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### Academic Burnout In College Students: The Impact of Personality Characteristics and Academic Term on Burnout

Daphne Norez

Fort Hays State University, [fnorez@mail.fhsu.edu](mailto:fnorez@mail.fhsu.edu)

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ACADEMIC BURNOUT IN COLLEGE STUDENTS:  
THE IMPACT OF PERSONALITY CHARACTERISTICS  
AND ACADEMIC TERM ON BURNOUT

being

A Thesis Presented to the Graduate Faculty  
of Fort Hays State University in  
Partial Fulfillment of the Requirements for  
the Degree of Master of Science

By

Daphne Norez

B.S., Fort Hays State University

Date\_\_\_\_\_

Approved\_\_\_\_\_

Major Professor

Approved\_\_\_\_\_

Chair, Graduate Council

## ABSTRACT

Burnout is a condition which can affect people in a variety of settings. It is associated with reduced productivity and satisfaction; increased rates of mood disorders such as depression and anxiety and a plethora of physical problems including increased inflammation biomarkers and cardiovascular disease, metabolic syndrome, sleep disturbances, changes in appetite, fatigue, lowered immunity, headaches, and gastrointestinal distress. Burnout has primarily been studied as an occupational hazard, but there is increasing evidence that it is a condition that can be experienced in other settings, such as school. The purpose of this study was to investigate how personality characteristics (such as extraversion, conscientiousness, neuroticism) and term classification (freshman, sophomore, etc.) affect academic burnout in a sample of college students. This paper includes a brief summary of the history of the study of burnout, a discussion of the existing literature on the topic, hypotheses suggested by previous studies conducted in this field, and a description of the method, results, limitations, possible future directions and conclusions of this study.

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## INTRODUCTION

The psychological concept of burnout is one which has only been recognized for about forty years. Herbert Freudenberger was one of the pioneers in the field of burnout research. Indeed, he is credited with establishing the clinical construct of burnout. He noticed that a group of volunteers with whom he was working in a free clinic were experiencing emotional exhaustion and a loss of motivation over time. He called the condition “burnout” in an article published in the *Journal of Social Issues* in 1974 (Freudenberger, 1974), and defined it as “to fail, wear out, or become exhausted by making excessive demands on energy, strength, or resources” (Kahill, 1988, p. 284).

During the same time period, Christina Maslach was led independently by her research to the same concept. Based on their research findings, Maslach and her colleagues refined the definition of burnout. They defined burnout as “...a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with people in some capacity” (Maslach, Jackson, & Leiter, 1996, p. 4). Together with Susan Jackson and Michael Leiter, Maslach created the Maslach Burnout Inventory (MBI). This inventory became the standard measure for research into burnout, and is still the most widely used instrument for the measure of burnout to this day (Qiao & Schaufeli, 2011; Schaufeli, Bakker, Hoogduin, Schaap, & Kladler, 2001). There are three versions of the MBI and it has been translated into several languages. The MBI was based on Maslach’s theory that burnout is a syndrome consisting of the three elements; emotional exhaustion, depersonalization, and diminished personal accomplishment in the work environment. Emotional exhaustion is akin to disengagement, another term used by researchers in the field of burnout. It describes a



lack of energy or desire to participate in the workplace. Depersonalization refers to the resentment and other negative emotions felt towards those one works with or serves (coworkers, clients, etc.). Diminished personal accomplishment is the same as reduced productivity. When a person is emotionally exhausted and experiencing depersonalization, he/she is unlikely to feel capable of contributing on an optimal level. Burnout generally arises in response to chronic stress in the workplace.

Originally, the condition of burnout was noted particularly in service occupations, such as health care, teaching, social work, counseling, and law enforcement (Maslach & Schaufeli, 1996). These are intense and demanding fields, requiring close interaction with others and high degrees of empathy and competency. Those who choose to enter service occupations tend to be idealistic, with “lofty goals to help and serve others” (Schaufeli, Leiter, & Maslach, 2009, p. 206). When faced with the limitations imposed by reality, some people can begin to feel discouraged and cynical. The expectations of those being served, and of society in general, have intensified over time, even while financial and societal support, have decreased (Schaufeli et al., 2009). This has led to a discrepancy in the ratio of the effort exerted to the reward realized (Schaufeli, 2006). In addition, negative outcomes of interactions in these fields can be very damaging, even catastrophic, for those with whom providers come into contact. This knowledge places a great deal of pressure on those in service occupations. It is also possible that burnout is most recognized in these fields because people in these fields are more attuned to matters of mental health and are better able to identify the signs of impending burnout. In any case, the rapid evolution of our society from an industrial one to a service-oriented one in

the latter quarter of the 1900's likely fostered and accelerated the development of the phenomenon of occupational burnout (Schaufeli et al., 2009)

Early literary contributions on burnout were primarily characterized by an attempt to define exactly what it is. Scientists had no common definition of the concept. Instead, much attention was given to identifying symptoms of burnout. Unsurprisingly, given the individualistic nature of human beings and the variety of possible responses to similar stimuli, a large number of symptoms were identified. In her review, Kahill (1988) noted dozens of symptoms mentioned in the published literature up until that point. To bring some order to types of symptoms attributed to burnout, Kahill grouped them into five major categories; physical, emotional, behavioral, interpersonal and attitudinal. Subsequent studies can usually be categorized according to one of these basic areas of focus. Early work also attempted to determine the causes of burnout, although, in this, scientists were hampered by the lack of truly empirical research (Maslach & Schaufeli, 1996; Perlman & Hartman, 1981). According to Perlman and Hartman (1981), there were only five empirical studies among the 48 writings they evaluated at that time. This situation changed dramatically, though, as time passed.

In the 1980's, work on burnout shifted to a more empirical framework, possibly due to the development and implementation of standardized measures for assessing burnout. Instead of narratives and weakly formulated theories with no bases, researchers attempted to develop working models and theories about the underlying causes of, methods of assessment for, and possible interventions for burnout (Maslach & Schaufeli, 1996). Researchers from the United States turned out most of the literature on burnout in those early days, laying the groundwork for the study of occupational burnout. However,

stressful, unfulfilling work environments exist everywhere, and the idea caught on fast with researchers all over the world. New measures of burnout were developed in order to test the validity of Maslach's measure and to improve upon the existing models. For a long time, the only other widely used measure of burnout was the Burnout Measure (BM) developed by Pines, Aronson and Kafry. Many other measures of burnout have been developed since those early days of burnout research. Some are developed to apply to particular demographic groups, others to be accessible to those from cultures where languages other than English are spoken. The Oldenburg Burnout Inventory (OLBI) and the Shirom-Melamed Burnout Measure (SMBM) are two of the other most frequently used measures. More recently, the Copenhagen Burnout Inventory (CBI) appears to be gaining popularity. Its creators developed it to be an improvement on the MBI; addressing a number of perceived flaws in that staple of burnout research and measurement.

In the 1990's and early 2000's, research into burnout exploded and the emphasis shifted away from caregiving occupations and expanded to encompass other occupational fields as well. In keeping with the original idea that burnout was primarily a condition related to service or care professions, there is still a preponderance of research on care and service occupations. However, more and more research is being conducted in other areas. Many researchers continue to document high levels of depersonalization and emotional exhaustion among psychologists and other mental healthcare providers (Ackerly, Burnell, Holder, & Kurdek, 1988; Dreison et al., 2016; Morse, Salyers, Rollins, Monroe-DeVita, & Pfahler, 2012; Paris & Hoge, 2009). Other health care workers have received a lot of attention in research as well (Al-Youbi & Jan, 2013; Divinakumar,

Shivram, & Ram, 2014; Nordang, Hall-Lord, & Farup, 2010; Oyefeso, Clancy, & Farmer, 2008). A third group often studied in relation to burnout is educators/academics. A multitude of studies concerning burnout in this group exists. And the topic has been approached from every aspect in regards to this population, and in relation to every subpopulation (Bezuidenhout & Cilliers, 2010; Fisher, 2011; Otero-Lopez, Castro, Villardefrancos, & Santiago, 2009; Toker, 2011; van Tonder & Williams, 2009). Other populations are being represented in the literature to a greater degree than previously, however. Studies have been conducted on journalists (MacDonald, Saliba, Hodgins, & Ovington, 2016), executives (Glicken & Janka, 1982), iron and steel workers (Guo, Guo, Yang, & Sun, 2015), and athletic trainers (Naugle, Behar-Horenstein, Dodd, Tillman, & Borsa, 2013), among many, many others. This expansion has now also extended to include non-occupational areas, such as school and family life (Maslach & Schaufeli, 1996), and even unemployed people (Weber & Jaekel-Reinhard, 2000).

Students have been the subject of a comparatively small percentage of studies, and the student subpopulations featured in burnout literature tend, for the most part, to be students at advanced educational levels who are preparing to enter health care fields or other highly demanding professions and/or are undergoing advanced training (Campos, Jordani, Zucoloto, Bonafe, & Maroco, 2012; IsHak et al., 2009; Pereira-Lima & Loureiro, 2015). Medical interns, nursing students, and graduate level psychology students have received a lot of attention from burnout researchers (Campos et al., 2012; Cecil, McHale, Hart, & Laidlaw, 2014; da Silva et al., 2014). An even smaller percentage of studies have been conducted on undergraduate students (Cazan & Nastasa, 2015; Charkhabi, Abarghuei, & Hayati, 2013; Wu, 2010). Considering only about 60%

of students seeking a four-year degree in the United States actually graduate ("Undergraduate Retention," May 2016), it seems the concept of burnout in this population deserves more consideration as a possible contributor to this rather low college completion rate.

### **Theoretical Approaches**

Research on the topic of burnout tends to take one of three primary approaches. Most of the literature reflects an organizational approach, focusing on job factors like workload; work-related resources; interpersonal relationships with coworkers, supervisors and clients; work environment and so on (Maslach & Schaufeli, 1996). The idea behind this approach is that organizational factors exert excessive stress on the individual (Weber & Jaekel-Reinhard, 2000). The demands-control model is based on this basic perspective. It proposes the most stressful situations are ones where the individual has high demands placed on him/her, but has little control over how the work is done or how the organization functions. Other models which fall into this category are the job demands-resource model and the effort-reward-imbalance models of burnout. While each has its own point to make, they are all similar in that they suggest job strain, and ultimately burnout, is caused by an imbalance in the performance demanded of the individual versus the ability of the individual to meet the demands.

A second approach to the study of burnout looks at the interaction between the individual and his/her work environment/occupation to determine the degree of fit or misfit in that dynamic. In this model, the chronic strain which leads to burnout is caused by the accumulation of psycho-mental/psycho-social stress paired with lower levels of stress tolerance (Weber & Jaekel-Reinhard, 2000). Research which investigates the

conflict between personal values and the aims of the organization is an example of this sort of model.

The third major approach taken by researchers studying burnout is to look at it from an individual perspective. Of the three approaches, this is the least explored by research. Most of the studies which have focused on personal factors have looked at demographic variables, such as age, gender, etc. (Maslach & Schaufeli, 1996). Other personal factors which have gained some attention are personality, social support, and personal values (Maslach & Schaufeli, 1996). These sorts of factors are becoming more popular among researchers seeking to establish a knowledge base about the personal contributors to burnout. Personality is perhaps one of the easiest of these characteristics to measure, due to the widespread availability of valid and easy to administer measurements of personality.

### **Burnout Measures**

One of the most commonly used measures of personality in burnout research is the Big Five Inventory. A number of studies have documented significant associations between Big Five Personality factors and burnout subscales (Anvari, Kalali, & Gholipour, 2011; Bakker, Van Der Zee, Lewig, & Dollard, 2006; Dargah & Estalkhbijari). There is much agreement about the relative relationships of the various personality factors and burnout. In general, there tends to be a negative correlation between extraversion and burnout, between openness and burnout, and between agreeableness and burnout, while the correlations between conscientiousness and burnout, and neuroticism and burnout appear to be positive (Anvari et al., 2011; Dargah & Estalkhbijari). Some studies have even linked particular personality factors to

individual subscales of burnout (Hurt, Grist, Malesky, & McCord, 2013; Bakker et al., 2006). These results appear to suggest personality can play a significant, sometimes protective, role in predicting the likelihood of burnout (Bakker et al., 2006).

### **Impact of Burnout**

Burnout is a condition which can greatly affect an individual's life in numerous ways. It negatively impacts productivity (Dewa, Loong, Bonato, Thanh, & Jacobs, 2014; Storm & Rothmann, 2003), as measured by number of sick leave days, job retention and intent to change jobs, and job performance (Storm & Rothmann, 2003). Studies indicate life and work satisfaction are negatively correlated with higher levels of burnout (Baruch-Feldman, Brondolo, Ben-Dayan, & Schwartz, 2002; Shanafelt et al., 2015), as are physical and mental health (Mohammadyfar, Khan, & Tamini, 2009). Increased inflammation biomarkers and rates of cardiovascular disease have been documented in those reporting higher levels of burnout (Toker, Shirom, Shapira, Berliner, & Melamed, 2005; Toppinen-Tanner, Ahola, Koskinen, & Väänänen, 2009), as have higher incidences of sleep disturbances and fatigue (Rosen, Gimotty, Shea, & Bellini, 2006) and metabolic syndrome (Melamed, Shirom, Toker, & Shapira, 2006). In addition, some studies have linked burnout to increased allostatic load (Hintsä et al., 2014), which can, in turn, be linked to increased likelihood of developing diseases such as cardiovascular disease, diabetes and neurodegeneration (Read & Grundy, 2012). When it comes to mental health, higher incidences of mood disturbances (Ahola et al., 2006), especially depression (Ahola et al., 2005; Storm & Rothmann, 2003), have been documented among those experiencing higher levels of burnout.

Because the toll burnout takes on a person can be so high, it is important to study the concept from every aspect and to gain as complete an understanding of it as possible. As undergraduate college students are not widely represented in the research literature on burnout, this population is the focus of this study. This should provide greater insight into burnout in this population. For the purposes of this study, the Big Five Personality Inventory is used to assess key personality characteristics, due to its already widespread use in the field. Only three of the Big Five personality factors; extraversion vs introversion, conscientiousness vs lack of direction, and emotional stability vs neuroticism have been assessed, however, because these traits are reported to be the most strongly related to burnout or key conditions associated with burnout (Alarcon, Eschleman, & Bowling, 2009; Bakker et al., 2006; LePine, LePine, & Jackson, 2004; Morgan & de Bruin, 2010; Piedmont, 1993), particularly, emotional exhaustion.

### **Hypotheses**

This study was designed to validate the following hypotheses:

*H<sub>1</sub>*: Higher levels of Extraversion will correlate negatively with Burnout levels. That is, students who exhibit higher levels of Extraversion will experience lower levels of Burnout.

*H<sub>2</sub>*: Higher levels of Conscientiousness will correlate negatively with Burnout levels. That is, students who exhibit higher levels of Conscientiousness will experience lower levels of Burnout.

*H<sub>3</sub>*: Higher levels of Neuroticism will correlate positively with Burnout levels. That is, students who exhibit higher levels of Neuroticism will experience higher levels of Burnout.



*H<sub>4</sub>*: Higher Term Classification levels will correlate positively with Burnout levels. That is, seniors and graduate students will exhibit higher levels of Burnout than freshman, sophomores and juniors.

## METHOD

### Participants

A sample of Fort Hays State University students were recruited via emails sent to undergraduate psychology course instructors requesting assistance in informing students about the study. The introductory email (see Appendix A) contained a brief description of the study being conducted, including informed consent information. The email also contained a link to the online survey forms. With instructor permission, the researcher also visited six on-campus, general education psychology classes to inform students of the opportunity to participate in the study. Only those students 18-65 years of age were allowed to participate. No other exclusionary criteria were used.

In total, 436 participants were recruited. Of these, 340 were female and 96 were male. The age of participants ranged from 18 to 65 ( $M = 24.81$ ,  $SD = 8.48$ ). Two hundred forty of the participants categorized themselves as being married or in a committed relationship, and 196 categorized themselves as being single. Seventeen participants identified as American Indian/Alaskan Native, 17 as Asian, 31 as Black/African American and 388 as White/Caucasian. Nine participants declined to provide information regarding their racial identity. Of the 436 participants, 109 were freshman (with 1-29 credit hours), 92 were sophomores (with 30-59 credit hours), 122 were juniors (with 60-89 credit hours), 109 were seniors (with 90 plus credit hours) and 4 were graduate students (holding a baccalaureate degree and completing graduate work). Three hundred eighty-four confirmed they were enrolled full time while 52 were enrolled part time. A wide variety of majors was represented, with the largest number of participants ( $n = 190$ ) identifying their major as psychology, either as their only major or

as one of dual majors. Other majors represented included education majors ( $n = 32$ ), biology ( $n = 30$ ), nursing ( $n = 28$ ) and general studies/undecided ( $n = 28$ ). The time investment for participants averaged seven minutes.

The study utilized a correlational research design. The relationships between Extraversion and Burnout, Conscientiousness and Burnout, Neuroticism and Burnout, and Term Classification and Burnout were evaluated using the Pearson correlation coefficient.

## **Materials**

**Demographics.** The online survey completed by participants consisted of three sections. The first section asked for basic demographic information: age, gender, marital status, racial and ethnic identification, term classification level (Freshman, Sophomore, Junior, Senior, or Graduate), enrollment level (full or part time) and major (see Appendix B).

**The Big Five Inventory.** The second section of the survey consisted of questions taken from the Big Five Inventory (BFI) of personality characteristics (John & Srivastava, 1999). Only items from this measure relevant to neuroticism, extraversion, and conscientiousness (see Appendix C) were included in this section. The BFI is based on the widely accepted Five Factor Model of personality. The BFI was chosen for this study because the psychometric reliability and validity of this measure has been demonstrated in numerous studies conducted in a variety of cultures (Fossati, Borroni, Marchione, & Maffei, 2011; Hee, 2013; Prilipko & Loiko, 2013).

The BFI measures five dimensions of personality which are extraversion vs introversion, agreeableness vs antagonism, conscientiousness vs lack of direction,

emotional stability vs neuroticism and openness vs closedness to experience. For the purposes of this study, the focus is on three of these dimensions; extraversion vs introversion, conscientiousness vs lack of direction, and emotional stability vs neuroticism because these traits are most strongly related to burnout or key conditions associated with burnout (Alarcon et al., 2009; Baaker et al., 2006; LePine et al., 2004; Morgan & de Bruin, 2010; Piedmont, 1993), particularly, emotional exhaustion. The original measure consisting of 44 items takes about five minutes to complete. The abbreviated version used for this study, which is comprised of the 25 items relevant to the traits being considered by this study, takes approximately three minutes to complete. Additionally, the BFI is free to use for non-commercial research purposes, so there was no cost associated with its use.

**The Copenhagen Burnout Inventory.** The third portion of the survey was the Copenhagen Burnout Inventory (CBI) (see Appendix D). This measure has been proposed as a replacement for the older Maslach Burnout Inventory (MBI). In spite of the fact that the MBI has been used in over 90% of the research conducted on burnout and is the most widely accepted standard for measuring burnout, the creators of the CBI, (Kristensen, Borritz, Villadsen, & Christensen, 2007), had a number of criticisms regarding the MBI. Some of their concerns revolved around cultural issues; the measure was deemed “too American” by participants in their original pilot study, limiting its usefulness across cultures. Some researchers have proposed alternatives to the classic definition of burnout by suggesting the construct is divided into three separate components. The classic definition of burnout proposed by Maslach and Jackson describes burnout as a syndrome which includes three components; exhaustion,

depersonalization, and reduced personal accomplishment. Kristensen suggests an alternate definition; "Burnout is the degree of physical and psychological fatigue and exhaustion experienced by the person" (Shaughnessy & Moore, 2010, p. 415).

According to Kristensen, the primary component of burnout is exhaustion.

Depersonalization (or cynicism) is a coping mechanism developed by those experiencing burnout, and a reduction in personal accomplishment is a consequence of burnout.

Another problem Kristensen and his colleagues have with the MBI is that its designers defined burnout as a syndrome specific to those in people oriented professions. The CBI was designed to improve upon these perceived flaws in the MBI. Although the CBI is a much newer measure than the MBI, there have been studies which have assessed its psychometric properties with positive results (Milfont, Denny, Ameratunga, Robinson, & Merry, 2007; Winwood & Winefield, 2004). In addition, it has been used in studies in comparison to the MBI and other accepted measures of burnout, with favorable results (Winwood & Winefield, 2004). Given the available information about the MBI, the CBI, and other measures currently used to assess burnout, the CBI was deemed the most appropriate choice for the purposes of this study.

The CBI has three sub-dimensions; personal burnout, work-related burnout, and client-related burnout. Because it was originally designed to measure burnout in the work environment, the CBI as it was originally configured was not a perfect fit for a study conducted on students. Some of the wording needed to be altered to make it more suitable for use with students. A study conducted in Brazil and Portugal involved the creation of a student version of the CBI, which seemed like a promising measure for this study (Campos et al., 2012). The results of the initial study conducted by Campos and

her colleagues indicated that the adapted measure has good reliability, internal consistency, and convergent, discriminant, and concurrent validity. The student version of the CBI developed by Campos and her colleagues consists of four sub-dimensions of burnout; personal burnout, studies-related burnout, classmate-related burnout and instructor-related burnout.

### **Procedure**

Those students interested in participating in the study followed the link to the online survey provided by their instructors. The first page of the survey provided basic information about the survey, and the rights and conditions of the study required for appropriate informed consent. Participants wishing to take the survey gave their consent by proceeding to the second page. At the end of the survey, a debriefing message appeared, as well as a printable form for students whose instructors were willing to provide extra credit for research participation. Equitable alternative opportunities to earn credit were provided for those who did not choose to participate. These alternative options were offered by each individual faculty member whose students were recruited for the study, in accordance with established course policies. The survey requested no identifying information, thus ensuring complete anonymity for all participants.

## RESULTS

### **Data Cleaning**

Prior to analysis, a number of data cleaning techniques were used to ensure result validity. The original data set included 436 participants. Two participants were eliminated due to reported ages of less than 18, as they did not meet study criteria. Another four participants failed to provide an age, and were thus eliminated since it was not possible to determine whether or not they met study criteria. Then the variables (Extraversion, Conscientiousness, Neuroticism, Burnout and Term Classification) were examined for missing values. Data for eighteen participants was significantly incomplete, due to failure to complete the survey. These eighteen participants were eliminated. An additional 32 participants were eliminated due to having a significant number of missing values, in spite of having completed the survey. After the elimination of the previously described participants, the resulting data set consisted of 380 participants.

Items on the BFI requiring reverse scoring were transformed following measure protocol. Then total scores for Extraversion, Conscientiousness and Neuroticism were calculated by averaging the subscale scores for each dimension. The criterion, Burnout was calculated by first averaging the scores for each of the subscales, personal burnout, studies-related burnout, classmate-related burnout and instructor-related burnout. Then total burnout was calculated by averaging the scores of these four subscales.

A frequency analysis was conducted for each of the predictor variables, (Extraversion, Conscientiousness, Neuroticism and Term Classification), as well as the criterion (Burnout). The results from this analysis showed that the distribution of

Extraversion was not significantly skewed ( $-0.01, p > .001$ ) and was somewhat platykurtic ( $-0.72, p < .001$ ). The distribution of Conscientiousness was moderately negatively skewed ( $-0.43, p < .001$ ) and showed an acceptable level of kurtosis ( $-0.13, p > .001$ ). Neuroticism had a distribution which was slightly negatively skewed ( $-0.27, p < .001$ ) and also showed an acceptable level of kurtosis ( $-0.49, p > .001$ ). Term Classification had a distribution which was significantly positively skewed ( $1.05, p > .001$ ) and significantly platykurtic ( $-0.90, p > .001$ ). This is due to the fact that Term Classification is a categorical variable with only two categories which did not have the same numbers of participants in each. Just over seventy-three percent of the sample identified themselves as freshmen, sophomores or juniors; while just under twenty-seven percent identified themselves as seniors or graduate students. Although the two groups were not evenly distributed, it was determined this was not problematic in terms of the proposed analysis. The distribution for the criterion, Burnout was slightly positively skewed ( $0.29, p > .001$ ) and showed no significant kurtosis ( $-0.12, p > .001$ ). Histograms of the data supported these findings.

Descriptive statistics were used to generate  $z$ -scores for Extraversion, Conscientiousness, Neuroticism and Burnout. (Term Classification had no outliers, as determined by visual inspection of the data, so  $z$ -scores were not generated for this variable.) Frequencies were calculated for Extraversion ( $M = 3.10, SD = 0.89$ ), Conscientiousness ( $M = 3.88, SD = 0.62$ ), Neuroticism ( $M = 3.19, SD = 0.82$ ) and Burnout ( $M = 37.87, SD = 13.64$ ). No scores exceeded the  $\pm 3.29$  cutoff, which indicated no outliers were present (Tabachnik & Fidell, 2001).



Scatterplots were generated to assess linearity, setting each predictor variable (Extraversion, Conscientiousness and Neuroticism) against the criterion variable of Burnout. (Since the predictor variable Term Classification is nominal, no scatterplot was generated for this variable as it would not be possible to accurately assess linearity for this variable using a scatterplot.) The scatterplot for Neuroticism, although not perfectly linear, did appear to exhibit a positive, generally linear trend. The scatterplots for Extraversion and Conscientiousness and were also not perfectly linear. However, they also exhibited a generally linear trend, although the trend for these variables was negative. There was no evidence of curvilinear relationships.

To assess homogeneity of variance, a One-Way ANOVA was run for each predictor variable against the criterion. The results of the ANOVA for Extraversion and Burnout were not significant  $F(31, 347) = 0.60, p = .956$ , nor were the results for Conscientiousness and Burnout  $F(23, 354) = 0.91, p = .587$ , Neuroticism and Burnout  $F(30, 348) = 0.76, p = .816$  or Term Classification and Burnout  $F(1, 378), p = .785$ . As the assumption of homogeneity of variance was met, no transformations of data were necessary.

### **Main Analysis**

This study was designed to test four hypotheses. The first of these hypotheses proposed that higher levels of Extraversion would correlate negatively with Burnout levels. That is, students who exhibit higher levels of Extraversion would report lower levels of Burnout. Pearson's product-moment correlation coefficient was used to evaluate the existence of such a relationship. The results indicated there was a negative correlation between Extraversion ( $M = 3.10, SD = 0.89$ ) and Burnout ( $M = 37.93, SD =$

13.70),  $r(378) = -.23, p < .001$ . Students reporting higher levels of Extraversion also reported lower levels of Burnout, supporting the proposed hypothesis.

The second hypothesis proposed that Conscientiousness would correlate negatively with Burnout levels. In other words, students who exhibit higher levels of Conscientiousness would report lower levels of Burnout. Pearson's product-moment correlation coefficient was again used to evaluate the existence this relationship. The results indicated there was a negative correlation between Conscientiousness ( $M = 3.88, SD = 0.61$ ) and Burnout ( $M = 37.93, SD = 13.70$ ),  $r(378) = -.25, p < .001$ . Students reporting higher levels of Conscientiousness reported lower levels of Burnout. This finding supported the proposed hypothesis.

The third hypothesis proposed that Neuroticism and Burnout would have a positive correlation. That is, students reporting higher levels of Neuroticism would also report higher levels of Burnout. Again, Pearson's product-moment correlation coefficient was used to test for the existence of a relationship between the variables. The results indicated there was a positive correlation between Neuroticism ( $M = 3.18, SD = 0.82$ ) and Burnout ( $M = 37.93, SD = 13.70$ ),  $r(378) = .47, p < .001$ . Those students reporting higher levels of Neuroticism also reported higher levels of Burnout, which supports the proposed hypothesis.

The final hypothesis proposed that Term Classification would correlate with Burnout. Specifically, it was hypothesized that students at higher Term Classification levels would report higher levels of Burnout. A One-Way ANOVA was used to determine the existence of a relationship between Burnout levels and Term Classification (Freshman, Sophomore, Junior, Senior). Due to the fact that there were only four

graduate students represented in the data, this group was not included in the analysis.

The results indicated there was no significant difference in the levels of Burnout reported by Freshmen ( $M = 39.03$ ,  $SD = 13.24$ ), Sophomores ( $M = 37.44$ ,  $SD = 15.21$ ), Juniors ( $M = 37.33$ ,  $SD = 12.88$ ) and Seniors ( $M = 37.46$ ,  $SD = 13.92$ ). This finding did not support the proposed hypothesis.

## DISCUSSION

This study was designed to detect possible relationships between four predictor variables (Extraversion, Conscientiousness, Neuroticism and Term Classification) and the criterion (Burnout). The first hypothesis proposed a negative correlation between the personality dimension Extraversion and Burnout. Analysis of the data supported this hypothesis, indicating a moderate, negative correlational relationship between Extraversion and Burnout. This is consistent with previous research in this field which indicates extraversion may play a psychoprotective role in preventing burnout (Bakker et al., 2006; McManus, Keeling, & Paice, 2004; Storm & Rothmann, 2003). According to Bakker et al., (2006), “Extraversion is characterized by a tendency to be self-confident, dominant, active, and excitement seeking. Extraverts show positive emotions, higher frequency and intensity of personal interactions, and a higher need for stimulation.” Other researchers have said that extraversion “...refers to a person’s capability for joy and the tendency to seek interpersonal relationships, symbolizing the traits of socialization, dominance, energy, and positive effects,” (Lin, Lin, & Lin, 2016, p. 3). In other words, people who display high levels of extraversion are highly sociable and interact with others in positive ways. These characteristics are believed to serve a buffering function in regards to stressful situations. As social interaction is an important component of perceived satisfaction and has been found to be linked to the likelihood of burnout (DeFreese & Mihalik, 2016), it is consistent that extraversion would serve to reduce the incidence of burnout, and thus correlate negatively with burnout. In the context of a learning environment, any characteristics which would promote positive social interaction, cooperation and a problem-focused perspective would seem to be

beneficial. Other researchers have reported that extroversion protects against depressive symptoms (Gramstad, Gjestad, & Haver, 2013) and that high levels of extraversion are associated with positive thinking, social support-seeking and problem-focused coping (Alarcon et al., 2009; Amirkhan, Risinger, & Swickert, 1995; Hooker, Frazier, & Monahan, 1994; McCrae & Costa, 1986; Rim, 1987). Extraverts tend to be optimistic and to reappraise problems in favorable ways (Costa & McCrae, 1992). Bakker et al., (2006) suggested that “Extraverts’ generally sanguine temperament may lead them to focus on the good and positive side of their experiences” (p.34). Additionally, a number of studies have found that extraversion tends to be negatively correlated with emotional exhaustion, a key factor of burnout (Francis, Loudon, & Rutledge, 2004; Michielsen, Willemsen, Croon, DeVries, & Van Heck, 2004). Given the large amount of previous research which has shown a negative relationship between extraversion and burnout, and the results of this study which are consistent with previous research, higher levels of extraversion do appear to appear to be related to lower levels of burnout.

The second hypothesis proposed a negative correlation between the personality dimension Conscientiousness and Burnout. Analysis of the data supported this hypothesis, indicating a moderate negative correlational relationship between Conscientiousness and Burnout. The findings of this study are consistent with previous research in this area which indicates conscientiousness is correlated with academic achievement (Ferguson, James, & Madeley, 2002) as well as with problem-solving, coping due to the high degree of persistence demonstrated by individuals with high levels of conscientiousness (Storm & Rothmann, 2003; Watson & Hubbard, 1996). Conscientiousness is associated with greater self-discipline, persistency, achievement

striving, competence and dutifulness which contribute to the conscientious individual's ability to finish tasks and display greater productivity (Bakker et al., 2006). McCrae and Costa (1987) described individuals high in conscientiousness as habitually careful, reliable, hardworking, well-organized and purposeful. In the context of the classroom, characteristics like hard work, self-discipline, achievement striving, persistence and competence would be highly desirable and would yield favorable results. As those who are able to competently meet the demands placed on them and to realize greater levels of achievement tend to report greater satisfaction, it is logical that they would report lower levels of burnout since a lower sense of personal achievement is a key component of burnout.

It should be noted that a relatively small number of studies have obtained different results. Dargah and Estalkhbijari (2012), reported a positive correlation between Conscientiousness and Burnout, which they theorized could be due to those with more Conscientiousness being "more exposed to job stress and burnout" since they are unable to be "indifferent toward" their job (p. 1846). In another study, researchers obtained results which indicated that Conscientiousness negatively predicted global burnout and two facets of burnout related to cognitive weariness, while positively predicting emotional exhaustion (Armon, Shirom, & Melamed, 2012). They also noted that there were gender differences in the prediction of burnout related to conscientiousness. Nonetheless, the majority of the literature on personality factors and burnout seem to be in agreement that Conscientiousness tends to be negatively correlated with Burnout, which this study also appears to support.

The third hypothesis suggested that Neuroticism would be positively correlated with Burnout. Analysis of the data supported this hypothesis, indicating a moderate positive correlational relationship between Neuroticism and Burnout. This is consistent with previous research which reports a positive correlational relationship between Neuroticism and Burnout (Deary et al., 1996; Mills & Huebner, 1998). In addition to being related to burnout as a complete construct, Neuroticism has also been linked to a significant degree to the three primary facets of burnout, namely depersonalization, emotional exhaustion and personal accomplishment (Schaufeli & Enzmann, 1998). High levels of Neuroticism “are characterized by a tendency to experience negative emotions such as anxiety, depression or sadness, hostility, self-consciousness, as well as a tendency to be impulsive” (Storm & Rothmann, 2003, p. 36). Other researchers have noted a consistent relationship between reliance on emotion-focused coping strategies, focusing on and venting emotions and denial (McCrae & Costa, 1986). In the context of a learning environment, the higher levels of emotional instability displayed by those with high levels of Neuroticism could result in poorer social interactions with instructors and peers and less effective coping in regards to stressors related to coursework, classmates and instructors.

The fourth hypothesis proposed by this study stated that Term Classification and Burnout would be correlated in that seniors and graduate students would report higher levels of burnout than freshmen, sophomores and juniors. Analysis of the data collected for this study did not support this hypothesis as there was no significant correlation between Term Classification and Burnout. This hypothesis was suggested as an exploratory theory, as there appears to be no literature which has addressed this variable.

Although no correlation was found, further, more detailed analysis of this and other variables such as coursework load could yield useful information.

### **Limitations**

This study does have its limitations. Its greatest limitation is likely the fact that it is correlational. It can be seen from the results of the study that Extraversion, Conscientiousness and Neuroticism correlate to a significant degree with Burnout. However, it is not possible to determine any causality from the results of this study due to its design.

The scope of this study is also limited due to the fact that only two possible areas of influence, personality traits and term classification, were considered. Indeed, there are many factors apart from personality which the existing body of research indicates may impact burnout, and which could potentially have influenced the results of this study. The learning environment, peer competitiveness, instructor and/or classmate personalities and social support could all have contributed to the participants' overall levels of burnout, as could any number of unanticipated and unknown variables.

Consideration should also be given to the sample and conditions of the study. First, the sample was drawn entirely from one mid-west university. Thus, it isn't possible to know whether the results of this study would be replicable with samples drawn from other settings and regions, which could have some influence on the population validity and external validity. Additionally, the students who participated were all students enrolled in general education psychology courses. It is possible that students who would choose to enroll in psychology courses to fulfill general education requirements may have similarities of personality which are unknown to the researcher. Further, students were



offered extra credit points for participation. A relatively large number of participants had to be eliminated because they failed to complete the survey, choosing instead to “click through” the questions in order to reach the verification of participation form at the end. This leads to some uncertainty about the engagement and motivation of those who did complete the survey, as well, particularly as some participants completed the survey in much less time than the average completion time of about seven minutes.

As with any self-report measure, there are a number of concerns to take into account. The honesty of the participants is one concern regarding self-report measures. Although complete anonymity was maintained and participants were informed that no identifying information would be gathered, it is still possible participants may not have been fully honest in their responses; engaging in image management, instead. It is also possible that even in the presence of the desire to be completely honest, some participants may have lacked the introspective ability to answer accurately. Some participants may have interpreted the questions differently than other participants. For example, since participants were informed that the study was about academic burnout, some may have interpreted the question “I am someone who is talkative” to refer to their behavior in class. As most people behave differently in different situations, it is plausible to think that some people who are talkative in their personal lives might be less so in a classroom setting. So their interpretations of the question could impact their responses. Both the personality measure and the burnout measure utilized rating scales. While rating scales allow for more levels of response than dichotomous answering formulations, they are also open to interpretation. One person’s eight might be another person’s six. Rating scales are also prone to patterned response styles. Some people prefer to respond with

more “extreme” scores than intermediate responses, while other people tend to keep to the middle.

### **Future Directions**

Future research into this topic could take a number of different directions. Since the sub-dimensions of the CBI were not explored in relation to the personality factors in this study, this would be an interesting area to expand upon. Significantly lower levels of burnout were reported for the instructor-related burnout dimension ( $M = 18.98$ ,  $SD = 17.50$ ) and, to a lesser degree, for classmate-related burnout ( $M = 34.01$ ,  $SD = 21.10$ ), than for the personal burnout ( $M = 48.42$ ,  $SD = 18.49$ ) and studies-related burnout ( $M = 50.31$ ,  $SD = 16.17$ ) dimensions, for example. It would be of interest to explore the reasons for this and how greatly these differences on the subscale level influenced the total burnout levels on the global level.

It might also provide interesting insight to compare levels of burnout related to gender or major or primary area of study. Data was gathered for these variables, which could prove interesting to analyze. In addition, since the correlation for Term Classification was not significant, it would be interesting to investigate why this might be. It is possible that freshmen, who are just beginning a new phase in their lives, often living away from home for the first time and adjusting to college life, may actually report higher levels of burnout than those who have been in college for a while. Further analysis to determine if there are any significant differences between the various term classifications could yield interesting and informative results.

## **Conclusion**

There is no doubt that burnout exacts a significant toll on those who experience it, as well as those around them. For the individual, burnout can lead to dissatisfaction with work and with life in general. It impacts the individual's ability to remain motivated, engaged and productive. Those experiencing burnout have higher rates of absenteeism and turnover. They are prone to feelings of failure and depression. Burnout negatively impacts physical health by increasing the incidence of sleep disorders, elevated levels of inflammation biomarkers, metabolic syndrome (high blood pressure, high blood sugar, excess body fat around the waist and abnormal cholesterol or triglycerides), cardiovascular disease, diabetes and neurodegeneration. Understanding burnout and the factors which influence it can help make it possible to address high stress levels before they turn into burnout. This is not as easy as it might seem, however.

Burnout is influenced by many factors; some of which are within the individual's power to change, and some of which are not. Personality factors are relatively stable across the lifespan. Those who report higher levels of personality traits such as introversion, lack of direction or neuroticism appear to be more susceptible to burnout and other negative emotional states. Identifying these individuals could make it possible to intervene and teach more adaptive coping skills in order to reduce the likelihood they will experience burnout in the future.

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## Appendix A

4-7-17

Dear FHSU instructor,

I am a graduate student in the clinical psychology program here at Fort Hays State University. As part of my training, I am conducting a scientific study of academic burnout among college students. Burnout syndrome can have a significant impact on individuals, both psychologically and physically. It is associated with decreased productivity, sleep disturbances, fatigue, and a large number of other ailments. I will be considering a number of possible influences on burnout during the course of the study. I am requesting assistance in recruiting participants to respond to a brief online survey for the study. I am looking for FHSU students ages 18-65. No other screening criteria are going to be used.

The survey is anonymous; no identifying personal information will be collected. By conducting the survey anonymously, I am able to guarantee confidentiality. Some basic demographic information, such as age and gender, will be requested, as well as responses to some questions about the participant's personality and burnout levels. Typically, the survey takes less than 10 minutes. The risks associated with participation in this study are minimal.

The survey link can be found at the end of this email. There will be a printable form available at the end of the study for participants to print out and submit to instructors who award extra credit for participation in research.

By participating in the survey, students would be increasing our understanding of academic burnout which would help pave the way for the development of better

interventions and treatments for the condition. Aside from a small time investment, there are no costs to participants associated with this study. Participants have the right to refuse to participate, or to withdraw from the study, at any time without negative repercussions.

If you have any questions or concerns about this project, please feel free to contact me at this email address: [dfnorez@mail.fhsu.edu](mailto:dfnorez@mail.fhsu.edu). Please put “Burnout Study” in the subject line when you contact me. You can also contact my advisor, Dr. Leo Herrman at [lherrman@fhsu.edu](mailto:lherrman@fhsu.edu). Thank you.

Daphne Norez, B.S.

Fort Hays State University

<https://www.surveymonkey.com/r/QJRF9FF>

Appendix B

Demographic Questionnaire

1. **How old are you?** \_\_\_\_\_
2. **Are you male or female?**     \_\_Male \_\_Female
3. **Are you currently married/in a committed relationship or single?**  
   \_\_Married/in a committed relationship \_\_Single
4. **Which category or categories best describe your racial identification?**  
   \_\_American Indian or Alaska Native \_\_Asian \_\_Black or African American  
   \_\_Native Hawaiian or Other Pacific Islander \_\_White
5. **Which category best describes your ethnic identification?**  
   \_\_Hispanic or Latino \_\_Not Hispanic or Latino
6. **What is your term classification?**  
   \_\_Freshman (1-29 credit hours) \_\_Sophomore (30-59 credit hours)  
   \_\_Junior (60-89 credit hours) \_\_Senior (90+ credit hours)  
   \_\_Graduate (holds a baccalaureate degree and is completing graduate work)
7. **What is your declared major, program or primary area of study?**  
   \_\_\_\_\_
8. **Are you enrolled full time or part time?** \_\_Full time \_\_Part time

## Appendix C

### The Big Five Inventory (BFI) (modified)

1	2	3	4	5
Disagree	Disagree	Neither agree	Agree	Agree
Strongly	a little	nor disagree	a little	strongly

### **I am someone who...**

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1. _____ Is talkative (E)</p> <p>2. _____ Does a thorough job (C)</p> <p>3. _____ Is depressed, blue (N)</p> <p>4. _____ Is reserved (E)*</p> <p>5. _____ Can be somewhat careless (C)*</p> <p>6. _____ Is relaxed, handles stress well. (N)*</p> <p>11. _____ Is full of energy (E)</p> <p>12. _____ Is a reliable worker (C)</p> <p>13. _____ Can be tense (N)</p> <p>14. _____ Generates a lot of enthusiasm (E)</p> <p>15. _____ Tends to be disorganized (C)*</p> <p>16. _____ Worries a lot (N)</p> <p>17. _____ Tends to be quiet (E)*</p> <p>18. _____ Tends to be lazy (C)*</p> | <p>19. _____ Is emotionally stable, not easily upset (N)*</p> <p>20. _____ Has an assertive personality (E)</p> <p>21. _____ Perseveres until the task is finished (C)</p> <p>22. _____ Can be moody (N)</p> <p>23. _____ Is sometimes shy, inhibited (E)*</p> <p>24. _____ Does things efficiently (C)</p> <p>25. _____ Remains calm in tense situations (N)*</p> <p>26. _____ Is outgoing, sociable (E)</p> <p>27. _____ Makes plans and follows through with them (C)</p> <p>28. _____ Gets nervous easily (N)</p> <p>29. _____ Is easily distracted (C)*</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Key:**

- \*= reverse scored item
- (C) = Conscientiousness scale item
- (E) = Extraversion scale item
- (N) = Neuroticism scale item

## SCORING INSTRUCTIONS

To score the BFI, all negatively-keyed items must be **reverse-scored**:

Extraversion: 4, 13, 23

Conscientiousness: 5, 11, 18, 29

Neuroticism: 6, 19, 25

To recode these items, each reverse-scored item should be subtracted 6. For example, if an item is scored as a 5, compute 6 minus 5 and the recoded score is 1. That is, a score of 1 becomes 5, 2 becomes 4, 3 remains 3, 4 becomes 2, and 5 becomes 1.

Next, scale scores are created by **averaging** the following items for each B5 domain (where \* indicates using the reverse-scored item).

Extraversion: 1, 4\*, 7, 10, 13\*, 20, 23\*, 26

Conscientiousness: 2, 5\*, 8, 11\*, 18\*, 21, 24, 27, 29\*

Neuroticism: 3, 6\*, 9, 12, 19\*, 22, 25\*, 28

## Appendix D

### The Copenhagen Burnout Inventory Student version (CBI-S)

Items should be rated according to the following table.

1	2	3	4	5
Never	Rarely	Sometimes	Frequently	Always
0% of the time	25% of the time	50% of the time	75% of the time	100% of the time

#### **Personal Burnout**

- How often do you feel tired?
- How often are you physically exhausted?
- How often are you emotionally exhausted?
- How often do you think “I can’t take it anymore”?
- How often do you feel worn out?
- How often do you feel weak and susceptible to illness?

#### **Studies Related Burnout**

- Do you feel worn out at the end of the day?
- Are you exhausted in the morning at the thought of another day of class?
- Do you feel that every waking hour is tiring for you?
- Do you have enough energy for family and friends during leisure time?
- Are your studies emotionally exhausting?
- Do your studies frustrate you?
- Do you feel burnt out because of your studies?

#### **Classmate Related Burnout**

- Do you find it hard to work with your classmates?
- Does it drain your energy to work with your classmates?
- Do you find it frustrating to work with your classmates?
- Do you feel that you give more than you get back when you work with your classmates?
- Are you tired of working with your classmates?

Do you sometimes wonder how long you will be able to continue working with your classmates?

**Instructor Related Burnout**

Do you find it hard to work with your instructors?

Does it drain your energy to work with your instructors?

Do you find it frustrating to work with your instructors?

Do you feel that you give more than you get back when you work with your instructors?

Are you tired of working with your instructors?

Do you sometimes wonder how long you will be able to continue working with your instructors?

The total score for each subscale is calculated by finding the average of the scores on the items for that subscale. A high degree of burnout is defined as having a total score of 50 or higher.

Appendix E  
IRB Exemption Status



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*Forward thinking. World ready.*

**OFFICE OF SCHOLARSHIP AND SPONSORED PROJECTS**

DATE: April 6, 2017

TO: Daphne Norez, B.S. - Psychology  
FROM: Fort Hays State University IRB

STUDY TITLE: [979720-1] Academic Burnout in College Students  
IRB REFERENCE #: 17-121  
SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS  
DECISION DATE: April 6, 2017

REVIEW CATEGORY: Exemption category # 2

Thank you for your submission of New Project materials for this research study. The departmental human subjects research committee and/or the Fort Hays State University IRB/IRB Administrator has determined that this project is EXEMPT FROM IRB REVIEW according to federal regulations.

Please note that any changes to this study may result in a change in exempt status. Any changes must be submitted to the IRB for review prior to implementation. In the event of a change, please follow the Instructions for Revisions at <http://www.fhsu.edu/academic/gradschl/irb/>.

The IRB administrator should be notified of adverse events or circumstances that meet the definition of unanticipated problems involving risks to subjects. See <http://www.hhs.gov/ohrp/policy/AdvEvtGuid.htm>.

We will put a copy of this correspondence on file in our office. Exempt studies are not subject to continuing review.

If you have any questions, please contact Leslie Paige at [lpaige@fhsu.edu](mailto:lpaige@fhsu.edu) or 785-628-4349. Please include your study title and reference number in all correspondence with this office

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