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Academic Burnout Among Students at Faculty of Organizational Sciences

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Burnout is a widely recognized syndrome of emotional exhaustion, depersonalization or cynicism and reduced personal accomplishment that occurs in a broad spectrum of occupations, and in students as well. The objective of this research was to investigate the risk of burnout among students and to analyze the relationship between gender and grade point average with three dimensions of burnout. Maslach Burnout Inventory – Student Survey, the most common instrument for measuring burnout, was used for this purpose as it was created and validated for student population. The research was conducted on a sample of 376 management and IT students in Serbia of the second to the final years of studies. The results show that 174 (46.3%) of the total sample of students are at risk of burnout, and 78 (20.7%) are at high risk of burnout. There is no significant correlation between gender and risk of burnout. There are higher percentages of students with low grade point average in both risk of burnout (54.4%) and high risk of burnout (26.6%) categories.

Keywords: risk of burnout, high risk of burnout, students, grade point average (GPA), Maslach Burnout Inventory – Student Survey (MBI – SS)

1. Introduction

Burnout is a widely recognized term in theory and practice that caught the attention of researchers almost 40 years ago. First researchers in the field, Freudenberger (1975) and Maslach (1976), based their work on the assumption that burnout occurs due to interaction between providers and receivers in occupations providing services and care (Maslach, Schaufeli, & Leiter, 2001). Later research has shown that burnout relates to other professional activities and occupations as well (Leiter & Schaufeli, 1996). The concept has also been extended to undergraduate and graduate students since studying has some characteristics of a job and students experience pressures while fulfilling academic requirements (Schaufeli, Martinez, Pinto, Salanova, & Bakker, 2002).

A frequently used definition of burnout was offered by Maslach as "a psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment' that occurs as a response to emotional and interpersonal stressors among individuals (Maslach & Goldberg, 1998). Burnout dimensions defined in such a manner reflect the focus on occupations with extensive interactions with people, while slight term modifications - emotional exhaustion, cynicism (a distant attitude toward the job) and reduced professional efficiency - are more appropriate to other occupations (Maslach, Schaufeli, & Leiter, 2001). Emotional exhaustion is the first reaction to the stress of job demands and basic element of the syndrome. Exhausted individuals feel emotionally and physically drained up, and unable to recover. Depersonalization or cynicism reflects negative responses to work and people at work with cold and distant attitude. The final dimension, self evaluation component of burnout - reduced professional efficacy, is a state of ineffectiveness and loss of confidence in own abilities (Maslach & Leiter, 1997, pp. 17-18). All three dimensions respectively correspond to the level of energy (e.g. feeling used up), attitude (e.g. being cynical), and self-evaluation (e.g. doubting personal abilities) (Schaufeli, 2003). Burnout dimensions are defined in the same manner for student population and they refer to feeling exhausted because of study demands, having a cynical and detached attitude toward studies, and feeling incompetent and inefficient as a student (Schaufeli, Martinez, Pinto, Salanova, & Bakker, 2002). Moneta conducted a study in which he explored the links between the need for achievement, burnout, and intention to leave one's study program in undergraduate university students and concluded that burnout in educational settings has similar characteristics to those it has in occupational settings (Moneta, 2011).

The first scale for burnout - Maslach Burnout Inventory (MBI) - Human Service Survey was developed for a wide range of human service professionals (Maslach & Jackson, 1981). Evolution in burnout research across different areas brought forth changes in the widely used scale and a development of several modifications: MBI – Educators Survey (for workers in educational occupations), MBI - General Survey (for workers in occupations that are not entirely people-oriented) and MBI - Student Survey (for undergraduate and graduate students). The construct validity of MBI-SS has been acknowledged by previous researchers (Schaufeli, Martinez, Pinto, Salanova, & Bakker, 2002; Schaufeli & Salanova, 2007; Campos, Zucoloto, Bonafe, Jordani, & Maroco, 2011) and the criteria they used to validate the construct was the confirmatory factor analysis. Coefficients of internal consistency (Cronbach's alphas) have values above 0.70, signifying internal consistency, according to Schaufeli et al. (2002). In all this, previously mentioned research, MBI-SS was validated for following languages: English, Dutch, Spanish and Portuguese. Hu and Shaufeli validated the Chinese (Hu & Shaufeli, 2009) version and Shin et al. verified that MBI-SS is appropriate for application on Korean students (Shin, Puig, Lee, Lee, & Lee, 2011).

A lot of studies of student burnout were conducted in the past. Perceived stress was positively correlated with all burnout dimensions (Divaris, Polychronopoulou, Taoufik, Katsaros, & Eliades, 2012). One of the studies investigated the association between gender and burnout subscales where the results showed that the risk of burnout is increasing with the year of study and that there is no significant correlation between gender and any of the subscales of burnout (Galán, Sanmartín, Polo, & Giner, 2011). Results of Adie & Wakefield (2011) suggest that burnout symptoms among students can be reduced by introducing autonomy supportive behaviours in order to facilitate engagement (Adie & Wakefield, 2011). To our knowledge, there were only few studies conducted in Serbia in the field of burnout. Most of them investigated risk of burnout in certain occupations: food industry (Aranđelović, Ilić, & Jović, 2010), medical staff (Ćurčić & Ćurčić, 2009) and military (Dedić, 2005). There was only one study on the student population with the aim to identify factors that might be associated with health related quality of life, including relationship with depression. Researchers concluded that among the factors that significantly influenced quality of life, depression was the most prominent (Pekmezovic, Popovic, Tepavcevic Kisic, Gazibara, & Paunic, 2011). With respect to previous research and shortage of scientific data for Serbia, the authors of this paper decided to explore three dimensions of burnout on a sample of management and IT students at Faculty of Organizational Sciences, using the MBI-SS construct and analyze the relationship between grade point average and gender and different burnout scales.

2. Method

Participants in this survey were 402 management and IT students from the Faculty of Organizational Sciences, University of Belgrade in Serbia. Participation was voluntary and students were asked to answer a questionnaire and provide socio-demographic and other characteristics of participants. Each student was assigned numerical code in order to ensure anonymity. From these students, 26 did not answer the entire questionnaire and were excluded from the study. A convenient final sample of 376 students (93% response rate) consisted of equally distributed students of second to final years of studies. There were 159 male and 217 female participants.

Maslach Burnout Inventory – Student Survey was used for this purpose as it is a most widely used construct for assessing burnout. The construct consists of 15 items that represent three scales: exhaustion (5 items), cynicism (4 items), and professional efficacy (6 items). Individual items are scored on a 7-point frequency rating scale ranging from 0 (never) to 6 (always) and students were asked to indicate how often they felt in a certain way (e.g. for exhaustion: "Studying or attending a class is really a strain for me"; for cynicism: "I doubt the significance of my academics"; and for professional efficacy: "I feel stimulated when I achieve my academic goals"). Questionnaires were distributed to participants during the winter term of 2011/12 academic year after the lecturing period. The participants were informed about the aim of the study, but were not given any particular details. The researchers were not present in the classrooms at the time of answering the questionnaires and they collected them after completion.

The reliability of MBI–SS was estimated through Cronbach alpha coefficient for internal consistency for all three dimensions of burnout. The coefficients were α =0.814 for exhaustion, α =0.868 for cynicism and α =0.773 for efficacy. Since internal reliability is assumed for correlation coefficients higher than 0.7

(Cronbach, 1951), the results point out to a good internal consistency. Descriptive statistics was used to analyze the data (mean scores - M and standard deviation - SD). Afterwards, chi-square test was used to identify differences in gender and GPA on the three dimensions of burnout and independence sample t-test was used to determine differences between two group means. Statistically significant results were assumed for p<0.05. SPSS version 20.0 was used for all analyses.

3. Results and discusion

The mean scores and standard deviation for three dimensions were calculated and they were 2.50 (1.08) for exhaustion, 1.05 (0.97) for cynicism and 3.92 (1.06) for professional efficacy. Scores for each subscale were organized in three groups: low, average and high, according to lower, medium and upper quartile of the score distribution (Galán, Sanmartín, Polo, & Giner, 2011). Therefore, lower and upper quartiles of all dimensions are: low exhaustion \leq 1.83, high exhaustion \geq 3.17; low cynicism \leq 0.33, high cynicism \geq 1.67; low efficacy \leq 3.21, high efficacy \geq 4.67. Our research defines burnout as a result of exhaustion, cynicism and efficacy, where high scores on exhaustion and cynicism and low scores on professional efficacy point towards student burnout.

Most researchers (Galán, Sanmartín, Polo, & Giner, 2011; Willcock, Daly, Tennant, & Allard, 2004; Santen, Holt, Kemp, & Hemphill, 2010) identified the existence of burnout risk through at least one subscale of burnout as a sufficient indicator. Taking into consideration Schaufeli at al. (2002), risk of burnout exists when there is a high score on emotional exhaustion or high score on cynicism or low score on efficacy, meaning that high or low score on one dimension is a sufficient indicator for risk of burnout. (Schaufeli, Martinez, Pinto, Salanova, & Bakker, 2002). Furthermore, we wanted to identify students with high risk of burnout, and we formed an indicator for high risk of burnout. High risk of burnout represents high scores on emotional exhaustion and high scores on cynicism; or high scores on emotional exhaustion and low scores on efficacy; or high scores on emotional exhaustion and high scores on cynicism and low scores on efficacy. Therefore, students were grouped into those with risk of burnout (with high/low scores on only one burnout dimension) and those with high risk of burnout (with high/low scores in two or three burnout dimensions).

Table 1 shows that 88 (23.4%) students had high score in exhaustion, 83 (22.1%) had high score in cynicism and 94 (25%) had low score in efficacy. Also, table 1 illustrates that 174 (46.3%) of total sample of students are at risk of burnout, and 78 (20.7%) are at high risk of burnout. There are no data regarding acceptable levels of risk of burnout, but it can be concluded that 46.3% is an extremely high percentage, according to which almost every other student is at risk of burnout.

Subscales	Students	
	Number	%
Exhaustion		
Low	106	28.2
Moderate	182	48.4
High	88	23.4
Cynicism		
Low	125	33.2
Moderate	168	44.7
High	83	22.1
Efficacy		
Low	94	25.0
Moderate	189	50.3
High	93	24.7
Risk of burnout ^a	174	46.3
High risk of burnout ^b	78	20.7

Table 1: Burnout dimensions and number of students at risk of burnout

^a Burnout - high score on emotional exhaustion or high score on cynicism or low score on efficacy ^b Burnout - high score on emotional exhaustion and high score on cynicism; or high score on emotional exhaustion and low score on efficacy; or high score on cynicism and low score on efficacy; or high score on emotional exhaustion and high score cynicism and low score on efficacy Table 2 shows that 34 (21.4%) out of 88 students who had high score in exhaustion were male and 54 (24.9%) were female. 42 (26.4%) out of 83 students who had high score in cynicism were male and 41 (18.9%) were female. There is no significant difference on a burnout subscale of exhaustion between genders, either in total sample or in the high scored group. There are significant differences between genders on a cynicism and efficacy subscales. It is interesting that there are no differences between male and female students in a group of students with high risk of burnout.

Previous research showed conflicting results. Some of them showed that there is no significant correlation between gender and any of the subscales of burnout. (Galán, Sanmartín, Polo, & Giner, 2011; Bresó, Salanova, & Schaufeli, 2007). Others showed that there is a difference between genders on different subscales of burnout (Willcock, Daly, Tennant, & Allard, 2004; Yang, 2004; Weckwerth & Flynn, 2006). Therefore the consensus among researchers on this issue does not exist.

Subacalaa	Students		_
Subscales	Male	Female	nale P
Exhaustion			
Mean (SD)	2.46 (1.06)	2.58 (1.10)	0.487
High score, no (%)	34 (21.4%)	54 (24.9%)	0.554
Cynicism			
Mean (SD)	1.22 (1.02)	0.93 (0.92)	0.004
High score, no (%)	42 (26.4%)	41 (18.9%)	0.004
Efficacy			
Mean (SD)	3.77 (1.11)	4.04 (1.01)	0.018
Low score, no (%)	51 (32.9%)	43 (19.8%)	0.025
Risk of burnout	81 (50.9%)	93 (42.9%)	0.120
High risk of burnout	37 (23.3%)	41 (18.9%)	0.301

Table 2: Differences in risk of burnout between male and female students

For the purposes of this research, we defined low GPA as a grade below 8.00 and high GPA as grades 8.01 or higher (Lowest grade a student can get for passing the exam in Serbia is 6 and highest grade is 10). Table 3 shows that 38 (22.5%) out of 88 students who had high score in exhaustion had a low GPA and 50 (24.2%) had high GPA. 46 (27.2%) out of 83 students who had high score in cynicism had a low GPA and 37 (17.9%) had a high GPA. 61 (36.1%) out of 94 students who had a low score in efficacy and a low GPA and 33 (15.9%) had a high GPA. There is no significant difference on a burnout subscale of exhaustion between students with low or high GPAs. There is a significant difference between students with low and high GPAs on a cynicism and efficacy subscales. Especially important is the influence of efficiency on a students' GPA for the total sample.

In some of the previous research authors found that students who had highest GPA scores and positive self-esteem didn't experience burnout (Jayoung, Puig, Kim, Shin, Lee, & Lee, 2010). In another research where MBI construct was used, GPA was significantly correlated with emotional exhaustion but not with depersonalization or personal accomplishment (Jacobs & Dodd, 2003). Considering the risk of burnout, it is shown that 54.4% of students with low GPA are at risk of burnout and 26.6% are at high risk of burnout. There is a significant influence of GPA on a risk of burnout and on high risk of burnout.

Subaaalaa	Students		
Subscales	Low GPA	High GPA	р
Exhaustion			
Mean (SD)	2.43 (1.13)	2.56 (1.04)	0.241
High score, no (%)	38 (22.5%)	50 (24.2%)	0.736
Cynicism			
Mean (SD)	1.17 (1.02)	0.96 (0.92)	0.032
High score, no (%)	46 (27.2%)	37 (17.9%)	0.05
Efficacy			
Mean (SD)	3.63 (1.04)	4.16 (1.01)	0.0001
Low score, no (%)	61 (36.1%)	33 (15.9%)	0.011
Risk of burnout	92 (54.4%)	82 (39.6%)	0.004
High risk of burnout	45 (26.6%)	33 (15.9%)	0.011

Table 3: Differences in risk of burnout between students with low and high GPA

Detailed examinations of student GPAs found that students in risk of burnout have GPA of 8.11 and those that are not at risk have a GPA of 8.35. Therefore, there is a significant difference in GPAs between two groups of students (t (374) = 2, 385, p = 0,005). The GPA of students with high risk of burnout is 8.04, while those who are not in this group have a GPA of 8.29. There is a significant difference between these two groups as well (t (374) = 2, 426, p = 0.016).

Conclusions (and future research)

The main results from this study show that the risk of burnout is widespread in management and IT students in Serbia. Almost 50% of participants are at risk and over 20% of them are at high risk of burnout. There were no differences found between genders. Grade point average was found to be an important predictor of risk of burnout.

Data on several other demographic and other characteristics of students were gathered in the course of this research. Some of them were not considered in this paper, but might be significant for risk of burnout in student population. Therefore, authors of this paper will include current year of studies, field of studying (management or IT), source of financing (government budget or self-financing), employment status (unemployed, part-time workers and full-time workers), hometown, and amount of time dedicated to learning activities and class attendance in their future research. Since we have concluded there is a significant difference in risk of burnout between students with high and low GPAs, it might be interesting to analyze the relationship between GPA and some other characteristic of students. Likewise it would be useful to conduct a national study on risk of burnout using the entire student population in Serbia, and not just management and IT students at Faculty of Organizational Sciences.

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