers. The MBI-HSS measures burnout in relation to those who engage in work that services other people. As fitting with Maslach's theory of burnout, the MBI measures three areas of burnout -- emotional exhaustion, depersonalization, and personal accomplishment (Maslach, 1982). The stated purpose of the MBI-HSS is to "discover how various persons in the human services, or helping professionals view their job and people with whom they work closely" (Maslach, Jackson, & Leiter, 2010, p. 53). The MBI-HSS contains 22 items and may take the respondent between 10 and 15 minutes to complete. The measurement of MBI-HSS uses a seven-point Likert scale which consists of item responses measuring frequency: 0 = Never, 1 = a few times a year or less, 2 =

Once a month or less, 3 = A few times a month, 4 = Once a week, 5 = A few times a week, and 6 = Every day. The printed version of the MBI-HSS fits on one page (Maslach et al., 2010).

The dimensions and subscales of MBI-HSS are consistent throughout the other versions of the MBI. The MBI-HSS uses the word recipients to describe those served in the questions, whereas the educators version uses students and the general version asks about work factors, not people. The primary dimension, emotional exhaustion, measures the respondent's degree of exhaustion from work with other people. A sample question is "I feel emotionally drained by my work". The Depersonalization dimension assesses the respondent's impersonal feelings toward the people one provides services. A sample item is, "I don't really care what happens to some recipients". The Personal Accomplishment dimension seeks to measure how confident the respondent is with his or her work. A sample item is, "I have accomplished many worthwhile things in this job" (Maslach et al., 2010).

The indicator that a person surveyed is burned out is higher emotional exhaustion and depersonalization, with lower personal accomplishment. It is critical to note that scores on the professional accomplishment scale are measured in reverse. Lower scores on professional accomplishment is considered an indicator of burnout (Maslach et al., 2010).

The validity and reliability of the MBI-HSS and MBI in general are very acceptable. Maslach et al. (2010) in the MBI manual reports that the internal consistency by Cronbach's alpha was measured at .90, .79, and .71 for Emotional Exhaustion,

Depersonalization, and Personal Accomplishment, respectively. Test-retest coefficients for the three dimension have varied among different studies, with results ranging from .50 for Depersonalization at a six-month follow-up to .82 for emotional exhaustion at a two to four week follow-up time.

Validity of the MBI-HSS has been demonstrated in many ways. One key demonstration of validity, as relevant to this study, is that of co-worker ratings of mental health workers. In a study of 40 mental health workers who completed the MBI-HSS, their co-workers were asked anonymously about observed emotional exhaustion and work with clients. The observation of the colleagues was correlated with the Emotional Exhaustion and Depersonalization subscales on the MBI-HSS (Maslach et al., 2010). Correlations have also been observed with employment variables in human service fields. The higher number of clients a worker sees on a daily basis correlated with higher scores on emotional exhaustion.

Dispositional Resilience Scale-15 (DRS-15). The DRS-15 evolved over time from the original hardiness measure of Kobasa and Maddi. Bartone (1995) reduced the original 53-item measure to 50 items. The measure was then reduced to 45 items and then to 30 through use of military personnel as study participants (Bartone, 1995). The original 53-item hardiness measure was developed on a sample of bus drivers. The study involved examining the health and stress of bus drivers by measuring their levels of hardiness. The measure was pared down through eliminating less critical questions and through psychometric work. The 45-item hardiness measure was developed in an effort to study stress and health of both bus drivers and business managers. The 30-item hardiness

measure involved similar constructs as the 45-item measure, but reduced the number of items to 10 questions for each of the main constructs (control, challenge, and commitment). These early versions were validated on both military and non-military samples (Bartone, 1991). The DRS-15 is the shortened and most recent version of the Hardiness Scale, titled Dispositional Resilience Scale (Bartone, 1995). The DRS-15 was developed in an attempt to have a measure that could be completed expeditiously and was true to the core tenets of hardiness (Bartone, 2007). The DRS-15 is a short measure that seeks to quantify hardiness and resilience (Bartone, 1995). The DRS (Bartone, 2009) provides the participant with 15 statements. Example items are "It is up to me to decide how the rest of my life will be" and "It bothers me when my daily routine gets interrupted".

The DRS-15 has shown to have good psychometric properties with military and non-military samples. Cronbach's alpha = .83 in a large survey of medical Army reserve personnel (Bartone, 1995). Bartone (1995) stated that when test-retest reliability was measured at three months a .52 coefficient was found. The measure was found to have a Cronbach's alpha for hardiness of .71 in a study of 213 undergraduate students (Hystad et al., 2009). The 3-week test-retest reliability of the DRS-15 with a sample of 104 undergraduate students was .78 (Bartone, 2007). Although Bartone (2007) broke out test-retest reliability into commitment, control, and challenge with reliability being .75, .58 and .81 respectively, the study of undergraduates focused on the overall hardiness scale.

The validity of the DRS-15 is rooted in Bartone's (1995) testing with Army reserve personnel. Those in the military samples with higher levels of hardiness were

found to more successfully complete the selection course for the Special Forces, which invokes high levels of stress (Bartone, 1995). Bartone, Roland, Picano, and Williams (2008) reported in a more recent study that graduates of the Special Forces had higher hardiness scores, which corroborated the validity results of the previous study.

Health Behavior Inventory (HBI-20). This study utilized the HBI-20 to assess health behaviors, both health-promoting and health-compromising. Levant (2011) developed the HBI-20 from the Health Risk Inventory (HRI-21). The HRI-21is an instrument that was originally developed as the Health Risk Inventory to assess men's health behaviors. The HRI included items that specifically inquired into issues of masculinity. Masculinity questions sought to understand such areas as perceived invulnerability and personal beliefs of masculinity. The HBI-20 removed the masculinity questions from HRI-21. In addition Levant et al. (2011) made some key changes to the quality of the measure. Items that asked multiple questions were separated. Items that asked two questions were broken apart.

The HBI-20 includes a total of 20 items, one short of the HRI-21. The five subscale inventory includes both health-compromising and health-promoting behaviors. The health-compromising subscales are substance use and anger/stress, each with 5 items. The health-promoting subscales are preventative care with seven items, diet with five items, and medical compliance with two items. The HBI-20 works on a seven-point scale ranging from 1 = always to 7 = never (Levant et al., 2011). A sample item for each of the subscales are as follows:

Diet: "I avoid chips and fried foods"

Medical compliance: “I take prescription medications only as directed by a health care provider”

Preventative care: “I have physical exams every year”

Anger/stress: “I get angry and annoyed when I am caught in traffic”

Substance use: “I use tobacco products” (Levant et al., 2011).

An exploratory factor analysis was conducted by Levant et al. (2011) to assess the reliability of the HBI-20. The HBI-20 internal consistency was found to be .72. The alpha scores for diet, medical compliance, anger/stress, preventative care, and substance use were .79, .68, .71, .69, and .70, respectively.

Demographics. In order to gain a picture of the sample, basic and specific work-related demographic information was sought from the participants. Participants self-administered a basic demographics questionnaire which included age, gender, education level, years in the mental health field, and hours per week of direct client contact. In order to increase protection of participant confidentiality, ranges of ages, ranges of education level, and years in the mental health field were used instead of exact data. Age data included under 25, 25 to 34, 35 to 44, 45 to 54, 55 to 64, and 65 and over categories for participants to choose from. Education categories included high school diploma, AA/AS, BA/BS, MA/MS/other Masters, Ph.D./Psy.D./Ed.D. Years in the mental health field included category ranges of 0-1, 2-3, 4-5, 6-7, 8-9, 10+.

Data Analysis

Statistical Techniques and Rationale

The independent variables included age, gender, years in the mental health field, highest degree attained, time spent in direct service to recipients, substance use, anger/stress, preventative care, diet, medical compliance, and hardiness. The dependent variables were Emotional Exhaustion, Depersonalization, and Personal Accomplishment.

A predictive and correlational approach was used to conduct the data analysis using SPSS version 21. Hierarchical and/or stepwise regression analyses were used to answer the research questions. The purpose of the regression analyses was to test the statistical significance of the relationship between the independent variables and the three dimensions of burnout: emotional exhaustion, depersonalization, and personal accomplishment. Age, years in the field, education, and gender were the selected demographics, and were included because all had been found to have a statistically significant relationship to burnout.

Summary and Transition

This chapter described the methodology used to conduct the study. The research questions, design, population, sampling, data collection procedures, measures implemented to protect the participants, and instruments used were detailed. A quantitative survey research design was used to study the relationship between the variables. Three inventories were used to assess burnout, health behaviors, and hardiness. A hierarchical and/or stepwise regression was used to analyze the collected data and

examine the relationship between variables. The data analysis conducted follows in Chapter 4.

Chapter 4: Results

Introduction

The purpose of this study was to examine the predictive relationship between health behaviors, hardiness, and burnout in mental health workers at nonprofit mental health organizations in a North Central United States metropolitan area. The participants of this study were selected using a convenience sampling strategy from a population of mental health organization employees. All data was collected with an online survey instrument.

Research Questions

The research questions of this study were:

1. Are any of the following self-reported demographic variables (age, gender, educational level, years in the field, and hours of client contact per week) significant predictors of the three dimensionsof burnout, as measured by the MBI-HSS?

   $H1_{01}$: Demographic variables (age, gender, educational level, years in the field and hours of client contact per week) will not predict emotional exhaustion.

   $H1_{a1}$: Demographic variables (age, gender, educational level, years in the field and hours of client contact per week) will significantly predict emotional exhaustion.

   $H1_{02}$: Demographic variables (age, gender, educational level, years in the field and hours of client contact per week) will not predict depersonalization.

$H1_{a2}$: Demographic variables (age, gender, educational level, years in the field and hours of client contact per week) will significantly predict depersonalization.

$H1_{03}$: Demographic variables (age, gender, educational level, years in the field and hours of client contact per week) will not predict personal accomplishment.

$H1_{a3}$: Demographic variables (age, gender, educational level, years in the field and hours of client contact per week) will significantly predict personal accomplishment.

2. To what extent does hardiness, as measured by the DRS-15, predict any of the three dimensions of burnout, as measured by the MBI-HSS?

   $H2_{01}$: The summary score of the hardiness scale will not significantly predict emotional exhaustion..

   $H2_{a1}$: The summary score of the hardiness scale will significantly predict emotional exhaustion.

   $H2_{02}$: The summary score of the hardiness scale will not significantly predict depersonalization.

   $H2a_{2}$: The summary score of the hardiness scale will significantly predict depersonalization.

   $H2_{03}$: The summary score of the hardiness scale will not significantly predict personal accomplishment.

   $H2_{a3}$: The summary score of the hardiness scale will significantly predict personal accomplishment.

3. To what extent do the three health-promoting behaviors (preventative care, diet, medical compliance) predict any of the three dimensions of burnout?

   $H3_{01}$: The health-promoting behaviors (preventative care, diet, medical compliance) do not significantly predict emotional exhaustion.

   $H3_{a1}$: At least one of the health-promoting behaviors (preventative care, diet, medical compliance) significantly predicts emotional exhaustion.

   $H3_{02}$: The health-promoting behaviors (preventative care, diet, medical compliance) do not significantly predict depersonalization.

   $H3_{a2}$: At least one of the health-promoting behaviors (preventative care, diet, medical compliance) significantly predicts depersonalization.

   $H3_{03}$: The health-promoting behaviors (preventative care, diet, medical compliance) do not significantly predict personal accomplishment.

   $H3_{a3}$: At least one of the health-promoting behaviors (preventative care, diet, medical compliance) significantly predicts personal accomplishment.

4. To what extent do the two health-compromising behaviors (substance use, anger/stress) predict any of the three dimensions of burnout?

   $H4_{01}$: The health-compromising behaviors (substance use, anger/stress) will not significantly predict emotional exhaustion.

   $H4_{a1}$: At least one of the health-compromising behaviors (substance use, anger/stress) will significantly predict emotional exhaustion.

   $H4_{02}$: The health-compromising behaviors (substance use, anger/stress) will not significantly predict depersonalization.

$H4_{a2}$: At least one of the health-compromising behaviors (substance use, anger/stress) will significantly predict depersonalization.

$H4_{03}$: The health-compromising behaviors (substance use, anger/stress) will not significantly predict personal accomplishment.

$H4_{a3}$: At least one of the health-compromising behaviors (substance use, anger/stress) will significantly predict personal accomplishment.

5. What is the best model that predicts the three dimensions of burnout?

$H5_{o1}$: There is no model using the identified independent variables that will predict emotional exhaustion.

$H5_{a1}$: There is a combination of independent variables that will significantly predict emotion exhaustion.

$H5_{o2}$: There is no model using the identified independent variables that will predict depersonalization.

$H5_{a2}$: There is a combination of independent variables that will significantly predict depersonalization.

$H5_{o3}$: There is no model using the identified independent variables that will predict personal accomplishment.

$H5_{a3}$: There is a combination of independent variables that will significantly predict personal accomplishment.

Chapter 4 begins with details of the data collection of this study. The data collection section includes a description of the time frame allotted for data collection. The

actual recruitment and response rates are detailed as well. I also present discrepancies in data collection from the plan presented in Chapter 4.

The demographic results from the study are presented, including baseline descriptive and demographic characteristics of the sample. Demographic data from the participating organizations was not available to compare with the demographics of this sample.

The results section of Chapter 4 reports descriptive statistics of the sample. Hypothesis testing and findings are organized by research questions. Exact statistics and associated probability values, and effect sizes are detailed, as appropriate. The chapter ends with a summary and transition to Chapter 5.

Data Collection

I used Survey Monkey to distribute three self-report instruments and a demographic questionnaire to staff at two nonprofit mental health organizations. The timeframe for collection of data was set up to be completed within a 3 week time period from the first invitation e-mail. To begin data collection at Organization A, I distributed the invitation e-mail, which contained Informed Consent and survey link, to all staff through the organization's e-mail system. One week later I sent all staff a reminder e-mail, which also contained Informed Consent and survey link. Two weeks from the invitation e-mail, I sent all staff a final reminder and thank you e-mail, which also contained Informed Consent and survey link. Data collection was ended 1week from the final reminder e-mail.

Data collection at Organization B began with the clinical directors distributing the invitation e-mail, which contained Informed Consent and survey link, to all staff. Organization clinical directors then distributed the reminder e-mail a week after the invitation e-mail. The reminder e-mail also contained Informed Consent and survey link. The final reminder e-mail and thank you was sent by the clinical directors 2 weeks from the invitation e-mail. I provided all three invitation e-mails on a weekly basis to the clinical directors. Data collection was ended for Organization B one week from the final reminder e-mail. Data collection at both organizations began and ended on the same day.

It is noted that the data collection methods changed slightly for organization A as they requested that I send the study invitation e-mails from the organizations' e-mail system rather than by a staff person. I presented this change to the IRB and it was approved. The organization assisted me with creating a "no-reply" e-mail address from which to send the e-mail invitations. No changes in the original proposal for Organization B were needed.

Recruitment and Response Rates

Recruitment was conducted through online surveys at two nonprofit mental health organizations which employ staff qualified to work in the mental health field.

A total of 269 respondents clicked on the survey link in the e-mail invitation. Records were collected between April 9, 2014 and April 30, 2014. Fourteen cases were deleted as the entire case record was blank. Further examination revealed that 13 cases reported no direct service hours and these were deleted. Thirteen cases were removed as only the HBI-20 was completed (32% of the items). Six cases were removed because the

DRS-15 and demographics were left missing. This resulted in a final working sample of 223 respondents.

Characteristics of the Sample

Table 1 presents the descriptive statistics for the sample. Most of the survey respondents were women (80.7%), and most had at least a Bachelor's degree (88%), with 47.5% of the sample having Masters degrees. Most of the sample fell in the 25 to 34 age range (49.3%).

The distribution of number years in the mental health field is non-normal, with most of the participants at 5 years or less (35.9%); and respondents working 6 to 10 years in the mental health field making up another 34.1% of the sample. Most of the respondents to the survey were in the first or second decade of their mental health career (89.7), and only 10.3 % of the sample reported working in the mental health field for more than 21 years.

About 32% of the respondents reported 40 hours per week or more (31.8%) of client contact; and 14.3% reported 9 hours or less. It should be noted that this distribution may not accurately reflect the actual amount of time the respondents work with clients. The over reporting was possibly due to misunderstanding of the question regarding "direct hours"; that is, respondents may have simply put their work hours per week, instead of figuring how much time was spent in direct time with clients. The under-reporting at 9 hours or less may reflect respondents that did not give themselves "credit" for the time they actually spend with clients, or respondents who are part-time, overnight residential/crisis, casual, or on-call staff.

No comparative data was available to describe how representative the sample was of the population of interest.

Table 1

Descriptive Statistics of Demographic Variables

Variable	*n*	Category	Frequency	Percent
Gender	223	Male	43	19.3
		Female	180	80.7
Education	221	High School	6	2.7
		Associate	21	9.5
		Bachelors	84	38.0
		Masters	105	47.5
		Doctorate	5	2.3
Age	223	Under 25	17	7.6
		25 to 34	110	49.3
		35 to 44	49	22
		45 to 54	27	12.1
		55 and over	20	8.9
Direct Hours	223	1 to 9 hours	32	14.3
		10 to 19 hours	37	16.6
		20 to 29 hours	46	20.6
		30 to 39 hours	37	16.6
		40 hours or more	71	31.8
Years in MH	223	5 years or less	80	35.9
		6 to 10 years	76	34.1
		11 to 15 years	33	14.8
		16 to 20 years	11	4.9
		21 to 25 years	11	4.9
		26 years or more	12	5.4

Responses to the MBI-HSS

The MBI is composed of three subscales. The descriptive statistics for each scale are reported here. Emotional exhaustion refers to feeling no longer able to meet psychological demands of the job or clients and feeling overextended emotionally by one's work (Maslach, 1982; Maslach & Jackson, 1981). This was composed of 9 items,

added together, and divided by the total number of items, M=1.95, SD = .82. The distribution of scores was relatively normal although somewhat peaked, skewness = .097, kurtosis = -1.52. Inter-item correlations range from .387 to .736, and Cronbach's alpha = .911. This is comparable to what is reported in the MBI manual, Cronbach alpha = .90 (Maslach et al., 2010). Maslach and Jackson (1981) categorized the total scores into low, medium and high levels of Emotional exhaustion. This sample's scores appear to be fairly evenly spread across the categories.

Table 2

Emotional Exhaustion by Category

	Frequency	Valid Percent
Low	77	36.5
Moderate	68	32.2
High	66	31.3
Total	211	100.0
Missing	12	
Total	223	

Depersonalization refers to viewing clients as less than human or in other negative, callous ways (Leiter & Maslach, 1988). This was composed of 5 items, added together, and divided by the total number of items, M=1.49, SD = .69. The distribution of scores was not normal and was skewed and peaked, skewness = 1.08, kurtosis = -.1.32. Inter-item correlations ranged from .201 to .714, and Cronbach's alpha = .747. This is

fairly comparable to Maslach et al. (2010), Cronbach's alpha = .79. Maslach and Jackson (1981) categorized the total scores into low, medium and high levels of Depersonalization. Almost 2/3 of the respondents (62.2%) scored low on Depersonalization.

Table 3

Depersonalization by Category

	Frequency	Valid Percent
Low	135	62.2
Moderate	58	26.7
High	24	11.1
Total	217	100.0
Missing	6	
Total	223	

Personal Accomplishment refers to feeling poorly about one's work quality and vocational accomplishments with a decreased belief in one's personal accomplishments which can lead to low level of confidence in one's ability to help others (Leiter & Maslach, 1988). This was composed of 8 items, added together, and divided by the total number of items, M=2.49, SD = .66. The distribution of scores was not normal and was skewed and peaked, skewness = -.942, kurtosis = -.245. Inter-item correlations ranged from .0130 to .544, and Cronbach's alpha = .725. This is comparable to Maslach et al. (2010), Cronbach's alpha =.71. Personal accomplishment is interpreted in the opposite

direction as Emotional Exhaustion and Depersonalization. About 58.4% of respondents reported high Personal Accomplishment.

Table 4

Personal Accomplishment by Category

	Frequency	Valid Percent
Low	19	9.1
Moderate	68	32.5
High	122	58.4
Total	209	100.0
Missing	14	
Total	223	

Responses to the HBI-20

The HBI-20 is composed of five sub-scales. Each of these was examined for their descriptive characteristics. Diet is one of the health-promoting factors of the HBI-20. This was composed of 5 items, added together, and divided by the total number of items, *M*=4.44, *SD*=1.34. The distribution of scores are normal, skewness= -.383, kurtosi -.488. Inter-item correlations ranged from .119 to .594, and Cronbach's alpha=.776. This is fairly comparable to Levant et al. (2011), Cronbach's alpha=.79.

Preventative Self-care is one of the health-promoting factors of the HBI-20. This was composed of 3 items, added together, and divided by the total number of items, *M*=5.33, *SD* = 1.60. The distribution of scores was negatively skewed and strongly

leptokurtic, peaked, skewness = -.940, kurtosis = -.063. Inter-item correlations ranged from .244 to .332, and Cronbach's alpha = .547. This is weaker than the internal consistency reported by Levant et al. (2011), Cronbach's alpha = .69.

Anger/Stress is one of the health-compromising behavior factors of the HBI-20. This was composed of 3 items, reverse coded, added together, and divided by the total number of items, M=4.54, SD = 1.28. The distribution of scores was normal, skewness = -.212, kurtosis = -.531. Inter-item correlations ranged from .343 to .642, and Cronbach's alpha = .729. This is fairly comparable to Levant et al. (2011), which reported that the internal consistency by Cronbach's alpha = .71.

Substance Use is one of the health risk behavior factors of the HBI-20. This was composed of 3 items, reverse coded, added together, and divided by the total number of items, M=6.11, SD = 1.34. The distribution of scores was negatively skewed and strongly leptokurtic, skewness = -.383, kurtosis = -.488. Inter-item correlations ranged from .119 to .594, and Cronbach's alpha = .348. This is not comparable to Levant et al. (2011), Cronbach's alpha = .79. This might have been due to concerns about reporting substance use in the context of the work environment, despite assurances of confidentiality and inability to be identified. This will be explored further in Chapter 5.

Proper use of Health Care resources is one of the health-promoting factors of the HBI-20. This was composed of 6 items, added together, and divided by the total number of items, M=5.83, SD = .92. The distribution of scores was negatively skewed and strongly leptokurtic, skewness = -1.38, kurtosis = 3.18. Inter-item correlations ranged

from .141 to .507, and Cronbach's alpha = .711. This is fairly comparable to Levant et al. (2011), Cronbach's alpha = .68.

Table 5

Descriptive Statistics for the Subscales of the HBI-20

Statistic	Diet	Preventative Self-Care	Anger/Stress	Substance Use	Health Care
Valid n	218	216	219	218	216
Missing	5	7	4	5	7
Mean	4.44	5.83	4.54	6.11	5.83
SD	1.34	.92	1.28	1.13	.92
Minimum	1.00	1.33	1.00	1.00	1.33
Maximum	7.00	7.00	7.00	7.00	7.00
Coef. α	.776	.547	.729	.348	.711

Responses to the DRS-15

The DRS-15 is composed of three sub-scales and an overall summary score. Only the overall summary score was examined for its descriptive characteristics.

Hardiness is a theory espousing that there are reasons that some people are negatively impacted by stress and others are not (Kobasa, 1979). Hardiness includes three personality components: commitment, control, and challenge measured by the DRS-15 (Bartone, 1995). Commitment is the characteristic of being actively engaged in one's pursuits and encounters. Control is a belief that one has influence over situations versus feeling powerless. Challenge is understanding that change is inevitable and part of

growth (Kobasa, Maddi, & Kahn, 1982). This study focused on the overall hardiness score that is the sum of commitment, control, and challenge.

The hardiness score is composed of 15 items, with 6 items reverse scored, added together, with M=31.27, SD = 5.63. The distribution of scores was relatively normal although somewhat peaked, skewness = -.062, kurtosis = -287. Inter-item correlations ranged from -.004 to .684, and Cronbach's alpha = .829. This is comparable to other reported results of reliability, although the other studies' samples were comprised of undergraduate students (Bartone, 2007; Hystad et al., 2009).

Table 6

DRS-15 Hardiness Total Score

Hardiness Total	
Valid	210
Missing	13
Mean	31.2667
Std. Deviation	5.63103
Minimum	16.00
Maximum	45.00
Coef. α	.829

Results

Stepwise multiple linear regression was used to develop a model for identifying the variables that best predict the three dimensions of burnout (Emotional Exhaustion, Depersonalization, and Personal Accomplishment). Five research questions were tested, and the results are presented below.

Research Question 1: Do Self-Reported Demographics Predict Burnout?

The first question examined the extent to which any of the self-reported demographic variables (age, gender, educational level, years in the field, and hours of client contact per week) were significant predictors of any of the three subscales of the MBI-HSS. Three hypotheses were tested using a stepwise procedure. Correlation tables for each dependent variable are included, as the number of cases varied as a result of missing values.

Emotional Exhaustion. Bivariate correlations were computed to examine relationships of the predictors and outcome variables, and among the predictors.

Table 7

Correlations for the Regression of Emotional Exhaustion and Demographics (n=209)

	1	2	3	4	5
1. Emotional Exhaustion					
2. Age	-.198**				
3. Gender	.020	-.113			
4. Educational Level	.127**	.075	.112		
5. Years in the Mental Health Field	-.096	.616**	-.043	.228**	
6. Hours/week of client contact.	.117*	-.182**	.100	-.167**	-.185**

*$p \leq .05$ **$p \leq .01$

Three of the predictors (age, educational level, and hours per week of direct client contact) were significantly correlated with Emotional Exhaustion, but these correlations

were not particularly strong, ranging from -.198 to .127 . Among the predictors there was no evidence of multicollinearity. The most highly correlated variables were age and years in the mental health field (r=.616, p<.01). The other correlations were weak to moderate, ranging from -.167 to .228.

For the first regression, all demographic variables were entered into the model using a stepwise method. The results indicated a small but statistically significant R^2 = .06, p=.036. Two of the five variables were entered into the analysis: age and educational level. Table 8 presents the summary of the regression model. While each step of the model was significant, the final model did not account for a substantive amount of variance in Emotional Exhaustion.

Table 8

Summary of the ANOVA for Emotional Exhaustion (n=209)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.172	1	11.172	8.451	.004[b]
	Residual	273.650	207	1.322		
	Total	284.822	208			
2	Regression	16.964	2	8.482	6.523	.002[c]
	Residual	267.858	206	1.300		
	Total	284.822	208			

a. Dependent Variable: Emotional Exhaustion

b. Predictors: (Constant), Age

c. Predictors: (Constant), Age, Educational Level

In Table 9, the coefficients in the final model indicate that age was the strongest predictor (β= -.209) followed by Educational Level (β = .143). Collinearity statistics indicated no violations of this assumption.

Table 9

Summary of the Coefficients for Emotional Exhaustion (n=209)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.726	.143		19.020	.000		
	Age	-.210	.072	-.198	-2.907	.004	1.000	1.000
2	(Constant)	2.050	.350		5.850	.000		
	Age	-.221	.072	-.209	-3.081	.002	.994	1.006
	Educational Level	.207	.098	.143	2.111	.036	.994	1.006

a. Dependent Variable: Emotional Exhaustion

The residuals of this model were examined to determine if the assumptions of multiple regression were met. The results indicated that the residuals were fairly normally distributed, and evidence minimal heteroscedasticity.

While age and education level emerged as significant predictors of Emotional Exhaustion, the results of this analysis suggested that the demographic variables did not have a substantive predictive influence on Emotional Exhaustion.

***Depersonalization*.** Bivariate correlations were computed to examine relationships of the predictors and outcome variable, and among the predictors.

Table 10

Correlations for the Regression of Depersonalization and Demographics (n=216)

	1	2	3	4	5
1. Depersonalization					
2. Age	-.283**				
3. Gender	-.128**	-.102			
4. Educational Level	.003	.063	.123		
5. Years in the Mental Health	-.212**	.636*	-.030	.208**	
6. Hours/week of Client Contact	.123	-.184**	.116	-.172**	-.175**

*p≤.05 **p≤.01

Three of the predictors (age, gender, years in the mental health field) were significantly correlated with Depersonalization, with correlations ranging from -.283 to -.128, p<.01 , and these were weak to moderate indicators. Among the predictors there was no evidence of multicollinearity. The most highly correlated variables were age and years in the mental health field (r=.636, p<.01). The other correlations were weak to moderate, ranging from -.184 to .208.

All demographic variables were entered into the model. The results indicated a small but statistically significant R^2 = .09, p=.016. Two of the five variables were entered into the analysis: age and gender. Table 11 presents the summary of the regression model. While each step of the model was significant, the final model did not account for a substantive amount of variance in Depersonalization.

Table 11

Summary of the ANOVA for Depersonalization (n=216)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.555	1	15.555	18.580	.000[b]
	Residual	179.158	214	.837		
	Total	194.713	215			
2	Regression	20.410	2	10.205	12.471	.000[c]
	Residual	174.303	213	.818		
	Total	194.713	215			

a. Dependent Variable: Depersonalization

b. Predictors: (Constant), Age

c. Predictors: (Constant), Age, Gender

In Table 12, the coefficients in the final model indicate that age was the strongest predictor (β= -.299) followed by Gender (β = -.159). Collinearity statistics indicated no violations of this assumption.

Table 12

Summary of the Coefficients for Depersonalization (n=216)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.595	.112		14.266	.000		
	Age	-.241	.056	-.283	-4.310	.000	1.000	1.000
2	(Constant)	1.934	.178		10.880	.000		
	Age	-.255	.056	-.299	-4.585	.000	.990	1.010
	Gender	-.388	.159	-.159	-2.436	.016	.990	1.010

a. Dependent Variable: Depersonalization

The residuals of this model were examined to determine if the assumptions of multiple regression were met. The results indicated that the residuals were fairly normally distributed, and evidence minimal heteroscedasticity.

The results of this analysis suggested that the demographic variables did not have a substantive predictive influence on Depersonalization.

Personal Accomplishment. Bivariate correlations were computed to examine relationships of the predictors and outcome variable, and among the predictors.

Table 13

Correlations for the Regression of Personal Accomplishment and Demographics (n=207)

	1	2	4	4	5
1. Personal Accomplishment					
2. Age	.138*				
3. Gender	.099	-.101			
4. Educational Level	-.092	.034	.132*		
5. Years in the mental health field	.097	.610**	-.036	.211**	
6. Hours per week of direct client contact	-.038	-.166**	.113	-.200**	-.163**

*p≤.05 **p≤.01

Age was the only predictor significantly correlated with Personal Accomplishment, r = .138, p<.01. The most highly correlated independent variables were age and years in the mental health field (r=.610, p<.01). The other correlations were weak to moderate, ranging from -.200 to .211.

For the first regression, all demographic variables were entered into the model. The results indicated a small but statistically significant R^2 = .019, p=.047. One of the five variables were entered into the analysis: age. Table 14 presents the summary of the regression model. The model did not account for a substantive amount of variance in Personal Accomplishment.

Table 14

Summary of the ANOVA for Personal Accomplishment (n=207)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.694	1	1.694	3.981	.047[b]
	Residual	87.211	205	.425		
	Total	88.905	206			

a. Dependent Variable: Personal Accomplishment

b. Predictors: (Constant), Age

In Table 15, the coefficients in the final model indicate that age was the strongest predictor (β= .138).

Table 15

Summary of the Coefficients for Personal Accomplishment (n=207)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4.765	.083		57.106	.000		
	Age	.083	.042	.138	1.995	.047	1.000	1.000

a. Dependent Variable: Personal Accomplishment

The residuals of this model were examined to determine if the assumptions of regression were met. The results indicated that the residuals were fairly normally distributed, and evidence minimal heteroscedasticity.

The results of this analysis suggested that the demographic variables did not have a substantive predictive influence on Personal Accomplishment.

In sum, the results of the first research question suggested some predictive value of the independent variables. For Emotional Exhaustion, age and education level were statistically significant predictors. For Depersonalization, age and gender were statistically significant predictors. For Personal Accomplishment, age and years in the mental health field were statistically significant.

Research Question 2: Does Hardiness Predict Burnout?

The second question examines to what extent Hardiness, as measured by the DRS-15, was a predictor any of the three dimensions of burnout, as measured by the MBI-HSS. Since this was a single independent variable, it was not necessary to conduct a multivariate analysis. Instead, bivariate correlations were calculated, and simple regression analysis was performed.

Table 16

Correlation Matrix of Hardiness and MBI Subscales (n's are in parentheses)

	1	2	3
1. HardinessTotal			
2. Emotional Exhaustion	-.511** (200)		
3. Depersonalization	-.379**(204)	.623**(207)	
4. Personal Accomplishment	.447** (198)	-.320**(198)	-.371**(205)

**p≤.01

The summary score of the hardiness measure was significantly correlated with Emotional Exhaustion, Depersonalization, and Personal Accomplishment. with correlations ranging from -.379 to .511. (r=-.511, p<.01). The results of the regression analyses were also statistically significant, R^2 = .261, .144, and .200, respectively.

Table 17

Summary of the ANOVA for the Three MBI Subscales

Dependent Variables	R^2	Model	SS	df	MS	F	Sig.
Emotional Exhaustion (n= 200)	.261*	Regression	71.567	1	71.567	70.036	.000[b]
		Residual	202.331	198	1.022		
		Total	273.898	199			
Depersonalization (n= 204)	.144*	Regression	27.999	1	27.999	33.906	.000[b]
		Residual	166.808	202	.826		
		Total	194.807	203			
Personal Accomplishment (n= 198)	.200*	Regression	17.340	1	17.340	48.928	.000[b]
		Residual	69.462	196	.354		
		Total	86.802	197			

*p<.01

The coefficients in the final model indicated that Hardiness was a moderately strong predictor of Emotional Exhaustion (β= -.511), Hardiness was a moderate predictor of Depersonalization (β= -.379), and Hardiness was a moderately strong predictor of Personal Accomplishment (β= .447).

For all three dependent variables, the residuals were examined to determine if the assumptions of regression were met. The results indicated that the residuals were

normally distributed, with no evidence of heteroscedasticity. The results of these analyses suggested that Hardiness was a predictive indicator of Emotional Exhaustion, Depersonalization, and Personal Accomplishment.

Research Question 3: Do Health-Promoting Behaviors Predict Burnout?

The third question examined to what extent the three health-promoting behaviors (Preventative Self-care, Diet, Health Care) were significant predictors of any of the three dimensions of burnout, as measured by the MBI-HSS. Bivariate correlations were computed, followed by stepwise regression analysis to determine the strongest predictors. Three hypotheses were tested using a stepwise procedure. Correlation tables for each dependent variable are included, as the number of cases varied as a result of missing values.

Emotional Exhaustion. Bivariate correlations were computed to examine relationships of the predictors and outcome variable, and among the predictors.

Table 18

Correlations for the Regression of Emotional Exhaustion and Health-Promoting Variables (n=200)

	1	2	3
1. Emotional Exhaustion			
2. Diet	-.086		
3. PrevSelfCare	-.014	.131*	
4. HealthCare	-.103	.194**	.605**

*p≤.05 **p≤.01

None of the predictors were significantly correlated with Emotional Exhaustion. Therefore, the regression equation could not be computed. The other correlations were weak to strong, at .131 to .605

Depersonalization. Bivariate correlations were computed to examine relationships of the predictors and outcome variable, and among the predictors.

Table 19

Correlations for the Regression of Depersonalization and Health-Promoting Variables (n=205)

	1	2	3
1. Depersonalization			
2. Diet	-.095		
3. PrevSelfCare	-.212**	.113	
4. HealthCare	-.183**	.191**	.598**

*p≤.05 **p≤.01

Two of the predictors (PrevSelfCare and HealthCare) were significantly correlated with Depersonalization, but these correlations were not particularly strong (r= -.212, r= -.183, p<.01). The other correlations were weak to moderate, ranging from .191 to .598.

All health-promoting variables were entered into the model. The results indicated a small but statistically significant R^2 = .045, p=.002. Health Care was the only variable that entered into the regression solution. Table 20 presents the summary of the regression

model. The final model did not account for a substantive amount of variance in Depersonalization.

Table 20

Summary of the ANOVA for Depersonalization (n=205)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.155	1	7.155	9.509	.002[b]
	Residual	152.573	203	.752		
	Total	159.908	204			

a. Dependent Variable: Depersonalization

b. Predictors: (Constant), HealthCare

In Table 21, the coefficients in the final model indicate that Health Care was the strongest predictor (β= -.162).

Table 21

Summary of the Coefficients for Depersonalization (n=205)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	1.792	.211		8.482	.000		
HealthCare	-.117	.038	-.212	-3.084	.002	1.000	1.000

a. Dependent Variable: Depersonalization

The residuals of this model were examined to determine if the assumptions of multiple regression were met. The results indicated that the residuals were not normally distributed, and there was evidence of heteroscedasticity.

The results of this analysis suggested that the health-promoting variables did not have a substantive predictive influence on Depersonalization.

Personal Accomplishment. Bivariate correlations were computed to examine relationships of the predictors and outcome variable, and among the predictors.

Table 22

Correlations for the Regression of Personal Accomplishment and Health-Promoting Variables (n=199)

	1	2	3
1. Personal Accomplishment			
2. Diet	.174**		
3. PrevSelfCare	.153*	.099	
4. HealthCare	.133*	.188**	.610**

*p≤.05 **p≤.01

All of the predictors were significantly correlated with Personal Accomplishment but these correlations were not particularly strong (r= .174, p<.01; r= .153, r= .133, p<.05). The other correlations were weak to strong, ranging from .188 to .610.

All health-promoting variables were entered into the model. The results indicated a small but statistically significant R^2 = .030, p=.014. Diet was the only predictor in the final solution. Table 23 presents the summary of the regression model.

Table 23

Summary of the ANOVA for Personal Accomplishment (n=199)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.509	1	2.509	6.176	.014[b]
	Residual	80.043	197	.406		
	Total	82.553	198			

a. Dependent Variable: Personal Accomplishment

b. Predictors: (Constant), Diet

In Table 24, the coefficients in the final model indicate that Diet was the strongest predictor (β= .164).

Table 24

Summary of the Coefficients for Personal Accomplishment (n=199)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4.542	.158		28.699	.000		
	Diet	.084	.034	.174	2.485	.014	1.000	1.000

a. Dependent Variable: Personal Accomplishment

The residuals of this model were examined to determine if the assumptions of multiple regression were met. The results indicated that the residuals were fairly normally distributed, but some evidence of heteroscedasticity.

In sum, the results of the third research question suggested little predictive value of the independent variables. For Emotional Exhaustion, no variables were statistically significant. For Depersonalization, Health Care was weakly predictive. For Personal Accomplishment, Diet was the only predictive variable, but did not account for much variance.

Research Question 4: Do Health-Compromising Behaviors Predict Burnout?

The fourth question examined to what extent the two health-compromising behaviors (Anger/Stress, Substance Use) were significant predictors of any of the three dimensions of burnout, as measured by the MBI-HSS. It should be noted that the health-compromising scales are reverse-coded, i.e., higher scores are associated with lower health-compromising behaviors. Three hypotheses were tested using a stepwise procedure. Correlation tables for each dependent variable are included, as the number of cases varied as a result of missing values.

Emotional Exhaustion. Bivariate correlations were computed to examine relationships of the predictors and outcome variable, and among the predictors.

Table 25

Correlations for the Regression of Emotional Exhaustion and Health-Compromising Variables (n=203)

	1	2
1. Emotional Exhaustion		
2. Anger/Stress	-.236**	
3. Substance Use	-.103	.043

*p≤.05 **p≤.01

One of the predictors (Anger/Stress) was significantly correlated with Emotional Exhaustion (r= -.236, p<.01). All health-compromising variables were entered into the model. The results indicated a small but statistically significant R^2 = .056, p=.001. Anger/Stress was the only variable entered into the analysis. Table 26 presents the summary of the regression model. The final model did not account for a substantive amount of variance in Emotional Exhaustion.

Table 26

Summary of the ANOVA for Emotional Exhaustion (n=203)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.325	1	15.325	11.905	.001[b]
	Residual	258.733	201	1.287		
	Total	274.057	202			

a. Dependent Variable: Emotional Exhaustion

b. Predictors: (Constant), AngerStress

In Table 27, the coefficients in the final model indicate that Anger/Stress was the only predictor (β= -.236).

Table 27

Summary of the Coefficients for Emotional Exhaustion (n=203)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.358	.300		11.192	.000		
	Anger/Stress	-.220	.064	-.236	-3.450	.001	1.000	1.000

a. Dependent Variable: Emotional Exhaustion

The residuals of this model were examined to determine if the assumptions of multiple regression were met. The results indicated that the residuals were fairly normally distributed, and there was no evidence of heteroscedasticity.

The results of this analysis suggested that the health-compromising variables did have a substantive predictive influence on Emotional Exhaustion.

Depersonalization. Bivariate correlations were computed to examine relationships of the predictors and outcome variable, and among the predictors.

Table 28

Correlations for the Regression of Depersonalization and Health-Compromising Variables (n=208)

	1	2
1. Depersonalization		
2. Anger/Stress	-.206**	
3. Substance Use	-.155*	.056

*p≤.05 **p≤.01

Two of the predictors (Anger/Stress, Substance Use) were significantly correlated with Depersonalization, but these correlations were weak to moderate. Among the predictors there was no evidence of multicollinearity. Both variables were significantly correlated with the dependent variable, Anger/Stress ($r=-.206$, $p<.01$) and Substance Use ($r=-.155$, $p<.05$).

Both health-compromising variables were entered into the model. The results indicated a small but statistically significant $R^2 = .063$, $p=.035$. Table 29 presents the summary of the regression model.

Table 29

Summary of the ANOVA for Depersonalization (n=208)

		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.351	1	7.351	9.092	.003[b]
	Residual	166.556	206	.809		
	Total	173.907	207			
2	Regression	10.927	2	5.464	6.872	.001[c]
	Residual	162.979	205	.795		
	Total	173.907	207			

In Table 30, the coefficients in the final model indicate that Anger/stress emerged as the only predictor (β= -.198).

Table 30

Summary of the Coefficients for Depersonalization (n=208)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.868	.237		7.883	.000		
	Anger/Stress	-.151	.050	-.206	-3.015	.003	1.000	1.000
2	(Constant)	2.548	.397		6.412	.000		
	Anger/Stress	-.145	.050	-.198	-2.918	.004	.997	1.003
	Substance Use	-.116	.054	-.144	-2.121	.035	.997	1.003

a. Dependent Variable: Depersonalization

The residuals of this model were examined to determine if the assumptions of multiple regression were met. The results indicated that the residuals were fairly normally distributed, and there was no evidence of heteroscedasticity.

The results of this analysis suggested that health-compromising variables did have some predictive influence on Depersonalization.

Personal Accomplishment. Bivariate correlations were computed to examine relationships of the predictors and outcome variable, and among the predictors.

Table 31

Correlations for the Regression of Personal Accomplishment and Health-Compromising Variables (n=201)

	1	2	3
1. Personal Accomplishment			
2. Anger/Stress	.216**		
3. Substance Use	-.021	.040	

*p≤.05 **p≤.01

Only Anger/Stress was significantly correlated with Personal Accomplishment (r=.216, p<.01), but this correlation was not particularly strong.

The results of this analysis indicated a small but statistically significant R^2 = .047, p=.002. Anger/Stress was the only significant predictor in the model (Table 32).

Table 32

Summary of the ANOVA for Personal Accomplishment (n=201)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.898	1	3.898	9.755	.002[b]
	Residual	79.511	199	.400		
	Total	83.409	200			

Table 33

Summary of the Coefficients for Personal Accomplishment (n=201)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4.423	.167		26.543	.000		
	Anger/Stress	.110	.035	.216	3.123	.002	1.000	1.000

a. Dependent Variable: Personal Accomplishment

Analysis of the residuals revealed a fairly normal distribution, and no evidence of heteroscedasticity. The results of this analysis suggested that the health-compromising variables did not have a substantive predictive influence on Personal Accomplishment.

In sum, the results of the fourth research question suggested limited predictive value of the independent health-compromising variables. For all three dependent variables, Anger/Stress was a statistically significant predictor. Substance use was not a significant predictor. This was potentially due to the measure failing to detect substance

use or inaccurate reporting by participants. This will be will be discussed more in Chapter 5.

Research Question 5: What Model Best Predicts Burnout?

The fifth question examined to what extent age, educational level, Anger/Stress, and Hardiness were significant predictors of any of the three dimensions of burnout, as measured by the MBI-HSS. Three hypotheses were tested using a stepwise procedure. Correlation tables for each dependent variable are included, as the number of cases varied as a result of missing values.

Emotional Exhaustion. The results of this analysis indicated a moderate, statistically significant $R^2 = .226$, p=.039. Two of the four variables were entered into the regression, Anger/Stress and Hardiness. Table 34 presents the summary of the regression model.

Table 34

Summary of the ANOVA for Emotional Exhaustion (n=194)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	65.548	1	65.548	63.948	.000[b]
	Residual	196.804	192	1.025		
	Total	262.353	193			
2	Regression	69.897	2	34.949	34.684	.000[c]
	Residual	192.455	191	1.008		
	Total	262.353	193			

a. Dependent Variable: Emotional Exhaustion

b. Predictors: (Constant), HardinessTotal

c. Predictors: (Constant), HardinessTotal, AngerStress

In Table 35, the coefficients in the final model indicate that Hardiness was the strongest predictor (β= -.456), followed by Anger/Stress (β= -.133). The negative signs indicate an inverse relationship to the dependent variable; i.e., as hardiness increases and the anger and stress decreases, the risk of emotional exhaustion goes down. None of the demographic variables were included in the final model.

Table 35

Summary of the Coefficients for Emotional Exhaustion (n=194)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	5.579	.409		13.64	.000		
	HardinessTotal	-.103	.013	-.500	-8.00	.000	1.000	1.000
2	(Constant)	5.900	.434		13.59	.000		
	HardinessTotal	-.096	.013	-.465	-7.25	.000	.932	1.073
	Anger/Stress	-.121	.058	-.133	-2.08	.039	.932	1.073

a. Dependent Variable: Emotional Exhaustion

The residuals of this model were examined to determine if the assumptions of multiple regression were met. The results indicated that the residuals were fairly normally distributed, and there was no evidence of heteroscedasticity.

Depersonalization. The results of this analysis indicated a small but statistically significant R^2 = .199, p=.00. Two of the four variables were entered into the analysis, Hardiness and age. Table 36 presents the summary of the regression model.

Table 36

Summary of the ANOVA for Depersonalization (n=200)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28.007	1	28.007	33.772	.000[b]
	Residual	164.198	198	.829		
	Total	192.205	199			
2	Regression	38.328	2	19.164	24.535	.000[c]
	Residual	153.877	197	.781		
	Total	192.205	199			

a. Dependent Variable: Depersonalization

b. Predictors: (Constant), HardinessTotal

c. Predictors: (Constant), HardinessTotal, Age

In Table 37, the coefficients in the final model indicate that Hardiness was the strongest predictor (β= -.354) followed by age (β= -.233). As in the previous analysis the negative coefficients indicated an inverse relationship with the dependent variable.

Table 37

Summary of the Coefficients for Depersonalization (n=200)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.305	.364		9.084	.000		
	HardinessTotal	-.067	.011	-.382	-5.811	.000	1.000	1.000
2	(Constant)	3.504	.357		9.807	.000		
	HardinessTotal	-.062	.011	-.354	-5.516	.000	.986	1.014
	Age	-.213	.058	-.233	-3.635	.000	.986	1.014

a. Dependent Variable: Depersonalization

The residuals of this model were examined to determine if the assumptions of multiple regression were met. The results indicated that the residuals were fairly normally distributed, and there was no evidence of heteroscedasticity.

Personal Accomplishment. The results indicated a statistically significant R^2 = .205, p=.00. Only Hardiness was included in the final model (Table 38).

Table 38

Summary of the ANOVA for Depersonalization (n=195)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.787	1	17.787	49.830	.000[b]
	Residual	68.893	193	.357		
	Total	86.680	194			

a. Dependent Variable: Personal Accomplishment

b. Predictors: (Constant), HardinessTotal

Table 39

Summary of the Coefficients for Personal Accomplishment (n=195)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.199	.245		13.049	.000		
	HardinessTotal	.054	.008	.453	7.059	.000	1.000	1.000

a. Dependent Variable: Personal Accomplishment

In sum, the results of the fifth research question suggested predictive value of a few of the independent variables. For Emotional Exhaustion, Hardiness and Anger/Stress were statistically significant predictors. For Depersonalization, Hardiness and age were

statistically significant predictors. For Personal Accomplishment, Hardiness was the only significant predictor.

Summary and Transition

The first question examined the extent to which any of the self-reported demographic variables (age, gender, educational level, years in the field, and hours of client contact per week) were significant predictors of burnout, as measured by the MBI-HSS dimensions Emotional Exhaustion, Depersonalization, and Personal Accomplishment. In general, these demographics were not strongly associated with the MBI-HSS scales, so that their predictive power was limited; R^2 ranged from .036 to .06, revealing insufficient predictive power. Age emerged as the only consistent predictor across all three dependent variables, and gender was included in Depersonalization and Personal Accomplishment.

The second question examined to what extent Hardiness, as measured by the DRS-15, was a predictor any of the three dimensions of burnout. Since this was a single independent variable, bivariate correlations were calculated, and simple regression analysis was performed. Hardiness was significantly correlated with all three dependent variables, with R^2 ranging from .144 to.261 ($p < .001$).

The third question examined to what extent the three health-promoting behaviors (Preventative Self-care, Diet, Health Care) were significant predictors of any of the three dimensions of burnout, as measured by the MBI-HSS. These variables were not significantly correlated with Emotional Exhaustion, and a regression equation could not

be computed. For Depersonalization and Personal Accomplishment, R^2 ranged from .026 to .162 ($p<.05$) .

For the fourth question investigating health-compromising behaviors, all three dimensions were significantly influenced by the Anger/Stress; and Depersonalization was also predicted by Substance Use. The amount of variance accounted for across all three dimensions was statistically significant, $R2 = .056$ to .047, $p<.003$.

The fifth question tested the complete model, and included all significant variables identified in the first four questions: age, educational level, Anger/Stress, and Hardiness. Three hypotheses were tested using a stepwise procedure. For Emotional Exhaustion, the results indicated a moderate but statistically significant $R^2 = .226$, $p=.039$. Two of the predictors, Hardiness ($\beta= -.456$) and Anger/Stress ($\beta= -.133$) were significantly correlated with Emotional Exhaustion. For Depersonalization, the results indicated a small but statistically significant $R^2 = .199$, $p<.01$. Two of the predictors, Hardiness ($\beta= -.354$) and age ($\beta= -.233$), were significantly correlated with Depersonalization. For Personal Accomplishment, the results indicated a small but statistically significant $R^2 = .205$, $p<.01$. One of the predictors, Hardiness ($\beta= .453$) was significantly correlated with Personal Accomplishment.

The discussion, conclusions, and recommendations based on these results follows in Chapter 5.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this study was to examine the influence of health behaviors and hardiness on the three dimensions of burnout in mental health workers at nonprofit mental health organizations in a North Central United States metropolitan area. Burnout is generally defined as a condition by which a provider of services becomes emotionally and physically exhausted (Leiter & Maslach, 2005). Some researchers have identified burnout rates in mental health workers as high as 50%; therefore, this issue is of critical importance (Lasalvia et al., 2009). Burnout can lead to less personal satisfaction, poor job performance, mental health issues, physical health problems, and poor recipient care (Lasalvia et al., 2009; Pines & Aronson, 1988).

The intent of the present study was to gain insight regarding factors that influence the self-reported experience of burnout, and to inform future research and applications for training in burnout reduction techniques. A total of 269 participants participated in the online survey consisting of the MBI-HSS, HBI-20, DRS-15, and demographic questions. The initial 269 respondents produced 223 usable questionnaires after removing surveys with incomplete data and surveys completed by those that did not meet the criteria of direct service provider.

The sample consisted of mostly women (80.7%). The largest age range of the participants was 25 to 34 years old (49.3%). About 70% of the sample reported working in the mental health field for 10 years or less. Over 20% of the sample had been working in the mental health field for 10 or more years. More than 85% of the participants had at least a Bachelor's degree, and spent a considerable amount of time in direct service, with

69% spending 20 or more hours per week with clients. On the subscales of the outcome measure, participants were fairly evenly distributed across the three levels of burnout. For Depersonalization, more than 62% reported low scores, *M*=1.49, suggesting that Depersonalization was not a common experience. Only 9.1% of the sample reported experienced low Personal Accomplishment. For Emotional Exhaustion, more than 31% reported high scores. More than 32% reported experiencing moderate Emotional Exhaustion scores. In comparison to published literature using the MBI, the participants in this sample would be considered somewhat burned out, with Emotional Exhaustion being the most significant indicator of burnout. Compared to published norms of 44.1% of mental health workers experiencing high Emotional Exhaustion and 34.1% found by Rupert and Kent (2007), this sample at 31% is lower (Maslach et al., 1996). The results of a series of stepwise multiple regression analyses revealed some interesting patterns, summarized in Table 40. In this table, the R^2 represent the total amount of variance the variable or variables explained in each of the three dependent variables measuring burnout.

Table 40

Summary of Research Question Results

	Emotional Exhaustion		Depersonalization		Personal Accomplishment	
	R^2	Sig. β	R^2	Sig. β	R^2	Sig. β
RQ1: What demographics predict burnout?	.06	Age Educ. Level	.06	Age Gender	.019	Age
RQ2: Does hardiness predict burnout?	.261	Hardiness	.144	Hardiness	.200	Hardiness
RQ3: Do health-promoting behaviors predict burnout?	0[1]		.045	Health Care	.030	Diet
RQ4: Do health-compromising behaviors predict burnout?	.056	AngerStress	.063	Anger/Stress Substance Use	.047	Anger/Stress
RQ5: What is the best model?	.226	Hardiness Anger/Stress	.199	Hardiness Age	.205	Hardiness

[1]None of the independent variables were sufficiently correlated with the dependent variable to produce a regression model.

Age was a significant predictor for the demographics (RQ1), but in the final model was only predictive of Personal Accomplishment. Hardiness stands out as the most significant predictor of burnout (RQ2), as it is most highly correlated with all three dimensions of burnout, and the final model (RQ5). Health Care and Diet were significant predictors of two of the dimensions of Burnout (RQ3), but dropped out in the final model. Anger/Stress is found to be the most significant predictor of the health-compromising behaviors (RQ4), but in the final model was only predictive of Emotional Exhaustion.

Interpretation of the Findings

Demographic Predictors of Burnout

As described in Chapter 2, a considerable amount of study has been invested in the examination of what demographic characteristics place mental health workers at the greatest risk for burnout, providing justification for the first research question. For Emotional Exhaustion, three of the demographic predictors (age, educational level, and hours per week of direct client contact) were significantly correlated, but these correlations were not particularly strong. The final model indicated that age was the strongest predictor followed by educational level; persons who are older and more educated are less likely to experience burnout. Research on demographics and emotional exhaustion reveal some consistencies with the results of this study. An extensive meta-analysis of over 3,600 mental health workers in 15 studies revealed that age was the most significant factor in experiencing emotional exhaustion (Lim et al., 2010). Schwartz, Tiamiyu, and Dwyer (2007) found higher burnout scores among social workers age 26-35 and significantly less in those over 55 years of age. A review of current burnout literature by Paris and Hoge (2009) found that older mental health workers are less likely to experience emotional exhaustion and depersonalization. Lim et al. (2010) suggested that older mental health workers have found ways to cope with and avoid burnout, while younger workers are more likely to experience the emotional exhaustion part of burnout.

None of the demographic variables emerged as significant predictors of Emotional Exhaustion in the final model. Age, however, was included in the final model for Depersonalization, which was also consistent with prior studies (Lim et al., 2010).

Paris and Hoge (2009) identified client contact and number of hours worked as an important component of burnout as well as Lim et al., 2010, but this was not found in the current study. This may have been because of measurement error (misrepresenting the hours they provide direct services) or because the sample was fairly homogenous with respect to this variable.

Gender and number of years in the mental health field had no impact on burnout in the sample. In contrast to the literature, women tend to report more emotional exhaustion than men and men tend to score higher on depersonalization (Purvanova & Muros, 2010).

In the Lim et al. (2010) meta-analysis it was indicated that mental health workers with more education showed higher levels of emotional exhaustion, possibly due to greater professional expectations and providing services to more challenging clients (Lim et al., 2010). The current study also found that those workers with more education reported more emotional exhaustion, possibility to due to the explanation above. The majority of the sample was highly educated. Only 12.2% of the sample had less than a BA/BS degree, and 49.8% of the sample had a graduate degree or higher.

As with the current study, Lim et al. (2010) found that longer work hours were also found to be positively correlated to burnout, although no distinction was made about time with clients in their study. The current study was unique in that it captured higher levels of burnout with more client contact, consistent with what we know about emotional exhaustion. This was also consistent with the Lim et al. (2010) study of longer work hours. Lim et al. (2010) also suggested that contact with clients, in any field, has the

potential to increase the feelings of burnout one experiences. The current study corroborates this general understanding of burnout.

Three of the predictors (age, gender, years in the mental health field) were significantly correlated with Depersonalization. The most highly correlated variables were age and years in the mental health field. Lim et al. (2010) found that the number of years in the field has an effect on depersonalization and personal accomplishment, with longer career workers reporting less burnout than those newer to the mental health field. The current study did not find that those working longer in the mental health field were less or more prone to burnout. This may be explained in that other factors accounted for susceptibility to burnout or this one question was inadequate to measure length of mental health service.

The results of this study did not indicate that longer work hours were correlated with depersonalization of clients. In general, the questions that make up the Depersonalization subscale may invoke more socially unacceptable responses, thus making it less accurate, although Holmqvist and Jeanneau (2006) found a significant correlation between feelings of burnout and negative perceptions of recipients and of the helping relationship.

For Personal Accomplishment, age was the only significant predictor. Lim et al. (2010) also found that age was positively correlated with Personal Accomplishment. Research has shown that higher Personal Accomplishment drives down burnout on the MBI (Lee et al., 2011). This demonstrates that older mental health workers may feel more confident in their abilities and work accomplishments.

COR Theory

COR theory was the first theoretical foundation for this study; a theory based on personal resources, such as physical and emotional energy. Burnout and COR theory are connected in that stress can result from the loss of resources, including the physical and emotional energy needed to adequately fulfill one's job duties (Hobfoll & Freedy, 1993; Lee & Ashforth, 1996). The connection of COR theory and health behaviors was documented by Shirom (2009). This connection is explained in that when people lose resources and are stressed they often resort to health-compromising behaviors to reduce any further losses; for example, to temporarily manage stress someone might engage in drinking or smoking (Shirom, 2009). Although health-promoting variables were not shown to decrease burnout in this study, building resources through health habits fits with COR theory and burnout prevention (Sadler-Gerhardt & Stevenson, 2011). In Research Question 4, the current study found that those reporting more Anger/Stress as measured by the HBI-20 experienced increased levels of burnout across all three sub-scales. In contrast, the measure of substance use was not predictive of any of the dependent measures. This could have been a function of underreporting of substance use, as this may not be considered acceptable for a professional in the mental health field. Despite being a confidential and anonymous study, participants might have been unwilling to self-disclose. The other problem was that only three questions about health-compromising behaviors were asked, and the resulting Cronbach's alpha was low. This construct may not been have adequately defined to detect significant relationships in this sample.

Hardiness

The second theoretical foundation this study examined in Research Question 2 was based on the theory of hardiness, which proposes that there are individual differences that explain why some people are negatively impacted by stress and others are not (Hobfoll & Freedy, 1993). Although a relatively old construct in the literature, recent authors have identified it as an individual difference worthy of study (Alarcon et al., 2009). The current study found a significant predictive relationship between hardiness and all three dimensions of burnout. The current study was consistent with the theory that a hardy personality is more resistant to symptoms of burnout. Hardiness was operationalized in terms of three dimensions: commitment (being actively engaged in pursuits and encounters), control (the belief that one has influence over situations), and challenge (understanding that change is part of personal growth). These characteristics are seen as preventative psychological factors that enhance resistance to the consequence of stress (Kobasa, 1979; Kobasa, Maddi, & Kahn, 1982; Maddi, 2006). As evidenced in the current study, increased scores of the hardiness total score predicted less emotional exhaustion, less depersonalization, and more personal accomplishment.

The second question examined to what extent hardiness, as measured by the DRS-15 was a predictor of any of the three dimensions of burnout, as measured by the MBI-HSS. Hardiness was strongly correlated with Emotional Exhaustion, Depersonalization, and Personal Accomplishment dimensions. The literature indicates that hardy mental health workers may also be able to avoid letting burnout affect job performance. About 28% of mental health counselors with high levels of emotional exhaustion and poor work

setting were found to maintain a positive view of their clients (Lee, Cho, Kissinger, & Ogle, 2010). The current study corroborates this finding in that those with low emotional exhaustion and depersonalization were found to have more hardiness. Alarcon et al. (2009) indicated that burnout research conducted in the future should further explore the relationship between burnout and hardiness, as the three dimensions of burnout in the MBI and the hardiness construct maintain a statistically significant relationship. The results of this study found that hardiness is indeed a good predictor of low burnout in mental health workers.

The third question examined to what extent the health-promoting behaviors (Preventative Self-Care, Diet, Health Care) are significant predictors of any of the three dimensions of burnout, as measured by the MBI-HSS. For Emotional Exhaustion, there was no significant correlations. For Depersonalization, Health Care adherence had a weak negative correlation, indicating that less attention to one's own health may result in less regard for one's clients. For Personal Accomplishment, this study found a positive correlation with diet, indicating that those reporting better attention to nutrition had higher levels of confidence and regard for themselves. These correlations were fairly weak and therefore cannot be considered significant predictors of burnout.

Similar to question three, question four examines to what extent health-compromising behaviors (Anger/Stress, Substance Use) are significant predictors of any of the three dimensions of burnout, as measured by the MBI-HSS. For Emotional Exhaustion, Anger/Stress had the most significant relationship, but was only moderately strong. Both Anger/Stress and Substance Use were weakly correlated with

Depersonalization. For Personal Accomplishment, Anger/Stress was also correlated. This relationship has not been studied extensively. Gorter et al. (2010) found burnout as measured by the MBI to be correlated with poor health in a sample of dentists. High burnout scores on the MBI was most highly correlated with alcohol consumption, low levels of physical activity, and unhealthy nutrition when working. The current study found higher alcohol consumption in those with higher scores on the Depersonalization subscale, though this is a fairly weak relationship. What is not known in the current study is if underreporting of health-compromising behaviors may have driven this relationship down. Being able to assess health-compromising behaviors may be difficult with a sample drawn from an employer.

Limitations of the Study

While the results of this study identified several significant findings, these must be interpreted with caution. Regarding external validity, research utilizing a non-random sampling strategy (i.e., convenience sampling) to recruit mental health workers was used. All participants were recruited from two mental health organizations in one North Central United States geographical area; and this resulted in a sample of mostly younger, educated, female workers who had been in the field 10 years or less. Data from this study should be interpreted with care as the results were only representative of a 22% return rate. Thus, external validity for the accessible population is limited. These results may be transferable to settings similar to this one, but it is unknown how generalizable these findings are to the population of mental health workers in other settings.

The data were collected using a web-based survey instrument with a link sent to employees' work e-mail addresses. This model of data collection may have increased the chances that the study invitation e-mails were discarded, not accurately completed, or partially completed. Organization employees receive many e-mails a day, and despite reminder invitation e-mails they may have been missed. A low response rate (23%), missing data, and partially completed surveys suggests some concern for potential self-selection bias. Further, the time commitment of around 10 minutes needed to complete the three inventories and demographic questions may have discouraged busy staff from participating or fully completing the questionnaires.

There may have been a measurement problem with the demographic variable "number of hours per week of direct client contact". Approximately 71 responses (31.8%) to this demographic question were over 40 hours per week, which is inconsistent with what I knows about the work behavior of participants in this sample. Most mental health workers in these settings work regularly with clients, but are also engaged in paperwork, supervision, meetings, and trainings. It is very unlikely that participants could actually spend 40 hours in direct service to clients.

Social desirability bias may have played a role in under-reporting burnout and risky health behaviors. Expressing negative feelings toward recipients (e.g., "I don't really care what happens to some recipients") and reporting the use of illegal drugs may not be seen as socially or professionally acceptable. This may explain the lower than expected reporting of substance use on the HBI-20, low Depersonalization scores, and missing items in the measures.

Furthermore, though this study found a significant influence of hardiness on experiencing burnout, it is possible that other individual difference factors not specified in the model (e.g., competitiveness, anxiety) could account for some of the effect. Also, the absence of mediating or moderating factors (e.g., job stress or co-worker relations) means the findings may be spurious (Nardi, 2003).

It is relevant to note that this was a one time survey study, versus a measurement of burnout and hardiness over time. Due to the limited cooperation of participants, limited resources, and lack of more detailed statistical analysis the results of this study should be understood within the context of these limitations and the study design.

Recommendations

I found that individual attributes of hardiness serve as a protective factor to burnout. Since this was a significant finding, it is recommended that more research focusing on the individual attributes of hardiness be conducted. For example, the DRS-15 identifies three dimensions of hardiness: commitment, control, and challenge. These were not used in the current study because reported reliabilities were low; however, there are other scales such as the Hardiness Scale (Bartone, Ursano, Wright, & Ingraham, 1989) or the Connor-Davidson Resilience Scale (Campbell-Sills and Stein, 2007) that could be considered.

Future researchers may consider exploring other individual attributes that serve as protective factors to burnout, in addition to hardiness. These protective factors may include, but are not limited to, self-esteem, locus of control, self-efficacy, extroversion/introversion, affectivity and optimism (Alarcon et al., 2009). Even though

health-promoting behaviors were not found to have an influence on burnout, there may be room for further quantitative studies where questions about health-promoting and health-compromising behaviors could be examined through open-ended survey questions. Participants could identify the strategies (both healthful and risky) they use to manage burnout.

It is also suggested that the dimensions of health-promoting and health-compromising behaviors may be better explored through a qualitative inquiry. These take place in more private surroundings, where participants have more time and focus to consider and share their personal experiences. While few qualitative studies have been done, the prior research suggests that more questioning may provide insights regarding what other dimensions (individual differences, behaviors, and contexts) should be included in future research.

Future research on this topic is advised to replicate the use of the MBI-HSS, HBI-20, and DRS-15 using a more diverse accessible population, e.g., multiple for-profit and nonprofit organizations or through association membership e-mail lists. To further the generalizability of the results, future researchers could consider collecting data from various locations throughout the country and at facilities or organizations that provide different social services.

To attempt to overcome the limitation of being a one time picture of burnout in the population, it is recommended that future researchers conduct longitudinal research of burnout. Future researchers could have participants take the MBI-HSS again at different times to establish an average level of burnout. In addition, future research may want to

take into account participants' subjective workplace experiences and levels of stress. This would enable to researcher to better account for additional factors that may lead to burnout.

Implications

Considering the risks that burnout creates for mental health workers, this study has attempted to add to the literature and contribute to the understanding of the individual differences that predict burnout. There is considerable research on the organizational conditions and processes that contribute to burnout. The influence of individual differences and lifestyle choices in burnout has not been well-researched. Research from related fields in health psychology as well as this study suggest that individual differences like personal hardiness may play a role in the ability to manage work-related stress and avoid the symptoms of burnout (Alarcon et al., 2009)

The current study did not support the theory that individual health-promoting behaviors decrease the incidence of burnout in mental health workers. The factors of diet and health care compliance did have a statistically significant, but weak, effect on burnout. The health-compromising behavior of substance use was not found to have a significant relationship with burnout, but the Anger/Stress variable had a significant, but weak relationship with burnout. In the final model, experiencing anger and stress was only related to emotional exhaustion, not all three dimensions of burnout. This indicates that experiencing stress and burnout may go hand in hand, which is consistent with the existing literature (Ahola et al., 2012).

The current study also found that working more hours with clients increased the feelings of burnout. As consistent with the literature this study sheds light on the need to help mental health workers create a balance of responsibilities, and for employers to be aware of how much direct contact staff are having with clients. These dedicated staff are also highly educated which may play into higher expectations of themselves and their abilities, thus increased burnout (Lim et al., 2010).

The theory of hardiness and this research supports the idea that hardiness has some moderating effects on burnout (Alarcon et al., 2009). Hardy individuals actively engage in their pursuits and encounters, have a belief in their influence over situations versus feeling powerless, and have an understanding that change is inevitable and part of growth (Kobasa et al., 1982). The quest then becomes one of building resilience in mental health workers to prevent the stress of burnout. Sadler-Gerhardt and Stevenson (2011) explained that mental health counselors need to be encouraged "to be selective and intentional, to be aware of time restrictions, to be accountable, and to conserve resources of skill and energy as part of enhancing stamina" (p. 5). Fitting with COR theory, Sadler-Gerhardt and Stevenson (2011) recommended that mental health workers take account of their life resources, such as "physical, emotional, intellectual, behavioral, social, and spiritual domains" (p. 5) and find ways to develop better life balance. A part of balancing these resources is the recommendation to practice good physical self-care, such as eating well and getting exercise. Another way to build resiliency is for managers to help staff identify reasons that they enjoy working with clients and ways they are satisfied with helping others (Sadler-Gerhardt & Steveson, 2011).

Positive Social Change

The primary focus of this study was to examine the importance of mental health workers health behaviors and hardiness on burnout in the mental health care setting. This study contributes to positive social change by making an important contribution to literature on health behaviors, hardiness, and burnout of mental health workers working in nonprofit mental health organizations. This study contributes to filling a gap in the literature related to the relationship between hardiness and burnout and the study of health habits and burnout in mental health workers. The unique combination of inventories that sought to measure burnout, resiliency, health-promoting, and health-compromising behaviors provided information that had not yet been studied together.

The implications for positive social change are directed at mental health workers providing services to recipients. The findings of this study can inform employers of mental health workers of factors that may contribute to burnout that may not have been previously considered. The current study found that hardiness had a more significant influence on reducing burnout than the demographic makeup of the mental health staff, hours with recipients, and any health-promoting-behaviors they engage in. The implications for hiring managers in mental health settings is to select staff who manage stress well and exhibit confidence in managing change. Managers currently working with staff are encouraged to help staff build resiliency and skills around managing stressful situations, coping with change, and creating work/life balance. This may also help inform the development of burnout prevention and reduction trainings at mental health facilities and organizations. In addition to burnout awareness and self-care training, it is

recommended that trainings include stress management, time management, and strategies to adapt to change. Trainings informed by this study will include work on building skills that will help staff weather changes, handle stressful situations, and feel more in control.

I will use the information gained from this study, in part, to develop trainings and training materials that focus on stress management, adapting to change, time management, increasing personal feelings of control, and handling stressful situations in the mental health field. I will direct these trainings toward area mental health facilities, programs, and groups of mental health workers. I will also seek approval to present the training material at an area mental health conference that invites mental health workers from around the state.

The findings of this study are unique and will hopefully bring about further inquiry into this gap in the burnout literature. I will seek to publish the findings of this study in mental health, psychology, counseling, and health psychology journals. The results of this study may inform those in the mental health field of the continued relevance of hardiness and its applicability to burnout. The findings of this study may spur other researchers to further explore the impact of hardiness and health factors on burnout.

Conclusions

The results of this study indicate that the personal attribute of hardiness may be a preventative factor for burnout in mental health workers. This was a concept that had not been studied before in this population. In combination with exploring the impact of health behaviors on burnout, this study explored the impact of personal attributes and behaviors

on burnout. The results indicate that characteristics of a hardy individual, such as facing challenges and maintaining a positive outlook, appear to help mental health workers maintain their emotional energy and compassion for clients. Hardiness, as measured in the sample, was a significant predictor of all three dimensions of burnout on the MBI-HSS.

This study contributes to positive social change by making a contribution to the burnout literature. This study helps fills a gap in the literature related to the relationship between hardiness and burnout in mental health workers. The unique combination of inventories that sought to measure burnout, resiliency, health-promoting, and health-compromising behaviors provided information that had not yet been studied together. This study will inform the development of training materials focused on stress management, adapting to change, and handing stressful situations in the workplace. The hope is that some of the damage done by burnout in the mental health field can be prevented or reduced. Further research that includes a larger sample, qualitative questions on health behaviors, explores external stressors, includes longitudinal data, and expands to a wider geographical area may find additional support for the effects of hardiness and health behaviors on burnout.

References

Aboa-Eboule, C., Brisson, C., Maunsell, E., Masse, B., Bourbonnais, R., Vezina, M., Milot, A., et al. (2007). Job strain and risk of acute coronary heart disease events. *Journal of the American Medical Association, 298*(14), 1652-1660. Retrieved from http://jama.jamanetwork.com/article.aspx?articleid=209121

Acker, G. M. (2010). The challenges in providing services to clients with mental illness: Managed care, burnout and somatic symptoms among social workers. *Community Mental Health Journal, 46*, 591-600. doi:10.1007/s10597-009-9269-5

Aker, G. M. (2011). Burnout among mental health care providers. *Journal of Social Work, 12*(5), 475-490. doi:10.1177/1468017310392418

Ackerly, G. D., Burnell, J., Holder, D. C., & Kurdek, L. A. (1988). Burnout among licensed psychologists. *Professional Psychology: Research and Practice, 19*(6), 624-631. doi:10.1037/0735-7028.19.6.624

Acker, G. M., & Lawrence, D. (2009). Social work and managed care: Measuring competence, burnout, and role stress of workers providing mental health services in a managed care era. *Journal of Social Work, 9(3),* 269-283. doi:10.1177/1468017309334902

Ahola, K., Honkonen, T., Isometsa, E., Kalimo, R., Nykyri, E., Koskinen, S., …Lonnqvist, J. (2006). Burnout in the general population: Results from the Finnish Health 2000 Study. *Social Psychiatry and Psychiatric Epidemiology, 41*(1), 11-17. doi:10.1007/s00127-005-0011-5

Ahola, K., Pulkki-Raback, L., Kouvonen, A., Rossi, H., Aromaa, A., & Lonnqvist, J.

(2012). Burnout and Behavior-Related Health Risk Factors: Results From the Population-Based Finnish Health 2000 Study. *Journal of Occupational & Environmental Medicine, 54*(1), 17-22. doi:10.1097/JOM.0b013e31823ea9d9

Alarcon, G., Eschleman, K. J., & Bowling, N. A. (2009). Relationships between personality variables and burnout: A meta-analysis. *Work & Stress, 23*(3), 244-263. doi:10.1080/02678370903282600

Appels, A., & Schouten, E. (1991). Burnout as a risk factor for coronary heart disease. *Behavioral Medicine, 17*(2), 53-59. doi:10.1080/08964289.1991.9935158

Armon, G., Melamed, S., Shirom, A., & Shapira, I. (2010). Elevated burnout predicts the onset of musculoskeletal pain among apparently healthy employees. *Journal of Occupational Health Psychology, 15*(4), 399-408.

Armon, G., Shirom, A., Berliner, S. Shapira, I., & Melamed, S. (2008). A prospective study of the association between obesity and burnout among apparently healthy men and women. *Journal of Occupational Health Psychology, 13*(1), 43-57.

Ashtari, Z., Farhady, Y., & Khodaee, M. R. (2009). Relationship between job burnout and work performance in a sample of Iranian mental health staff. *African Journal of Psychiatry, 12*(1), 71-74.

Azeem, S. M. (2010). Personality hardiness, job involvement and job burnout among teachers. *International Journal of Vocational and Technical Education, 2*(3), 36-40. Retrieved from http://academicjournals.org/IJVTE/PDF/pdf2010/July/Azeem.pdf

Bakker, A. (2009). The crossover of burnout and its relation to partner health. *Stress and*

Health, 25, 343-353. doi:10.1002/smi.1278

Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2005). The crossover of burnout and work engagement among working couples. *Human Relations, 58*(5), 661-689. doi:10.1177/0018726705055967

Bakker, A. B., Schaufeli, W. B., Demerouti, E., Janssen, P. P. M., Van Der Hulst, R., & Brouwer, J. (2001). Using the equity theory to examine the difference between burnout and depression. *Anxiety, Stress, and Coping, 13*(3), 247-268. doi:10.1080/10615800008549265

Barnett, J. E., Baker, E. K., Elman, N. S., & Schoener, G. R. (2007). In pursuit of wellness: The self-care imperative. *Professional Psychology: Research and Practice, 38*(6), 603-612. doi:10.1037/0735-7028.38.6.603

Barnett, J. E., & Cooper, N. (2009). Creating a culture of self-care. *Clinical Psychology Science and Practice, 16*(1), 16-20. doi:10.1111/j.1468-2850.2009.01138.x

Bartone, P. T., Ursano, R. J., Wright, K. M., & Ingraham, L. H. (1989). The impact of a military air disaster on the health of assistance workers. A prospective study. *Journal of Nervous and Mental Disorders, 177*(6), 317-328. Retrieved from http://www.hardiness-resilience.com/docs/milairdisaster.pdf

Bartone, P. T. (1991). Development and validation of a short hardiness measure. (Paper presented at the annual meeting of the American Psychological Society, Washington, DC) Retrieved from http://www.hardiness-resilience.com/docs/aps91b.pdf

Bartone, P. T. (1995). Development and validation of a short hardiness measure. (Paper

presented at the annual meeting of the American Psychological Society, Washington, DC.) Retrieved from http://www.hardiness-resilience.com/docs/APS95HAN1.pdf

Bartone, P. T. (2007). Test-retest reliability of the Dispositional Resilience Scale-15: A brief hardiness survey. *Psychological Reports, 101*(3), 943-944. doi:10.2466/PR0.101.3.943-944

Bartone, P. T., Roland, R. R., Picano, J. J., Williams, T. J. (2008). Psychological hardiness predicts success in US Army Special Forces candidates. *International Journal of Selection and Assessment, 16*(1), 78-81. doi:10.1111/j.1468-2389.2008.00412.x

Bartone, P. T. (2009). DRS-15: Dispositional Resilience Scale-15. Paul Bartone.

Boscarino, J. A., Adams, R. E., & Figley, C. R. (2010). Secondary trauma issues for psychiatrists. *Psychiatric Times, 27*(11), 24-26. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3014548/

Brenninkmeyer, V., Van Yperen, N., & Buunk, B. P. (2001). Burnout and depression are not identical twins: Is decline of superiority a distinguishing feature? *Personality and Individual Differences, 30*(5), 873-880. doi:10.1016/S0191-8869(00)00079-9

Bressi, C., Porcellana, M., Gambini, O., Madia, L., Muffatti, R., Peirone, A.,…Altamura, A. C. (2009). Burnout among psychiatrists in Milan: A multicenter survey. *Psychiatric Services, 60*(7), 985-988. Retrieved from http://neuro.psychiatryonline.org/data/Journals/PSS/3884/09ps985.pdf

Brown, C., & O'Brien, K. M. (1998). Understanding stress and burnout in shelter

workers. *Professional Psychology: Research and Practice, 29*(4), 383-385. doi:10.1037/0735-7028.29.4.383

Campbell-Sills, L., & Stein, M.B. (2007). Psychometric analysis and refinement of the Connor-Davidson resilience scale (CD-RISC): Validation of a 10-item measure of resilience. *Journal of Traumatic Stress,*20, 1019-1028. doi:10.1002/jts.20271

Connor, M., & Norman, P. (1996). The role of social cognition in health behaviours. M. Connor & P. Norman (Eds.). *Predicting health behavior: Research and practice with social cognition models.* Maidenhead, BRK, England: Open University Press.

DeSalvo, K. B., Bloser, N., Reynolds, K., He, J., & Muntner, P. (2006). Mortality prediction with a single general self-rated health question. *Journal of General Internal Medicine, 21*(3), 267-275. doi:10.1111/j.1525-1497.2005.00291.x

Devilly, G. J., Wright, R., & Varker, T. (2009). Vicarious trauma, secondary traumatic stress or simply burnout? Effects of trauma therapy on mental health professionals. *Australian and New Zealand Journal of Psychiatry, 43*, 373-385. doi:10.1080/00048670902721079

De Vries. H., van ‘t Riet, J., Spigt, M., Metsemakers, J., van den Akker, M., Vermunt, J. K., & Kremers, S. (2008). Clusters of lifestyle behaviors: Results from the Dutch SMILE study. *Preventive Medicine, 46,* 203-208. doi:10.1016/j.ypmed.2007.08.005

D’Souza, F., Egan, S. J., & Rees, C. S. (2011). The relationship between perfectionism, stress and burnout in clinical psychologists. *Behaviour Change, 28*(1), 17-28.

Retrieved from http://search.informit.com.au/documentSummary;dn=987362128120377;res=IELHEA

Edwards, S., Burnard, P., Hannigan, B., Cooper, L., Adams, J., Juggessur, T.,…Coyle, D. (2006). Clinical supervision and burnout: The influence of clinical supervision for community mental health nurses. *Journal of Clinical Nursing, 15,* 1007-1015. doi:10.1111/j.1365-2702.2006.01370.x

Enzmann, D., Schaufeli, W. B., Janssen, P., & Rozeman, A. (1998). Dimensionality and validity of the Burnout Measure. *Journal of Occupational and Organizational Psychology, 71*(4), 331-351. doi:10.1111/j.2044-8325.1998.tb00680.x

Eriksson, U., Starrin, B., & Janson, S. (2008). Long-term sickness absence due to burnout: Absentee's experiences. *Qualitative Health Research, 18*(5), 620-632. doi:10.1177/1049732308316024

Evans, J. R., & Mathur, A. (2005). The value of online surveys. *Internet Research, 15*(2), 195-219. doi:10.1108/10662240510590360

Faul, F., Erdfelder, E., Buchner, A., & Lang, A. (2009). Statistical power analysis using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods, 41*(4), 1149-1160. doi:10.3758/BRM.41.4.1149

Figley, C. R. (2002). Compassion fatigue: psychotherapists' chronic lack of self care. *In Session: Psychotherapy in Practice, 58*(11), 1433-1441. doi:10.1002/jclp.10090

Fothergill, A., Edwards, D., & Burnard, P. (2004). Stress, burnout, coping and stress management in psychiatrists: Findings from a systematic review. *International*

Journal of Social Psychiatry, 50(1), 54-65. doi:10.1177/0020764004040953

Freudenberger, H. J. (1974). Staff burn-out. *Journal of Social Issues, 30*(1), 159-165. doi: 10.1111/j.1540-4560.1974.tb00706.x

Freudenberger, H. J. (1975). The staff burn-out syndrome in alternative institutions. *Psychotherapy: Theory, Research and Practice, 12*(1), 73-82. doi:10.1037/h0086411

Freudenberger, H. J. (1977). Burn-out: The organizational menace. *Training and Development Journal, 31*(7), 26-27.

Glanz, K., Rimer, B. K., & Lewis, F. M. (2002). *Health behavior and health education: Theory, research and practice.* San Francisco: Wiley & Sons.

Glasgow, R. E., Ory, M. G., Klesges, L. M., Cifuentes, M., Fernald, D. H., & Green, L. A. (2005). Practical and relevant self-report measures of patient health behaviors for primary care research. *Annals of Family Medicine, 3*(1), 73-81. doi:10.1370/afm.261

Gorgievski, M. J., & Hobfoll, S. E. (2008). Work can burn us out or fire us up: Conservation of resources in burnout and engagement. In J. R. B. Halbesleben Retrieved from http://eur.globoweb.nl/beheer/userupload/papers/39.pdf

Gorter, R. C., Eijkman, M. A. J., & Hoogstraten, J. (2000). Burnout and health among Dutch dentists. *European Journal of Oral Sciences, 108*(4), 261-267. doi:10.1034/j.1600-0722.2000.108004261.x

Green, S. B., & Salkind, N. J. (2008). *Using SPSS for Windows and Macintosh: Analyzing and understanding data* (5th Ed.). Upper Saddle River, NJ: Pearson

Education.

Hallberg, U. E., & Sverke, M. (2004). Construct validity of the Maslach Burnout Inventory: Two Swedish health care samples. *European Journal of Psychological Assessment, 20*(4), 320-338. doi:10.1027/1015-5759.20.4.320

Hardiman, P., & Simmonds, J. G. (2012). Spiritual well-being, burnout and trauma in counsellors and psychotherapists. *Mental Health, Religion and Culture*, 1-12. doi:10.1080/13674676.2012.732560

Harris, D. M., & Guten, S. (1979). Health-protective behavior: An exploratory study. *Journal of Health and Social Behavior, 20,* 17-29. doi:10.2307/2136475

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist, 44*(3), 513-524. doi:10.1037/0003-066X.44.3.513

Hobfoll, S. E., & Freedy, J. (1993). Conservation of resources: A general stress theory applied to burnout. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 115–129). Washington, DC: Taylor & Francis.

Holmqvist, R., & Jeanneau, M. (2006). Burnout and psychiatric staff's feelings towards patients. *Psychiatry Research, 145*(2), 207-213. doi:10.1016/j.psychres.2004.08.012

Honkonen, T., Ahola, K., Pertovaara, M., Isometa, E., Kalimo, R., Nykyri, E., …Lonnqvuist, J. (2006). The association between burnout and physical illness in the general population: Results from the Finnish Health 2000 Study. *Journal of Psychosomatic Research, 61*(1), 59-66. doi:10.1016/j.jpsychores.2005.10.002

Hughes, M. C., Hannon, P. A., Harris, J. R., & Patrick, D. L. (2010). Health behaviors of employed and insured adults in the United States, 2004-2005. *Health Promotion, 24*(5), 315-323. doi:10.4278/ajhp.080603-QUAN-77

Hystad, S. W., Eid, J., Laberg, J. C., Johnsen, B. H., & Bartone, P. T. (2009). Academic stress and health: Exploring the moderating role of personality hardiness. *Scandinavian Journal of Educational Research, 53*(5), 421-429. doi:10.1080/00313830903180349

Iacovides, A., Fountoulakis, K. N., Kaprinis, St., & Kaprinis, G. (2003). The relationship between job stress, burnout and clinical depression. *Journal of Affective Disorders, 75*, 209-221. doi:10.1016/S0165-0327(02)00101-5

Imai, H., Nakao, H., Tsuchiya, M., Kuroda, Y., & Katoh, T. (2004). Burnout and work environments of public health nurses involved in mental health care. *Occupational and Environmental Medicine, 61*(9), 764-768. doi:10.1136/oem.2003.009134

Johnson, J. V.,& Hall, E. M. (1988). Job strain, work place social support, and cardiovascular disease: A cross-sectional study of a random sample of the Swedish working population. *American Journal of Public Health, 78*(10), 1336-1342. doi:10.2105/AJPH.78.10.1336

Kelley, K., Clark, B., Brown, V., & Sitzia, J. (2003). Good practice in the conduct and reporting of survey data. *International Journal of Quality in Health Care, 15*(3), 261-266. doi: http://dx.doi.org/10.1093/intqhc/mzg031

Kazdin, A. E. (2003). *Research design in clinical psychology (4th Ed.)*. Boston, MA:

Allyn & Bacon.

Khattak, J. K., Khan, M. A., Haq, A. U., Arif, M., & Minhas, A. A. (2011). Occupational stress and burnout in Pakistan's banking sector. *African Journal of Business Management, 5*(3), 810-817. doi:10.5897/AJBM10.395

Khoshaba, D. M., & Maddi, S. R. (1999). Early experiences in hardiness development. *Consulting Psychology Journal: Practice and Research, 51*(2), 106-116. doi:10.1037/1061-4087.51.2.106

Kim, H., Ji, J., & Kao, D. (2011). Burnout and physical health among social workers: A three-year longitudinal study. *Social Work, 56*(3), 258-268. doi:10.1093/sw/56.3.258

Kitaoka-Higashiguchi, K., Morikawa, Y., Miura, K., Sakurai, M., Ishizaki, M., Kido, T.,…Nakagawa, H. (2009). Burnout and risk factors for arteriosclerotic disease: Follow-up study. *Journal of Occupational Health, 51,* 123-131. Retrieved from http://www.researchgate.net/publication/24003167_Burnout_and_risk_factors_for_arteriosclerotic_disease_follow-up_study/file/79e41506e122e0f29e.pdf

Kobasa, S. C. (1979). Stressful life events, personality, and health: An inquiry into hardiness. *Journal of Personality and Social Psychology, 37*(1), 1-11. doi:10.1037/0022-3514.37.1.1

Kobasa, S. C., Maddi, S. R., & Courington, S. (1981). Personality and constitution as mediators in the stress-illness relationship. *Journal of Health and Social Behavior, 22*(December), 368-378. http://www.jstor.org/stable/2136678

Kobasa, S. C., Maddi, S. R., & Kahn, S. (1982). Hardiness and health: A prospective

study. *Journal of Personality and Social Psychology, 42*(1), 168-177. doi: http://dx.doi.org/10.1037/0022-3514.42.1.168

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*, 85-91. doi:10.1080/14034940210133880

Krick, J. P., & Sobal, J. (1990). Relationships between health protective behaviors. *Journal of Community Health, 15*(1), 19-34. doi:10.1007/BF01350183

Kumar, S. (2007). Burnout in psychiatrists. *World Psychiatry, 6*(3), 186-189. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2175073/

Kumar, S., Fischer, J., Robinson, E., Hatcher, S., & Bhagat, R. N. (2007). Burnout and job satisfaction in New Zealand psychiatrists: A national study. *International Journal of Social Psychiatry, 53*(4), 306-316. doi:10.1177/0020764006074534

Kumar, S., Hatcher, S., & Huggard, P. (2005). Burnout in psychiatrists: An etiological model. *International Journal of Psychiatry in Medicine, 35*(4), 405-416. Retrieved from http://ezp.waldenulibrary.org/login?url=http://search.proquest.com.ezp.waldenulibrary.org/docview/196304854?accountid=14872

Lasalvia, A., Bonetto, C., Bertani, S., Bissoli, S., Cristofalo, D., Marrella, G.,…Ruggeri, M. (2009). Influence of perceived organisational factors on job burnout: Survey of community mental health staff. *The British Journal of Psychiatry, 195*, 537-544. doi:10.1192/bjp.bp.108.060871

Lee, R. T., & Ashforth, B. E. (1990). On the meaning of Maslach's three dimensions of burnout. *Journal of Applied Psychology, 75*(6), 743-474. doi:10.1037/0021-9010.75.6.743

Lee, S. M., Cho, S. H., Kissinger, D., & Ogle, N. T. (2010). A typology of burnout in professional counselors. *Journal of Counseling and Development, 88*(2), 131-138. doi:10.1002/j.1556-6678.2010.tb00001.x

Lee, J., Lim, N., Yang, E., & Lee, S. M. (2011). Antecedents and consequences of three dimensions of burnout in psychotherapists: A meta-analysis. *Professional Psychology: Research and Practice, 42*(3), 252-258. doi:10.1037/a0023319

Leiter, M. P., & Harvie, P. L. (1996). Burnout among mental health workers: A review and a research agenda. *International Journal of Social Psychiatry, 42*(2), 90-101. doi:10.1177/002076409604200203

Leiter, M. P., & Maslach, C. (2001). Burnout and health. In A. Baum, T. A. Revenson, & J. E. Singer (Eds.), *Handbook of Health Psychology* (pp. 415-426). Mahwah, NJ: Lawrence Erlbaum Associates.

Levant, R. F., Wimer, D. J., & Williams, C. M. (2011). An evaluation of the Health Behavior Inventory-20 (HBI-20) and its relationships to masculinity and attitudes towards seeking psychological help among college men. *Psychology of Men & Masculinity, 12*(1), 26-41. doi:10.1037/a0021014

Leiter, M. P., & Maslach, C. (2005). *Banishing burnout: Six strategies for improving your relationship with work.* San Francisco: Jossey-Bass.

Lim, N., Kim, E. K., Kim, H., Yang, E., & Lee, S. M. (2010). Individual and work-

related factors influencing burnout of mental health professionals: A meta-analysis. *Journal of Employment Counseling, 47*(2), 86-96. doi:10.1002/j.2161-1920.2010.tb00093.x

Lindblom, K. M., Linton, S. J., Fedeli, C., & Bryngelsson, I. (2006). Burnout in the working population: Relations to psychosocial work factors. *International Journal of Behavioral Medicine, 13*(1), 51-59. doi:10.1037/1072-5245.13.2.176

Lloyd, C., King, R., & Chenoweth, L. (2002). Social work, stress and burnout: A review. *Journal of Mental Health, 11*(3), 255-265. doi:10.1080/09638230020023642

Lloyd, C., & King, R. (2004). A survey of burnout among Australian mental health occupational therapists and social workers. *Social Psychiatry & Psychiatric Epidemiology, 39*, 752-757. doi:10.1007/s00127-004-0808-7

Lundgren-Nilsson, A., Jonsdottir, I. H., Pallant, J., & Ahlborg, G. (2012). Internal construct validity fo the Shirom-Melamed Burnout Questionnaire (SMBQ). *BMC Public Health, 12*(1) doi:10.1186/1471-2458-12-1

Maddi, S. R. (2006). Hardiness: The courage to grow from stresses. *The Journal of Positive Psychology, 1*(3), 160-168. doi:10.1080.17438760600619609

Malach-Pines, A. (2005). The Burnout Measure, Short Version. *International Journal of Stress Management, 12*(1), 78-88. doi:10.1037/1072-5245.12.1.78

Maslach, C. (1976). Burned-out. *Human Behavior* (September). p. 16-22.

Maslach, C. (1978). The client role in staff burn-out. *Journal of Social Issues, 34*(4), 111-124. doi:10.1111/j.1540-4560.1978.tb00778.x

Maslach, C., & Goldberg, J. (1998). Prevention of burnout: New perspectives. *Applied*

and Preventative Psychology, 7(1), 63-74. doi:10.1016/S0962-1849(98)80022-X

Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behaviour, 2,* 99-113. doi:10.1002/job.4030020205

Maslach, C. (1982). *Burnout, the cost of caring.* Englewood Cliffs, NJ: Prentice-Hall.

Maslach, C., & Jackson, S. E. (1985). The role of sex and family variables in burnout. *Sex Roles, 12*(7/8), 837-851. doi:10.1007/BF00287876

Maslach, C. (2001). What have we learned about burnout and health? *Psychology and Health, 16,* 607-611.

Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behaviour, 2,* 99-113. doi:10.1002/job.4030020205

Maslach, C. (2003). Job burnout: New directions in research and intervention. *Current Directions in Psychological Science, 12*(5), 189-192. doi:10.1111/1467-8721.01258

Maslach, C., & Leiter, M. P. (1997). *The truth about burnout: How organizations cause personal stress and what to do about it.* San Francisco, CA: Jossey-Bass Publishers.

Maslach, C., & Leiter, M. P. (2008). Early predictors of job burnout and engagement. *Journal of Applied Psychology, 93*(3), 498-512. doi:10.1037/0021-9010.93.3.498

Melamed, S., Shirom, A., Toker, S., Berliner, S., & Shapira, I. (2006). Burnout and risk of cardiovascular disease: Evidence, possible causal paths, and promising research directions. *Psychological Bulletin, 132*(3), 327-353. doi:10.1037/0033-2909.132.3.327

Melamed, S., Shirom, A., Toker, S., & Shapira, I. (2006). Burnout and risk of type 2 diabetes: A prospective study of apparently healthy employed persons. *Psychosomatic Medicine, 68,* 863-869. doi:10.1097/01.psy.0000242860.24009.f0

Mohren, D. C. L., Swaen, G. M. H., Kant, I., van Amelsvoort, L. G. P. M., Borm, P. J. A., & Galama, J. M. D. (2003). Common infections and the role of burnout in a Dutch working population. *Journal of Psychosomatic Research, 55*, 201-208. doi:10.1016/S0022-3999(02)00517-2

Mommersteeg, P. M. C., Heijnen, C. J., Kavelaars, A., & van Doornen, L. J. (2006). Immune and endocrine function in burnout syndrome. *Psychosomatic Medicine, 68*(6), 879-886. doi:10.1097/01.psy.0000239247.47581.0c

Mommersteeg, P. M. C., Keijsers, G. P. J., Heijnen, C. J., Verbraak, M. J. P. M, & van Doornen, L. J. P. (2006). Cortisol deviations in people with burnout before and after psychotherapy: A pilot study. *Health Psychology, 25*(2), 243-248. doi:10.1037/0278-6133.25.2.243

Morse, G., Salyers, M. P., Rollins, A. L., Monroe-DeVita, M., & Pfahler, C. (2012). Burnout in mental health services: A review of the problem and its remediation. *Administration and Policy in Mental Health, 39*(5), 341-352. doi:10.1007/s10488-011-0352-1

Nardi, P. (2003). Doing survey research: A Guide to Quantitative Research. Boston, MA: Allyn and Bacon/Pearson Education.

Naude, J. L. P., & Rothmann, S. (2004). The validation of the Maslach Burnout Inventory-Human Services survey for emergency medical technicians in Gauteng.

South African Journal of Industrial Psychology, 30(3), 21-28. Retreived from http://sajip.co.za/index.php/sajip/article/viewArticle/167

Nowack, K. M. (1991). Psychosocial predictors of health status. *Work & Stress, 5*(2), 117-131. Retrieved from http://abstracts.envisialearning.com/19-abstractFile.pdf

Nowack, K. M., & Pentkowski, A. M. (1994). Lifestyle habits, substance use and predictors of job burnout in professional working women. *Work and Stress, 8*(1), 19-35. Retrieved from http://abstracts.envisialearning.com/16-abstractFile.pdf

Office of the Revisor of Statutes, State of Minnesota (2011). 2011 Minnesota Statutes. Retrieved from https://www.revisor.mn.gov/statutes/?id=256B.0623&year=2011

Ohrt, J. H., & Cunningham, L. K. (2012). Wellness in mental health agencies. *The Professional Counselor: Research and Practice, 2*(1), 90-101. Retrieved from http://tpcjournal.nbcc.org/wp-content/uploads/2012/04/wellness-in-mental-health_Ohrt.pdf

Paris, M., & Hoge, M. A. (2009). Burnout in the mental health workforce: A review. *Journal of Behavioral Health Services & Research, 37*(4), 519-528. doi: 10.1007/s11414-009-9202-2

Pines, A., & Aronson, E. (1988). *Career burnout: Causes and cures.* New York: The Free Press.

Pines, A., Aronson, E., & Kafry, D. (1981). *Burnout: From tedium to personal growth.* New York: The Free Press.

Pines, A., & Kafry, D. (1978). Occupational tedium in the social services. *Social Work, 23*(6), 499-507.

Pines, A., & Maslach, C. (1978). Characteristics of staff burnout in mental health settings. *Hospital & Community Psychiatry, 29*(4), 233-237.

Putnik, K., de Jong, A., & Verdonk, P. (2011). Road to help-seeking among (dedicated) human services professionals with burnout. *Patient Education and Counseling, 83*(1), 49-54. doi:10.1016/j.pec.2010.01.004

Purvanova, R. K., & Muros, J. P. (2010). Gender differences in burnout: A meta-analysis. *Journal of Vocational Behavior, 77*(2), 168-185. doi:10.1016/j.jvb.2010.04.006

Rabkin, J. G., & Struening, E. L. (1976). Life events, stress, and illness. *Science, 194*(4269), 1013-1020. doi:10.1126/science.790570

Ray, S. L., Wong, C., White, D., & Heaslip, K. (2013). Compassion satisfaction, compassion fatique, work life conditions, and burnout among frontline mental health care professionals. *Traumatology,* published online. doi:10.1177/1534765612471144

Richards, K. C., Campenni, C. E., Muse-Burke, J. L. (2010). Self-care and well-being in mental health professionals: The mediating effects of self-awareness and mindfulness. *Journal of Mental Health Counseling, 32*(3), 247-264. Retrieved from http://www.biomedsearch.com/article/Self-care-well-being-in/233291361.html

Ross, R. R., Altmaier, E. M., & Russell, D. W. (1989). Job stress, social support, and burnout among counseling center staff. *Journal of Counseling Psychology, 36*(4), 464-470. doi:10.1037/0022-0167.36.4.464

Rossi, A., Cetrano, G., Pertile, R., Rabbi., L., Donisi, V., Grigoletti, L.,…Amaddeo, F.

(2012). Burnout, compassion fatigue, and compassion satisfaction among staff in community-based mental health services. *Psychiatry Research, 200*(2), 933-938. doi:10.1016/j.psychres.2012.07.029

Rupert, P. A., & Kent, J. S. (2007). Gender and work setting differences in career-sustaining behaviors and burnout among professional psychologists. *Professional Psychology: Research and Practice, 38*(1), 88-96. doi:10.1037/0735-7028.38.1.88

Rupert, P. A., & Morgan, D. J. (2005). Work setting and burnout among professional psychologists. *Professional Psychology: Research and Practice, 36*(5), 544-550. doi:10.1037/0735-7028.36.5.544

Rupert, P. A., Stevanovic, P., & Hunley, H. A. (2009). Work-family conflict and burnout among practicing psychologists. *Professional Psychology: Research and Practice, 40*(1), 54-61. doi:http://dx.doi.org/10.1037/a0012538

Ruskin, R., Sakinofsky, I., Bagby, R. M., Dickens, S., & Sousa, G. (2004). Impact of patient suicide on psychiatrists and psychiatric trainees. *Academic Psychiatry, 28*(2), 104-110. doi:10.1176/appi.ap.28.2.104

Rosenberg, T., & Pace, M. (2006). Burnout among mental health professionals: Special considerations for the marriage and family therapist. *Journal of Marital and Family Therapy, 32*(1), 87-99. doi:10.1111/j.1752-0606.2006.tb01590.x

Sadler-Gerhardt, C. J., & Stevenson, D. L. (2012). When it all hits the fan: Helping counselors build resilience and avoid burnout. *Ideas and Research You Can Use: VISTAS 2012,1,* 1-8. Retrieved from http://counselingoutfitters.com/vistas/vistas12/Article_24.pdf

Salanova, M., & Llorens, S. (2008). Current state of research on burnout and future challenges. *Papeles del Psicologo, 29*(1), 59-67. Retrieved from https://www.papelesdelpsicologo.es/english/1539.pdf

Savicki, V., & Cooley, E. J. (1982). Implications of burnout research and theory for counselor educators. *The Personnel and Guidance Journal, 60*(7), 415-419. doi: 10.1002/j.2164-4918.1982.tb00789.x

Schaufeli, W. B. (2003). Past performance and future perspectives of burnout research. *South African Journal of Industrial Psychology, 29*(4), 1-15. Retrieved from http://www.sajip.co.za/index.php/sajip/article/viewFile/127/123

Schaufeli, W. B., Bakker, A. B., Hoogduin, K., Schaap, C., & Kladler, A. (2001). On the clinical validity of the Maslach Burnout Inventory and the Burnout Measure. *Psychology and Health, 16*, 565-582. doi:10.1080/08870440108405527

Schaulfeli, W. B., & van Dierendonck, D. (1993). The construct validity of two burnout measures. *Journal of Organizational Behavior. 14*(7), 631-647. doi:10.1002/job.4030140703

Schutte, N., Toppinen, S., Kalimo, R., & Schaufeli, W. (2000). The factorial validity of the Maslach Burnout Inventory-General Survey (MBI-GS) across occupational groups and nations. *Journal of Occupational and Organization Psychology, 73*(1), 53-66. doi:10.1348/096317900166877

Schwartz, R. H., Tiamiyu, M. F., & Dwyer, D. J. (2007). Social worker hope and perceived burnout: The effects of age, years in practice, and setting. *Administration in Social Work, Vol. 31*(4), 103-119. doi:10.1300/J147v31n04_08

Schwarzer, R. (2008). Modeling health behavior change: How to predict and \ modify the adoption and maintenance of health behavior. *Applied Psychology: An International Review, 57*(1), 1-29. doi:10.1111/j.1464-0597.2007.00325.x

Schwarzer, R., & Luszczynska, A. (2008). How to overcome health-compromising behaviors: The health action process approach. *European Psychologist, 13*(2), 141-151. doi:10.1027/1016-9040.13.2.141

Senter, A., Morgan, R. D., Serna-McDonald, C., & Bewley, M. (2010). Correctional psychologist burnout, job satisfaction, and life satisfaction. *Psychological Services, 7*(3), 190-201. doi: http://dx.doi.org/10.1037/a0020433

Sherring, S., & Knight, D. (2009). An exploration of burnout among city mental health nurses. *British Journal of Nursing, 18*(2), 1234-1240. doi:http://dx.doi.org/10.12968/bjon.2009.18.20.45114

Shirom, A. (2009). Epilogue: Mapping future research on burnout and health. *Stress and Health, 25*, 375-380. doi:10.1002/smi/1284

Shirom, A. (2010). Employee burnout and health: Current knowledge and future research paths. In J. Houdmont & S. Leka (Eds.), *Contemporary Occupational Health Psychology: Global Perspectives on Research and Practice* (pp. 59-76). doi:10.1002/9780470661550

Shirom, A., & Melamed, S. (2006). A comparison of the construct validity of two burnout measures in the two groups of professionals. *International Journal of Stress Management, 13*(12), 176-200. doi:10.1037/1072-5245.13.2.176

Sprang, G., Clark, J. J., & Whitt-Woosley, A. (2007). Compassion fatigue, compassion

satisfaction, and burnout: Factors impacting a professional's quality of life. *Journal of Loss and Trauma, 12*, 259-280. doi:10.1080/15325020701238093

Sue, V. M., & Ritter, L. A. (2007). *Conducting online surveys.* Thousand Oaks, CA: Sage Publications.

Taris, T. W., LeBlanc, P. M., Schaufeli, W. B., & Schreurs, P. J. G. (2005). Are there causal relationships between the dimensions of the Maslach Burnout Inventory? A review and two longitudinal tests. *Work and Stress, 19*(3), 238-255. doi:10.1080/02678370500270453

Taris, T. W., Schreurs, P. J. G., & Schaufeli, W. B. (1999). Construct validity of the Maslach Burnout Inventory-General Survey: A two-sample examination of its factor structure and correlates. *Work & Stress: An International Journal of Work, Health & Organisations, 13*(3), 223-237. doi:10.1080/026783799296039

Taris, T. W., Ybema, J. F., Beckers, D. G. J., Verheijden, M. W., Geurts, S. A. E., Kompier, M. A. J. (2011). Investigating the associations among overtime work, health behaviors, and health: A longitudinal study among full-time employess. *International Journal of Behavioral Medicine, 18,* 352-360. doi:10.1007/s12529-010-9103-z

Ten Brummelhuis, L. L., ter Hoeven, C. L., Bakker, A. B., & Peper, B. (2011). Breaking through the loss cycle of burnout: The role of motivation. *Journal of Occupational and Organizational Psychology, 84,* 268-287. doi:10.1111/j.2044-8325.2011.02019.x

Thomsen, S., Soares, J., Nolan, P., Dallender, J.., & Arnetz, B. (1999). Feelings of

professional fulfillment and exhaustion in mental health personnel: The importance of organizational and individual factors. *Psychotherapy and Psychosomatics, 68*(3), 157-164. doi:10.1159/000012325

Vahey, D. C., Aiken, L. H., Sloane, D. M., Clarke, S. P., & Vargas, D. (2004). Nurse burnout and patient satisfaction. *Medical Care, 42*(2 Suppl), II57-II66. doi:10.1097/01.mlr.0000109126.50398.5a

Van der Linden, D., Keijsers, G. P. J., Eling, P., & van Schaijk, R. (2005). Work stress and attentional difficulties: An initial study on burnout and cognitive failures. *Work & Stress, 19*(1), 23-36. doi:10.1080/02678370500065275

Vanheule, S., Rosseel, Y., & Vlerick, P. (2007). The factorial validity and measurement invariance of the Maslach Burnout Inventory for human services. *Stress and Health: Journal of the International Society for the Investigation of Stress, 23*(2), 87-91. doi:10.1002/smi.1124

Vinokur, A. D., Pierce, P. F., Lewandowski-Romps, L. (2009). Disentangling the relationships between job burnout and perceived health in a military sample. *Stress and Health, 25*(4), 355-363. doi:10.1002/smi.1264

Vredenburgh, L. D., Carlozzi, A. F., & Stein, L. B. (1999). Burnout in counseling psychologists: Type of practice setting and pertinent demographics. *Counselling Psychology Quarterly, 12*(3), 293-302. doi:10.1080/09515079908254099

Webb, K. B. (2011). Care of others and self: a suicidal patient's impact on the psychologist. *Professional Psychology: Research and Practice, 42*(3), 215-221. doi:10.1037/a0022752

Wiebe, D. J., & McCallum, D. M. (1986). Health practices and hardiness as a mediators in the stress-illness relationship. *Health Psychology, 5*(5), 425-438. doi: 10.1037/0278-6133.5.5.425

Wise, T. N.,& Berlin, R. M. (1981). Burnout: Stresses in consultation-liaison psychiatry. *Psychosomatics, 22*(9), 744-751. doi:10.1016/S0033-3182(81)73104-9

Zopiatis, A., Constanti, P., & Pavlou, I. (2010. Investigating the association of burnout and personality traits of hotel managers. *International CHRIE Conference-Refereed Track*. Retrieved from http://scholarworks.umass.edu/refereed/CHRIE_2010/Friday/11/

Appendix A: Letter to Organizations

Month Day, 2013

Mr., Mrs., Dr.

Organization

Address

Dear [redacted]:

My name is Jeremiah Schimp, and I am student in the Health Psychology Ph.D. program at Walden University and have worked in mental health in the [redacted] for over 9 years. I am currently in the process of writing my dissertation. I am writing you today to request permission to survey your mental health staff. My area of research interest is burnout and health factors in mental health providers. I have been acquainted over the years with the services your agency provides and the staff you hire. For that reason, I am requesting to survey your staff.

The design of my study would involve a small amount of time on the part of your organization and staff. I am conducting a quantitative survey study which includes requesting participants (staff providing direct service to recipients) to complete a short demographic questionnaire and three brief inventories.

The involvement I am requesting is for an invitation to participate and follow-up e-mails, which I will provide, to be sent to all staff providing mental health services at your organization. The surveys are entirely online and I will be handling all data collection. The participation of your staff will be anonymous, confidential, and strictly voluntary.

In completing my dissertation I hope to add to the literature on burnout and health factors in mental health staff. As a health psychology student and mental health professional I aspire to find ways to positively impact the health and wellbeing of those providing mental health services in our community.

If participating in my research study is feasible for your organization I will provide human subjects approval from Walden University. I would be pleased to answer any questions you may have. I thank you for your time.

I can be contacted at jeremiah.schimp@waldenu.edu or [redacted].

Regards,

Jeremiah Schimp

Appendix B: Permissions

Subject : [Fwd: Thank you for purchasing DRS-15: 1-Year Academic License, Jeremiah Schimp]
Date : Sun, Mar 23, 2014 12:22 PM CDT
From : jeremiah schimp <jeremiah.schimp@waldenu.edu>
To : jeremiah.schimp@waldenu.edu
Letters : Thank you for purchasing DRS-15: 1-Year ... (bartonep@gmail.com Wed, Nov 20, 2013 09:54 PM CST)

Jeremiah B. Schimp

Ph.D. Health Psychology Student
[redacted]

Original E-mail
From : bartonep@gmail.com
Date : 11/20/2013 09:54 PM
To : jeremiah.schimp@waldenu.edu
Subject : Thank you for purchasing DRS-15: 1-Year Academic License, Jeremiah Schimp

Hello Jeremiah Schimp,

Thank you for purchasing DRS-15: 1-Year Academic License.

Your receipt number is: 59257937AA449511N

You can download DRS-15: 1-Year Academic License for the
next 48 hours.

Your personal download link is:
http://www.upandrunning.net/dlg/download.php?r=59257937AA449511N&p=1

Thank you for your support,

Best wishes,
Paul Bartone, Ph.D
DRS Instrument Developer

Subject : **Re: Contact: electronic use of DRS-15**
Date : Sat, Oct 06, 2012 03:29 AM CDT
From : paul bartone <bartonep@gmail.com>
To : Jeremiah Schimp <jeremiah.schimp@waldenu.edu>

Hi Jeremiah, yes it's OK to use the DRS-15 in electronic format. You just need to be sure to display the copyright info.

You will need an academic license. Once you've registered, you'll get a download link that provides all the info on scale, scoring, norms etc.

Thanks,

Paul Bartone
On Fri, Oct 5, 2012 at 3:49 AM, Jeremiah Schimp <jeremiah.schimp@waldenu.edu> wrote:
Name: Jeremiah Schimp

Email: jeremiah.schimp@waldenu.edu

Subject: electronic use of DRS-15

Message: Dr. Bartone, I am a Ph.D. student in psychology and doing my dissertation on burnout, hardiness, and health behaviors of mental health workers. I believe that the DRS-15 would be a good fit for my study. I am looking to collect my data electronically. Do you allow the DRS-15 to be translated into an electronic format?

Thank you, Jeremiah Schimp

[redacted]

Subject : **Re: MGAgree: Maslach Burnout Inventory - Human Services Survey from Jeremiah Schimp (Order # 30331)**
Date : Tue, Mar 11, 2014 05:18 PM CDT
From : **Mind Garden <info@mindgarden.com>**
To : jeremiah.schimp@waldenu.edu

Dear Jeremiah,

Thank you for your order and for completing the Online Use Agreement.

Please feel free to proceed with your study.

Best,

Valorie Keller

Mind Garden, Inc.

On Mon, Mar 10, 2014 at 8:43 PM, <jeremiah.schimp@waldenu.edu> wrote:
Message-Id: <20140311030047.D421F6A00CB@web016.mivamerchant.net>
Date: Mon, 10 Mar 2014 23:00:47 -0400 (EDT)

Name: Jeremiah Schimp

Email address: jeremiah.schimp@waldenu.edu

[redacted]

Company/Institution: student of Walden University

Order/Invoice number: 30331

Order Date: 03/10/2014

Project Title: Health Behaviors, Hardiness, and Burnout in Mental Health Workers

Instrument Name: Maslach Burnout Inventory - Human Services Survey

I will compensate Mind Garden, Inc. for every use of this online form.

I will put the instrument copyright on every page containing question items from this instrument.

Gmail by Google

Jeremiah Schimp <jeremiah.schimp@waldenu.edu>

Response from Mind Garden - Jeremiah Schimp - survey for review

1 message

Mind Garden <info@mindgarden.com> Tue, Apr 1, 2014 at 8:57 PM
To: Jeremiah Schimp <jeremiah.schimp@waldenu.edu>

Hello Jeremiah,

Thank you for sending the link to your survey for our review of your adherence to our policy for adding the MBI-HSS to a non-Mind Garden Survey System.

- I have confirmed that the appropriate MBI-HSS copyright is referenced.

- In regards to the link, please note that I was able to select the link again AFTER I completed the survey. This is fine, as long as SurveyMonkey is tracking the usage AND when you are finished collecting data you inactivate the link.

- IF you find you use more licenses than you have purchased, just let us know at the end of your data collection and we can invoice you for the additional licenses.

Please note that when I took the survey, I responded to the FIRST response selection for ALL of the questions with the exception of the last two questions where I responded "0". Hopefully this helps you in identifying my data to delete.

Wishing you much success with your research.

Best regards,
Chris
Mind Garden, Inc.

On Mon, Mar 31, 2014 at 7:33 PM, Jeremiah Schimp <jeremiah.schimp@waldenu.edu> wrote:

> Mindgarden,
>
> I have included the link to the survey of my study, which includes the MBI-HSS from Mindgarden, for your review (per the online use agreement). The MBI-HSS is the 2nd study in the survey.
>
> http://www.surveymonkey.com/s/9PXC95H
>
> Thank you!
>
> Jeremiah Schimp

--
Mind Garden, Inc.
info@mindgarden.com

mind garden

www.mindgarden.com

To whom it may concern,

This letter is to grant permission for the above named person to use the following copyright material for his/her thesis or dissertation research:

Instrument: ***Maslach Burnout Inventory, Forms: General Survey, Human Services Survey & Educators Survey***

Copyrights:

MBI-General Survey (MBI-GS): Copyright ©1996 Wilmar B. Schaufeli, Michael P. Leiter, Christina Maslach & Susan E. Jackson. All rights reserved in all media. Published by Mind Garden, Inc., www.mindgarden.com

MBI-Human Services Survey (MBI-HSS): Copyright ©1981 Christina Maslach & Susan E. Jackson. All rights reserved in all media. Published by Mind Garden, Inc., www.mindgarden.com

MBI-Educators Survey (MBI-ES): Copyright ©1986 Christina Maslach, Susan E. Jackson & Richard L. Schwab. All rights reserved in all media. Published by Mind Garden, Inc., www.mindgarden.com

Three sample items from a single form of this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation.

The entire instrument may not be included or reproduced at any time in any published material.

Sincerely,

Robert Most
Mind Garden, Inc.
www.mindgarden.com

Subject : Re: MGWeb: Comment from Jeremiah Schimp (Product Question)
Date : Mon, Jul 08, 2013 12:40 PM CDT
From : info@mindgarden.com
To : jeremiah.schimp@waldenu.edu

Hello Jeremiah,

I see that you have purchased the MBI Manual, but I do not see a record of any license purchase. You will need licenses in order to administer the MBI. Here is the link to the MBI license information: http://www.mindgarden.com/products/mbi.htm#data

To administer the MBI online using another survey platform, you will want to purchase your licenses in PDF format. The other action you need to take is to complete the Online Use Agreement following your purchase. Here is the link to it: http://www.mindgarden.com/how.htm#instrumentweb

Best,

Katherine
Mind Garden, Inc.

Quoting jeremiah.schimp@waldenu.edu:

> Name: Jeremiah Schimp
> Email address: jeremiah.schimp@waldenu.edu
> [redacted]
> Company/Institution: Walden University
> Country: United States
> Order/Invoice number:
> Purchase Order number:
> Topic of comment: Product Question
>
> Comment:
> Hi, I am a doctoral student looking to use the MBI-HSS in my
> dissertation research (I have already purchased my license). Can I
> put the MBI-HSS into electronic form for use on a site like
> SurveyMonkey?
>
> Thank you!
>
> How did you hear about us?
>

Subject : **[Fwd: HBI-20]**
Date : Sun, Mar 23, 2014 12:19 PM CDT
From : **jeremiah schimp <jeremiah.schimp@waldenu.edu>**
To : jeremiah.schimp@waldenu.edu
Letters : HBI-20... (Levant,Ronald F Wed, Nov 20, 2013 07:21 PM CST)

Jeremiah B. Schimp

Ph.D. Health Psychology Student

[redacted]

Original E-mail
From : "Levant,Ronald F" [levant@uakron.edu]
Date : 11/20/2013 07:21 PM
To : "jeremiah.schimp@waldenu.edu" [jeremiah.schimp@waldenu.edu]
Subject : HBI-20

Hello Jeremiah: Thank you for sending your permission for the use of the HBI-20. Your permission is granted. I have attached the instrument and all of the information that you will need. Good luck on your project!
Sincerely,
Ron Levant

Ronald F. Levant, Ed.D., A.B.P.P.
Professor, Collaborative Program in Counseling Psychology
The University of Akron
Akron, OH 44325-4301
Phone: 330-972-5496
Fax: 330-972-5174
Web: DrRonaldLevant.com

Subject : **Fwd: Message Form submission**
Date : Fri, Oct 05, 2012 06:19 AM CDT
From : Ronald Levant <ronlevant@gmail.com>
To : jeremiah.schimp@waldenu.edu

Sure, any instrument can be administered over the web.

---------- Forwarded message ----------
From: <rlevant@ns14.dnchosting.com>
Date: Thu, Oct 4, 2012 at 11:07 PM
Subject: Message Form submission
To: ronlevant@gmail.com

New Website Comment:

fullname: Jeremiah Schimp
email: jeremiah.schimp@waldenu.edu
comment: Dr. Levant,I am interested in using the HBI-20 in my dissertation research on burnout and health behaviors. Can the HBI-20 be administered electronically? I am looking to collect my data through the Internet.Thank you,Jeremiah Schimp

[redacted]

Letter of Cooperation

[redacted]

Date: 1/29/2014

Dear Jeremiah Schimp,

Based on my review of your research documents, I give permission for you to conduct the study entitled Health Behaviors, Hardiness, and Burnout in Mental Health Workers within [redacted] As part of this study, I authorize you to work with the IT department to set up the email invitation process in such a manner that no [redacted] staff person will be involved in the actual sending of the invitation or the reminders. Individuals' participation will be voluntary and at their own discretion.

We understand that our organization's responsibilities include IT department assistance in creating an account which you can use for your study. We reserve the right to withdraw from the study at any time if our circumstances change.

I confirm that I am authorized to approve research in this setting.

I understand that the data collected will not include employee names, will remain entirely confidential, and may not be provided to anyone outside of the research team without permission from the Walden University IRB.

Sincerely,

[redacted]

[redacted]

[redacted] Institutional Review Board

Date: 1/14/14

Staff present:
[redacted]

Description of Study reviewed:
Jeremiah Schimp, doctoral student at Walden University, survey of mental health staff to review the relationship of burnout and health factors. Responders will be directed to a secure website to complete demographic information and 3 brief surveys.

Comments by reviewers:
There is concerned about reporting "recreational drugs." Recreational drugs are not defined and frequency isn't defined; the ambiguity will make interpretation of the data difficult. There may be reluctance of staff to accurately report this information, although the employer will not have access to individual responses.

Risk of harm to study participants:
Participation in the study is voluntary and the risk is considered minimal.

Relevance of study to the agency's mission:
We value long term, experienced staff and recognize the job can be stressful. The study may provide information to the agency that can be used protect employees from job burnout.

Recommendation:
This study is approved. HR will be notified and the Clinical Directors will facilitate the implementation of the study.

[redacted]

Appendix C: Informed Consent

Agency A: Invitiation E-mail

Dear Participant,

My name is Jeremiah Schimp. I am a doctoral student in the School of Psychology at Walden University. I am conducting a research study as part of the requirements of my degree in health psychology, and I would like to invite you to participate. I am studying the relationship of resiliency and health habits in those working in the mental health field.

The study involves completing basic demographic information and three questionnaires. This will take approximately 10 minutes.

Participation is voluntary. You may withdraw from the study at any time. Your participation will not require your name or any other identifying information. The information you provide will be kept confidential.

If you would like to participate in this study please read the Informed Consent letter below and click on the link at the end to begin the study.

Thank you for your time and participation!

Jeremiah Schimp

Letter of Consent

You are invited to take part in a research study to examine the relationship of resiliency and health habits in those working in the mental health field. The researcher is inviting people working in the mental health field at non-profit mental health agencies to participate in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Jeremiah Schimp, who is a doctoral student at Walden University. You may already know the researcher as a manager at [redacted], but this study is separate from that role.

Background Information:
The purpose of this study is to examine the relationship of resiliency and health habits in those working in the mental health field.

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

• complete 3 surveys, which will take in total, approximately 10 minutes to complete. The surveys include questions about your health habits, life views, and attitudes towards your work. You may skip questions you choose not to answer.

• complete demographic information form (e.g., age range, years in the field, education level) so
that I can describe the demographic characteristics of the study participants.

Here are some sample questions:

-I avoid eating large amounts of sugar.

1 –Strongly Disagree
2 –Disagree
3 –Slightly Disagree
4 –Unsure
5 –Slightly Agree
6 –Agree
7 –Strongly Agree

-I use recreational drugs.

1 –Strongly Disagree
2 –Agree
3 –Slightly Agree
4 –Unsure
5 –Slightly Agree
6 –Agree
7 –Strongly Agree

- It is up to me to decide how the rest of my life will be…

- Not at all true
- A little true
- Quite true
- Completely true

Voluntary Nature of the Study:

This study is voluntary. No one at your place of employment will know whether you completed the study or not. This study is in no way affiliated with [redacted] and will not in any way affect your employment. [redacted] will receive an executive summary of this study, but individual participants will not and cannot be identified. No [redacted] human resource or other personnel will see your responses. If you decide to join the study now, you can still change your mind later. You may stop at any time.

Risks and Benefits of Being in the Study:
The survey questions, while personal, are unlikely to cause distress or discomfort. You are free to discontinue your involvement at any point in the process. You may also contact [redacted] United Way at [redacted]-0211 or 1-800-[redacted] for referrals to support in case of distress or discomfort.

You will be contributing to knowledge about the health of people working in the mental health field. There is no compensation for participating in this study.

Privacy:
Your name and identifying information will not be collected. Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include anything that could identify you when reporting results. Data will be kept secure in a password protected hard drive at the researcher's home. Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:
If you have questions now or later, you may contact the researcher via jeremiah.schimp@waldenu.edu. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 612-312-1210 (for US based participants) OR 001-612-312-1210 (for participants outside the US). Walden University's approval number for this study is **01-16-14-0120031** and it expires on **January 15, 2015**.

Please print or save this consent form for your records.

Statement of Consent:
I have read the above information and I feel I understand the study well enough to make a decision
about my involvement. By clicking the link below, I understand that I am agreeing to the terms described
above.

LINK:

http://www.surveymonkey.com/s/9PXC95H

Agency A: First Reminder E-mail

Dear Participant,

This is a friendly reminder about the e-mail invitation you received a week ago to participate in my research study.

My name is Jeremiah Schimp. I am a doctoral student in the School of Psychology at Walden University. I am conducting a research study as part of the requirements of my degree in health psychology, and I would like to invite you to participate. I am studying the relationship of resiliency and health habits in those working in the mental health field.

The study involves completing basic demographic information and three questionnaires. This will take approximately 10 minutes.

Participation is voluntary. You may withdraw from the study at any time. Your participation will not require your name or any other identifying information. The information you provide will be kept confidential.

If you would like to participate in this study please read the Informed Consent letter below and click on the link at the end to begin the study.

Thank you for your time and participation! (if you have already participated, thank you!)

Jeremiah Schimp

Letter of Consent

You are invited to take part in a research study to examine the relationship of resiliency and health habits in those working in the mental health field. The researcher is inviting people working in the mental health field at non-profit mental health agencies to participate in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Jeremiah Schimp, who is a doctoral student at Walden University. You may already know the researcher as a manager at [redacted], but this study is separate from that role.

Background Information:
The purpose of this study is to examine the relationship of resiliency and health habits in those working in the mental health field.

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

• complete 3 surveys, which will take in total, approximately 10 minutes to complete. The surveys include questions about your health habits, life views, and attitudes towards your work. You may skip questions you choose not to answer.

• complete demographic information form (e.g., age range, years in the field, education level) so
that I can describe the demographic characteristics of the study participants.

Here are some sample questions:

-I avoid eating large amounts of sugar.

1 –Strongly Disagree
2 –Disagree
3 –Slightly Disagree
4 –Unsure
5 –Slightly Agree
6 –Agree
7 –Strongly Agree

-I use recreational drugs.

1 –Strongly Disagree
2 –Agree
3 –Slightly Agree
4 –Unsure
5 –Slightly Agree
6 –Agree
7 –Strongly Agree

- It is up to me to decide how the rest of my life will be…

- Not at all true
- A little true
- Quite true
- Completely true

Voluntary Nature of the Study:
This study is voluntary. No one at your place of employment will know whether you completed the study or not. This study is in no way affiliated with [redacted] and will not in any way affect your employment. [redacted] will receive an executive summary of this study, but individual participants will not and cannot be identified. No [redacted] human resource or other personnel will see your responses. If you decide to join the study now, you can still change your mind later. You may stop at any time.

Risks and Benefits of Being in the Study:
The survey questions, while personal, are unlikely to cause distress or discomfort. You are free to discontinue your involvement at any point in the process. You may also contact [redacted] United Way at [redacted] -0211 or 1-800-[redacted] for referrals to support in case of distress or discomfort.

You will be contributing to knowledge about the health of people working in the mental health field. There is no compensation for participating in this study.

Privacy:
Your name and identifying information will not be collected. Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include anything that could identify you when reporting results. Data will be kept secure in a password protected hard drive at the researcher's home. Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:
If you have questions now or later, you may contact the researcher via jeremiah.schimp@waldenu.edu. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 612-312-1210
(for US based participants) OR 001-612-312-1210 (for participants outside the US).
Walden University's approval number for this study is **01-16-14-0120031** and it expires on **January 15, 2015**.

Please print or save this consent form for your records.

Statement of Consent:
I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By clicking the link below, I understand that I am agreeing to the terms described above.

LINK:

http://www.surveymonkey.com/s/9PXC95H

Agency A: Final Reminder/Thank You E-mail

Dear Participant,

This is a friendly reminder to the e-mail invitations you have received in the last two weeks to participate in my research study. If you have not already participated, I kindly invite you to do so. If you have participated in my study already, thank you!

My name is Jeremiah Schimp. I am a doctoral student in the School of Psychology at Walden University. I am conducting a research study as part of the requirements of my degree in health psychology, and I would like to invite you to participate. I am studying the relationship of resiliency and health habits in those working in the mental health field.

The study involves completing basic demographic information and three questionnaires. This will take approximately 10 minutes.

Participation is voluntary. You may withdraw from the study at any time. Your participation will not require your name or any other identifying information. The information you provide will be kept confidential.

If you would like to participate in this study please read the Informed Consent letter below and click on the link at the end to begin the study.

Thank you for your time and participation! (if you have already participated, thank you!)

Jeremiah Schimp

Letter of Consent

You are invited to take part in a research study to examine the relationship of resiliency and health habits in those working in the mental health field. The researcher is inviting people working in the mental health field at non-profit mental health agencies to participate in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Jeremiah Schimp, who is a doctoral student at Walden University. You may already know the researcher as a manager at [redacted], but this study is separate from that role.

Background Information:
The purpose of this study is to examine the relationship of resiliency and health habits in those working in the mental health field.

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

• complete 3 surveys, which will take in total, approximately 10 minutes to complete. The surveys include questions about your health habits, life views, and attitudes towards your work. You may skip questions you choose not to answer.

• complete demographic information form (e.g., age range, years in the field, education level) so that I can describe the demographic characteristics of the study participants.

Here are some sample questions:

-I avoid eating large amounts of sugar.

1 –Strongly Disagree
2 –Disagree
3 –Slightly Disagree
4 –Unsure
5 –Slightly Agree
6 –Agree
7 –Strongly Agree

-I use recreational drugs.

1 –Strongly Disagree
2 –Agree
3 –Slightly Agree
4 –Unsure
5 –Slightly Agree
6 –Agree
7 –Strongly Agree

- It is up to me to decide how the rest of my life will be…

- Not at all true
- A little true
- Quite true
- Completely true

Voluntary Nature of the Study:
This study is voluntary. No one at your place of employment will know whether you completed the study or not. This study is in no way affiliated with [redacted] and will not in any way affect your employment. [redacted] will receive an executive summary of this study, but individual participants will not and cannot be identified. No [redacted] human resource or other personnel will see your responses. If you decide to join the study now, you can still change your mind later. You may stop at any time.

Risks and Benefits of Being in the Study:
The survey questions, while personal, are unlikely to cause distress or discomfort. You are free to discontinue your involvement at any point in the process. You may also contact [redacted] United Way at [redacted]-0211 or 1-800-[redacted] for referrals to support in case of distress or discomfort.

You will be contributing to knowledge about the health of people working in the mental health field. There is no compensation for participating in this study.

Privacy:
Your name and identifying information will not be collected. Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include anything that could identify you when reporting results. Data will be kept secure in a password protected hard drive at the researcher's home. Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:
If you have questions now or later, you may contact the researcher via jeremiah.schimp@waldenu.edu.
If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 612-312-1210 (for US based participants) OR 001-612-312-1210 (for participants outside the US). Walden University's approval number for this study is **01-16-14-0120031** and it expires on **January 15, 2015**.

Please print or save this consent form for your records.

Statement of Consent:
I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By clicking the link below, I understand that I am agreeing to the terms described above.

LINK:

http://www.surveymonkey.com/s/9PXC95H

Agency B: Invitation E-mail

Dear Participant,

My name is Jeremiah Schimp. I am a doctoral student in the School of Psychology at Walden University. I am conducting a research study as part of the requirements of my degree in health psychology, and I would like to invite you to participate. I am studying the relationship of resiliency and health habits in those working in the mental health field.

The study involves completing basic demographic information form and three questionnaires. This will take approximately 10 minutes.

Participation is voluntary. You may withdraw from the study at any time. Your participation will not require your name or any other identifying information. The information you provide will be kept confidential.

If you would like to participate in this study please read the Informed Consent letter below and click on the link at the end to begin the study.

Thank you for your time and participation!

Jeremiah Schimp

Letter of Consent
You are invited to take part in a research study to examine the relationship of resiliency and health habits in those working in the mental health field. The researcher is inviting people working in the mental health field at non-profit mental health agencies to participate in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Jeremiah Schimp, who is a doctoral student at Walden University. You may already know the researcher as a manager at [redacted], but this study is separate from that role.

Background Information:
The purpose of this study is to examine the relationship of resiliency and health habits in those working in the mental health field.

Procedures:
If you agree to be in this study, you will be asked to:
- complete 3 surveys, which will take in total, approximately 10 minutes to complete. The survey includes questions about your health habits, life views, and attitudes towards your work.

• complete demographic information form (e.g., age range, years in the field, education level) so that I can describe the demographic characteristics of the study participants.

Here are some sample questions:

-I avoid eating large amounts of sugar.

1 –Strongly Disagree
2 –Disagree
3 –Slightly Disagree
4 –Unsure
5 –Slightly Agree
6 –Agree
7 –Strongly Agree

-I use recreational drugs.

1 –Strongly Disagree
2 –Agree
3 –Slightly Agree
4 –Unsure
5 –Slightly Agree
6 –Agree
7 –Strongly Agree

- It is up to me to decide how the rest of my life will be…

- Not at all true
- A little true
- Quite true
- Completely true

Voluntary Nature of the Study:

This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. No one at your place of employment will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind later. You may stop at any time. This study is in no way connected with your place of employment and will not in any way affect your employment.

Risks and Benefits of Being in the Study:

The survey questions, while personal, are unlikely to cause distress or discomfort. You are free to discontinue your involvement at any point in the process. You may also contact [redacted] United Way at [redacted]-0211 or 1-800-[redacted] for referrals to support in case of distress or discomfort.

You will be contributing to knowledge about the health of people working in the mental health field.

There is no compensation for participating in this study.

Privacy:
Your name and identifying information will not be collected. Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include anything that could identify you when reporting results. Data will be kept secure in a password protected hard drive at the researcher's home. Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:
If you have questions now or later, you may contact the researcher via jeremiah.schimp@waldenu.edu. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 612-312-1210 (for US based participants) OR 001-612-312-1210 (for participants outside the US). Walden University's approval number for this study is **01-16-14-0120031** and it expires on **January 15, 2015**.

Please print or save this consent form for your records.

Statement of Consent:
I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By clicking the link below, I understand that I am agreeing to the terms described above.

LINK

http://www.surveymonkey.com/s/9PXC95H

Agency B: First Reminder E-mail

Dear Participant,

This is a friendly reminder about the e-mail invitation you received a week ago to participate in my research study.

My name is Jeremiah Schimp. I am a doctoral student in the School of Psychology at Walden University. I am conducting a research study as part of the requirements of my degree in health psychology, and I would like to invite you to participate. I am studying the relationship of resiliency and health habits in those working in the mental health field.

The study involves completing basic demographic information form and three questionnaires. This will take approximately 10 minutes.
Participation is voluntary. You may withdraw from the study at any time. It will not include your name or any other identifying information. The information you provide will be kept confidential.

If you would like to participate in this study please read the Informed Consent letter below and click on the link at the end to begin the study.

Thank you for your time and participation! (if you have already participated, thank you!)

Jeremiah Schimp

Letter of Consent
You are invited to take part in a research study to examine the relationship of resiliency and health habits in those working in the mental health field. The researcher is inviting people working in the mental health field at non-profit mental health agencies to participate in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

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Agency B: Final Reminder/Thank you E-mail

Dear Participant,

This is a friendly reminder to the e-mail invitations you have received in the last two weeks to participate in my research study. If you have not already participated, I kindly invite you to do so. If you have participated in my study already, thank you!

My name is Jeremiah Schimp. I am a doctoral student in the School of Psychology at Walden University. I am conducting a research study as part of the requirements of my degree in health psychology, and I would like to invite you to participate. I am studying the relationship of resiliency and health habits in those working in the mental health field. The study involves completing basic demographic information form and three questionnaires. This will take approximately 10 minutes.

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Thank you for your time and participation! (if you have already participated, thank you!)

Jeremiah Schimp

Letter of Consent

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http://www.surveymonkey.com/s/9PXC95H

Curriculum Vitae

Jeremiah Schimp

Education

Bethel University 2011
Saint Paul, MN
Post-Secondary Teaching Certificate

Bethel College (now Bethel University) 2004
Saint Paul, MN
M.A. Counseling Psychology

Cornerstone University 2002
Grand Rapids, MI
B.A. Psychology Major/Business Administration Minor

Certifications

Certified Psychiatric Rehabilitation Practitioner (CPRP)

Honors

PsiChi – The National Honor Society in Psychology (Lifetime Member)

Golden Key International Honor Society (Lifetime Member)

Memberships

American Psychological Association - Student Affiliate (Division 38)

Professional Experience

[redacted] [redacted]
Treatment Director/Program Manager (December 2010 - present)

-Provide oversight of daily operations of a residential treatment program (mental health/chemical health).
-Hiring, training, and supervision of mental health practitioners.
-Oversee the admission and discharge of clients.
-See that Illness Management and Recovery, motivational interviewing, and cognitive-behavioral therapy principles are followed.

-Supervise the facilitation of psychiatric rehabilitation treatment and chemical health groups and individual work with clients.

Family Support Services, Inc. New Brighton, MN
Lead Mental Health Practitioner (August 2009 – December 2010)

-Provided oversight of Adult Rehabilitative Mental Health Services specific to mental health care, assessment, treatment planning, and consultation.
-Provided clinical supervision to mental health practitioners.
-Developed core training curriculum and coordinated training of new mental health practitioners, including teaching psychiatric rehabilitation principles.
-Developed and presented trainings on Illness Management and Recovery, motivational interviewing, cognitive-behavioral therapy, and HIPAA.
-Facilitated the development of psycho-educational groups.

Family Support Services, Inc. New Brighton, MN
Mental Health Practitioner (August 2004 – August 2009)

-Provided Adult Rehabilitative Mental Health Services specific to mental health, assessment, treatment planning, and consultation.
-Facilitated health groups and coached clients toward better mental and physical health.
-Developed and implemented program specific Illness, Management and Recovery practices and motivational interviewing.
-Developed and presented training on Illness Management and Recovery, motivational interviewing, cognitive-behavioral therapy, and HIPAA.
-Developed core training curriculum and coordinated training of new mental health practitioners, including teaching rehabilitation principles and facilitating learning of community-based skills.
-Assisted program director with needed projects, selection of new mental health practitioners and staff development.
-Coordinated and collaborated with community and medical providers.
-Processed and tracked assessments for county-based contract.

Metropolitan Community Mental Health Center St. Paul, MN
Practicum Student (August 2003 - May 2004)

-Facilitated and co-facilitated day-treatment therapy groups for clients with serious and persistent mental illness; provided some individual therapy; completed necessary paperwork and documentation.

Pine Rest Christian Mental Health Services Grand Rapids, MI
Psychometry Intern (August 2001 – May 2002)

-Administered psychological tests in clinic setting; scored tests and material for use by resident psychologists; interacted with clients age five through adult.

Research Interests

-Self-care and burnout prevention in mental health professionals.

-Physical health, wellness, nutrition, and sports psychology.

Skills/Competencies

-Leadership, managerial, and supervisory skills.

-Competency in Illness, Management and Recovery, motivational interviewing and cognitive-behavioral therapy.

-Planning and coordinating trainings on motivational interviewing, cognitive-behavioral therapy, psychiatric rehabilitation, and compassion fatigue.

-First Aid and CPR Certified.

-Computer: Microsoft Word, PowerPoint, and Outlook.

-Cross-country ski coaching

Personal Accomplishments

-Medtronic Twin Cities Marathon Finisher 2007 and 2008

-Mora Vassaloppet 13K 2013 (16^{th} in adult male division) and 2014

-Hoigaard's Classic Finisher 2013

-Twin Cities TC 10 Mile Finisher 2013

-Korteloppet Finisher 2010

-American Birkebeiner Finisher 2006, 2007, 2008, 2009

-City of Lakes Loppet Freestyle Finisher 2007, 2008, 2009