

## **How personality and social support predict European University students' burnout symptoms**

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### **Abstract**

Research on burnout in European university students has explored its relation to personality traits and social support, however not in a combined model. Therefore, this study was set to examine the association among burnout, personality and social support and secondly, whether personality and social support can predict students' burnout. The participants, completed three questionnaires; the Maslach Burnout Inventory Student-Survey (MBI-SS), the NEO Five-Factor Inventory (NEO-FFI) and the Multidimensional Scale of Perceived Social Support (MSPSS). The results indicated that all burnout's components are significantly associated to neuroticism, extraversion and conscientiousness, whereas social support is related only to academic inefficacy. Academic inefficacy was predicted by conscientiousness, cynicism was predicted by conscientiousness, whereas agreeableness and emotional exhaustion was predicted by neuroticism. Social support did not predict independently any component of burnout. It was concluded that conscientiousness, agreeableness and neuroticism can influence burnout symptoms among European students.

**Keywords:** Burnout, Personality, Social support, Students

### **Introduction**

Burnout is defined as a compilation of psychological reactions to continuous worry or irritation regarding academic or occupational matters (Maslach & Jackson, 1981). It is defined as a conjunction of the following three elements: emotional exhaustion, reduced academic efficacy and cynicism (Karimi, Bashirpur, Khabbaz & Hedayati, 2014). According to Maslach and Jackson (1981), emotional exhaustion refers to a person's exhaustion of personal, physical and cognitive resources for a long period of time. Cynicism specifies as an uncaring and distant feeling to other people (Maslach & Jackson, 1981). Lastly, reduced academic efficacy (i.e. academic inefficacy) is equivalent to low perceived competence regarding individual effort (Maslach & Jackson, 1981).

According to Pines, Aronson & Kafry, (1981) and Yang & Farn, (2005) college students often experience middle to high levels of burnout. It is common showed in students with high expectations of their academic progress in combination with their increased responsibilities in every aspect of their lives (Dunn, Iglewicz & Moutier, 2014). Taking this into consideration, two primary factors that are affected due to burnout are personality (Kokkinos 2007) and social support (Prins et. al., 2007).

### *Burnout and personality*

Personality refers to a consistent group of inner qualities and inclinations that regulate mental attitudes, cognitions and action (Ryckman, 2004). According to Costa and McRay (1989), the five elements of personality are: openness-to-experience, conscientiousness, agreeableness, extraversion and neuroticism. Individuals showing high openness to

experience have traits that have been linked to intellectual flexibility and an artistic and non-dogmatic approach to innovative concepts (Gleitman, Gross & Reisberg, 2011; Costa, & McCrae, 1989). Those high in conscientiousness have a methodical, well organized and hardworking view of living (Gleitman, Gross & Reisberg, 2011). Individuals high in agreeableness are seemingly kind persons, cooperative, soft hearted and compliant to others' wishes and demands (Gleitman, Gross & Reisberg, 2011; Costa, & McCrae, 1989). Those high in extraversion have been described as active and sociable individuals with optimistic beliefs (Gleitman, Gross & Reisberg, 2011; Storm & Rothman, 2003). Finally, people scoring high in neuroticism are characterized by a tendency to be emotionally unstable, nervous and impulsive with a pessimistic inclination (Gleitman, Gross & Reisberg, 2011; Storm & Rothman, 2003).

Even though the relationship between personality and burnout has been studied thoroughly, the research findings are not in conjunction, and in many cases are contradictory. These findings are supported by both the heterogeneity of the measures used, as well as the population examined personality (Buhler and Land, 2003; Bakker, Zee, Lewig & Dollard, 2006; Kokkinos 2007; Ghorpade, Lackritz & Singh, 2007; Kim, Shin & Umbreit, 2007; Alarcon, Eschleman and Bowling, 2009; Morgan & Bruin, 2010; Swider & Zimmerman 2010). For example, conscientiousness, extraversion, neuroticism and agreeableness have predicted academic efficacy in several studies (Bakker, Zee, Lewig and Dollard, 2006; Kokkinos, 2007; Zopiatis, Constanti and Pavlou. 2010). In others, cynicism was statistically significant predicted by agreeableness, extraversion openness-to-experience, and conscientiousness (Alarcon, Eschleman, Bowling, 2009; Kokkinos, 2007; Zopiatis, Constanti and Pavlou, 2010). Emotional exhaustion was predicted by neuroticism, openness-to-experience, conscientiousness and extraversion (Hudek-Knezevic, Krapic, & Kardum, 2007; Kokkinos, 2007; Reyes et. al. 2016).

#### *Burnout and social support*

Social support is considered a complex phenomenon (Mcnally & Newman, 1999) and is defined as the perception that one's emotional, psychological and material needs are being covered by a mutually understanding social circle (Taylor, 2011; Cohen, 2004). This support has been associated to improved well-being and physical health (Helliwell & Putnam, 2004). Numerous surveys in the past provide controversial results regarding the effect of social support on burnout. Zhu, Yao & Hu (2013) supported that social support is strongly and positively associated to all three burnout components but Layth, Mohammed, Malik and Alrawi, (2017) argue that only a very weak association exists. On the other hand, Halbesleben (2006) found that social support is not associated with any of the three burnout's components. Opposing this, Prins et. al., (2007) found that social support correlates significantly and positively only with emotional exhaustion and cynicism. Salami (2011), stated that social support is predicted by all three components of burnout, a fact that it is supported extensively by the literature (Woodhead, Northrop, Edelstein, 2016; Lambert, Altheimer & Hogan, 2010; Yang & Farn, 2005; Jacobs & Dodd, 2003; Brouwers, Evers & Tomic, 2001). On the contrary, Kim & Stoner (2008), concluded that none of burnout's components can predict social support.

Past research on the relationship among burnout and personality (Kokkinos, 2007) and among burnout and social support (Law & Patil 2015) might yield heterogeneous or even contradictory findings, yet this discrepancy may exist due to the fact that burnout symptoms, personality and social support have been examined with different measurement, and rarely in a combined model. Another explanation may be that these effects may be moderated by culture.

Drawing conclusions from studies conducted in Asia and USA may not apply to students in Europe. Interestingly, only four relevant studies have been conducted among students and their results were not consistent (Layth, Mohammed, Malik & Alrawi, 2017; Karimi,

Bashirpur, Khabbaz & Hedayati, 2014; Polman, Borkoles & Nicholls, 2010; Jacobs & Dodd, 2003). As Polman, Borkoles & Nicholls (2010) suggested and given that their research was the only one in European students, more research need to be conducted in order to draw strong conclusions. Therefore, the present study intends to examine whether personality and social support predict burnout symptoms in European university students.

It was hypothesized that:

I. There will be a statistically significant relationship between social support and the three burnout dimensions (emotional exhaustion, cynicism, academic efficacy).

II. There will be a statistically significant relationship between personality traits (openness to experience, conscientiousness, extraversion, agreeableness, neuroticism) and the three burnout dimensions (emotional exhaustion, cynicism, academic efficacy).

III. Social support and each personality trait separately (openness to experience, conscientiousness, extraversion, agreeableness, neuroticism), will be statistically significant independent predictors of the three dimensions of burnout (emotional exhaustion, cynicism, academic efficacy).

## **Method**

### *Participants*

The population of interest in this study was European university students. The study was performed from 17 of February until 17 of March 2018. The sample consisted of 78 male and 89 female University students (total 167 participants), aged 18 to 28 ( $M = 23.47$  years,  $SD = 2.84$ ) fluent on English or Greek. Only eight participants in total refused to agree with the terms of the consent form, therefore they were not allowed to participate in the study. The study was advertised through social media (Facebook pages, psychology webpages) and the data were gathered via Google forms. This sampling method allowed sampling students from a variety of countries and universities. The questionnaires were available in both Greek and English language. In order to maintain anonymity, no demographic questions were asked, except age and gender.

### **Measures**

In this research three questionnaires were utilized. One for measuring burnout, one for measuring personality and one for measuring social support.

### *Burnout symptoms*

The Maslach Burnout Inventory Student Survey (MBI-SS) (Schaufeli, Martinez, Pinto, Salanova and Bakker, 2002) was utilized to assess burnout among English speaking students.

The MBI-SS is comprised of fifteen items: exhaustion (5 items), cynicism (4 items), and efficacy (6 items) scored on a 7-point Likert scale, from 0 (never) to 6 (every day). The participants had to report to what extend they agree or disagree with the given statements. In previous research, the Cronbach's  $\alpha$  for Emotional Exhaustion 0.87, for Cynicism 0.86, and 0.85 for reverse accomplishment (Ilic, Todorovic, Jovanovic & Ilic, 2017). High scores in emotional exhaustion and cynicism and low scores in accomplishment demonstrate higher burnout. Cronbach's  $\alpha$  for academic inefficacy in this study was 0.89, for emotional exhaustion was 0.87, and for cynicism 0.88.

The MBI-SS (Greek Version) was provided to the Greek speakers (Anagnostopoulos, F., & Papadatou D, 1992). The questionnaires were modified accordingly, based on the greek characteristics. It should be highlighted that Anagnostopoulos, F., & Papadatou D (1992), implied the translated version. The Cronbach's  $\alpha$  of the instrument was 0.67 and for the subscales was Emotional Exhaustion for 0.85; for Cynicism 0,88; and Accomplishment 0,82 (Tzoumaka, 2015). In this study, the Cronbach's  $\alpha$  for academic efficacy was .89, for emotional exhaustion .87, and for cynicism .88.

### *Personality*

In order to measure personality traits in the English-speaking population, NEO Five-Factor Inventory (NEO-FFI) was utilized composed by Costa and McCrae (1992). The NEO-FFI is comprised of 60 components and composed by 5-point Likert scale and has 5 subscales that include reverse scores. In the original instrument, the Cronbach's  $\alpha$  for neuroticism was .86, for conscientiousness .81, for openness-to-experience .73, for extraversion .77, and for agreeableness .68 (Robins, Fraley, Roberts, & Trzesniewski, 2001). In this study, the Cronbach's  $\alpha$  for neuroticism was .82, for conscientiousness .87, for openness-to-experience .62, for extraversion .75, and for agreeableness .83. and total .76.

For the Greek speaking population, the Greek version of the NEO-FFI questionnaire was used. The questionnaires were modified accordingly, based on the Greek characteristics. It should be highlighted that (Panayiotou, Kokkinos and Spanoudis, 2004) implied the translated version. In the original instrument, the Cronbach's  $\alpha$  for neuroticism was .78, for conscientiousness .83, for openness-to-experience .51, for extraversion .70, and for agreeableness .69. In this study, the Cronbach's  $\alpha$  were; for neuroticism .84, for conscientiousness .86, for openness-to-experience .48, for extraversion .80, and for agreeableness .69.

### *Social Support*

The Multidimensional Scale of Perceived Social Support (MSPSS) was employed in order to measure social support, (Zimet, Dahlem, Zimet & Farley, 1988). The MSPSS contains twelve components which are scored on a 7-point Likert scale. The higher the total score, the stronger the social support. The reliability of MSPSS was .88 and showed strong internal reliability and consistency (Zimet, Dahlem, Zimet & Karley, 1988). Similarly, reliability for the English version of the instrument in this study was measured to .78.

The Greek version of the MSPSS, was used based on the modified version of the questionnaires, as implied by Champoulidou (2014) and was validated in Greek speaking population (Nella, 2014), having a Cronbach's  $\alpha$  coefficient of .84. In this study, the Cronbach's  $\alpha$  for the Greek version was .93.

### **Procedure and ethics**

This study was performed according to the Declaration of Helsinki and it acquired ethics approval from the Ethics Committee of the University of Sheffield. The research was conducted on two forms (via google forms), one in Greek and one in English language. The participants were informed about the study through an information sheet through which they were asked to carefully read and then tick to agree in the consent form. They were also explicitly explained that all the data will remain anonymous since no names or any other personal information were requested.

### **Results**

The statistical analysis was performed utilizing the SPSS V.22 software. A Pearson correlation analysis was conducted in order to examine whether there is a statistically significant correlation between the components of burnout and personality traits. The results are presented in Table 1.

**Table 1. Pearson Correlation Coefficients between burnout components and traits of personality and social support**

	2	3	4	5	6	7	8	M	SD
**	.493	.228	-	.255	.010	.154	.173	15.0	6.83
**		.453**	*			*		2	
**		.406	-	.185	-	.253	.323	9.14	6.84
**		.224**	*	.066	**	**		24.8	5.58
**			.194	.036	.101	**		6	
**		.201**	*				.255	34.5	9.08
*			.453*	.224**	.201**	**		8	
*				.185	.194		.010	33.3	7.78
*				*	*		.154	32.1	6.57
*						.036	.173	32.4	7.30
*							*	4	
*								28.6	8.35
*								4	

Note: \*  $p < .05$ , \*\*  $p < .005$

Note: 2: 1.Emotional exhaustion, 2.Cynicism, 3.Academic inefficacy, 4.Neuroticism  
5.Extraversion, 6.Openness-to-Experience, 7. Agreeableness, 8. Conscientiousness

Pearson correlation coefficient analysis indicated that social support is correlated significantly only with academic inefficacy ( $r = .182$ ,  $p = .003$ ). As social support was statistically significant related only with academic efficacy, social support was not examined as a possible predictor of emotional exhaustion and cynicism. Respectively, since agreeableness was not correlated statistically significant to academic inefficacy, and openness-to-experience did not correlate statistically significant with any of the burnout's dimensions, agreeableness and openness-to-experience were excluded from the respective regression models.

The result of the regression analyses are presented in tables 2, 3 and 4. In order to investigate the predictive ability of personality traits on academic efficacy, a multiple linear regression analysis was used. A statistically significant model emerged explaining  $AR2 = 12\%$  ( $R^2 = .141$ ,  $p > .001$ ) of the variance of academic inefficacy; with conscientiousness being the only statistically significant independent predictor of academic inefficacy ( $\beta = .313$ ,  $p < .001$ ). In order to investigate the predictive ability of personality traits on cynicism, a multiple linear regression analysis was used. A statistically significant model emerged explaining  $AR2 = 13.8\%$  ( $R^2 = .159$ ,  $p < .001$ ) of the variance of cynicism; with conscientiousness ( $\beta = .274$ ,  $p = .001$ ) and agreeableness ( $\beta = .205$ ,  $p = .007$ ) being statistically significant independent predictors. In order to investigate the predictive ability of personality traits on emotional exhaustion, a multiple linear regression analysis was used. A statistically significant model emerged explaining  $AR2 = 19.4\%$  ( $R^2 = .214$ ,  $p < .001$ ) of the variance of emotional exhaustion, with neuroticism ( $\beta = -.456$ ,  $p < .001$ ) being the only statistically significant independent predictor.

**Table 2. Multiple linear regression between Academic Inefficacy, Social Support, Neuroticism, Extraversion and Conscientiousness**

Model	Unstandardized Coefficients		Standardized Coefficients	t	P value
	B	Std. Error	Beta		
Social Support	-.023	.015	-.118	-1.546	.124
Neuroticism	-.051	.055	-.084	-.930	.354
Extraversion	-.022	.069	-.030	-.315	.753
Conscientiousness	.209	.055	.313	3.817	< .001

**Table 3. Multiple regressions between Cynicism, Neuroticism, Extraversion, Conscientiousness and Agreeableness.**

Model	Unstandardized Coefficients		Standardized Coefficients	t	P value
	B	Std. Error	Beta		
Social Support	-.111	.067	-.147	-1.660	.099
Neuroticism	-.070	.084	-.079	-.831	.407
Extraversion	.224	.067	.274	3.366	.0071
Conscientiousness	.192	.070	.205	2.730	.007

**Table 4. Multiple regressions between Emotional Exhaustion, Neuroticism, Extraversion, Conscientiousness and Agreeableness.**

Model	Unstandardized Coefficients		Standardized Coefficients	t	P value
	B	Std. Error	Beta		
Social Support	-.343	.064	-.456	-5.324	< .001
Neuroticism	-.039	.081	-.044	-.476	.635
Extraversion	.019	.064	.023	.298	.766
Conscientiousness	.087	.068	.093	1.279	.203

**Discussion**

The aim of the study was to examine whether personality and social support can predict European students’ burnout symptoms. More particularly, it was hypothesized that social support and each personality trait separately (openness-to-experience, conscientiousness, extraversion, agreeableness, neuroticism), will be statistically significant independent predictors of the three dimensions of burnout (emotional exhaustion, cynicism, academic efficacy).

The study results indicate that conscientiousness is a statistically significant independent predictor of efficacy. Higher scores of conscientiousness translate to advanced academic efficacy. These findings are partially support previous research arguing that conscientiousness can predict independently academic efficacy (Reyes et al., 2016; Ganjeh, Arjenak, Nori & Oreyz, 2009). Additionally, the findings of this study indicate that conscientiousness, along with agreeableness can predict independently higher scores of cynicism, partially consistent with previous findings (Reyes et al., 2016; Kokkinos, 2007). Reyes et al., (2006) and Kokkinos (2007) supported that the combination of these elements

together with other personality traits can predict cynicism. Neuroticism is shown in the results as the strongest statistically significant independent predictor of emotional exhaustion, meaning that the higher the levels of neuroticism, the lower the levels of emotional exhaustion. These findings are in conjunction with Hudek-Knezevic, Krapic, & Kardum (2007); but several surveys exhibit that emotional exhaustion can be predicted by a combination of personality traits (Reyes et. al. 2016; Kokkinos, 2007).

In this study, there was a statistically significant relation between social support and academic efficacy, but not with emotional exhaustion and cynicism. This indicates that students with higher level of social support exhibit higher level of academic efficacy. Kim, Jee, An and Lee (2018) partially support this finding noting that academic efficacy, compared to the other two burnout's components, was associated stronger with social support. Nevertheless, there was no evidence that social support exerts an independent effect on European students' burnout symptoms, over and above one's dispositional characteristics of personality. This evidence are not in accordance with previous literature's findings that social support is predicted by all three components of burnout (Salami, 2011; Yang & Farn, 2005; Jacobs & Dodd, 2003). The observed discrepancy in the respective findings may be explained by cultural differences in the effect of social support on health, as well as by the heterogeneity of the educational systems.

Costa and McCrae (1992) indicate in their study that only agreeableness, conscientiousness and neuroticism affect European students' burnout symptoms. More specifically, conscientiousness seems to affect academic inefficacy and cynicism, whereas agreeableness seems to affect cynicism, and neuroticism seems to affect emotional exhaustion. On the other hand, there was no evidence that social support exerts a significant effect on burnout symptoms, over and above personality.

This study has a number of limitations, apart from its originality. First, this study was conducted in European university students, but the research was limited by English and Greek questionnaires only. This might have given the ability for both Greek and English speakers to participate, but it excludes the students that do not speak at least one of those two languages. In addition, the student's nationality and location of study was not considered. Since cultural factors seem to moderate the relation between social support and academic burnout, the current study can capture only the effect that the European context has in this respect.

Regarding study's implications, the present study is aiming to fill the research gap in the field of burnout. The limitations of this study may have hindered its purpose, which was to investigate whether personality and social support can predict burnout. However, several personality traits were significant independent predictors of burnout. This finding has several applications in school and college, which could provide well-being and psychological services to high-risk individuals in order to protect them from the adverse effects of burnout.

### **Conclusions**

Despite its limitations, this research indicates that conscientiousness, agreeableness and neuroticism can influence burnout symptoms in European students. This effect however is not evident across all burnout symptoms, as some personality traits influence certain symptoms more than others. In this research, there was no evidence that all burnout symptoms are associated with social support. These findings provide valuable information on the critical matter of students' burnout symptoms in the European context. Given the heterogeneity in academic systems and cultural setting within Europe, future studies should be conducted also in the local level to be more culturally sensitive.

At this point, we must highlight that this work was presented on 13/10/2018 at the 4th International Conference for the Promotion of Educational Innovation. Larissa, 12, 13 & 14 October 2018. It was first published in the proceedings of the conference on 8/2/2019.

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