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The Role of Workload, Social Support, and Psychosocial Training as Predictors of Burnout in University Students

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The Role Of Workload, Social Support, And Psychosocial Training As Predictors Of Burnout Among University Students

by

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Abstract

Academic burnout is prevalent among university students. Many studies have shown the importance of interpersonal (e.g. social support) and external (e.g. workload) factors in determining the causes of burnout. The purpose of this study was to examine the role of workload, social support, psychosocial training, and gender on burnout among university students and the degree to which these factors can predict burnout levels. Replicating other studies, measures of workload (objective and subjective), social support (*Multidimensional Scale of Perceived Social Support)*, and previous psychosocial training were related to burnout (*Maslach Burnout Inventory*) among 150 undergraduate students. Consistent with existing literature, high levels of burnout were associated with high levels of both objective and subjective workload, with subjective workload having a greater impact. Lower levels of burnout were associated with higher levels of social support. Previous psychosocial training was not associated with the levels of burnout. Social support from teachers was found to be to most influential variable within this study. This unique finding can contribute to the limited existing body of knowledge on academic burnout, as well as bring awareness to university administrators and faculty regarding the important role that teachers play in the academic success of their students.

Acknowledgements

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Table of Contents

Introduction

The gravity of burnout levels among college students is evident in the results of a study by Dyrbye *et al*. (2008): the researchers found that roughly 50% of college students experience burnout. Despite this alarming statistic, there is limited research currently available on the topic. Burnout can be defined as "a syndrome that is composed of three dimensions: emotional exhaustion, depersonalization, and reduced personal accomplishment" (Maslach & Jackson, 1981, p. 99). Emotional exhaustion (EE) refers to feeling drained, overwhelmed, and emotionally overextended because of high demands. Depersonalization (DP) involves developing cynical and negative attitudes that dehumanize the people with whom you are in frequent contact. Reduced personal accomplishment (RPA) is a decline in feelings of adequacy and competence, and the tendency to be dissatisfied with one's accomplishments. Burnout appears to be correlated with a variety of self-reported symptoms, such as: personal distress, physical exhaustion, insomnia, increased drug and alcohol use (Maslach & Jackson, 1891), low motivation, increased risk of health impairments, social conflicts, and lower efficiency (Jacobs & Dodd, 2003).

Current research on burnout usually focuses on people in different occupational groups, including teachers, nurses, psychologists, and human service employees (Jacobs & Dodd, 2003). These "people-work" jobs are seen as demanding and draining, and therefore provide the perfect platform for burnout research. Psychologists may not realize that in many cases, the schedules of college students can be equally demanding. With having to juggle classes, exams, jobs, and extracurricular activities, students are likely to experience high stress levels (Jacobs & Dodd, 2003). With more parents returning to school as well, maintaining balance between home life and college life may also prove to be stressful. Identifying factors that predict and prevent

burnout in students is important in order to develop and to improve training and intervention programs to enhance their college experience and foster their academic success.

Workload

One of the most common variables explored as a contributor to burnout is workload. Many researchers have explored the relationship between these two variables and have found a positive relationship, with increased workload associated with increased levels of burnout (Jacobs & Dodd, 2003). Some studies have found this to be true only for the dimension of emotional exhaustion (Male & May 1997, 1998). Other studies have reported inconsistent findings, possibly due to inadequate measures of workload. Due to these inconsistencies, it may be important to study workload as two separate measures. In the context of academia, objective workload is often divided into three categories: number of credit hours, number of hours spent in paid employment, and number of hours dedicated to extracurricular activities (Jacobs & Dodd, 2003). As we are seeing a large increase in parents returning to college, it is important to include a category of "number of hours dedicated to caregiving" whether it be for children or elderly parents or grandparents.

In contrast, subjective workload relates more to how busy an individual feels and how they perceive their workload. It pertains to either feeling overwhelmed by the workload amount or feeling capable of taking on more work. A common assumption is that objective workload contributes causally to levels of burnout. However, some individuals are able to successfully handle and cope with heavier workloads, while others are not so successful. It may be the subjective experience of workload that is the stronger predictor of burnout, instead of the actual measured hours of work (Jacobs & Dodd, 2003). For this reason, different measures of objective

and subjective workload should be developed and examined separately as contributors to burnout.

Social Support

Social support is another variable that has been related to burnout, with greater support correlating with lower levels of burnout (Greenglass, Fiksenbaum, & Burke, 1994; Kahill, 1986; Kohiarek & Dudek, 1996). Social support involves the experience of feeling loved, cared about, valued, and respected by important people in one's life. The two main categories of social support are direct assistance from others and perceived social support. Perceived social support determines the individual's confidence in adequate support being available to them when they need it. To measure this, the Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet, Dahlem, Zimet, & Farley, 1988) is often used. The MSPSS contains three subscales which measure perceived social support from family, friends, and significant others. Several studies on burnout within occupational groups have illustrated that social support from supervisors has a stronger relationship with lower levels of burnout than any of the other sources of social support (e.g. from family, friends, and significant others) (Huebner, 1994; Ross, Altmaier, & Russell, 1989; Russell, Altmaier, & Van Velzen, 1987). For the purpose of studying burnout in university students, "support from professors" should be included as a subscale in future research.

Psychological Training

Currently, there is limited research on psychosocial training used to predict and prevent burnout among university students. Psychosocial training involves the instruction and practice of techniques that are directed toward improving one's social skills and methods of overcoming

hardships. The goal of these intervention programs is for recipients to develop skills that support both effective communication and positive social interactions (Skodova & Lajciakova, 2013). In turn, these skills are thought to help reduce levels of stress and the harmful effects of burnout. Skills learned within the psychosocial training include stress management, conflict resolution, coping and relaxation techniques, active listening, and burnout prevention (Skodova & Lajciakova, 2013). This type of training may take place in therapy sessions, directed classes (e.g. yoga or meditation), guided group activities or seminars, and even online video module programs. If a correlation can be found between previous psychosocial training and burnout levels, future research may be done on the implementation of such programs within university curriculum.

Current Study

The majority of current research on burnout focuses on those in the work force. The purpose of this study is to examine the relationships between workload, social support, psychosocial training, and academic burnout among university students. In addition, this study seeks to evaluate the relative influence of workload, social support, and psychosocial training on burnout. Based on existing literature, the following hypotheses were developed:

H1: Higher levels of workload will positively correlate with higher levels of burnout.

H2: Higher scores on the social support scale will negatively correlate with levels of burnout.

H3: Previous psychosocial training will be associated with levels of burnout.

H4: Subjective workload will play the more dominant role in predicting burnout when compared to objective workload.

Method

Participants

The sample for this study consisted of 150 undergraduate students (N = 150). The participants included females (n = 106, 70.67%) and males (n = 42, 28%). Two participants (1.33%) chose not to disclose their sex. All participants were at least 18 years of age, with 58% (n = 87) between the ages of 18-22, 32.7% (n = 49) between the ages of 23-30, and the rest (n = 14, 9.3%) falling somewhere between the ages of 31-51+. Most of the students were upperclassmen, Juniors (n = 54, 36%) and Seniors (n = 44, 29.33%), but some underclassmen participated as well, Freshman (n = 34, 22.67%) and Sophomores (n = 18, 12%). There were various self-reported ethnicities, including Caucasian students (n = 81, 54%), Hispanic or Latino students (n = 39, 26%), African-American students (n = 9, 6%), and students that reported their ethnicity as "Other" (n =211, 14%).

Materials

Burnout: The Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981) was used to measure levels of burnout. This inventory uses a Likert-type scale that ranges from a score of 0 (never) to 6 (always). It is split into three subscales: emotional exhaustion (e.g., "I feel emotionally drained from my studies."), personal accomplishment (e.g., "I feel I have accomplished many worthwhile things in my studies."), and depersonalization (e.g., "I don't really care what happens to my classmates."). For this study, item wording was slightly modified within the survey to make it more appropriate for students (e.g., from "work" to "studies" and "coworkers" to "classmates"). Reverse scoring was used for the subscale of personal accomplishment (PA) so the measures of burnout went in the same direction. Reliability for each scale used within the study was estimated using Cronbach's coefficient alpha. The MBI appears to be reliable, as results showed alpha coefficients of .88 for Burnout, .91 for EE, .76 for DP, and

.88 for RPA. Reliability results are reported in Appendix A, Table 1. See Appendix B for the modified MBI questionnaire.

Workload: Workload was divided into objective and subjective categories. Objective workload was measured by means of credit hours, number of hours spent on extracurricular activities, number of hours spent in paid employment each week, and an estimated number of hours spent caregiving (e.g., caring for children or elderly parents). For subjective workload, questions were designed to measure how overworked participants feel. Subjective workload items include examples such as "I think I could have handled another class this semester" and "I wish I would have enrolled in one less class this semester". Reverse scoring was used for the items referring to taking on more work, so the measures of burnout went in the same direction. The scales used to measure workload were found to be less reliable, with alpha coefficients of .63 for Workload and .67 for Subjective Workload. For the scale of Workload, scale items 7-9 (measures of credit hours, paid employment hours, and hours of caregiving) affected its reliability the most, resulting in the lower alpha coefficient. For the Subjective Workload scale, it was scale item 6 ("I wish that I were involved in 1-2 fewer extracurricular activities") that showed the lowest correlation with the rest of the scale. The inclusion of this item may have led to the lower alpha coefficient for this scale. See Appendix B for Workload questions.

Social Support: The Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet *et al*, 1988) was used to measure levels of social support. This survey uses a 7-point Likert-type scale, ranging from a score of 1 (very strongly disagree) to 7 (very strongly agree). It was separated into three subscales: support from Friends (e.g., "My friends really try to help me"), support from Family (e.g., "I can talk about my problems with my family"), and support from Significant Others (e.g., "There is a special person in my life who cares about my

feelings"). This survey was modified for college students by the addition of a fourth subscale: support from teachers (e.g. "I feel comfortable asking my teachers for help"). Higher scores on the scale indicate higher levels of perceived social support. Reliability analysis for the social support scales showed Cronbach's alphas of .82 for Social Support, .55 for Support from Family, .91 for Support from Friends, .99 for Support from Significant Other, and .93 for Support from Teachers. Although its reliability was low, it is important to note that the Social Support from Family scale contained less than five items. The alpha coefficient for this scale would be higher with the exclusion of scale item 1 ("My family really tries to help me"). See Appendix B for the modified MSPSS questionnaire.

Psychosocial Training: For this study, questions were designed to measure if students had participated in previous psychosocial training. Students marked off the range of hours they have dedicated to learning these skills through therapy sessions, school courses, or other specialized training. Skill items included stress management, conflict resolution, relaxation techniques, active listening, coping techniques, and burnout prevention. No questions were used to measure how or when this psychosocial training was received. The psychosocial training scale was found to have an alpha coefficient of .91. See Appendix B for the psychosocial training scale questions.

Procedure

Participants were recruited through the University of Central Florida Psychology Participant Recruitment Program, known as the Sona System. Participation in this study was optional. Students that chose to participate earned research credit. Students that choose not to participate in research were offered alternatives for earning course extra credit. Students that chose to participate were initially asked basic questions about their sociodemographic

information. From there, students were directed to fill out the modified Maslach Burnout Inventory, followed by the workload questionnaire, the modified Multidimensional Scale of Perceived Social Support, and the survey about previous psychosocial training. Data were collected using Qualtrics and then exported into the Statistical Package for the Social Sciences (SPSS) program, where correlations and multiple linear regression analyses were performed on the data.

Results

Descriptive statistics for all study variables are presented in Appendix A, Table 1. Consistent with existing literature and overall norms regarding the MBI (Maslach & Jackson, 1981), this sample reported moderate-to-high levels of burnout on the subscale of EE, moderate scores on the dimension of RPA, and low-to-moderate scores on DP. The current sample also reported moderate-to-high levels of social support for all support categories, with the lowest average score reported for support from teachers. Scores for subjective workload were low-to-moderate, while psychosocial training scores were consistently low. Correlational data for all composite variables can be found in Appendix A, Table 2.

Hypothesis 1 stated that higher levels of workload would positively correlate with higher levels of burnout. To test this hypothesis, a correlational analysis was performed on the data. Consistent with the hypothesis, it was found that the variable of workload did positively correlate with burnout levels, $r = .32$, $p < .001$. Results can be found in Appendix A, Table 2.

The second hypothesis stated that higher levels of social support would negatively correlate with levels of burnout. Hypothesis 2 was also tested using a correlational analysis. Consistent with this hypothesis, the data analysis showed that there is a significant negative correlation between social support and burnout, $r = -.54$, $p < .001$. Results are reported in Appendix A, Table 2.

Hypothesis 3 stated that previous psychosocial training would be associated with burnout levels. This hypothesis was tested using a correlational analysis as well. Contrary to this hypothesis, there was no significant association between psychosocial training and burnout, $r = .05$, $p = .588$. Results can be found in Appendix A, Table 2.

The last hypothesis stated that subjective workload, when compared to objective workload, would play the more dominant role in predicting burnout. To test this hypothesis, a standard multiple regression analysis was performed on the data. Results showed that as a composite variable, workload significantly predicted burnout, $R^2 = .10$, $F(2, 147) = 8.43$, $p < .001$. Also consistent with hypothesis 4, it was found that subjective workload was a significant predictor of burnout, $\beta = .31$, $t = 3.76$, $p < .001$, while objective workload did not achieve significance as a predictor of burnout, $\beta = .04$, $t = .44$, $p = .662$. Results can be found in Appendix A, Tables 6 and 7.

In addition, secondary analysis was conducted to explore the relationships between the different subscales of workload and social support and levels of burnout. Results can be found in Appendix A, Table 3. This correlational analysis confirmed that the relationship between subjective workload and burnout levels was significant, $r = .32$, $p < .001$, while the relationship between objective workload and burnout was not significant, $r = .13$, $p = .118$. All four social support subscales were found to correlate significantly and negatively with levels of burnout. Results showed that support from teachers had the strongest association with burnout levels, $r = -.58$, $p < .001$, compared to perceived support from family, $r = -.39$, $p < .001$, friends, $r = -.42$, $p < .001$, and significant others, $r = -.23$, $p = .005$.

Furthermore, additional multiple linear regression analyses were performed to examine the role of all composite and subscale variables as predictors of burnout. For the first multiple regression analysis, the predictor variables were: workload, social support, and psychosocial training. Together, these study variables significantly predicted burnout, total $R^2 = .35$, $F(3,146) = 26.44$, $p < .001$. Separately, the variables that achieved significance were workload, $\beta = .25$, t

= 3.61, $p < .001$ and social support, $\beta = -.51$, $t = -7.52$, $p < .001$, while psychosocial training, $\beta = .02$, $t = .26$, $p = .793$ did not. Results can be found in Appendix A, Tables 4 and 5.

For the second multiple regression analysis, the predictor variables were: support from family, support from friends, support from significant others, and support from teachers. Results showed that together, these subscales of social support significantly predicted burnout levels, total $R^2 = .37$, $F(4,145) = 21.54$, $p < .001$. When analyzed as separate predictors, only support from teachers, $\beta = -.44$, $t = -5.45$, $p < .001$ achieved significance, and support from family $\beta = -.14$, $t = -1.78$, $p = .077$, friends $\beta = -.15$, $t = -1.91$, $p = .058$, and significant others $\beta = -.02$, $t = -.31$, $p = .760$ did not achieve significance. Results from these analyses are summarized in Appendix A, Tables 8 and 9.

Additionally, exploratory analyses were conducted to examine the role of gender and ethnicity on levels of burnout. To test this, a two-way ANOVA was performed with gender and ethnicity as the independent variables and burnout as the dependent variable. Results showed a statistically significant difference in average burnout levels by gender, $F(1,141) = 5.67$, $p = .004$, but not by ethnicity, $F(3,141) = .51$, $p = .676$. Overall, females reported higher burnout levels ($M = 77.78$, $SD = 16.83$) than males ($M = 69.10$, $SD = 21.40$). Although the racial differences in burnout scores were not statistically significant, it may be important to note that the Caucasian participants had consistently lower scores than the other ethnic groups on all three components of burnout. The interaction of gender and ethnicity on burnout levels was also significant, $F(3,141) = 2.492$, $p = .029$. The breakdown of this interaction is illustrated in Graph 1, Appendix A. When looking at both variables, it appears that Caucasians had the lowest difference in burnout scores between males and females. A moderate difference in burnout scores between males and females can be seen for Hispanic and Latino students. African American students and students that

reported their ethnicity as “Other” showed the highest difference in burnout scores between males and females.

Discussion

This study was designed to examine academic burnout and to identify important factors that may influence or predict burnout. Additionally, this research was intended to establish a need for intervention programs at universities and inform administrators and faculty of techniques they can implement to help students combat burnout. The results suggest that while a heavy workload may make students more susceptible to experiencing academic burnout, having adequate social support provides students with an important buffer against it. This study found that workload and burnout have a statistically significant relationship. Higher levels of workload reflected higher levels of burnout, supporting the first hypothesis. It is important to note that subjective workload (i.e. feeling overworked and like there is too much on one's plate) was more closely related to burnout than objective workload (i.e. actual measured hours of paid employment, academic credits, extracurricular activities, and caregiving). This interesting finding replicates the results of previous studies (Jacobs & Dodd, 2003) and supports the fourth hypothesis. This result illustrates the psychological nature of burnout and sheds light on the role of subjective experience of workload. University support staff may be able to use these findings to their advantage. When faced with a student that is experiencing burnout, it may be better to address their attitude and feelings about their workload, rather than just to suggest they reduce their hours at work or in extracurricular activities.

These findings clearly illustrate that social support and burnout are closely related. Particularly, higher levels of social support were associated with lower levels of burnout, thus supporting the second hypothesis. In fact, all social support groups (friends, family, significant other, and teachers) appear to be intercorrelated, both in this study and in results reported by Zimet and colleagues (1988). Further analysis revealed that social support from teachers had the

greatest impact on burnout levels. This result is similar to that of Huebner (1994), Ross, Altmaier, & Russell (1989), and Russell, Altmaier, & Van Velzen (1987), which showed that in the workplace, support from supervisors was more beneficial to employees than support from family or friends. These findings have many implications for university administration, teachers, advisors, and other support staff. Suggesting that a student "lighten their load" when experiencing burnout, through reducing hours at work or in extracurricular activities, is a commonsense piece of advice, but it may be counterproductive. Reducing these activities may, in turn, also reduce the interactions that a student has with supportive friends. Fostering the supportive relationships that students have might be a more effective approach to helping them. It is important for teachers to understand the significant impact they specifically have on their students. Social support from teachers was the most beneficial aspect found in this study for reducing burnout levels in students and therefore promoting their academic success. Presenting an approachable demeanor, advertising open office hours or other opportunities for meetings, and checking in with students are all excellent examples of how teachers can show more support toward their students. Students must also be encouraged to talk to their teachers. They may benefit from skills training in learning how to ask their professors for help.

For the purpose of this study, psychosocial training was split into the following categories: stress management, conflict resolution, relaxation techniques, coping techniques, and burnout prevention. No statistically significant relationships were found between previous psychosocial training and any of the components of burnout, thus failing to confirm the third hypothesis. Scores on the psychosocial training scale were consistently low, which reflects an overall lack of previous training received by students. Therefore, these results may not accurately reflect the potential benefits that psychosocial training has on reducing burnout. Although skills

of this nature may be helpful in general when facing hardships, perhaps they are less beneficial to students in an academic setting, when compared to other factors. On the other hand, students may just need additional help with learning to apply these skills to academic settings. Additional research is needed on the topic.

Secondary analysis showed that gender of participants significantly influenced the levels of burnout. The fact that the female participants consistently reported higher levels of burnout than male participants suggests that maintaining social relationships and receiving social support may be especially important for college women. The results found in this study may warrant further research on the relationship between these two variables. Although there were no statistically significant racial differences among burnout scores, a pattern emerged for Caucasian students. They consistently reported the lowest scores on all three subscales of burnout compared to the other ethnic groups. This is an interesting finding that also warrants further research.

Limitations and Future Research

Typical of all research, the current study includes limitations that present future research opportunities. One of the main limitations of this study was the sample of participants. Specifically, the sample was limited to undergraduate college students at a public state university. The relationships between workload, social support, psychosocial training, and burnout may be different in different academic settings, such as graduate or trade schools. The sample was also predominantly white, with twice as many female participants as males. I recommend that future researchers collect a larger, more diverse sample to represent better the general population. In addition, little research has been conducted on burnout among college students. The findings clearly show that college students, at least this sample of them, experience

academic burnout at substantial levels. This is an important topic and there is a great deal more to learn about it.

Further research is also needed to better understand the relationship between psychosocial training and burnout. The low scores on the psychosocial training scale only reflected a lack of previous training. This is not an indication that psychological training does not play a role at combating burnout. I suggest that future researchers conduct another study on this using an experimental design. If possible, researchers can use randomized clinical trials of training programs to teach half of their sample about burnout and techniques to reduce burnout, while the other half would receive no training. Comparing these two samples would then better illustrate the possible effects of psychosocial training on burnout. Using an experimental design for manipulating the variables of social support and subjective workload would also be beneficial. The suggestions within this study on how to help students facing burnout are based on findings from a correlational design, without proof of causal connections. Establishing causal relationships could determine whether these suggestions are useful.

Another possible limitation of this study is the timing of it. Data was collected around the same time that the COVID-19 pandemic swept the nation. It is likely that the results were influenced by this, as students around the world were greatly impacted by these unforeseen circumstances. The global impact of this pandemic and the new reality that came with it provide a whole new realm of opportunities for important future research.

APPENDIX A

TABLE 1.
Descriptive Data and Cronbach's Alphas

	Number of Items	Range	*M*	*SD*	α
Dependent Variables					
Burnout	21	21-147	75.38	18.46	.88
Emotional Exhaustion	8	8-56	33.98	10.15	.91
Depersonalization	5	5-35	13.81	5.86	.76
Reduced Personal Accomplishment	8	8-56	27.59	7.55	.83
Predictors					
Workload	9	9-45	31.01	7.59	.63
Subjective Workload	6	6-42	23.56	7.05	.67
Social Support	16	16-112	80.28	19.87	.82
Social Support- Family	4	4-28	19.35	6.59	.55
Social Support- Friends	4	4-28	21.09	5.67	.91
Social Support- Significant Other	4	4-28	21.05	8.54	.99
Social Support- Teachers	4	4-28	18.04	5.50	.93
Psychosocial Training	5	5-25	7.30	4.05	.91

Table 2.
Correlations Between Composite Variables

Measure	1	2	3	4
1. Burnout	-			
2. Workload	.32*	-		
3. Social Support	-.54*	-.14	-	
4. Psychosocial Training	.05	.12	.01	-

* Correlation is significant at the 0.01 level (2-tailed).

Table 3.
Correlations Between Subscales

Measure	1	2	3	4	5	6	7
1. Burnout	-						
2. Objective Workload	.13	-					
3. Subjective Workload	.32*	.30*	-				
4. Social Support: Family	-.39*	-.01	-.16	-			
5. Social Support: Friends	-.42*	.01	-.10	.39*	-		
6. Social Support: Significant Other	-.23*	-.10	.02	.31*	.30*	-	
7. Social Support: Teachers	-.58*	-.03	-.21*	.44*	.49*	.28*	-

* Correlation is significant at the 0.01 level (2-tailed).

Table 4: Burnout

Model Summary: Composite Variables

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.59[a]	.35	.34	15.02	.35	26.44	3	146	<.001

a. Predictors: (Constant), Psychosocial Training, Social Support, Workload

Table 5: Burnout

Composite Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	96.27	8.04		11.97	<.001			
	Workload	.60	.17	.25	3.61	<.001	.32	.29	.24
	SocialSupport	-.50	.07	-.51	-7.52	<.001	-.54	-.53	-.50
	PsySocTraining	.07	.28	.02	.26	.793	.05	.02	.02

a. Dependent Variable: Burnout

Table 6: Burnout

Model Summary: Workload Subscales

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.32[a]	.10	.09	17.62	.10	8.43	2	147	<.001

a. Predictors: (Constant), Subjective Workload, Objective Workload

Table 7: Burnout

Workload Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	53.04	6.69		7.93	<.001			
	Obj_Work	.34	.77	.04	.44	.662	.13	.04	.03
	Subj_Work	.84	.22	.31	3.76	<.001	.32	.30	.29

a. Dependent Variable: Burnout

Table 8: Burnout

Model Summary: Support Subscales

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.61[a]	.37	.36	14.83	.37	21.54	4	145	<.001

a. Predictors: (Constant), Social Support: Teachers, Social Support: Significant Other, Social Support: Family, Social Support: Friends

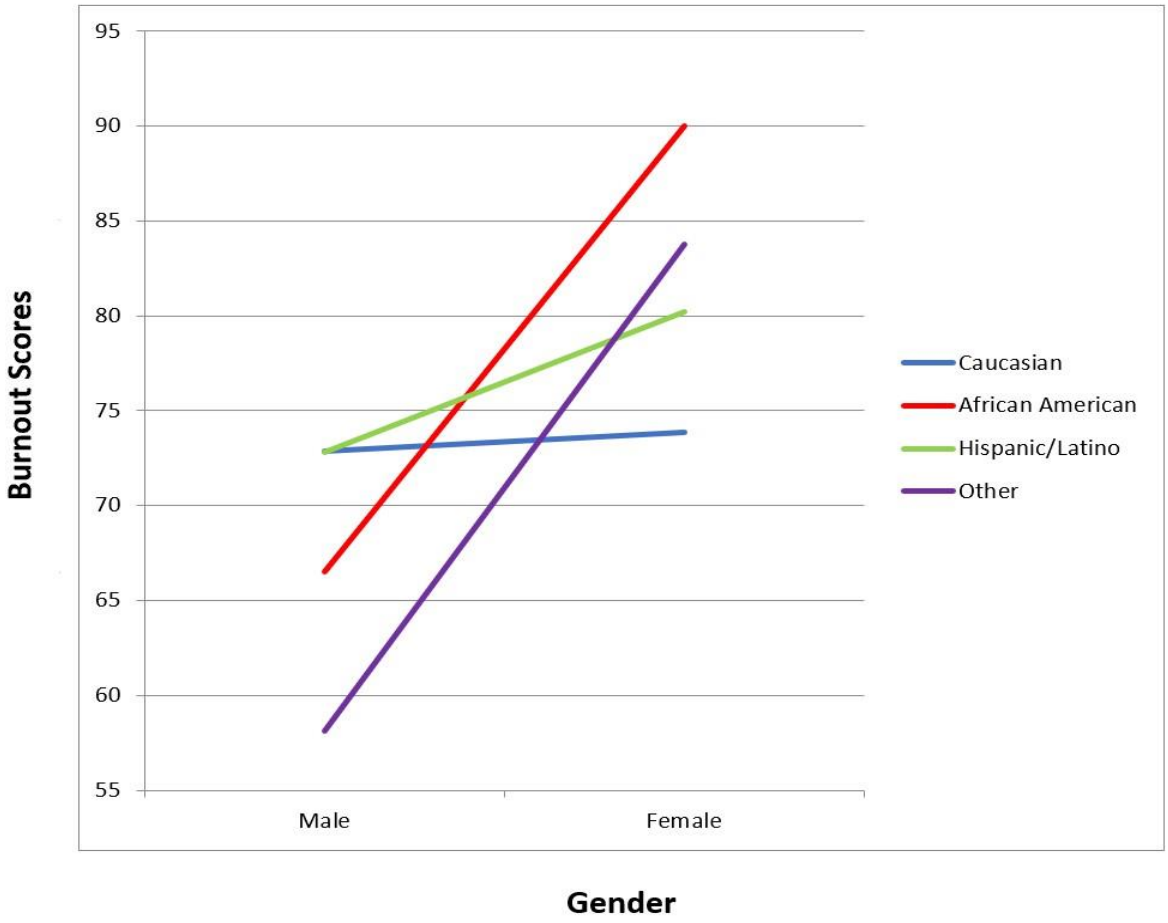
Table 9: Burnout

Support Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	119.74	5.53		21.67	<.001			
	SocSupp_Fam	-.37	.21	-.14	-1.78	.077	-.39	-.15	-.12
	SocSupp_Frnds	-.51	.27	-.15	-1.91	.058	-.42	-.16	-.13
	SocSupp_SO	-.05	.17	-.02	-.31	.760	-.23	-.03	-.02
	SocSupp_Tchrs	-1.41	.26	-.44	-5.45	<.001	-.58	-.41	-.36

a. Dependent Variable: Burnout

Graph 1.
Two-Way ANOVA Line Graph Comparing Gender, Ethnicity, and Burnout



APPENDIX B

Maslach Burnout Inventory Questionnaire (Modified)

1. Emotional Exhaustion

a. I feel emotionally drained from my studies

0	1	2	3	4	5	6
Never	A few times a year	Monthly	A few times a month	Every week	A few times a week	Everyday

b. I feel used up at the end of the day

0	1	2	3	4	5	6
Never	A few times a year	Monthly	A few times a month	Every week	A few times a week	Everyday

c. I feel fatigued when I get up in the morning

0	1	2	3	4	5	6
Never	A few times a year	Monthly	A few times a month	Every week	A few times a week	Everyday

d. I feel burned out from my studies

0	1	2	3	4	5	6
Never	A few times a year	Monthly	A few times a month	Every week	A few times a week	Everyday

e. I feel frustrated by my studies

0	1	2	3	4	5	6
Never	A few times a year	Monthly	A few times a month	Every week	A few times a week	Everyday

f. I feel I'm working too hard on my studies

0	1	2	3	4	5	6
Never	A few times a year	Monthly	A few times a month	Every week	A few times a week	Everyday

g. I feel like I'm at the end of my rope

0	1	2	3	4	5	6
Never	A few times a year	Monthly	A few times a month	Every week	A few times a week	Everyday

h. Working with people all day is really a strain for me

0	1	2	3	4	5	6
Never	A few times a year	Monthly	A few times a month	Every week	A few times a week	Everyday

2. Depersonalization

a. I feel I treat some friends as if they were impersonal "objects"

0	1	2	3	4	5	6
Never	A few times a year	Monthly	A few times a month	Every week	A few times a week	Everyday

b. I've become more callous toward people since I started college

0	1	2	3	4	5	6
Never	A few times a year	Monthly	A few times a month	Every week	A few times a week	Everyday

c. I worry that my college experience is hardening me emotionally

0	1	2	3	4	5	6
Never	A few times a year	Monthly	A few times a month	Every week	A few times a week	Everyday

d. I don't really care what happens to my peers

0	1	2	3	4	5	6
Never	A few times a year	Monthly	A few times a month	Every week	A few times a week	Everyday

e. I feel some peers blame me for some of their problems

0	1	2	3	4	5	6
Never	A few times a year	Monthly	A few times a month	Every week	A few times a week	Everyday

3. Personal Accomplishment

a. I can easily understand how my peers feel about things

0	1	2	3	4	5	6
Never	A few times a year	Monthly	A few times a month	Every week	A few times a week	Everyday

b. I feel I'm positively influencing other people's lives through my studies

0	1	2	3	4	5	6
Never	A few times a year	Monthly	A few times a month	Every week	A few times a week	Everyday

c. I feel very energetic

0	1	2	3	4	5	6
Never	A few times a year	Monthly	A few times a month	Every week	A few times a week	Everyday

d. I can easily create a relaxed atmosphere for myself

0	1	2	3	4	5	6
Never	A few times a year	Monthly	A few times a month	Every week	A few times a week	Everyday

e. I feel exhilarated after a day at school

0	1	2	3	4	5	6
Never	A few times a year	Monthly	A few times a month	Every week	A few times a week	Everyday

f. I have accomplished many worthwhile things while in school

0	1	2	3	4	5	6
Never	A few times a year	Monthly	A few times a month	Every week	A few times a week	Everyday

g. In college, I deal with emotional problems vey calmly

0	1	2	3	4	5	6
Never	A few times a year	Monthly	A few times a month	Every week	A few times a week	Everyday

h. I deal very effectively with the problems of my peers

0	1	2	3	4	5	6
Never	A few times a year	Monthly	A few times a month	Every week	A few times a week	Everyday

Subjective Workload Questionnaire

1. I think I could have handled 2-3 more credits this semester.

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

2. I wish I would have taken 2-3 fewer credits this semester.

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

3. I think I could have worked a few more hours each week.

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

4. I wish I would have worked a few less hours each week.

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

5. I think I could have handled 1 to 2 more extracurricular activities this semester.

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

6. I wish that I were involved in 1 to 2 fewer extracurricular activities.

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

Psychosocial Training Questionnaire

Q57 How many hours of Stress Management training have you received?

- 0 (1)
- 1-5 (2)
- 6-10 (3)
- 11-20 (4)
- >20 (5)

Q58 How many hours of Conflict Resolution training have you received?

- 0 (1)
- 1-5 (2)
- 6-10 (3)
- 11-20 (4)
- >20 (5)

Q59 How many hours of Coping Techniques training have you received?

- ○ 0 (1)
- ○ 1-5 (2)
- ○ 6-10 (3)
- ○ 11-20 (4)
- ○ >20 (5)

Q60 How many hours of Relaxation Techniques training have you received?

- ○ 0 (1)
- ○ 1-5 (2)
- ○ 6-10 (3)
- ○ 11-20 (4)
- ○ >20 (5)

Q61 How many hours of Burnout Prevention training have you received?

- ○ 0 (1)
- ○ 1-5 (2)
- ○ 6-10 (3)
- ○ 11-20 (4)
- ○ >20 (5)

Multidimensional Scale of Social Support Questionnaire (Modified)

1. Family

    a. My family really tries to help me

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

    b. I get the emotional help and support I need from my family

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

    c. I can talk about my problems with my family.

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

    d. My family is willing to help me make decisions.

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

2. Friends

a. My friends really try to help me.

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

b. I can count on my friends when things go wrong.

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

c. I have friends with whom I can share my joys and sorrows.

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

d. I can talk about my problems with my friends.

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

3. Significant Other

a. There is a special person who is around when I am in need.

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

b. There is a special person with whom I can share my joys and sorrows.

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

c. I have a special person who is a real source of comfort to me.

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

d. There is a special person in my life who cares about my feelings.

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

4. Teachers

a. I feel comfortable coming to my teachers for help.

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

b. My teachers really want to see me succeed.

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

c. I feel supported by my teachers at school.

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

d. My teachers are available when I am in need

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

APPENDIX C

UNIVERSITY OF CENTRAL FLORIDA

Institutional Review Board
FWA00000351
IRB00001138
Office of Research
12201 Research Parkway
Orlando, FL 32826-3246

EXEMPTION DETERMINATION

January 23, 2020

Dear Shahram Ghiasinejad:

On 1/23/2020, the IRB determined the following submission to be human subjects research that is exempt from regulation:

Type of Review:	Initial Study, Exempt Category
Title:	The Role of Workload, Social Support, and Psychosocial Training as Predictors of Burnout in University Students
Investigator:	Shahram Ghiasinejad
IRB ID:	STUDY00001365
Funding:	None
Grant ID:	None

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made, and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request so that IRB records will be accurate.

If you have any questions, please contact the UCF IRB at 407-823-2901 or irb@ucf.edu. Please include your project title and IRB number in all correspondence with this office.

Sincerely,

Kamille C. Birkbeck

Kamille Birkbeck
Designated Reviewer

UNIVERSITY OF CENTRAL FLORIDA

EXPLANATION OF RESEARCH

Title of Project: **The Role of Workload, Social Support, and Psychosocial Training as Predictors of Burnout in University Students**

Principal Investigator: **Dr. Shahram Ghiasinejad**

Other Investigators: **Ashley Greindl**

Faculty Supervisor: **Dr. Shahram Ghiasinejad**

You are being invited to take part in a research study. Whether you take part is up to you.

Purpose of the research study: The purpose of this study is to explore the relationships between workload, social support, psychosocial training, and burnout levels among university students. In addition, this study will examine the degree to which these factors can predict the levels of burnout among the same population.

What you will be asked to do in the study: You will be asked to participate in an online survey that will measure your levels of burnout, workload, social support, and previous psychosocial training. Questions are designed to explore your perceptions of your college experience.

Location: Surveys will be completed online via Qualtrics. They will be made available to UCF students using the SONA program.

Time required: This survey should take approximately 15 minutes to complete.

Compensation or payment: There will be no compensation or payments given for taking part in this study.

Anonymous research: This study is anonymous. There are no questions included that ask for identifiable information. No one, including the members of the research team, will know that the information you gave came from you.

Your participation in this study is voluntary. You are free to withdraw your consent and discontinue participation in this study at any time without prejudice or penalty. Your decision to participate or not participate in this study will in no way affect your relationship with UCF, including continued enrollment, grades, employment or your relationship with the individuals who may have an interest in this study.

You must be 18 years of age or older to take part in this research study.

Study contact for questions about the study or to report a problem: If you have questions, concerns, or complaints, please contact Ashley Greindl, Undergraduate Student, Psychology Program, College of Sciences by email at Ashley_greindl@knights.ucf.edu or Dr. Shahram Ghiasinejad, Faculty Supervisor, Department of Psychology at Shahram.Ghiasinejad@ucf.edu .

IRB contact about your rights in this study or to report a complaint: If you have questions about your rights as a research participant, or have concerns about the conduct of this study, please contact Institutional Review Board (IRB), University of Central Florida, Office of Research, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901, or email irb@ucf.edu

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