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Lauren Elizabeth Fuller

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THE EFFECTS OF LEISURE SATISFACTION AND PERFECTIONISM ON
ACADEMIC BURNOUT

by

Lauren Elizabeth Fuller
Bachelor of Science, University of Mary Washington, 2009
Master of Arts, University of North Dakota, 2011

A Dissertation

Submitted to the Graduate Faculty of the
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In partial fulfillment of the requirements

for the degree of

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This dissertation, submitted by Lauren E. Fuller in partial fulfillment of the requirements for the Degree of Doctor of Philosophy from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done, and is hereby approved.

Dr. Cindy Juntunen, Chairperson

Dr. Rachel Navarro

Dr. Alison Looby

Dr. Tim Schroeder

Dr. Bruce DiCristina

This dissertation is being submitted by the appointed advisory committee as having met all of the requirements of the Graduate School at the University of North Dakota and is hereby approved.

Dr. Wayne Swisher, Dean of the Graduate School

Date

PERMISSION

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Department Counseling Psychology

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Lauren E. Fuller
June 14, 2013

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ABSTRACT

The present study examined the impact of three variables on academic burnout: perfectionism, depression, and leisure satisfaction. Participants included male and female college students enrolled in a four year university in the Midwest. Participants completed a variety of demographic questions and surveys through an internet survey on Survey Gizmo. The Almost Perfect Scale Revised was used to assess an individual's perfectionism, The Patient Health Questionnaire 2 measured depression, The Leisure Satisfaction Scale Short Form was included to measure students' leisure satisfaction, and the Maslach Burnout Inventory Student measured academic burnout. The study found that perfectionism and depression were significant predictors of burnout, while leisure satisfaction was only a significant predictor for the burnout variable of efficacy. Also, perfectionism did not moderate the relationship between leisure satisfaction and burnout. This study provides important information for counselors at university counseling centers who wish to design effective interventions for combating academic burnout in college students.

CHAPTER I

INTRODUCTION AND LITERATURE REVIEW

College students today live in a pressured environment where anxiety is high because of academic demands, low social support, and adjustment issues. College is a time of vulnerability for many young people, and the mental health of college students is of increasing importance. Understanding the factors that contribute to positive and negative mental health outcomes is important in order to best inform university counselors on how to work with students during this delicate time (Verger et. al, 2009).

College students face many unique stressors including financial problems, an ever-changing academic environment, academic performance pressure, and changes in living conditions. These stressors have been found to contribute to the psychological distress of university students (Verger et. al, 2009). Almost one third of college students suffer from depression, as well as elevated levels of anxiety and stress (Bilgram & Bilgel, 2007) and have higher levels of psychological distress than a sample of individuals in the general population. (Adlaf, Gliksman, Demers, & Newton-Taylor, 2001). The number of college students in many developing countries and in the United States is increasing, and developing a greater understanding of their unique mental health needs will continue to be an important area for future research (Verger et. al, 2009).

One construct that has begun to receive more attention for its impact on college student mental health is the trait of perfectionism. Perfectionistic college students may be more at risk for a variety of mental health concerns including career indecision (Ganske & Ashby, 2007), suicide (Bell, Stanley, Mallon, & Manthorpe, 2010), low body esteem (Sheldon, 2010), and social phobia (Rosser, Issakidis, & Peters, 2003). College counselors may benefit from a greater understanding of the manifestations and consequences of perfectionism in their practice with clients.

Two recent concepts that have emerged in the research on perfectionism in college students are leisure satisfaction and student burnout. Perfectionism has been shown to contribute to the development of burnout (Childs & Stoeber, 2010; Corrigan, 1998; D'Souza, Egan, & Rees, 2011; Hill & Appleton, 2010; Stoeber & Rennert, 2008), while leisure satisfaction has been shown to be important in the prevention of burnout (Hoeksma, Guy, Brown, & Brady, 1993; Meir, Melamed, & Dinur, 1995; Stanton & Iso-Ahola, 1998). Among the helping professions including clergy, psychotherapists and employees in behavioral health organizations, perfectionistic individuals are more susceptible to burnout than nonperfectionists (Childs & Stoeber, 2010; Hill & Appleton, 2010; Stoeber & Rennert, 2008; Zhang, Gam, & Cham, 2007). Further research into perfectionism and related concepts may help university counselors identify new strategies to intervene in academic burnout.

Universities should be concerned about student burnout rates given its implications for a variety of harmful outcomes related to student health and academic performance. There is evidence that burned out students may be more prone to negative mental health outcomes, including increased levels of suicidal ideation (Dyrbye et al.,

2008), lower levels of academic performance (Schaufeli, Martinez, Pinto, Salanova, & Bakker, 2002) and higher levels of academic dishonesty (Dyrbye et al, 2010).

One avenue of intervention for preventing the development of burnout may be to increase satisfying leisure activities, defined as leisure satisfaction (Beard & Ragheb, 1980). Leisure satisfaction has been shown to contribute to higher levels of life satisfaction (Hawkins, Foose & Binkley, 2004), family life satisfaction (Agate, Zabriskie, Agate, & Poff, 2009), and lower academic stress in college students (Misra & McKean, 2000). These findings suggest that promoting healthy leisure activities in college students may contribute to improved mental health.

Despite the contribution of leisure satisfaction to many positive mental health outcomes, the research on leisure satisfaction and burnout has been limited. In a small number of studies, leisure satisfaction has been shown to decrease levels of burnout among clergy (Stanton & Iso-Ahola, 1998) and psychotherapists (Hoeksma, Guy, Brown, & Brady, 1993) and has been implicated in several papers that suggest potential interventions for burnout in the helping professions (Doohan, 1982; Forney, Wallace-Schutzman, & Wiggers, 1982; Lan & Wu, 2006; Zhu, Wang, Wang, 2003). A greater understanding of the preventive factors such as leisure will allow counselors to design effective interventions for combating burnout in their clients.

The goal of the present study was to examine the relationships between perfectionism, leisure satisfaction, and academic burnout. Leisure Satisfaction was conceptualized to be a predictor variable, while burnout was conceptualized to be an outcome variable. Specifically, given the extant findings regarding the relationship

between perfectionism and burnout, this study also sought to determine whether perfectionism was a moderating factor in this relationship.

The literature review for this study covers the constructs of perfectionism, academic burnout, and leisure satisfaction as they relate to the college population. The literature review addresses how these topics have been researched in the past and how they may affect one another.

Burnout

Development of the Construct

Burnout is a term that has undergone many different definitions since it was first “discovered” in the 1970s (Schaufeli, Enzmann, & Girault, 1993). Burnout was originally conceptualized as affecting mostly workers from the human-service occupations, such as education, healthcare, and social work. Christina Maslach, a social psychologist investigating emotions in the workplace, first gave a presentation in 1973 to the APA about the emotional exhaustion of human service providers (Kovacs, 2007)

The term “burnout” was first used in an article on staff burnout by Herbert Freudenberger in 1974. Freudenberger, a psychiatrist working in a health care agency, described the burnout and emotional exhaustion of day care workers as a result of enormous demands on their energy and resources. He defined burnout as “feelings of failure and being worn out” (Freudenberger, 1974).

In the first major literature review on the subject in 1982, Perlman and Hartman identified 48 different conceptualizations of burnout. These conceptualizations included definitions of burnout for day care workers, doctors, and other helping professions. Day-care provider burnout was defined as “a syndrome of emotional exhaustion,

cynicism, gradual loss of concern for others, and callous and dehumanized attitudes to others” (p. 291). Nurse burnout was defined as “total detachment or over-involvement on the job” (p. 290). The authors identified common themes such as the origin of burnout as individual or organizational and the possible solutions for burnout. They then offered a tri-partite model to help future researchers measure and assess burnout, defining burnout as “a response to chronic emotional stress with three components: emotional and physical exhaustion, lowered job productivity, and over depersonalization” (Perlman & Hartman, 1982).

Maslach: A theory of burnout.

Christina Maslach (1982) expanded upon previous authors’ work by offering a definition of burnout that explored its underlying dimensions. Her definition was comprised of three facets: emotional exhaustion, depersonalization, and diminished personal accomplishment. Emotional exhaustion is characterized by a lack of physical and emotional energy and often causes the individual to dread going to work each day. Depersonalization is evident when clients are treated with emotional coldness and ultimately leads clients to be seen as objects instead of real people. Diminished personal accomplishment is characterized by evaluating oneself in a negative manner and experiencing a decline in feelings of competence and success (Maslach, 1982). Maslach’s definition soon became the most popular definition for the concept (Schaufeli et al., 1993).

Maslach described burnout as a process that started when enthusiastic workers become overburdened with the stressful aspects of their occupation, which impeded their ability to make a positive contribution (1982). This process was empirically

examined and identified burnout as an issue that developed as a result of the interpersonal relations a worker had with their workplace (Maslach, Schaeffli, & Leiter, 2001). This initial research led to one of the first and most popular instruments to measure burnout, the Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981), which measured the three definitional components: emotional exhaustion, depersonalization, and diminished personal accomplishment. The measure originally assessed burnout in relation to aspects of the human service professions (Maslach & Jackson, 1981). The instrument has demonstrated strong psychometric properties and is still in wide use, represented by its inclusion in over 90% of all studies assessing burnout (Kristensen, Borritz, Villadsen, & Christensen, 2005).

After extensive research documenting the presence of burnout as an important phenomenon, Maslach and colleagues (2001) moved beyond the focus of helping professionals and expanded the construct to encompass workers in general. The original definitions were expanded to include aspects of a job that were not restricted to the workers' interpersonal relationships with their clients or workplace. This more general definition included three factors: emotional exhaustion, cynicism, and professional efficacy. Exhaustion refers to the feeling of being emotionally and physically drained as a reaction to work related stress. Cynicism is often an immediate reaction to exhaustion that can prompt individuals to cognitively distance themselves from their work. Professional efficacy is an erosion of belief in one's personal effectiveness and can be a function of either exhaustion, cynicism, or both (Maslach et. al, 2001).

With the expansion of the definition of burnout, another instrument was designed to assess these more general constructs titled the Maslach Burnout Inventory-

General Survey (MBI-GS; Schaufeli, Leiter, Maslach, & Jackson, 1986). The MBI-GS is similar to the original MBI, but omits references to emotions as well as items assessing workers' relationships to their clients. An example of an item on this inventory is "In my opinion, I am good at my job." Results from a validation study of the MBI-GS supported the three-factor model of three constructs: emotional exhaustion, cynicism, and professional efficacy. The MBI-GS has demonstrated a stable factor structure across eight different occupational groups (Maslach, Demerouti, & Schaufeli, 2002), supporting the validity of Maslach's (2001) three-factor model of burnout.

A cognitive behavioral theory of burnout.

Scott Meier (1982) developed a model of burnout designed to resolve some of the problems with the multiple definitions of burnout at the time and his own critiques of Maslach's definition. Meier asserted that the "burnout phenomenon" lacked a theoretical foundation and sufficient empirical support. Thus, he proposed a theory of burnout based on the cognitive and behavioral components of burnout (Meier, 1984).

Meier (1984) suggested that burnout resulted from three different types of expectations: reinforcement expectations, outcome expectations, and efficacy expectations. Reinforcement expectations are "work experiences in which individuals possess very low expectations for positive reinforcement and very high expectations for punishment." Outcome expectations are "very low expectations for control of reinforcement." Finally, efficacy expectations are "very low expectations for personal competence in obtaining reinforcement" (p. 6). He further suggested that individuals who experience a combination of these three components would have objectionable

feelings such as worry and fear, engage in unproductive behaviors, and lack perseverance (Meier, 1982).

Meier noted one of the major differences between his theory of burnout and that of the work of Maslach was the treatment of the aspect of emotional exhaustion. He suggested that emotional exhaustion was a signal of burnout, rather than a core component. His model also emphasized both aspects of the environment and the individual that contributed to burnout.

Meier's model led to the creation of a measure of burnout called the Meier Burnout Assessment (MBA; Meier 1984). He created a 23 item true false measure that assessed thoughts and expectations about burnout. The measure showed sufficient internal consistency and reliability and correlated with the MBI. However, in his publication of the MBA (Meier, 1984), he used a total score of the MBI, rather than individually summing the three subscales. The article received criticism, and the measure was never widely used (Schaufeli, Enzman, & Girault, 1993).

Copenhagen burnout inventory.

In 2005, Danish authors seeking to conduct a study assessing burnout were also dissatisfied with the MBI and its definitions, arguing that the three scales developed in the MBI actually measure three different types of burnout, rather than three components of burnout. They suggested that these three dimensions should be studied separately, rather than together. Researchers also argued that the personal accomplishment dimension of burnout may not actually be a facet of burnout. Furthermore, they asserted that the development of the MBI-GS from the original MBI

was not theoretically based and was produced simply in response to demand (Kristensen, Borritz, Villadsen, & Christensen, 2005).

The Danish authors introduced a new measure of burnout called the Copenhagen Burnout Inventory (CBI; Kristensen, et al, 2005). In this new instrument of burnout, the foundation of the construct of burnout is fatigue and exhaustion. They described three different types of burnout: personal burnout, work-related burnout, and client-related burnout. In these three different components, the authors strive to understand the etiology of an individual's burnout symptoms. Personal burnout is "the degree of physical and psychological fatigue and exhaustion experienced by the person." Work-related burnout is "the degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his or her work." Client-related burnout is "the degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his/her work with clients" (p. 197). The CBI was found to have sufficient reliability and validity and has been used in several different studies and languages (Kristensen, et al, 2005).

The various definitions and conceptualizations of burnout provide insight into the way that the concept has been understood and developed cross culturally since the construct was first posited in the 1970s. The different conceptualizations are useful, but ultimately Christina Maslach's (1982) definition provides the most insight into burnout across many diverse settings. The Meier Burnout Assessment and Meier's (1982) Cognitive Behavioral Theory of Burnout provide an important contribution to the understanding of burnout as it could be rooted in behavioral theory. However, his conceptualization has not been validated as consistently as that posited by Christina

Maslach (Schaufeli, Enzman, & Girault, 1993). Maslach's theory has been used in over 90% of the research on burnout and has been validated across a vast number of occupational groups and settings (Kristensen, Borritz, Villadsen, & Christensen, 2005). Maslach's theory has even been expanded to the understanding of the experience of college students by the creation of the Maslach Burnout Inventory Student Survey (Schaufeli, Martinez, Pinto, Salanova, 2002) to assess academic burnout, which is the major goal of the present study.

The Copenhagen Burnout Inventory (Kristensen et al, 2005) also provides an important contribution to the understanding and assessment of burnout. Their argument that Maslach's definition assesses three different dimensions of burnout rather than a total level of burnout is a relevant critique of Maslach's model. They also argue that the many measures of burnout have been created in response to popular demand rather than sound theory (Kristensen et al., 2005). However, their conceptualization of burnout including client-related burnout and work-related burnout ignores the growth of Maslach's burnout research that has been extended from just the work of human service providers but to work with other occupations and college students. The present study specifically sought to address the experience of college students and the consequences of academic burnout, and therefore, Maslach's model was the most appropriate model for the present study.

Burnout and depression.

While burnout has been conceptualized from a variety of theoretical perspectives, research has also examined the temporal sequence, concurrence and discriminant validity of burnout and depression. Definitions of burnout include

emotional exhaustion, which is similar to the diagnostic criteria in the DSM-IV for depression, which includes a loss of energy. Authors have asserted that despite these similarities, the constructs are disparate. Burnout is situation specific and develops gradually as a result of prolonged exposure to chronic, acute, and high stressors in the environment, whereas depression is a multisystem disorder with affective, cognitive, and physiological manifestations (Toker & Biron, 2012). Several meta-analyses have concluded that although the two constructs are theoretically and empirically different, they share about 26% of their variance (Schaufeli & Enzmann, 1998). Factor analyses of surveys assessing burnout and depression have also demonstrated that each construct loads onto different factors, suggesting that they measure dissimilar domains (Leiter & Durup, 1994). While depression and burnout are different phenomena, there are important similarities between the two constructs, indicating that depression may be an important construct to include in burnout research.

Studies have also examined the chronological sequence of burnout and depression. One longitudinal study specifically examined the temporal relationship of depression and burnout in employees at a medical center and found that the accumulation of job burnout and depression lead to a downward cycle of greater burnout and depressive symptoms, but that neither construct significantly preceded the other (Toker & Biron, 2012). Another longitudinal study examined the sequence of depression and burnout in a sample of dentists using the Maslach Burnout Inventory (Maslach, Jackson, & Leiter, 1996) and the Beck Depression Inventory (Beck, 1972) over a three year period. Using logistic regression analysis, the order of job strain-depressive symptoms-burnout was compared with the order of job strain-burnout-

depressive symptoms. Findings suggested that the relationship between burnout and depression was equal: burnout predicted the development of depressive symptoms, and depression predicted symptoms of burnout (Ahola & Hakanen, 2006). The concurrence of these two constructs suggests that burnout research should attend to depressive symptoms in order to draw more valid conclusions about relationships between variables. Additionally, the combination of depression and burnout may create greater problems than the presence of one alone, or they may occur simultaneously.

Other studies have examined the relationships between burnout and depression and found that burnout is highly connected to depression. In a study of university teachers, researchers found that burnout was a mediator between job stress, depressive symptoms, and poor health, indicating that individuals should be screened for burnout frequently to prevent other negative outcomes (Zhong et. al, 2009). Research has shown an important link between depression and burnout. Although depression is not necessarily part of any of the models or theories of burnout, the preponderance of empirical evidence suggests that including a measurement of depression is a reasonable step in future research examining the correlates of burnout.

Student burnout.

Burnout has an impact on students as well, although studies are more limited (Balogun et. al, 2002; Balogun, Hoberlein, Schneider, & Katz, 1996;; Jennings, 2009; Pisarik, 2009). Academic burnout refers to feeling exhausted because of study demands (exhaustion), having a cynical and detached attitude towards one's schoolwork (cynicism), and feeling incompetent as a student (reduced efficacy) (Schaufeli et al., 2002). Researchers have sought to create an instrument that directly assesses student

burnout called the Maslach Burnout Inventory Student Survey (MBI-SS; Schaufeli et al, 2002). In 2002, researchers developed this instrument on student burnout based on the MBI-GS that was revised to assess students' relationships with their studies. Their goal was to consistently validate a measure for academic burnout and investigate its utility cross-culturally by sampling from three different countries. Participants were divided into three samples of undergraduates in different European countries: Spain, Portugal, and the Netherlands. The three-factor structure of the MBI-SS fit well to the data for each sample separately, but the MBI-SS did not pass a test of factorial invariance across the three samples of European Nations. Their methodology, which used using a constrained MBI-SS model, was much more rigorous than previous MBI research that used a freely fitted model. This finding indicates that while the three factor structure was appropriate for each sample individually, the factor loadings for each sample were different. The authors of this study asserted that even though the MBI-SS did not pass a rigorous test of factorial invariance across the three samples, the instrument would still be an appropriate instrument for assessing student burnout. (Schaufeli et al, 2002) Further research has been conducted using the MBI-SS and found sufficient reliability and validity (Breso, Schaufeli, & Salanova, 2011; Uludag & Yaratan, 2010).

Burnout has also been documented with students being trained in the helping professions. Researchers found that physical therapy students had moderately high levels of burnout, although burnout did not have an impact on their academic performance. Specifically, 58% of physical therapy students reported high levels of emotional exhaustion, and 97% reported low levels of personal accomplishment

(Balogun, Hoberlein, Schneider, & Katz, 1996). Occupational therapy students have also been shown to have higher levels of burnout than the general population (Balogun et. al, 2002). Another study investigated the burnout levels of social work students and found that students had high levels of burnout as well as high psychological distress (Tobin & Carson, 1994). High burnout levels have also been found among medical students (Dyrbye et al. 2008; Dyrbye et. al, 2010; Jennings, 2009). One study found that 52% of medical students had high levels of burnout (Dyrbye et. al, 2008), while a longitudinal study that followed medical students for one year reported that 34% of students surveyed had high levels of burnout at both time periods (Dyrbye et. al, 2010). These results demonstrate the prevalence of burnout in students in a variety of helping professions and the importance of not only examining occupational burnout in different professions, but also in the student population.

College students also experience significant levels of burnout (Bonini-Campos, Zucoloto, Sampaio, Jordani, & Maroco, 2011; Pisarik, 2009). In a study that examined social support and student burnout using the MBI, results showed that college students reported moderate to high levels of burnout on the dimensions of emotional exhaustion and personal accomplishment, but low to moderate scores on depersonalization. In a study of amotivation (i.e. unintentional motivation) and external regulation (i.e. the impetus to engage in an activity solely as a means to satisfy an external reward or demand contingency), college students reported high levels of exhaustion, moderate levels of cynicism, and low levels of efficacy as measured by the MBI-SS, indicating that many students experience elevated levels of burnout (Pisarik, 2009). This finding demonstrates that a high percentage of college students are likely to experience

academic burnout, which may contribute to a number of negative mental health outcomes.

The Importance of Burnout: Universities Should Care

Colleges should be concerned about student burnout rates given its repercussions for an assortment of negative outcomes related to student health and academic performance. Extrapolating from findings linking burnout to employee absenteeism and increased sick days (Schaufeli, Bakker & Van Rhenen, 2009), student burnout can lead to missing classes and decreased academic performance. There is some evidence of the impact of burnout on both academic performance and academic honesty. A crosscultural study examining rates of burnout of college students in Spain, Portugal, and the Netherlands revealed that academic achievement was negatively associated with burnout, indicating that students with higher levels of burnout had lower grades (Schaufeli, Martinez, Pinto, Salanova, & Bakker, 2002). Medical students with higher rates of burnout were also significantly more likely to report engaging in cheating and unprofessional behavior such as copying from another student's test or reporting a physical examination of a patient as "normal" when the exam had not actually been conducted (Drybye et al., 2010). Specifically, participants with high scores on emotional exhaustion and depersonalization were much more likely to report behaving in an untruthful manner in clinical and academic settings. This same study demonstrated that burned out medical students were less likely to have philanthropic perspectives about doctors' responsibility to the public such as providing medical care to the underserved. The researchers found that as little as a one-point increase in depersonalization and emotional exhaustion scores and a one-point decrease in a

personal accomplishment score corresponded to decreased attitudes about philanthropic medical behaviors (Drybye et al., 2010). The study of medical students provides important information for the implications of burnout for students. Students who are burned out may also be more likely to engage in cheating and unethical behaviors and have less altruistic views about their responsibility to give back to society. Burned out students may also be more prone to negative mental health outcomes. In a multivariate analysis of 4,300 medical students, levels of burnout were an independent predictor of thoughts of suicide (Dyrbye et al., 2008). This study shows the profound implications for student burnout on the serious negative outcome of suicide.

Together, these results provide indispensable information about the value of further study of burnout in college students because of its deleterious effects on academic performance, academic dishonesty, and mental well-being. If universities seek to uphold a strong ethics and honor code, give back to the greater community, and have psychologically healthy students, attending to levels of burnout in their university population will be crucial.

Individual Factors and Student Burnout

There are many individual factors that have been shown to impact rates of burnout among college students. A greater understanding of the individual factors that lead to burnout is important in order to provide college counselors with information about students who may be more predisposed to burnout. Individual factors that lead to burnout can be divided into several categories such as personality styles, depression, gender, and different ways of coping. Personality factors have been implicated in a variety of studies as a precursor to burnout. One study looked at the relationship

between temperament and burnout in college students. Negative temperament was defined as having a “negative mood and self-concept, while positive temperament was defined as individuals with “positive emotionality” (Jacobs & Dodd, 2003).

Temperament was measured using the General Temperament Survey (Clark & Watson, 1990), and burnout was measured using the Maslach Burnout Inventory (Maslach & Jackson, 1981). Higher levels of burnout were associated with negative temperament and subjective workload, while low burnout scores were associated with positive temperament and involvement in extracurricular activities (Jacobs & Dodd, 2003).

Research looking at other personality characteristics has found that students with high levels of intrinsic motivation often have lower levels of burnout, while amotivation and external regulation often correspond with higher levels of burnout (Pisarik, 2009).

Using the Big-Five personality model, authors found that neuroticism, extraversion, and conscientiousness explain a significant amount of the differences in measures of burnout among South African college students (Morgan & De Bruin, 2010). A review of the individual personality differences that lead to burnout provides significant information for counselors to understand what might predispose individuals to academic burnout.

Research has also been conducted on the relationship between depression and burnout in students. Depressed medical students are more likely to report higher levels of burnout than nondepressed medical students (Chang, Eddins-Folensbee, & Coversdale, 2012). Burned out medical students are also more likely to report suicidal ideation (Drybye et. al, 2010), an important indicator of depressive symptoms, suggesting that depression is likely to correspond with high burnout levels. It is

essential for further study to investigate academic burnout in relation to major mental health problems in order to develop effective treatment strategies for burned out college students.

In one of the first studies to control for depression in the study of burnout, researchers used the MBI-SS (Schaufeli et. al, 2002) and measured depression using the Patient Health Questionnaire 9 (Kroenke, Spitzer, & Williams, 2001). After controlling for depression, previously significant group differences (i.e.,ethnicity) failed to demonstrate an effect, while others (i.e., type of major and gender) persisted (Young et. al 2012), indicating that depression may be an important variable to include in studies of academic burnout, give their complex relationship. Overall, research shows an important link between depression and burnout in the student population. Further examination of these variables is essential for the development of efficacious treatment strategies for academic burnout in the college student population.

Other studies have looked at the impact of gender differences and coping styles on burnout. An investigation of sex differences and burnout revealed that men tended to score higher on the burnout scale of depersonalization, while women scored lower on levels of personal accomplishment (Weckwerth & Flynn, 2006). This demonstrates that men and women are both likely to experience burnout, but in dissimilar ways. Woman experiencing burnout may feel lower levels of accomplishment when they engage in work, while men experiencing burnout may be more likely to distance themselves emotionally from their work. A Chinese study investigated the relationship between different coping styles and levels of burnout and found that self-accusation, recession, and rationalization increased burnout rates, while problem solving and recourse

lowered levels of burnout (Wei, Tang, & Song, 2008). This suggests that the way college students might cope with their difficulties may predispose them to developing academic burnout. These studies demonstrate the wide variety of individual and personality factors associated with student burnout and provide crucial information for university counseling centers to help identify students who may be more likely to suffer from burnout, as well as insight into ways to develop effective interventions.

Treatment of Burnout in the General Population

Research investigating efficacious strategies to combat burnout among the general population has also been limited, although some studies have demonstrated potential. However, many of the extant investigations have been limited in their applicability and sample size. One study examining treatment for burnout used a sample size of sixteen participants and excluded individuals with depression. Authors found that light therapy decreased levels of work-related burnout in an experimental group as compared to a control group (Meesters & Wastander, 2010). An Italian study sought to examine the effect of art therapy on the burnout levels of doctors and nurses in an oncology unit. Art therapy was an effective intervention in treating burnout levels in the health care providers, although results should be interpreted cautiously because the study's sample size consisted of only twenty participants (Italia, Favarro-Scacco, Di Cataldo, & Russo, 2008). Although these studies provide useful information for potential interventions for burnout, their small sample sizes limit the applicability of their findings. More research needs to be conducted that provides greater information about the utility of various treatment strategies.

Although there have been some small studies that have provided evidence for psychological treatments of burnout, other studies have shown interventions to be ineffective or failed to provide conclusive evidence using longitudinal studies (Haberthur, Elkuch, Holtforth, Hochstrasser, & Soyka, 2009). One study was conducted to analyze the efficacy of CBT for burnout because previous research on CBT interventions have yielded mixed results. The empirical investigation examined the effect of CBT treatment on individuals with clinically high work-related stress. The study employed three different CBT treatment groups: individual, group, or regular counseling and found that CBT interventions were not successful in decreasing work-related stress among patients. Their results corroborated with previous research that has shown that CBT treatment is not effective for treating burnout (De Vente, Kamphuis, Emmelkamp, & Blonk, 2008). Research has continued to show mixed results about the efficacy of treatment for burnout. Furthermore, the extant literature is often comprised of small sample sizes or fails to use a longitudinal design that limits their utility to the psychological community. The paucity of well-founded research on treatment for burnout is alarming and warrants further study.

Treatment of Student Burnout

Research on treatment strategies for academic burnout has also been limited. Although student burnout can result in significant problems, few studies have established interventions that might be effective in combating this problem. One study sought to establish a CBT group for the treatment of student burnout in a population of college students in China. Students were instructed to attend eight sessions of the group over a four week period. Compared to the control group, the students in the CBT group

showed a significant decrease in burnout on the post-test as compared to the pre-test (Ni & Wu, 2009). Another study conducted with students in a clinical psychology program sought to establish a brief intervention group for students experiencing academic burnout. The group provided support, but also encouraged students to develop a greater awareness of their burnout. After three weeks of attending this group, students showed lower levels of burnout (Roby, 2009). These two studies provide support for the potential of group therapy in treating student burnout.

One of the most recent studies to examine a treatment for academic burnout used an individualized approach based on Social Cognitive Theory and focused on increasing self-efficacy beliefs. Researchers asserted that an intervention which focused on increasing self-efficacy beliefs might contribute to lower levels of burnout and higher levels of academic engagement among college students. Students for this study were divided into three groups and were recruited through a free workshop on stress management advertised at a university. The experimental group consisted of students who had attended the initial workshop and wanted to participate in the intervention. The first control group was a group of stressed students who attended the initial workshop, but who did not wish to participate in the intervention. They scored similarly to the experimental group on measures of well being, efficacy, and performance. The second control group was a group of students who were labeled “healthy” and had not attended the initial one hour workshop or demonstrated interest in participating in the intervention. The experimental group received four two-hour individual sessions that emphasized CBT treatment to build coping skills and decrease anxiety for taking exams. The results demonstrated that the intervention was partially effective and

increased levels of self-efficacy, engagement, and achievement as compared to the control group, but that the intervention did not significantly affect levels of student burnout (Breso, Schaufeli, & Salanova, 2011).

This study provided evidence for the use of CBT treatment in treating student well-being, but failed to find the intervention efficacious for the management of burnout. Further research needs to be conducted to establish reliable methods for treating student burnout. Studies support the notion that group therapy may be a beneficial treatment strategy, but research is still mixed and limited in this area. Finding and promoting strategies and behaviors that decrease levels of student burnout will be imperative for both university counseling centers and staff working with college students if they seek to promote a psychologically healthy population.

Although previous research has shown some of the important personality variables such as temperament that contribute to academic burnout, there are other important variables that need to be considered. Two of the individual factors in student burnout that have been virtually ignored in the literature are the connection between burnout and perfectionistic tendencies, as well as the potential for leisure activity in the prevention of burnout.

Perfectionism

The term perfectionism is used frequently in the counseling and clinical literature to describe clients' personality characteristics, but there is currently no consensus on its proper scientific definition. The definition of perfectionism has undergone many changes from its earliest conceptualizations, and there is still much

debate among theorists about whether the trait should be measured categorically or dimensionally (Ganske & Ashby, 2007; Hewitt, Flett, & Ediger, 1991).

Conceptualizations

Hamachek (1978) was one of the first authors who defined perfectionism. He stated that two forms of perfectionism should be differentiated: one negative and one positive. According to Hamachek, the trait was measured from high to low, where high levels of perfectionism were considered pathological (Ganske & Ashby, 2007). The positive form of perfectionism was defined as “normal perfectionism” where people enjoy striving for perfection, whereas the negative form “neurotic perfectionism” suggested that individuals experience distress because of their high pursuits of excellence. Hamachek emphasized that perfectionism was a unidimensional construct, which subsequently had a great influence on the way perfectionism was conceptualized in the literature (Stoeber & Otto, 2006).

Frost’s multidimensional perfectionism scale.

Much research was conducted affirming Hamachek’s basic unidimensional conceptualization, and many studies also continued to affirm the mostly negative effects of perfectionism (Frost, Heimberg, Holt, Mattia, & Neubauer, 1993; Rice, Ashby, & Slaney, 1998; Rice & Slaney, 2002). However, perfectionism was soon conceptualized as multidimensional in order to more fully describe all facets of the trait. Frost was the first researcher who sought to measure the multidimensionality of perfectionism and developed the Multidimensional Perfectionism Scale (Frost et. al, 1990). He identified included six factors that assessed different aspects of perfectionism. The first two elements reflect the expectations of one’s parents including

parental criticisms and elevated parental expectations. The remaining four elements include self-directed aspects of perfectionism including high standards, doubts about one's actions, concern over mistakes and organization (Frost et. al, 1990).

Adaptive and maladaptive perfectionism.

One of the newer theories of perfectionism by Slaney et al. (2001) also emphasized the development of a multidimensional model of perfectionism. In two qualitative studies, researchers interviewed a criterion group of perfectionists and found that participants seemed distressed by discrepancy between their high standards and their performance, but felt that some aspects of their perfectionism were beneficial (Slaney, Chadha, Mobley, & Kennedy, 2000; Slaney & Ashby, 1996). After reviewing these studies, researchers sought to develop a categorical theory that emphasized the centrality of high standards to the construct of perfectionism, as well as the positive and negative aspects of the trait (Slaney et. al, 2001).

The three categories of perfectionism generated were adaptive perfectionists, maladaptive perfectionists, and nonperfectionists. Maladaptive perfectionists have higher than normal scores on areas that are problematic such as worries about errors, constant self-criticism, and constant fear of the inability to reach one's goals and standards. Adaptive perfectionists have elevated personal standards and strive for excellence, but evaluate themselves less harshly and are not overly dissatisfied with their performance. Nonperfectionists are the third category who tend to score low on scales that assess personal standards, doubt about one's abilities, and criticism of the self (Ganske & Ashby, 2007; Rice & Ashby, 2007; Slaney, Rice, Mobley, Trippi, & Ashby, 2001).

Perfectionism within an individual.

Both Frost and Hamachek emphasized the expression of perfectionism within an individual. Other researchers identified the role of perfectionism in the relational and social contexts. Hewitt and Flett (1991) emphasized three possible categories of the characteristic: socially prescribed perfectionism, self-oriented perfectionism, and other-oriented perfectionism. Self-oriented perfectionism involves behaviors such as setting stringently high standards for oneself and then harshly assessing oneself in response to those standards. Other-oriented perfectionists set high expectations for others and strictly assess others based on these expectations. Socially prescribed perfectionists have a need to meet what they view as high standards set for them by significant others in their life and believe that others expect them to be perfect (Hewitt & Flett, 1991).

Positive and negative perfectionism scale.

Slade and Owen (1995) also developed a model of perfectionism that emphasized the differences between positive and negative perfectionism, which resulted in the development of the Positive and Negative Perfectionism Scale (PANPS; Terry-Short, Owens, Slade, & Dewey, 1995). In their conceptualization, positive perfectionism is defined as cognitions and behaviors, which are directed toward the achievement of certain high level goals in order to obtain positive consequences. Negative perfectionism refers to cognitions and behaviors which are directed toward the achievement of certain high level goals in order to avoid, or escape from, negative consequences. Their model is based on the Skinnerian reinforcement theory. While positive perfectionism includes an individual's desire to pursue stimuli, negative

perfectionism includes a person's need to avoid negative consequences (Terry-Short, Glynn Owens, Slade & Dewey, 1995).

These newer multidimensional conceptualizations help to more fully describe all elements of perfectionism. Hewitt and Flett's model (perfectionism within the individual) emphasizes the individual and interpersonal features of perfectionism, whereas Slaney's (maladaptive and adaptive perfectionism) and Slade and Owen's (positive and negative perfectionism) models categorize both positive and negative aspects.

Correlates of Perfectionism

Many researchers have examined the effect of perfectionism on different areas of mental health among college students. Perfectionistic college students may be more at risk for a host of negative outcomes. Perfectionistic college students who scored high on a six-item measure of perfectionism on the Eating Disorder Inventory were more likely to report physical health problems, but less likely to report problems with alcohol (Pritchard, Wilson & Yamnitz, 2007). A study that looked at the relationship between perfectionism and body esteem found that university women who scored high on a measure of perfectionism had lower levels of body esteem (Sheldon, 2010).

Perfectionism corresponds with a variety of negative effects in college students including physical health problems and body image concerns.

Not only does perfectionism affect individuals physically and in areas related to body image, but it also can contribute to some specific mental health concerns. Some of the key concepts of social phobia such as negative appraisal of the self and concern about not meeting expectations are related to perfectionism, and those with high levels

of perfectionism are more likely to struggle with social anxiety (Rosser, Issakidis, & Peters, 2003). Using the Frost Multidimensional Perfectionism Scale, researchers also found that perfectionism was intercorrelated with Depressive Personality Disorder, Dysthymia, and depressive symptoms (Huprich, Porcherelli, Keaschuck, Binienda, & Engle, 2008). College students with perfectionistic tendencies are also highly susceptible to suicide (Bell, Stanley, Mallon, & Manthorpe, 2010). Further, college students who were classified as maladaptive perfectionists were more likely to have disrupted self-development and lower institutional attachment to college (Mann, 2004; Rice & Dellwo, 2002;). Research continues to show that certain aspects of perfectionism can affect a wide diversity of mental health concerns for the college population. Studying the impact of perfectionism on college students is an important line of research because it will be important for counselors to be able to understand and assess the level and type of college students' perfectionism to accurately understand the development of a variety of mental health concerns.

Perfectionism and Burnout in the General Population

One of the newer areas of research on burnout is the link between burnout and perfectionistic tendencies. Perfectionism has been shown to increase levels of burnout in a variety of populations and across many demographics. One study that investigated burnout in athletes found that socially prescribed perfectionism significantly influenced rates of athlete burnout (Hill & Appleton, 2010). A study of secondary school teachers demonstrated that negative reactions to imperfection greatly increased one's risk for burnout (Stoeber & Rennert, 2008). Researchers investigating burnout levels among 106 employees in a behavioral health organization found that socially prescribed

perfectionism significantly influenced all facets of burnout (Childs & Stoeber, 2010). Clergy with high levels of socially prescribed perfectionism had increased levels of negative God image, vocational exhaustion and disengagement, and decreased professional efficacy (Corrigan, 1998). These studies demonstrate the important connection of perfectionism as a risk for developing burnout.

One of the most recent studies examining the effects of perfectionism on burnout investigated these constructs in a sample of clinical psychologists using the Copenhagen Burnout Inventory (Kristenson et. al, 2005) and the Frost Multidimensional Perfectionism Scale (Frost et. al, 1990). Participants were primarily female and across an equal distribution of ages. Results showed that psychologists who scored higher on measures of perfectionism were more likely to experience greater stress levels and also more likely to have personal, work, and client related burnout (D'Souza, Egan, & Rees, 2011). Research has continued to demonstrate a link between various types of perfectionism and burnout in a variety of groups such as youth rugby players (Hill & Appleton, 2011), coaches (Tashman, Tenenbaum, & Eklund, 2010), and Chinese college students (Zhang, Gan, & Cham, 2007). The wide diversity of studies investigating the relationship between perfectionism and burnout suggests that perfectionism has important implications for the mental health of a variety of populations. Given the impact of burnout on a variety of negative mental health problems, it will be essential for research to further explore individual factors such as perfectionism and their connection to rates of burnout.

Perfectionism and Burnout in College Students

Perfectionism is also an essential variable to investigate in the research on academic burnout because it has been shown to lead to a variety of other negative mental health outcomes in the college student population such as suicidal ideation, depression, and anxiety. Although perfectionism is an important trait to consider in the mental health of college students and has been shown to lead to burnout in a variety of other populations, there is little to no research that has investigated these two constructs in college students. After an extensive literature search, only one study was found that examined the link between perfectionism in college students and academic burnout. The study, which was conducted in China, used a modified Chinese version of the Maslach Burnout Inventory-Student Survey and The Frost Multidimensional Perfectionism Scale (Frost et. al, 1990) to assess the effect of perfectionism on academic engagement and burnout. The Frost Multidimensional Perfectionism Scale measures negative aspects of perfectionism (doubts about one's action; concerns over mistakes) and positive aspects of perfectionism (personal standards and organization) (Frost et. al, 1990). This research study used a definition of academic engagement developed by Schaufeli and Bakker (2004), which defines academic engagement as a positive and fulfilling work-related state of mind that is characterized by vigor, dedication, and absorption. Negative aspects of perfectionism were correlated with burnout, while positive aspects of perfectionism were associated with academic engagement (Zhang, Gam, & Cham, 2007). Although this study provides substantial information on the connection between perfectionism and academic burnout, more research is needed to demonstrate a link as it applies to students living in Western

countries. Overall, research shows an important link between the negative aspects of perfectionism and burnout across a variety of occupations and in the general population, while a greater understanding of these two constructs in college students is also needed.

Developing effective treatment strategies for burnout will be an important line for future research on college students. Interestingly, some research has shown that leisure may be important in the prevention of burnout (Meir, Melamed, & Dinur, 1995; Stanton & Iso-Ahola, 1998) and that perfectionism may have an important impact on beliefs about leisure (Ashby, Kottman, & DeGraaf, 1999). Developing a greater understanding of the relationships between these variables will allow university counselors to design interventions for burnout that may include a focus on the development of healthy leisure activities.

Leisure Satisfaction

Development of the Construct

A variable that has been shown to be preventive in the development of burnout is leisure satisfaction, defined as the extent to which an individual derives satisfaction from their leisure activities. However, investigation in this area has also been limited, and it is difficult to find many studies examining the potential for leisure in the treatment of burnout since 2000. The construct of leisure satisfaction was first defined in Beard and Ragheb's seminal article published in 1980 in the *Journal of Leisure Research*. Prior to this article, studies tended to focus on understanding the relationship between time and cost of leisure. Beard and Ragheb (1980) asserted that little research had been conducted on behaviors associated with leisure or an individual's beliefs

about the importance of their leisure activities. They argued that it was important for researchers to develop a valid and reliable instrument that could assess these attitudes. Leisure time and activity play a significant part in the happiness and satisfaction of individuals, and it is essential to understand how the fulfillment achieved through leisure contributes to an individual's well-being (Beard & Ragheb, 1980).

Leisure satisfaction is defined “as the positive perceptions or feelings which an individual forms, elicits, or gains as a result of engaging in leisure activities and choices. It is the degree to which one is presently content or pleased with his/her general leisure experiences and situations. “This positive feeling of contentment results from the satisfaction of felt or unmet needs of the individual” (Beard & Ragheb, 1980, pg. 22).

In developing the first instrument to measure leisure satisfaction, the Leisure Satisfaction Scale (LSS), researchers reviewed the extant literature on different leisure behaviors and the effects of leisure participation. Beard and Ragheb (1980) created six categories that described the positive effects of leisure on individuals. The six components are psychological, educational, social, relaxational, physiological, and aesthetic. Psychological effects of leisure refer to a “sense of freedom, enjoyment, involvement, and intellectual challenge,” educational effects pertain to “intellectual stimulation and helping individuals learn about themselves and their surroundings,” social effects are “rewarding relationship with other people,” relaxational effects refer to “relief from the stress and strain of life,” physiological effects pertain to “a means to develop physical fitness, stay healthy, control weight, and otherwise promote well-being,” and aesthetic effects refer to “aesthetic rewards and individuals viewing the

areas in which they engage in leisure activities as being pleasing, interesting, beautiful, and generally well-designed” (Beard & Ragheb, 1980, pg.27).

Beard and Ragheb (1980) asserted that there were many uses for the LSS such as understanding a client’s use of their downtime or to better understand theory in the areas of recreation and leisure. The Leisure Satisfaction Scale has demonstrated strong psychometric properties and is the most widely used measure of leisure satisfaction. It was validated in a sample of 603 individuals across a variety of occupations and demographics (Beard & Ragheb, 1980)

Leisure Satisfaction and Burnout

One of the interesting constructs found to correspond with decreased burnout levels is leisure satisfaction (Beard & Ragheb, 1980). Research on this topic has, however, been limited, and it is difficult to find any research conducted since 2000. Despite the lack of research on burnout and leisure, two papers were published in the 1980s that discussed the possible preventive effects of leisure activity to the development of burnout in clergy and student personnel workers. One paper that discussed burnout among clergy as early as 1982 suggested that promoting leisure time and positive leisure attitudes would be the best way to combat burnout among people working in ministry (Doohan, 1982). Another guide that discussed ways to decrease burnout in career development workers strongly advocated for the importance of planning meaningful leisure time to combat one’s burnout (Forney, Wallace-Schutzman, & Wiggers, 1982). A more recent article investigating burnout among doctors in China suggested that having satisfying leisure activities might be an important way to decrease burnout among physicians (Zhu, Wang, Wang, Lan & Wu,

2006). Although these papers were not empirical investigations, they suggest that leisure activity has been recognized as a crucial piece in the prevention of burnout in a variety of important human service occupations.

Research has investigated rates of burnout and leisure in different helping professions such as doctors and therapists, and these studies point to the importance of leisure as a preventive measure in the development of burnout. Two studies have looked directly at the variable of leisure satisfaction and burnout in samples of clergy and therapists. Using the Maslach Burnout Inventory and the Leisure Satisfaction Scale, researchers surveyed psychotherapists and found that leisure satisfaction was significantly associated with lower levels of burnout. Psychotherapists' levels of personal accomplishment were higher when they also indicated satisfaction with their leisure activities. Specifically, they found that the positive psychological, aesthetic, social, and educational effects of an individual's leisure activities correlated significantly with lower burnout (Hoeksma, Guy, Brown, & Brady, 1993). This study indicates that there are many positive effects of leisure that may contribute to decreased levels of burnout in mental health professionals. Higher levels of leisure satisfaction may also contribute to greater levels of personal satisfaction. Another study investigated burnout levels among clergy in the United Methodist Church using the Leisure Satisfaction Scale and the Maslach Burnout Inventory. Leisure behavior and leisure satisfaction were negatively related to emotional exhaustion and depersonalization and positively related to personal accomplishment (Stanton & Iso-Ahola, 1998). Leisure activity and leisure satisfaction may allow clergy to remain emotionally engaged in their work both for themselves and for their congregations.

These studies show the important preventive effects of leisure satisfaction on burnout levels in two divergent helping professions, providing support for the significance of leisure across occupational groups.

Other research has investigated similar leisure constructs in studies of burnout such as with samples of lawyers and doctors. A study of burnout among transplant surgeons found that being inexperienced and having little leisure time were the highest predictors of burnout levels (Ozyurt, Hayrun, & Sur, 2006). Individuals who have less work experience and little time to pursue leisure interests may be more at risk for burnout. High burnout levels have also been reported in lawyers. One study looking at burnout among lawyers found that leisure congruence (having leisure activities that match one's personality) was positively related to work satisfaction, decreased burnout, and less anxiety (Meir, Melamed, & Dinur, 1995). This research provides support for the significance of leisure in the prevention of burnout in lawyers, but also suggests that developing leisure interests that match one's disposition can contribute to many positive mental health outcomes including lower stress levels and higher satisfaction with work life. It appears that taking time to develop meaningful leisure interests may be an essential part of mental health for workers in a variety of occupations.

Although leisure has been implicated as a potential preventive measure for burnout in several studies, direct examination of the relationship between these constructs has been virtually ignored in the research on the treatment of burnout. Furthermore, although leisure satisfaction has been found to decrease levels of burnout in many occupations, no research has documented the impact of leisure satisfaction on levels of student burnout. Further study into this area will be important to design and

establish effective interventions to treat student burnout because leisure activities may be an important part of any treatment strategy. Further information about the general positive effects of leisure with university students and the general population will be explored in another section.

Leisure Satisfaction and Mental Health

Leisure satisfaction may be important in the treatment of burnout, but it has also been shown to contribute to a variety of other positive mental health outcomes such as decreasing stress levels. Leisure satisfaction has been found to promote psychological health in a variety of populations. One study investigated leisure satisfaction in a sample of adult males using the LSS and the Mental Health Inventory (MHI; Veit & Ware, 1983), an instrument that assesses six factors of psychological health such as positive affect and life satisfaction (Veit & Ware, 1983). Results showed that job satisfaction and leisure satisfaction were the highest correlates of psychological health (Pearson, 1998), demonstrating that leisure satisfaction is an essential variable in the promotion of positive mental health. Similar research investigated the impact of leisure on work-related stress in a sample of school principals and found that leisure was a significantly positive means of coping with work-related stress (Trenberth & Dewe, 2002). This study lends support to the idea that leisure activity is an important buffer to dealing with job stress. Research continues to support the notion that leisure satisfaction is an important component of mental health. If university counselors seek to promote psychological health among college students, they may need to recognize the significant impact of healthy leisure activity.

Other research has specifically looked at the effects of leisure on the psychological health of women. One study explored leisure satisfaction in a sample of women who were employed full time and found that leisure satisfaction negatively correlated with role overload, which is the amount of conflict an individual experiences when the demands of their environment exceed their abilities. Counselors who seek to promote psychological health among women should attend not only to their satisfaction with their working lives, but the satisfaction they receive from participating in leisure. Women might be better able to cope with the demands and stress of work and home life by having enjoyable leisure activities (Pearson, 2008). Leisure satisfaction has a significant impact on a variety of mental health outcomes, and it will be imperative to further investigate the positive impact of leisure activities on psychological health.

Leisure Satisfaction and Life Satisfaction/Happiness

Leisure satisfaction also contributes to an individual's life satisfaction and overall quality of life. A study conducted in China examined the impact of leisure satisfaction on an individual's peacefulness, quality of life and happiness. Results suggested that leisure satisfaction significantly contributed to the affective state of peacefulness, happiness, and with all nine areas of quality of life (Spiers & Walker, 2009). In a sample of older adults, leisure satisfaction also significantly contributed to overall life satisfaction (Hawkins, Foose & Binkley, 2004).

Interestingly, leisure satisfaction may also be an important factor in family life satisfaction and relationship satisfaction. One study that looked at the relationship between family leisure satisfaction and satisfaction with family life collected data from families across the United States and showed that leisure satisfaction was the best

predictor of overall satisfaction with family life at the family, youth, and parent levels even after accounting for other variables such as divorce, age and marital status (Agate, Zabriskie, Agate, & Poff, 2009). These results were also replicated in a study of Turkish families, which showed that even when the frequency of leisure activities was low within a family, family leisure was still an important variable in determining family satisfaction (Aslan, 2009). Another study looked at the impact of leisure activity on marital satisfaction and found that leisure activity patterns were an important component of an individual's satisfaction with their married life (Johnson, Zabrieske, & Hill, 2006). Leisure may be an essential part of individual satisfaction, while also having a significant impact on greater systems such as families and couples.

Positive Outcomes: Leisure and College Students

Although the majority of studies have focused on the potential of leisure in adult populations, leisure satisfaction and leisure participation have also been shown to lead to a variety of positive outcomes in university students. One study investigated the impact of leisure satisfaction on academic stress and found that leisure satisfaction and academic stress had a negative correlation (Misra & McKean, 2000). Although the correlation found in this study was weak, it does suggest there may be benefits to leisure participation in combating stress levels. Another investigation examined the beneficial effects of leisure on psychological well-being, mental health, coping, and stress in a sample of college students. These authors specifically looked at leisure coping beliefs, which "refer to people's beliefs that their leisure helps them cope with stress" (p. 130). Leisure coping significantly increased positive coping, decreased mental illness, and improved psychological well-being (Iwasaki, 2001). Results from a

study of college students showed that participation in leisure was associated with decreased feelings of academic pressure (Ragheb & McKinney, 1993). Participation in leisure activities leads to more positive mental health outcomes and may be an important component in combating stress in college students. Overall, leisure satisfaction has been shown to be essential to a wide variety of positive mental health outcomes including life satisfaction (Hawkins, Foose & Binkley, 2004) and reducing stress (Misra & McKean, 2000;Trenberth & Dewe, 2002) across a variety of demographics and in the college student population. It will be important for researchers to further investigate the impact of leisure on the mental health of college students.

Rationale for the Present Study

Burnout contributes to many significantly negative outcomes from academic dishonesty to suicidality. It has continually been shown that burnout can have deleterious effects on a variety of areas of mental health and academics. Academic burnout is also still continuing to be understood and conceptualized by researchers as there are many theories and methods that have been developed to assess the construct.

Efficacious research to treat student burnout has also been limited in the general population and in the college student population. One concept that has emerged in the burnout literature is the significant impact of leisure and leisure satisfaction on burnout. Leisure satisfaction has been shown to decrease levels of burnout among clergy and psychotherapists and has been implicated in several papers that suggest potential interventions for burnout in the helping professions. The few studies that have shown potential for treatment of burnout are limited by their small sample sizes and

lack of a longitudinal design. It is crucial that further research be conducted on the potential preventive effects of leisure on burnout given that most results for efficacious treatment strategies have been mixed and inconclusive. A greater understanding of the preventive factors such as leisure will allow counselors to design effective interventions for combating burnout in their clients. Different aspects of perfectionism can also have a significant effect on the development of burnout. Further research on this trait's contribution will be beneficial in developing treatment strategies for college students.

Interestingly, there is also some evidence of a relationship between leisure satisfaction and perfectionism. One study found that perfectionists viewed leisure differently than nonperfectionists on several subscales of the Leisure Satisfaction Scale (Beard & Ragheb, 1980) including the psychological and cognitive subscales. Scores between groups on the psychological subscale showed that maladaptive and adaptive perfectionists felt less freedom and happiness in their leisure activities than nonperfectionists, while differences in scores between the two groups on the cognitive subscale showed that adaptive and maladaptive perfectionists had more positive beliefs about their leisure activities than nonperfectionists (Ashby, Kottman, & DeGraaf, 1999). Although this study does not support the multidimensional model of perfectionism, it does yield support for the potential impact of perfectionism on attitudes about leisure.

Perfectionism has been shown to impact both leisure and student burnout. Being able to tease apart the relationship between perfectionism, leisure satisfaction, and student burnout will better inform university counselors about their work with

clients. A greater understanding of these variables will lead to more effective treatment strategies to prevent burnout in the college student population.

The present study sought to further examine the relationship of burnout in a population of college students to three variables: depression, perfectionism, and leisure satisfaction.

Summary of Study Hypotheses

My first hypothesis was that maladaptive perfectionists would have higher levels of academic burnout. Specifically, maladaptive perfectionists would have higher levels of emotional exhaustion than adaptive perfectionists and nonperfectionists, maladaptive perfectionists would have higher levels of cynicism than adaptive perfectionists and nonperfectionists, and maladaptive perfectionists would have lower levels of efficacy than adaptive perfectionists and nonperfectionists.

My second hypothesis was that those with higher levels of leisure satisfaction would have lower levels of academic burnout after accounting for depression scores. Specifically, those with higher levels of leisure satisfaction would have lower levels of emotional exhaustion, lower levels of cynicism, and higher levels of efficacy after accounting for depression.

My third hypothesis was that adaptive perfectionists with higher levels of leisure satisfaction would have lower levels of emotional exhaustion and cynicism, and higher levels of efficacy. Maladaptive perfectionists with low levels of leisure satisfaction would have higher levels of emotional exhaustion and cynicism, and lower levels of efficacy. In this hypothesis, perfectionism was conceptualized to be a

moderator between the predictor variable of leisure satisfaction and the outcome variable of academic burnout.

CHAPTER II

METHOD

Participant Demographics

Male and female college students at North Dakota State University were recruited for this study through email invitations. Students were given information about the study, provided a link to an online survey, and given the option to sign up for a \$25 Target gift card drawing. The target sample size for the current study was approximately 300 students.

A sample size of 394 male and female college students completed the online survey. A total of 4,000 emails were sent to students, yielding a 10% response rate.

Two-hundred and sixty- seven students completed the survey at Time 1, and one-hundred and sixty-seven students at Time 2. Respondents reported that they were female ($N = 260$, 67%), male ($N = 133$, 33%), and transgender ($N = 1$, .25%). The average age was 21.28 ($SD = 3.8$), and ranged from 18 to 48. The majority of students ($N = 377$; 98%) did not have children and reported being a dependent of their parents ($N = 270$; 68%). Most of the sample was Caucasian ($N = 359$; 91%); followed by Asian ($N = 12$; 3%), African American ($N = 8$; 2%), Other ($N = 2$), Hispanic ($N = 4$; 1%), and Native American ($N = 3$; .8%). The majority of students were heterosexual ($N = 368$; 93 %), followed by other ($N = 11$; 3%), bisexual ($N = 10$; 3%), lesbian ($N = 4$; 1%), and gay ($N = 2$; 1%).

There was a roughly equal representation among years at the university with the largest group being seniors ($N = 134$; 34%), followed by juniors ($N = 120$; 30%), sophomores ($N = 92$; 23%), and freshman ($N = 48$; 12%). The majority of the participants were full-time students ($N = 376$; 95%) with a minority of students being part-time ($N = 18$; 5%). The average credit load was 15.17 ($SD = 2.95$), and the average amount of time spent studying was 14.06 ($SD = 11.32$). The majority of the sample were on campus students ($N=377$; 98%) with a minority ($N = 7$; 2%) being distance students. Most participants had jobs ($N = 268$; 68%), and the average amount of time spent working was 17.92 ($SD = 10.49$). The majority of students reported being raised in households with an annual income between 60-90,000 (22%), followed by 40-60,000 (21%), 90-120,000 (20%), 25-40,000 (14%), 120,000-150,000 (11%), 150,000 + (6%), 15-25,000 (5%), and under 15,000 (5%). A minority of students were college student athletes ($N = 21$, 5.3%), Varsity Band members ($N = 15$, 3.8%), Varsity Choir members ($N=11$, 2.8%), or involved in a Greek Organization ($N = 36$, 9.1%). (See Table 1 for an overview of demographic statistics.)

Demographic statistics for North Dakota State University from which the sample was drawn was also investigated to infer the generalizability of the study's findings to the university's population. The undergraduate population at the university was 55.38% male and 44.62% female. 81.81% of the student population was White, followed by 9.07% Nonresident Alien, 3.51% Not specified, 1.76% African American, 1.41% Asian, .92% American Indian, and .87% Hispanic. 38.1% of the population was between the ages of 18-19, followed by 36.1% between the ages of 20-21, 18.9% between the age of 22-24, 4.4% between the ages of 25-29, and 2.5% of the

undergraduate population was above the age of 30. 30.1% of the population were seniors followed by 26.8 % freshman, 23.1% sophomore, and 20.1% junior. Data on the socioeconomic status of the student population was not available. The demographic statistics from NDSU corroborates with the current study’s demographic statistics, suggesting that participants in this study’s sample were representative of the university’s population.

Table 1

Demographic Profile of Respondents (N = 394)

Variable		N	%
Gender	Male	133	33.8
	Female	260	66
	Transgender	1	.3
Year in School	Freshman	48	12.2
	Sophomore	92	23.4
	Junior	120	30.5
	Senior	134	34
Sexual Orientation	Heterosexual	366	92.9
	Bisexual	10	2.5
	Lesbian	4	1
	Gay	2	.5
	Other	11	2.8
Relationship Status	Single	184	46.7
	In a relationship	177	44.9
	Engaged	16	4.1
	Married	16	4.1
	Divorced	1	.3
Ethnicity/Race	Caucasian/White	359	91.1
	Asian American	12	3
	African American/Black	8	2
	Hispanic	4	1
	Native American	3	.8
	Other	8	2

Table 1 continued

Variable		<i>N</i>	%
Student Status	Full-time	376	95.4
	Part-time	18	4.6
On campus/Distance	On campus	387	98.2
	Distance	7	1.8
SES as a child	under 15,000	20	5.1
	15-25,000	20	5.1
	25-40,000	55	14
	40-60,000	81	20.6
	60-90,000	88	22.3
	90-120,000	61	15.5
	120-150,000	43	10.9
150,000 +	23	5.8	

Instrumentation

Participants completed a demographics form and four measures including the Almost Perfect Scale Revised (APSR; Slaney, Rice, Mobley, Trippi, & Ashby, 2001), The Leisure Satisfaction Scale Short Form (LSS; Beard & Ragheb, 1980), Maslach Burnout Inventory Student Survey (MBI-SS; Schaufeli et. al, 2002), and the Patient Health Questionnaire -2 (PHQ-2; Kroehnke, Spitzer, & Williams, 2003). The measures are described in more detail below.

Demographic Information Questionnaire

Individuals were asked basic information about their background. Participants were asked information about their socioeconomic status, student status (full time or part time; online or distance), time spent studying, time spent working, age, outside employment, gender, ethnicity, sexuality, relationship status, number of children, GPA, number of credits enrolled, and academic major.

The Almost Perfect Scale Revised

The Almost Perfect Scale Revised (APSR; Slaney, Rice, Mobley, Trippi, & Ashby, 2001) is a 23 item scale that investigates adaptive and maladaptive aspects of perfectionism. Responses are recorded on a 7- point Likert scale, ranging from 1 = strongly disagree to 7 = strongly agree. Items include statements such as “I am not satisfied even when I know I have done my best.” The APSR has three subscales: Standards (7 items that assess personal standards), Discrepancy (12 questions that assess the stress that results from a person’s divergence between their standards and their performance), and Order (4 questions that examine one’s organization and desire for order). Higher scores demonstrate greater levels of perfectionism. Results from studies using this survey have found sufficient convergent validity (.49 to .83) and high internal consistency reliability for Order (.86), Standards (.85), and Discrepancy (.92) (Slaney, Rice, Mobley, Trippi, & Ashby, 2001). The current study found high internal consistency reliability for each subscale: Standards (.85), Order (.86), and Discrepancy (.94).

The Leisure Satisfaction Scale-Short Form

The Leisure Satisfaction Scale-Short Form (LSS; Beard & Ragheb, 1980) is a 24 item scale that determines how well a person feels that their needs are met by their leisure interests. The short form scale is an adapted version of the original 51-item inventory. Responses are recorded on a 5-point Likert scale from 1= almost never true for you to 5= almost always true for you. Items include such statements as “my leisure activities are very interesting to me.” The scale assesses the effects of leisure participation and is broken into 6 subscales: psychological, educational, social,

relaxational, physiological, and aesthetic. Each subscale has four items, and the entire scale can be administered in less than 10 minutes. The LSS has sufficient internal consistency of .93 and high reliability for each subscale (Beard & Ragheb, 1980). Test-retest scores were sufficient for the subscales of the LSS in a validation study and ranged from .56-.73 (Trottier et. al, 2002). The current study found high internal consistency reliabilities for the total scale and each subscale: LSS total (.94), psychological (.82), educational (.84), social (.85), relaxational (.87), physiological (.92), and aesthetic (.77).

The Maslach Burnout Inventory Student Survey

The Maslach Burnout Inventory Student Survey (MBI-SS; Schaufeli et. al, 2002) is a scale that is an adapted version of the Maslach Burnout Inventory General Survey designed for students. The scale is designed to assess the aspects of student burnout using three subscales: exhaustion (5 items), cynicism (5 items), and efficacy (6 items). Responses are recorded on a 7-point scale ranging from 0 = never to 6 = always. Items include such statements as “I feel emotionally drained from my studies.” High scores on the scales of emotional exhaustion and cynicism and low scores on the efficacy scale indicate burnout (Schaufeli et. al, 2002). The scale has shown satisfactory validity and reliability, including a recent study in China that found moderately high reliabilities for each subscale: Exhaustion (.65), Cynicism (.79), and Professional Efficacy (.81) (Gan, Shang, & Zhang, 2007). Another study that was conducted in the United States using the MBI-SS also revealed satisfactory reliability for the three subscales, ranging from .66 to .81 (Pisarik, 2009). This study affirms the applicability of the MBI-SS for studies of college students in the United States. The

current study found high internal consistency reliabilities for each subscale: Exhaustion (.90), Cynicism (.92), and Efficacy (.86).

The Patient Health Questionnaire

The Patient Health Questionnaire (PHQ-2; Kroehnke, Spitzer, & Williams, 2003) is a two item inventory that assesses the frequency of depressed mood and anhedonia over the past 2 weeks, scoring from as 0 = not at all to 3 = nearly every day. An example of an item on this inventory includes “Over the past two weeks how often have you been bothered by the following problem: Little interest or pleasure in doing things?” A validation study asserted that the PHQ-2 demonstrated sufficient criterion and construct validity (Kroehnke, Spitzer, & Williams, 2003).

Design and Procedures

Participants were randomly selected from a database of 11,000 undergraduate student emails from North Dakota State University. Students in the database were first be divided by gender, so that an equal number of males and females were invited to participate in the study. Using a random number generator, 4,000 student emails were selected to participate in the data collection with 2,000 emails used for each survey period. The first data collection occurred during the 14th week in a spring semester (one week before finals), while the second data collection occurred in a fall semester during the fifth week of school. Students were sent an email asking them to participate in an online survey on survey gizmo. The email included a brief description of the study and informed participants that they would have the option of participating in a drawing for three \$25 Target gift cards.

Once participants clicked on the link, they were directed to a screen requesting informed consent. Informed consent, as approved by the Institutional Review Board of the researcher's university, was then obtained from students. Participants were informed that they could stop the survey at any time and were encouraged to contact the researcher if they had any questions.

Participants completed the demographics form and the survey measures including the APSR, MBI-SS, LSS, and PHQ-2. Time spent completing the survey was approximately 15 to 20 minutes. Students were then directed to a debriefing form, which contained information about local mental health resources, the contact information of the researcher and the university's Institutional Review Board. At the end of the debriefing form, students were given a link to another survey on survey gizmo where they could provide their contact information in a text box for the Target gift card drawing. The separate survey link was provided to protect participant anonymity and to ensure that survey responses were kept separately from any identifying information. All data on the survey website server was kept completely confidential as only the researcher had access to the data with a password. All survey data will continue to be kept completely confidential.

Data Analysis

Completed surveys were downloaded from the website server and analyzed using the software, SPSS 20.0. Data from 80 participants who responded to the survey, but provided incomplete information (i.e. only completing one survey or not completing the demographics form) was excluded. A total of 20 missing data points were filled in with the means of individual items for partially incomplete surveys ($N =$

6). After screening data responses, three respondents' surveys were eliminated due to random or exaggerated responding.

Cronbach's alphas for each scale and subscale were calculated, as well as total scores of scales and subscales. On the APS-R, perfectionists were classified according to a method developed by Rice and Ashby (2007). According to their method, participants are divided according to two rules on the basis of the subscales of the APSR: If High Standards > 42 perfectionist (<42 = nonperfectionist), If perfectionist, Discrepancy > 42 = maladaptive perfectionist (<42=adaptive perfectionist). The current study had 161 nonperfectionists, 127 adaptive perfectionists, and 106 maladaptive perfectionists.

CHAPTER III

RESULTS

Preliminary Analysis

Group Comparisons

Univariate Analyses of Variance (ANOVA) were run to assess differences in participant demographics on each variable, followed by a two-way contingency table analysis between perfectionism type and gender. For each significant ANOVA, Tukey post hoc tests were then conducted to evaluate pairwise differences among the means.

ANOVAS revealed no significant differences on study variables for gender, relationship status, membership in a Greek Organization, dependent status, online/on campus students or between the two time periods participants took the survey (i.e., Time 1 = end of the semester or Time 2 = middle of semester). Results indicated no differences between time periods for efficacy $F(1,392) = 1.422, p = .234$; cynicism $F(1,392) = 1.278, p = .259$; or exhaustion $F(1,392) = .642, p = .423$.

Table 2

Differences in MBI-SS Scores by Time Period

Scale	Time 1 <i>M</i>	Time 2 <i>M</i>
Exhaustion	16.83	16.25
Cynicism	8.35	7.56
Efficacy	27.77	28.52

Results indicated a difference for year in school on the variable of cynicism, $F(3,390) = 2.768, p = .042$, and a follow up Tukey test revealed that sophomores had significantly higher levels of cynicism than seniors but not other groups. The mean score for sophomores ($M = 6.30, SD = 6.43$) was significantly lower than the mean score for seniors ($M = 8.76, SD = 7.03$). However, freshman ($M = 7.85, SD = 6.68$) and juniors ($M = 8.56, SD = 6.76$) did not significantly differ from sophomores. When minorities were put into one category, there were differences on the efficacy variable, $F(1, 392) = 3.95, p = .048$, revealing that individuals who identified as minorities had significantly lower levels of efficacy than other groups. Differences were also found for SES on the efficacy variable, $F(7, 382) = 2.05, p = .048$. However, the Tukey test did not detect any significant differences between groups for SES. Differences for job status were found for leisure satisfaction $F(1,392) = 4.62, p = .032$, as well as for college student athletes $F(1, 392) = 4.51, p = .034$. College students who had jobs or who identified as athletes had significantly higher levels of leisure satisfaction than other groups. Differences were also found for group membership in Varsity band $F(1,392) = 3.95, p = .048$, as well as Varsity choir $F(1,392) = 6.02, p = .015$ on depression scores. Results showed that respondents who reported participation in Varsity choir or Varsity band had significantly higher depression scores than other groups.

A two-way contingency table analysis was conducted to evaluate whether the proportion of male and female college students who were classified as maladaptive perfectionists, adaptive perfectionists, or nonperfectionists was significantly different. Gender and perfectionism type were not significantly related, Pearson $X^2(2, N = 394)$

= 4.23, $p = .382$, Cramer's $V = .07$. The results of this analysis suggest that male and female participants did not differ significantly in the rates by which they were classified by perfectionism type.

Bivariate Correlations

Bivariate correlations were analyzed to examine relationships between variables. Notably, results indicated moderate positive correlations between depression and cynicism ($r = .49$) and emotional exhaustion ($r = .43$), as well as a moderate negative correlation between efficacy and depression ($r = -.34$). Bivariate correlations were also run between variables and credit load, time spent studying, and time spent working. The study was unable to examine correlations between GPA and study variables due to errors with participants' ability to input decimals on the survey website. Results showed no correlations above .22 between study variables and time spent studying, time spent working, or credit load. Bivariate correlations between scales and subscales, as well as means and standard deviations for each variable are shown in Table 3. The variable Order was omitted from the table due to its exclusion from the analysis of perfectionism scores.

Table 3

Means, Standard Deviations, and Correlations of Variables

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13
1. MBI-SS Efficacy	28.09	6.19													
2. MBI-SS Cynicism	8.02	6.81	-.41**												
3. MBI-SS Exhaustion	16.58	7.18	-.19**	.56**											
4. Total LSS	88.96	14.16	-.37**	-.21**	-.20**										
5. PHQ-2 Depression	1.16	1.41	-.34**	.49**	.43**	-.37**									
6. LSS Psychological	15.46	2.83	.37**	-.28**	-.25**	.84**	-.41**								
7. LSS Educational	14.32	3.09	.28**	-.12*	-.12*	.80**	-.22**	.67**							
8. LSS Social	15.23	3.12	.24**	-.14**	-.15*	.76**	-.34**	.57**	.62**						
9. LSS Relaxational	16.62	2.93	.31**	-.23**	-.18**	.73**	-.34**	.62**	.45**	.46**					
10. LSS Physiological	13.25	3.83	.20**	-.05	-.09	.71**	-.15**	.49**	.41**	.36**	.38**				
11. LSS Aesthetic	14.06	2.64	.34**	-.18**	-.17**	.79**	-.29**	.59**	.59**	.53**	.49**	.5**			
12. APSR Standards	41.79	5.69	.52**	-.17**	.01	.36**	-.10	.32**	.26**	.23**	.26**	.26**	.31**		
13. APSR Discrepancy	43.24	15.96	-.38**	.48**	.47**	-.24**	.51**	-.32**	-.11*	-.17**	-.32**	-.07	-.13*	-.05	

Note: *N* = 394. **p* < .05, ***p* < .01, Total LSS = Total Leisure Satisfaction Scale Score

Analysis of Hypotheses

Hypothesis 1: Perfectionism and Academic Burnout

My first hypothesis was that maladaptive perfectionists would have higher levels of academic burnout than nonperfectionists and adaptive perfectionists. To analyze this hypothesis, three ANOVAS were run to test for differences between perfectionism type on the three outcome variables of academic burnout including emotional exhaustion, cynicism, and efficacy. Then, post hoc tests were conducted to evaluate pairwise differences among the means. The analysis of the three parts of this hypothesis is provided below.

Hypothesis 1A.

It was predicted that maladaptive perfectionists would have higher levels of emotional exhaustion than maladaptive perfectionists and nonperfectionists. The ANOVA revealed significant differences between perfectionism type on emotional exhaustion $F(2, 391) = 18.54, p < .001$. Post hoc comparisons using the Tukey HSD test revealed that maladaptive perfectionists scored significantly higher on emotional exhaustion than nonperfectionists and adaptive perfectionists. See Table 4 for the means and standard deviations of each perfectionism type for emotional exhaustion.

Hypotheses 1B.

It was hypothesized that maladaptive perfectionists would have higher levels of cynicism than maladaptive perfectionists and nonperfectionists. The ANOVA revealed significant differences between perfectionism type on cynicism $F(2,391) = 21.38, p < .001$. Post hoc comparisons using the Tukey HSD test revealed that maladaptive perfectionists scored significantly higher on cynicism than adaptive perfectionists, but

not nonperfectionists. See Table 4 for the means and standard deviations of each perfectionism type for cynicism.

Hypothesis 1C.

It was hypothesized that maladaptive perfectionists would have lower levels of efficacy than maladaptive perfectionists and nonperfectionists. The ANOVA revealed significant differences between perfectionism type on efficacy $F(2, 391) = 52.94, p < .001$. Post hoc comparisons using the Tukey HSD test revealed that maladaptive perfectionists scored significantly lower on efficacy than adaptive perfectionists, but not nonperfectionists. See Table 4 for the means and standard deviations of each perfectionism type for efficacy.

Table 4

Differences in MBI-SS Scores by Perfectionism Type

Scale	Nonperfectionist		Adaptive Perfectionist		Maladaptive Perfectionist	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Exhaustion	16.49	6.77	14.14	6.74	19.65	7.21
Cynicism	9.05	6.44	4.98	5.66	10.08	7.42
Efficacy	24.91	6.85	31.57	3.82	28.72	4.89

The results of this analysis yield partial support for the first hypothesis.

Maladaptive perfectionists had significantly higher scores on emotional exhaustion and cynicism and lower scores on efficacy than adaptive perfectionists. However, maladaptive perfectionists did not have significantly higher scores on cynicism or significantly lower scores on efficacy than nonperfectionists.

Hypothesis 2: Leisure Satisfaction and Academic Burnout

My second hypothesis was that those with higher levels of leisure satisfaction would have lower levels of academic burnout after accounting for depression scores.

Specifically, those with higher levels of leisure satisfaction would have lower levels of emotional exhaustion and cynicism and higher levels of efficacy after accounting for depression scores. As the three subscales of the MBI-SS cannot be combined, three stepwise multiple regressions were run with the three outcome variables of academic burnout. Depression was entered as a predictor variable in the first step, and leisure satisfaction was entered as a predictor variable in the second step of each regression. Depression was included in each equation in the first step because it had shown a moderate correlation with burnout variables in the preliminary analysis. Depression showed a moderate positive correlation with emotional exhaustion ($r = .43$) and cynicism ($r = .49$) and a moderate negative correlation with efficacy ($r = -.34$). The additional step was added to evaluate whether leisure satisfaction predicted burnout variables over and above depression scores. The analysis of the three parts of this hypothesis with stepwise multiple regressions is provided below.

Hypothesis 2A.

It was predicted that students with higher levels of leisure satisfaction would have lower levels of emotional exhaustion after accounting for depression scores. The overall regression was significant $R^2 = .19$ $F(2, 392) = 44.85, p = .00$. The analysis of ΔR^2 in step two indicated that leisure satisfaction added .2 % predictive power to the model, moving the variance accounted for from 18.5% to 18.7%. Depression scores appeared to be the only significant predictor in the regression $\beta = .411, t = 8.38, p < .001$. Leisure satisfaction did not account for a significant proportion of the variance after accounting for depression scores, suggesting that hypothesis 2A was not supported. See Table 5 for the multiple regression analysis.

Table 5

Summary of Stepwise Regression Analysis for LSS and PHQ-2 Predicting Emotional Exhaustion (N = 394)

Variable	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>B</i>	<i>SE B</i>	<i>B</i>
PHQ-2	2.19	.23	.43**	2.09	.25	.43**
LSS				-.03	.03	-.05
R^2		.19			.19	
<i>F</i> for change in R^2		88.64**			70.16**	

* $p < .05$. ** $p < .01$. LSS = Total Leisure Satisfaction Scale score, PHQ-2 = depression scores

Hypothesis 2B.

It was predicted that students with higher levels of leisure satisfaction would have lower levels of cynicism after accounting for depression scores. The overall model was significant $R^2=.24$ $F(2, 392) = 60.67, p < .001$. The analysis of ΔR^2 in step two indicated that leisure satisfaction added .1 % predictive power to the model, moving the variance accounted for from 23.5 % to 23.6%. Depression scores appeared to be the only significant predictor in the regression $\beta = .48, t = 9.98, p < .001$. Leisure satisfaction did not account for a significant proportion of the variance after accounting for depression scores, suggesting that hypothesis 2B was not supported. See Table 6 for the multiple regression analysis.

Table 6

Summary of Stepwise Regression Analysis for LSS and PHQ-2 Predicting Cynicism (N = 394)

Variable	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>B</i>	<i>SE B</i>	<i>B</i>
PHQ-2	2.35	.21	.49**	2.30	.23	.48**
LSS				-.02	.02	-.03
R^2		.24			.24	
<i>F</i> for change in R^2		121.08**			.43	

* $p < .05$. ** $p < .01$. LSS = Total Leisure Satisfaction Scale scores, PHQ-2 = depression scores

Hypothesis 2C.

It was predicted that students with higher levels of leisure satisfaction would have higher levels of efficacy after accounting for depression scores. The overall model was significant $R^2 = .18$, $F(2,392) = 43.39$, $p < .001$. The analysis of ΔR^2 in step two indicated that efficacy added 7 % predictive power to the model, moving the variance accounted for from 11.2 % to 18.2%. Depression scores were a significant predictor in this regression $\beta = -.23$, $t = -4.67$, $p < .001$. Leisure satisfaction was also a significant predictor in the regression equation $\beta = .28$, $t = 5.77$, $p < .001$. Leisure satisfaction accounted for a significant proportion of the variance after accounting for depression scores, suggesting that hypothesis 2C was supported. See Table 7 for the multiple regression analysis.

Table 7

Summary of Stepwise Regression Analysis for LSS and PHQ-2 Predicting Efficacy (N = 394)

Variable	Model 1		Model 2			
	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>B</i>	<i>SE B</i>	<i>B</i>
PHQ-2	-1.47	.21	-.34**	-1.01	.22	-.23**
LSS				.12	.02	.28**
R^2		.11			.18	
<i>F</i> for change in R^2		49.39**			33.30**	

* $p < .05$. ** $p < .01$, LSS = Total Leisure Satisfaction Scale scores, PHQ-2 = depression scores

The results from the analysis of hypothesis 2 suggest that leisure satisfaction is not a significant predictor above and beyond depression scores for cynicism or emotional exhaustion. However, leisure satisfaction significantly predicted efficacy above and beyond depression scores. The results of this analysis yield support for hypothesis 2C, but fail to support hypotheses 2A and 2B.

Hypothesis 3: Leisure Satisfaction, Perfectionism, and Academic Burnout

My third hypothesis was that adaptive perfectionists with higher levels of leisure satisfaction would have lower levels of academic burnout, while maladaptive perfectionists with lower levels of leisure satisfaction would have higher levels of academic burnout. Perfectionism was conceptualized to be a moderator in the relationship between the predictor variable of leisure satisfaction and the three outcome variables of academic burnout.

The analysis of the parts of this hypothesis included three multiple regressions for each of the outcome variables of academic burnout and followed the recommendations of Frazier, Tix and Barron (2004) who provided steps to analyze moderator effects. First, the variable of total leisure satisfaction scores was standardized to have a mean of zero and a standard deviation of one. Then, adaptive and maladaptive perfectionists were coded using effects coding in order to interpret the first-order effects of perfectionism and leisure satisfaction as average effects. Once this was done, the final step was to create the interaction term (i.e., the product of perfectionism type x LSS z scores). In the first step of each stepwise regression, perfectionism and standardized total leisure satisfaction scores were entered, while the interaction term was added in the second step (Frazier, Tix, & Barron, 2004).

Hypothesis 3A.

It was predicted that adaptive perfectionists with higher levels of leisure satisfaction would have lower levels of emotional exhaustion. It was also predicted that maladaptive perfectionists with lower levels of leisure satisfaction would have higher levels of emotional exhaustion. Perfectionism was conceptualized to be a moderator in the relationship between leisure satisfaction and emotional exhaustion.

The overall regression was significant $R^2 = .16$, $F(3, 229) = 14.11$, $p = .00$. While perfectionism was a significant predictor in the equation, leisure satisfaction failed to be a significant predictor in the regression. The R^2 change associated with the interaction term in step 2 was .01 and nonsignificant. The variance explained by the interaction was not significant above and beyond the 16% of the variance explained by the first-order effects of perfectionism type and leisure satisfaction alone. The results

of this analysis suggest that hypothesis 3A was not supported. See Table 8 for the results of this multiple regression.

Hypothesis 3B.

It was predicted that adaptive perfectionists with higher levels of leisure satisfaction would have lower levels of cynicism. It was also predicted that maladaptive perfectionists with lower levels of leisure satisfaction would have higher levels of cynicism. Perfectionism was conceptualized to be a moderator in the relationship between leisure satisfaction and cynicism. The overall regression was significant $R^2 = .15$, $F(3, 229) = 13.52$, $p = .00$. While perfectionism was a significant predictor in the equation, the total leisure satisfaction score failed to be a significant predictor in the regression. The R^2 change associated with the interaction term in step 2 was .01 and nonsignificant. Therefore, the variance explained by the interaction was not significant above and beyond the 15% of the variance explained by the first-order effects of perfectionism type and leisure satisfaction alone. The results of this analysis suggest that hypothesis 3B was not supported. See Table 8 for the results of this multiple regression.

Hypothesis 3C.

It was predicted that adaptive perfectionists with higher levels of leisure satisfaction would have higher levels of efficacy. It was also predicted that maladaptive perfectionists with lower levels of leisure satisfaction will have lower levels of efficacy. Perfectionism was conceptualized to be a moderator in the relationship between leisure satisfaction and efficacy. The overall regression was significant $R^2 = .20$, $F(3, 229) = 18.65$, $p = .00$. While perfectionism and leisure satisfaction were significant predictors

in the equation, the R^2 change associated with the interaction term in step 2 was $<.01$ and nonsignificant. Therefore, the variance explained by the interaction was not significant above and beyond the 20% of the variance explained by the first-order effects of perfectionism type and leisure satisfaction alone. The results of this analysis suggest that hypothesis 3C was not supported. See Table 8 for the results of this multiple regression.

Table 8

Moderator Analysis for Variables Predicting Emotional Exhaustion, Cynicism, and Efficacy (N = 233)

Exhaustion				
Step and Variable	<i>B</i>	<i>SE B</i>	β	$R^2 \Delta$
Step 1				
P type	5.13	.93	.34**	
LSS (z score)	-.97	.49	-.12	.15**
Step 2				
P type x LSS	-.65	.50	-.08	.01
Cynicism				
Step and Variable	<i>B</i>	<i>SE B</i>	β	$R^2 \Delta$
Step 1				
P type	4.86	.88	.35**	
LSS (z score)	-.62	.46	-.08	.15**
Step 2				
P type x LSS	-.80	.47	-.11	.01

Table 8 continued

Efficacy				
Step and Variable	<i>B</i>	<i>SE B</i>	β	$R^2 \Delta$
Step 1				
P type	-2.23	.55	-.25**	
LSS (z score)	1.55	.29	.32**	.19**
Step 2				
P type x LSS	-.10	.30	-.02	.00

Note. P type = Perfectionism type, LSS = total Leisure Satisfaction Scale score
 * $p < .05$. ** $p < .01$

The results of the analysis of hypothesis 3 suggest that perfectionism is a significant predictor in understanding the variance associated with all burnout variables. Leisure satisfaction was also a significant predictor in understanding the variance associated with the burnout variable of efficacy. However, perfectionism does not appear to moderate the relationship between leisure satisfaction and academic burnout. The interaction term in each of the three regressions failed to provide any additional explanation of the variance associated with burnout scores.

Further Analysis

The results of the analysis of hypothesis two and three suggest that perfectionism and depression explain a significant proportion of the variance associated with burnout scores. Given the importance of these variables to the outcome variables of burnout, additional regression analyses were conducted to examine whether perfectionism was a moderator in the relationship between the predictor variable of depression and the three outcome variables of academic burnout. As a preliminary

analysis, an ANOVA was to examine differences in depression scores by perfectionism type. The ANOVA was significant $F(1, 231) = 50.15, p = .00$, revealing that maladaptive perfectionists had significantly higher depression scores than adaptive perfectionists.

The three multiple regressions to test for moderator effects were run the same way as those in hypothesis 3, following the guidelines developed by Frazier, Tix and Barron (2004). First, the variable of depression (PHQ-2) scores was standardized to have a mean of zero and a standard deviation of one. Then, adaptive and maladaptive perfectionists were coded using effects coding in order to interpret the first-order effects of perfectionism and depression as average effects. Once this was done, the final step was to create the interaction term (i.e., the product of perfectionism type x PHQ-2 z scores). In the first step of each stepwise regression, perfectionism and standardized depression scores were entered, while the interaction term was added in the second step (Frazier, Tix, & Barron, 2004). The three stepwise multiple regressions on the three outcome variables of academic burnout are provided below.

Perfectionism, Depression, and Emotional Exhaustion

A stepwise multiple regression was run with emotional exhaustion as the outcome variable. The overall regression was significant $R^2 = .22, F(3, 229) = 21.58, p = .00$. While perfectionism and depression were significant predictors in the equation, the R^2 change associated with the interaction term in step 2 was $<.01$ and nonsignificant. Therefore, the variance explained by the interaction was not significant above and beyond the 22% of the variance explained by the first-order effects of

perfectionism type and depression alone. See Table 9 for the results of this multiple regression.

Perfectionism, Depression, and Cynicism

A stepwise multiple regression was run with cynicism as the outcome variable. The overall regression was significant $R^2 = .28$, $F(3, 229) = 29.76$, $p = .00$. While perfectionism and depression were significant predictors in the equation, the R^2 change associated with the interaction term in step 2 was $<.01$ and nonsignificant. Therefore, the variance explained by the interaction was not significant above and beyond the 28% of the variance explained by the first-order effects of perfectionism type and depression alone. See Table 9 for the results of this multiple regression.

Perfectionism, Depression, and Efficacy

The stepwise multiple regression was run with efficacy as the outcome variable. The overall regression was significant $R^2 = .19$, $F(3, 229) = 17.39$, $p = .00$. While perfectionism and depression were significant predictors in the equation, the R^2 change associated with the interaction term in step 2 was $<.01$ and nonsignificant. Therefore, the variance explained by the interaction was not significant above and beyond the 18% of the variance explained by the first-order effects of perfectionism type and depression alone. See Table 9 for the results of this multiple regression. The results of this analysis suggest that perfectionism and depression explain a significant portion of the variance in burnout scores, however, perfectionism does not appear to moderate the relationship between depression and burnout.

Table 9

Moderator Analysis for Variables Predicting Emotional Exhaustion, Cynicism, and Efficacy (N = 233)

Exhaustion				
Step and Variable	<i>B</i>	<i>SE B</i>	β	$R^2 \Delta$
Step 1				
P type	1.74	.48	-.23**	
PHQ-2 (z scores)	2.47	.50	.32**	.22**
Step 2				
P type x PHQ-2	.27	.53	.03	.00
Cynicism				
Step and Variable	<i>B</i>	<i>SE B</i>	β	$R^2 \Delta$
Step 1				
P type	1.31	.43	.19**	
PHQ-2 (z scores)	3.04	.45	.42**	.28**
Step 2				
P type x PHQ-2	.37	.48	.05	.00
Efficacy				
Step and Variable	<i>B</i>	<i>SE B</i>	β	$R^2 \Delta$
Step 1				
P type	-.80	.30	-.18**	
PHQ-2 (z scores)	-1.53	.31	-.32**	.18**
Step 2				
P type x PHQ-2	-.23	.33	-.04	.00

Note. P type = Perfectionism type, PHQ-2 = depression score * $p < .05$. ** $p < .01$

CHAPTER IV

DISCUSSION

The present study examined the relationship between the variables of academic burnout, perfectionism, leisure satisfaction, and depression in a sample of college students at a large public university in the Midwest. Three hypotheses were generated for the study. My first hypothesis was that maladaptive perfectionists would have higher levels of academic burnout than both adaptive perfectionists and nonperfectionists. My second hypothesis was that those with higher levels of leisure satisfaction would have lower levels of academic burnout after accounting for depression scores. My third hypothesis was that adaptive perfectionists with higher levels of leisure satisfaction would have lower levels of emotional exhaustion and cynicism, and higher levels of efficacy. Conversely, maladaptive perfectionists with low levels of leisure satisfaction would have higher levels of emotional exhaustion and cynicism, and lower levels of efficacy. In this hypothesis, perfectionism was conceptualized to be a moderator between the predictor variable of leisure satisfaction and the outcome variable of academic burnout. Results suggested that these hypotheses were partly supported, and further analysis was also conducted to follow up on several findings.

Summary of Results

Hypothesis 1: Perfectionism and Academic Burnout

My first hypothesis was that maladaptive perfectionists would have higher levels of academic burnout than adaptive perfectionists and nonperfectionists.

Hypothesis 1A: Perfectionism and Emotional Exhaustion.

It was predicted that maladaptive perfectionists would have higher levels of emotional exhaustion than adaptive perfectionists and nonperfectionists. The analysis revealed that maladaptive perfectionists had higher levels of emotional exhaustion than adaptive perfectionists and nonperfectionists, yielding support for hypothesis 1A.

Hypothesis 1B: Perfectionism and Cynicism.

It was predicted that maladaptive perfectionists would have higher levels of cynicism than adaptive perfectionists and nonperfectionists. The analysis revealed that maladaptive perfectionists had significantly higher levels of cynicism than adaptive perfectionists, but not nonperfectionists, yielding partial support for hypothesis 1B.

Hypothesis 1C: Perfectionism and Efficacy.

It was predicted that maladaptive perfectionists would have lower levels of efficacy than both adaptive perfectionists and nonperfectionists. The analysis revealed that maladaptive perfectionists scored significantly lower on efficacy than adaptive perfectionists, but not nonperfectionists, yielding partial support for hypothesis 1C.

Together, these results suggest that individuals who are highly self-critical and unable to meet their own high standards will be more likely to feel incompetent as a student, exhausted from their academic work, and have a cynical and detached attitude

towards academics. Conversely, individuals with high standards, but who evaluate themselves less harshly may be less likely to develop burnout.

These findings present support for the differences between perfectionism type on academic burnout. Although the current study was the first to use the Almost Perfect Revised Scale (Slaney, Rice, Mobley, Trippi, & Ashby, 2001) to investigate the effect of perfectionism on academic burnout, present results corroborate with a study conducted in China that demonstrated that negative aspects of perfectionism were associated with higher levels of academic burnout in a sample of college students (Zhang, Gam, & Cham, 2007). The current study extends previous research by demonstrating a connection between the two constructs in a sample of college students living in the United States, offering more evidence for the harmful effects of maladaptive perfectionism on the development of academic burnout.

The results of hypothesis 1 have important implications for the understanding of the negative effects of a perfectionistic attitude on mental well-being. Not only does perfectionism lead to a variety of serious mental health problems including suicide (Bell, Stanley, Mallon, & Manthorpe, 2010) and social phobia (Rosser, Issakidis, & Peters, 2003), but also to the development of academic burnout. Perfectionistic individuals with high levels of self criticism may become burned out more quickly than those with more realistic self-appraisal. Such a negative perspective may facilitate the development of cynical and detached beliefs about one's academics and performance in a university setting.

Given perfectionism's profound effects on mental health, counselors developing interventions for burnout should attend to maladaptive perfectionistic attitudes as a risk

factor for developing burnout. Also, given that there appears to be adaptive aspects of perfectionism, it may be important for counselors to recognize a client's type and identify aspects of adaptive perfectionism that may be helpful to decrease feelings of academic burnout. Helping to target and capitalize on the client's levels of adaptive perfectionism may help to buffer aspects of maladaptive perfectionism that could become a barrier to effective academic life.

Hypothesis 2: Leisure Satisfaction and Academic Burnout

My second hypothesis was that those with higher levels of leisure satisfaction would have lower levels of academic burnout after accounting for depression scores.

Hypothesis 2A: Leisure Satisfaction and Emotional Exhaustion.

It was predicted that those with higher levels of leisure satisfaction would have lower levels of emotional exhaustion after accounting for depression scores. A stepwise multiple regression was run with depression entered as a predictor variable in the first step, and leisure satisfaction entered as a predictor variable in the second step. Emotional exhaustion was the outcome variable. Leisure satisfaction failed to be a significant predictor of emotional exhaustion after accounting for depression, suggesting that study hypothesis 2A was not supported.

Hypothesis 2B: Leisure Satisfaction and Cynicism.

It was predicted that those with higher levels of leisure satisfaction would have lower levels of cynicism after accounting for depression scores. The same model type was used in this analysis as was used in the regression of hypothesis 2A and also showed that leisure satisfaction was not a significant predictor of cynicism after accounting for depression, suggesting that hypothesis 2B was not supported.

The findings in hypothesis 2A and 2B indicate that depression may be an important variable to consider when students report feeling detached, cynical, and exhausted from academic work.

Hypothesis 2C: Leisure Satisfaction and Efficacy.

It was predicted that those with higher levels of leisure satisfaction would have higher levels of efficacy after accounting for depression scores. The same model type was used in this analysis as was used in the regression of hypothesis 2A and showed that leisure satisfaction and depression were both significant predictors of efficacy, supporting hypothesis 2C. This suggests that developing satisfying leisure interests and attending to depression are important considerations for helping college students feel competent in their academic work.

The results of the analysis of hypothesis two lend support for the consideration of depression in the development of burnout, while also suggesting that leisure satisfaction may play less of a role than previously hypothesized. While leisure satisfaction has been shown to be important in decreasing burnout levels in studies of psychotherapists (Hoeksma, Guy, Brown, & Brady, 1993), clergy (Stanton & Iso-Ahola, 1998) and physicians (Zhu, Wang, Wang, Lan & Wu, 2006), it may be that previous studies failed to control for depression, which appears to be an important variable to include in burnout research.

The current findings corroborate with previous research that has investigated burnout and depression in the college student population. In one of the first studies to control for depression in the study of burnout, researchers found that after controlling for depression, previously significant group differences (i.e.,ethnicity) failed to

demonstrate an effect, while others (i.e., type of major and gender) persisted (Young et. al 2012), which is consistent with the present findings. The current study extends previous research by suggesting that depression may be a significant risk factor for the development of academic burnout. Results are also consistent with previous research that shows that the combination of the two problems may initiate an unhealthy cycle of higher levels of both burnout and depression (Toker & Biron, 2012). Counselors at university counseling centers should screen for depression in clients who report high levels of burnout as effective treatment for depression may prevent or diminish high burnout levels.

Hypothesis 3: Leisure Satisfaction, Perfectionism, and Burnout

My third hypothesis was that adaptive perfectionists with higher levels of leisure satisfaction would have lower levels of emotional exhaustion and cynicism, and higher levels of efficacy. Maladaptive perfectionists with low levels of leisure satisfaction would have higher levels of emotional exhaustion and cynicism, and lower levels of efficacy. In this hypothesis, perfectionism was conceptualized to be a moderator between the predictor variable of leisure satisfaction and the outcome variable of academic burnout.

Hypothesis 3A: Leisure Satisfaction, Perfectionism and Emotional Exhaustion.

It was predicted that adaptive perfectionists with higher levels of leisure satisfaction would have lower levels of emotional exhaustion. It was also predicted that maladaptive perfectionists with lower levels of leisure satisfaction would have higher levels of emotional exhaustion. While perfectionism was a significant predictor in the

equation, leisure satisfaction and the moderator analysis were nonsignificant, suggesting that hypothesis 3A was not supported.

Hypothesis 3B: Leisure Satisfaction, Perfectionism and Cynicism.

It was predicted that adaptive perfectionists with higher levels of leisure satisfaction would have lower levels of cynicism. It was also predicted that maladaptive perfectionists with lower levels of leisure satisfaction would have higher levels of cynicism. While perfectionism was a significant predictor in the equation, leisure satisfaction and the moderator analysis were nonsignificant, suggesting that hypothesis 3B was not supported.

Hypothesis 3C: Leisure Satisfaction, Perfectionism, and Efficacy.

It was predicted that adaptive perfectionists with higher levels of leisure satisfaction would have higher levels of efficacy. It was also predicted that maladaptive perfectionists with lower levels of leisure satisfaction would have lower levels of efficacy. While perfectionism and leisure satisfaction were significant predictors in the equation, the moderator analysis was nonsignificant, suggesting that hypothesis 3C was not supported.

The results of the analysis of hypothesis 3 indicate that perfectionism is an important predictor in the development of burnout, while leisure satisfaction is important to consider when attempting to increase a students' level of efficacy. Additionally, the lack of an interaction between perfectionism and leisure satisfaction in this analysis corroborates with a previous study that found differences for leisure satisfaction between perfectionists and nonperfectionists, but no differences for leisure satisfaction between adaptive and maladaptive perfectionists (Ashby, Kottman, &

Degraaf, 1999). This suggests that perfectionistic attitudes may play less of a role in promoting leisure in college students than previously hypothesized.

Further Analysis: Perfectionism, Depression, and Burnout

The results of the analysis of hypothesis two and three suggested that perfectionism and depression explain a significant proportion of the variance associated with burnout scores. Given the importance of these variables to the outcome variables of burnout, additional regression analyses were conducted to examine whether perfectionism was a moderator in the relationship between the predictor variable of depression and the three outcome variables of academic burnout. In each of the regressions, perfectionism and depression were significant predictors of burnout variables, but the interaction terms of perfectionism type by depression were nonsignificant.

The lack of a significant interaction term in the preceding analysis could have been due to the small sample size of adaptive and maladaptive perfectionists, which was only sixty percent of the study's participants. While the regression does demonstrate further that depression and perfectionism are important predictors of academic burnout, future research should continue to investigate the relationships between these two constructs in larger samples of college students.

Limitations

The limitations of the present study are presented to help future researchers studying academic burnout, perfectionism, depression, and leisure satisfaction in the college student population.

The first limitation of this study is the homogenous sample. Participants for this study came from a predominantly white, middle class, four year university in the Midwest. Ethnic minorities, students of lower socioeconomic status, and nontraditionally aged students were not well represented in this study. Therefore, the generalizability of the present research to more diverse college student populations is limited. Future research should seek to investigate academic burnout in more diverse college student populations.

A second limitation of the present study includes the method for data collection and the poor response rate. Two data collection periods occurred at the end of a spring semester and the beginning of a fall semester to a list of randomized student email addresses. Although the study was able to randomly select email addresses from a large email database and sent over 4,000 emails containing the study survey link, the response rate for the survey was limited to approximately ten percent. The low response rate raises the questions of sampling bias, and the current study may have received a higher response rate if data collection had occurred in person. Completion of the survey was also based on motivation to participate and a self-selection bias. Therefore, the results of the study may not correctly represent levels of academic burnout, depression, perfectionism, and leisure satisfaction for the general college student population.

A third limitation of the study sample is the exclusion of freshman participants from the second data collection period. The study used a database of student emails that were current for the spring semester during which the first data collection occurred. However, this same list of emails was then utilized during the following fall semester six months later. This resulted in newly enrolled freshman students being omitted from

the fall data collection period and a slightly lower response rate in the second data collection period because of students who graduated or may have dropped out during the previous spring semester. This may limit the generalizability of the study's results to freshman students.

A fourth limitation is the sample size. Although the study was able to obtain a large sample size of 394 students, approximately forty percent of the study's participants was classified as nonperfectionist. The third hypothesis of the study only pertained to participants who were classified as adaptive perfectionists or maladaptive perfectionists. Therefore, only sixty percent of the sample was used to analyze the third hypothesis. The smaller number of participants in the moderator analysis of perfectionism type by leisure satisfaction may have resulted in an inability to detect significance in the multiple regression analysis. A higher overall number of participants in the study may have allowed the researcher to detect a moderator effect.

A fifth limitation of the present study is the types of measures used to assess study variables. All the measures in the study relied exclusively on self-report, which has multiple disadvantages such as credibility, social desirability, or acquiescent responding (Paulhaus & Seville, 2007). It would have been beneficial to include a measure of social desirability or multiple measures of variables to validate survey responses.

A sixth limitation was the measure of depression. The present study found that depression was a significant predictor of academic burnout. While the PHQ-2 (Kroehnke, Spitzer, & Williams, 2003) is a valuable tool for screening depression, the study may have benefitted from a more thorough assessment of depression to more

accurately draw conclusions about the relationship between academic burnout and depression.

The final limitation of this study is the lack of information about GPA. Research has found that academic achievement may be lower among college students with academic burnout (Schaufeli, Martinez, Pinto, Salanova, & Bakker, 2002). Due to an oversight by the author, information about GPA was not correctly collected in the online survey. This may have proved useful in further investigating the connection between grades and academic burnout in the college student population.

Implications for Practice, Theory, and Future Research

Implications for theory, practice, and research are presented in this section based on the findings of the present study examining leisure satisfaction, academic burnout, perfectionism, and depression in a population of college students. Suggestions for counseling practice with the college student population are also discussed. It should be noted that implications for practice, theory, and research have also been discussed throughout the Discussion chapter.

Implications for Practice

This study's results have significant implications for counselors at college counseling centers. The findings support the notion that counselors should continue to understand how perfectionism, leisure, and depression may play a role in the development of academic burnout in their clients.

Depression played an important role in the findings of the present study. Although burnout and depression are discriminate constructs (Leiter & Durup, 1994; Schaufeli & Enzmann, 1998), results suggested that college students who report high

levels of academic burnout may also be struggling with depressive symptoms. Conversely, students who report depression may also be experiencing academic burnout. This suggests that treatment for the two concerns could be integrated. Students who report high levels of burnout should be screened for depression, and in-depth assessment of both concerns should occur. Additionally, counselors may benefit from an awareness of the comorbidity between burnout and depression. Educating clinicians about this concurrence may allow practitioners to be more aware of when to screen for either problem in their practice.

Additionally, it may be helpful for counselors to seek to identify which type of perfectionism an individual presents with. College students who are maladaptive perfectionists may be more likely to take on a larger set of academic demands such as a higher credit load and a larger number of leadership positions, while also having unrealistic expectations about their performance abilities. It may be useful to examine clients' self-critical attitudes about their abilities and seek to moderate these harmful beliefs. Also, given that there appears to be adaptive aspects of perfectionism, it may be important for counselors to recognize a client's type and identify aspects of adaptive perfectionism that may be helpful to their client's academic life. Helping to target and capitalize on the client's levels of adaptive perfectionism may help to buffer aspects of maladaptive perfectionism that could become a barrier to effective academic work.

Counselors could also help their clients examine the meaning of their academics and what academic standards they set for themselves. Helping a maladaptive perfectionist explore their meaning of academic success and how they view their ability to meet their high standards may be a useful tool for overcoming academic burnout.

Maladaptive perfectionists may also struggle with intense self-criticism that impacts their ability to recognize and celebrate their academic achievements. Exploring how this might affect the way they view themselves may be a useful intervention. Adaptive perfectionists might also benefit from an exploration of the way they assess themselves and be able to better capitalize on the positive aspects of their perfectionism.

A variety of counseling interventions for burned out college students have been developed from group therapy to psychoeducational interventions (Roby, 2009; Ni & Wu, 2009). An intervention that targets aspects of maladaptive perfectionism and its meaning for the development of academic burnout could prove to be a useful part of an intervention. Similarly, emphasizing the flexibility and less harsh self-assessment of adaptive perfectionism may bolster the efficacy of counseling interventions. A program that emphasizes open mindedness about oneself and an understanding of one's attitudes towards varying levels of academic success may help to build levels of academic engagement essential to the learning process.

While a focus on perfectionism appears to be an important piece of burnout treatment, leisure may also play an important role in helping students feel competent in their academic work. It may be that developing satisfying leisure interests outside of school offers a respite from academic demands, allowing college students to remain engaged in their studies. College students who allow themselves to take small breaks from rigorous studying to enjoy their hobbies may allow themselves to be reenergized when they return to difficult academic work. Overall, university counselors should be more aware that perfectionism and depression are significant risk factors for academic burnout and may play an important role in effective treatment strategies.

Promoting satisfying leisure interests may also be a buffer to help students remain engaged in their studies.

Implications for Theory

The present study has several important theoretical implications for perfectionism, burnout, and leisure.

Perfectionism.

This study further extends Slaney et al's (2001) categorical theory of perfectionism, which suggests that there may be positive and adaptive aspects of perfectionism. Earlier researchers conceptualized the trait as primarily negative (Frost, Heimberg, Holt, Mattia, & Neubauer, 1993; Rice, Ashby, & Slaney, 1998), but more recent research has argued for a more diverse and categorical approach to the measurement of perfectionism. This study lends further support to the argument that aspects of perfectionism can prove beneficial to individuals such as hindering the development of academic burnout, while negative aspects of perfectionism can contribute to academic burnout. Past research has supported the idea of multiple categories of perfectionism, and this study further demonstrates how different groups of perfectionists are differentially impacted in areas of mental health.

Academic Burnout.

Christina Maslach first posited a definition of burnout in 1982 for those working in the helping professions, and the original concept has developed over the last thirty years to include workers in general (Maslach et. al, 2001) and students (Schaufeli et. al, 2002). A critique of Maslach's work is that her definition of burnout has been expanded in response to demand, rather than sound theory (Kristensen, Borritz, Villadsen, &

Christensen, 2005; Meier, 1984). However, the present study supports the expansion of research from Maslach's model of burnout that indicates that students can feel overburdened as a result of academic demands, stress, and pressure just as those in the general population. This study also found that academic burnout levels were not significantly different at two time periods in an academic semester (i.e. end of a semester and middle of a semester), yielding further support for the stability of this construct. Therefore, the current findings support the expansion of burnout research to the university setting. Future research should continue to examine academic burnout as a genuine psychological concern within the college student population.

The current study also supported Maslach's (1982) tripartite model of burnout. Results indicated that leisure satisfaction was important for the burnout variable of efficacy, but had no effect on cynicism or emotional exhaustion. Additionally, while perfectionism had a significant impact on all burnout variables, there were differences in the extent to which perfectionism affected each dimension. This supports the notion that there are three separate burnout dimensions, rather than a unidimensional model of burnout that has been posited by other authors (Kristensen, Borritz, Villadsen, & Christensen, 2005; Meier, 1984). Future research should continue to examine Maslach's (1982) model of burnout as it relates to the college student population.

While the current study provided further support for the existence of academic burnout, results also provided information about the relationship between burnout and depression. Few studies on college student burnout have included measures of depression, but the present study provided evidence that burnout and depression are intimately connected. Depression explained a significant amount of the variance in

burnout scores, and it may be that burnout and depression are significant indicators of one another. The present study provides evidence for the importance of accounting for depression before drawing conclusions between other variables in a study.

While the current study was not longitudinally designed, much research has investigated the temporal sequence between depression and burnout and found that the two constructs predict each other equally (Ahola & Hakanen, 2006; Toker & Biron, 2012). While it is difficult to infer from the present study the chronological sequence of burnout and depression, it seems that results from this study corroborate with previous research suggesting that academic burnout and depression equally predict each other within the college student population. University counselors and researchers studying the college student population should be aware of the concurrence and temporal sequence of these variables and account for both concerns in their practice.

Leisure Satisfaction.

While leisure satisfaction failed to play a major role in the findings of the present study, it was important in predicting the academic burnout variable of efficacy. This finding corroborates with previous research that has shown leisure satisfaction to be important in other areas of academic life such as reducing academic stress (Misra & McKean, 2000) and decreasing feelings of academic pressure (Ragheb & McKinney, 1993). Although hypotheses about leisure satisfaction were not confirmed, the results do suggest that leisure may play a small role in increasing students' feelings of competence about their academic work. It may be that remaining active and stimulated through leisure interests outside of academics helps students remain engaged in their

studies. Future research should continue to explore the implications of leisure satisfaction in the college student population.

Implications for Future Research

Academic burnout is a construct that has only recently been investigated in research with the college student population, and instruments to measure academic burnout have also been limited. The current study provides further validation for the Maslach Burnout Inventory Student Survey (Schaufeli et. al, 2002), which has only been used in a limited number of studies in the United States. The current study found high internal consistency reliabilities for each subscale ranging from .86 to .92, which is higher than previous studies that have shown only moderately high reliabilities ranging from .60 to .81 (Pisarik, 2009). The present research is also the only study that has measured academic burnout at two different time periods at the same university. The lack of a significant difference between burnout levels at the end of a semester and during the middle of a semester suggest that burnout may be a stable construct that does not fluctuate depending on academic calendars. The current findings affirm this measure for future research with college student populations in the United States. Studies should continue to develop measures that adequately address burnout within the university setting.

Additional research is also needed to further understand the connection between academic burnout and depression. The current study was one of the first to control for depression in an attempt to better understand risk factors for academic burnout, while previous research has also suggested that depression may be an important variable to include in burnout research (Young et. al, 2012). While studies have suggested that

depression and burnout are conceptually and empirically distinct (Toker & Biron, 2012), more research needs to be conducted to understand the complex relationship between these two constructs in the college student population. It appears that depression and academic burnout are significant indicators of each other, and the current study extends previous research by suggesting that studies of burnout should incorporate depression measures into their analysis.

The present study also found several interesting individual differences that affected burnout levels such as ethnicity and socioeconomic status. Other studies have also suggested that minorities (Young et. al, 2012) and those of lower socioeconomic status (Soares, Grossi, & Sundin, 2007) may be more predisposed to developing burnout. However, few studies could be found that directly assessed the contribution of these individual factors to the development of burnout in college students. Investigating burnout in more diverse college students populations will be a fruitful area for further study.

Conclusion

The current study attempted to better understand the relationship between the variables of academic burnout, leisure satisfaction, depression and perfectionism in a sample of college students. Research has shown that academic burnout can lead to a variety of negative mental health outcomes, and the present study sought to further understand risk factors and possible preventive strategies for addressing burnout in college students.

The current study provided further support for the expansion of burnout research to the university setting, suggesting that academic burnout is a legitimate

psychological concern within the college student population. The present study also provided evidence for the effects of perfectionism and depression on the development of academic burnout, while also demonstrating that leisure satisfaction may play a minor role in helping students feel effective in their academic work. Counselors at university counseling centers should attend to developing interventions that incorporate screening for depression and examination of perfectionistic attitudes in their treatment interventions for academic burnout. Additionally, promoting satisfying leisure interests may also help to increase a student's feelings of competence in their academic work.

Results also suggest a need for further research about the interaction between depression, perfectionism, and burnout in the college student population. Research should also continue to investigate group differences in burnout in more diverse college student populations including ethnic minorities, those of lower socioeconomic status, and nontraditionally aged students. It is anticipated that the results and information presented in this study will help future researchers develop effective treatment strategies for academic burnout, which has been understudied in the college student population.

Counselors at university counseling centers should seek to attend to risk factors for academic burnout, as well as encourage the development of satisfying leisure activities for positive mental health. A healthy outlook on life and positive views about one's academics are essential to face the unique demands of obtaining an academic degree in the 21st century. It is my hope that this research will provide further knowledge for practitioners in their counseling with burned out college students.

APPENDICES

APPENDIX A

INFORMATION SHEET

TITLE: The Effect of Leisure Satisfaction and Perfectionism on Academic Burnout.
PROJECT DIRECTOR: Lauren Fuller
PHONE # Tel: 701-777-2635
DEPARTMENT: Counseling Psychology

A person who is to participate in the research must give his or her informed consent to such participation. This consent must be based on an understanding of the nature and risks of the research. This document provides information that is important for this understanding. Research projects include only subjects who choose to take part. Please take your time in making your decision as to whether to participate. If you have questions at any time, please ask.

This is a study being conducted for the counseling psychology graduate program at the University of North Dakota. Please participate in this study if you are currently an undergraduate student.

I am asking you to participate in my research study. Your participation will help researchers understand the effects of perfectionism and leisure satisfaction on academic burnout. Your participation is important because it will help researchers learn more about the experience of academic burnout in college students. The University of North Dakota and the researcher are receiving no payments from other agencies, organizations, or companies to conduct this research study.

Participation in this study is voluntary, and you may withdraw at any time without penalty. It will take you approximately 20 minutes. You will be asked to answer a number of questions about experiences related to leisure, academic burnout, and perfectionism.

In addition, the records of this study will be kept private to the extent permitted by law. In any report about this study that might be published, you will not be identified. Your study record may be reviewed by Government agencies, and the University of North Dakota Institutional Review Board. Any information that is obtained in this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Your responses will remain confidential such

that only researchers and IRB personnel who audit research materials will have access to your data. Identification codes, rather than names, will also be used to assure your anonymity. If we write a report or article about this study, we will describe the study results in a summarized manner so that you cannot be identified.

After full completion of the questionnaires, you will have the option of providing an email address to be entered into a drawing to win a \$20 gift certificate to Target. Only researchers will have access to email addresses, the email address will only be used for the purpose of the drawing, and the email address will be destroyed following completion of the study. You will not have any costs for being in this research study.

The foreseeable risks or discomforts from participating in this survey are minimal. However, there is a possibility that you might feel uncomfortable when answering some of the questions. If you would like to talk about some of those feelings, please feel free to contact your local community or university counseling services at your own expense.

This research study has been reviewed and approved by the Human Subjects Committee at the University of North Dakota. Thank you for taking the time to contribute to this research. This study would not be possible without your help. Your participation is valuable and will contribute to understanding college students' experiences. If you have questions regarding your rights as a research subject, or if you have any concerns or complaints about the research, you may contact the University of North Dakota Institutional Review Board at (701) 777-4279. Please call this number if you cannot reach research staff, or you wish to talk with someone else.

This research study is being conducted by Lauren Fuller under the supervision of Dr. Cindy Juntunen, a professor of Counseling Psychology at the University of North Dakota. If you have any questions about the study, also feel free to contact the researchers by email at laurenfuller11@gmail.com or by phone at 817 239 2744.

Your completion of the survey constitutes your consent to participate in the research.

APPENDIX B
DEMOGRAPHIC FORM

1) What is your Age:_____?

2) What year in school are you?

Freshman Sophomore Junior Senior

3) What is your relationship status?

Single In a relationship Engaged Married Divorced Widowed

4) Do you have children?

Yes (if so, how many) ____ No

5) How many credits are you enrolled in this term?_____

6) How many hours per week do you spend studying?_____

8) Are you a dependent of your parents?

Yes No

9) What is the income in the household in which you were raised?

under 15,000 15,000-25,000 25,000-40,000 40-60,0000 60-

90,000 90,000-120,000

120,000-150,000 150,000+

11) What is your ethnicity/race?

African American/Black Hispanic/Latino Caucasian/White Asian

American/Pacific Islander Native American/American Indian Other

12) What is your gender?

Male Female Transgender Other

13) What is your sexual orientation?

Bisexual Gay Heterosexual Lesbian Other

15) What is your major?_____

16) What is your GPA?_____

17) Are you a full time or part time student?

Full time Part time

18) Is your academic program online/distance or on campus?

Online/distance On campus

19) Do you currently have a job?

Yes No

20) If so, how many hours per week do you spend working at your job?_____

21) Are you involved in any of the following activities?

College Student Athlete Varsity Band Varsity Choir A Greek organization

APPENDIX C

THE LEISURE SATISFACTION SCALE (LSS)

The following questions ask you about your leisure activities. Please read each statement and write

- 1) If the item is almost never true for you
- 2) If the item is Seldom true for you
- 3) If the item is sometimes true for you
- 4) If the item is often true for you
- 5) If the item is almost always true for you

Psychological

My leisure activities are very interesting to me. _____

My leisure activities give me self-confidence. _____

My leisure activities give me a sense of accomplishment. _____

I use many different skills and abilities in my leisure activities. _____

Educational

My leisure activities increase my knowledge about things around me. _____

My leisure activities provide opportunities to try new things. _____

My leisure activities help me to learn about myself. _____

My leisure activities help me to learn about other people. _____

Social

I have social interaction with others through leisure activities. _____

My leisure activities have helped me to develop close relationships with others. _____

The people I meet in my leisure activities are friendly. _____

I associate with people in my free time who enjoy doing leisure activities a great deal. _____

Relaxation

My leisure activities help me to relax. _____

My leisure activities help relieve stress. _____

My leisure activities contribute to my emotional well being. _____

I engage in leisure activities simply because I like doing them. _____

Physiological

My leisure activities are physically challenging. _____

I do leisure activities which develop my physical fitness. _____

I do leisure activities which restore me physically. _____

My leisure activities help me to stay healthy. _____

Aesthetic

The areas or places where I engage in my leisure activities are fresh and clean. _____

The areas or places where I engage in my leisure activities are interesting. _____

The areas or places where I engage in my leisure activities are beautiful. _____

The areas or places where I engage in my leisure activities are well designed. _____

(Beard & Ragheb, 1980)

APPENDIX D

MASLACH BURNOUT INVENTORY STUDENT SURVEY (MBI-SS)

Please read each statement carefully and decide if you ever feel this way about your academics. If you have never had this feeling, write a '0' (zero) before the statement. If you have had this feeling, indicate how often you feel it by writing the number (from 1 to 6).

Very rarely	Rarely	Regularly	Often	Very often	Always	
0	1	2	3	4	5	6
Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

1. _____ I feel emotionally drained by my academics.
2. _____ I feel used up at the end of a day at the university.
3. _____ I feel tired when I get up in the morning and I have to face another day at the university.
4. _____ Studying or attending a class is really a strain for me.
5. _____ I feel burned out from my academics.
6. _____ I have become less interested in my academics since my enrollment at the university.
7. _____ I have become less enthusiastic about my academics.
8. _____ I have become more cynical about the potential usefulness of my academics.
9. _____ I doubt the significance of my academics.
10. _____ I can effectively solve the problems that arise in my academics.
11. _____ I believe that I make an effective contribution to the classes that I attend.

12. _____ In my opinion, I am a good student.
13. _____ I feel stimulated when I achieve my academic goals.
14. _____ I have learned much interesting things during the course of my academics.
15. _____ During class I feel confident that I am effective in getting things done.
(Schaufeli et. al, 2002)

APPENDIX E

ALMOST PERFECT SCALE REVISED (APSR)

Instructions

The following items are designed to measure attitudes people have toward themselves, their performances, and toward others. There are no right or wrong answers. Please respond to all of the items. Use your first impression and do not spend too much time on individual items in responding. Respond to each of the items using the scales below to describe your degree of agreement with each item.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree

- 1) I have high standards for my performance at work or at school.
- 2) I am an orderly person
- 4) Neatness is important to me.
- 5) If you don't expect much out of yourself, you will never succeed.
- 6) My best just never seems to be good enough for me.
- 7) I think things should be put away in their place.
- 8) I have high expectations for myself.
- 9) I rarely live up to my high standards.
- 10) I like to always be organized and disciplined.
- 11) Doing my best never seems to be enough.
- 12) I set very high standards for myself.
- 13) I am never satisfied with my accomplishments.
- 14) I expect the best from myself.
- 15) I often worry about not measuring up to my own expectations.
- 16) My performance rarely measures up to my standards.
- 17) I am not satisfied even when I know I have done my best.
- 18) I try to do my best at everything I do.
- 19) I am seldom able to meet my own high standards of performance.
- 20) I am hardly ever satisfied with my performance.
- 21) I hardly ever feel that what I've done is good enough.
- 22) I have a strong need to strive for excellence.
- 23) I often feel disappointment after completing a task

(Slaney, Rice, Mobley, Trippi, & Ashby, 2001).

APPENDIX F

PATIENT HEALTH QUESTIONNAIRE-2(PHQ-2)

- 1) Over the past two weeks how often have you been bothered by the following problems: Little interest or pleasure in doing things?

Not at all Several days More than half the days Nearly every day

- 2) Over the past two weeks how often have you been bothered by the following problems: Feeling down depressed or hopeless?

Not at all Several days More than half the days Nearly every day

(Kroehnke, Spitzer, & Williams, 2003)

APPENDIX G

DEBRIEFING AND INFORMATION SHEET

Dear Participant:

Thank you for your participation in this study. Your participation will greatly help us in our understanding of academic burnout. The study was designed to assess the effects of leisure satisfaction and perfectionism on academic burnout. Leisure satisfaction is the amount of satisfaction an individual gains from participation in their leisure activities. This study was designed to explore the relationship between academic burnout, perfectionism, and leisure satisfaction. The three portions of the survey assessed an individual's level of leisure satisfaction, perfectionism, and academic burnout. After the information from your survey (as well as other surveys from other participants) has been gathered, we will be doing a statistical analysis of the data looking for correlations between the variables of perfectionism, leisure satisfaction, and academic burnout.

Once again, we feel it is important to state that all information from your survey will be kept confidential, and all outcomes of the study will be reported in aggregate form only, ensuring that individuals cannot be identified as participants in the study. Your responses will remain confidential such that only researchers will have access to your data on the survey website server.

We don't expect you to experience any negative effects from participating in this study. There are also no direct benefits to you for participating. We do hope the findings will contribute to improved understanding of academic burnout in undergraduate students.

This study is being conducted by student researchers from the Department of Counseling Psychology and Community Services. If you have questions for the student researcher, feel free to contact Lauren Fuller at 817 239 2744. If you have any other questions or concerns about the study please call the Institutional Review Board at the University of North Dakota at (701) 777-4279.

A list of local mental health resources is also provided in this section if you feel the need to talk about feelings you may have experienced as a result of this survey.

UND Counseling Center

Tel:701-777-2127

McCannel Hall, Room 200

2891 2nd Ave N - Stop 9042

Northeast Human Service Center

151 South 4th Street, Suite 401

Grand Forks, ND 58201-4735

Phone: (701) 795-3000

Toll Free: (888) 256-6742

TTY: (701) 795-3060

Fax: (701) 795-3050

dhsnehsc@nd.gov

The Village Family Service Center

Grand Cities Mall

1726 S. Washington

Suite 33A

Grand Forks ND 58201

701-746-4584

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