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BURNOUT IN MASTER'S STUDENTS – A CASE STUDY

Abstract: Burnout is associated with long-term exposure to workplace stress and it comprises exhaustion, cynicism, and the feeling of inadequacy as its dimensions. University students are exposed to a variety of stress-inducing factors during their studies regardless of the fact that they are not employees. The aim of this study is to examine the relations between specific sociodemographic variables and burnout dimensions among students of master academic studies. School Burnout Inventory (SBI-U 9) is used as the research instrument. The obtained results indicate that there is a connection between students' gender and tuition fee status and burnout. Gender is associated with exhaustion and the feeling of inadequacy, while tuition fee status affects all three dimensions.

Key words: burnout, gender, tuition fee status, preventive measures

INTRODUCTION

Occupational burnout was first investigated in the second half of the 20th century, at first in the so-called helping professions. Soon after, it was discovered that prolonged exposure to stress is not typical for these professions only, so burnout studies were expanded to schoolchildren and university students.

Previous studies have shown that academic burnout occurs as a result of stress caused by both personal and organizational factors. Organizational factors refer to the structure of study programmes: number of courses, organization of classes, duration and time of exam periods, exam schedules in the exam periods, the extent of pre-exam duties, extent of library holdings, internet access, quality of classroom and laboratory equipment, lack of information regarding study programme requirements, and so forth. The list should be appended with interpersonal relationships between the teaching and non-teaching staff and the students as well as between the students themselves, lack of financial support in the form of scholarships, and students' expectations of themselves and their families, friends, and professors [1, 2].

Academic burnout is investigated via three dimensions – exhaustion, cynicism, and the feeling of inadequacy. Exhaustion is related to exertion when performing one's academic duties. Academic cynicism implies an indifference towards one's duties and a sense of detachment from them. Inadequacy refers to the feeling of inefficiency regarding duty fulfillment and the loss of confidence in one's ambitions [3]. The three dimensions are usually investigated using two scales: the Maslach Burnout Inventory – Student Survey (MBI-SS) and the School Burnout Inventory (SBI-U 9). Literature review suggests that burnout among university students has not been a topic of broader concern for Serbian researchers, especially with regard to students of technical and technological sciences. This motivated the present authors to investigate burnout among students at a faculty of the University of Niš. The aim is to establish the degree of student

burnout and the influence of specific sociodemographic characteristics (students' gender and tuition fee status) on exhaustion, cynicism, and the feeling of inadequacy – the three dimensions of academic burnout.

RESEARCH METHODOLOGY

Research instrument

The School Burnout Inventory (SBI-U 9) was used as the research instrument and it contains nine items that examine the three burnout dimensions – exhaustion, cynicism, and the feeling of inadequacy – within three subscales. Exhaustion is examined via four items: (1) *I feel overburdened by my schoolwork*; (2) *I often sleep badly because of matters related to my schoolwork*; (3) *I brood over matters related to my schoolwork a lot during my free time*; and (4) *The pressure of my schoolwork causes me problems in my close relationships with others*; cynicism via three items: (1) *I feel a lack of motivation in my schoolwork and often think of giving up*; (2) *I feel that I am losing interest in my schoolwork*; and (3) *I am continuously wondering whether my schoolwork has any meaning*; and the feeling of inadequacy via two items: (1) *I often have feelings of inadequacy in my schoolwork*; and (2) *I used to have higher expectations of my schoolwork than I do now*. The degree of agreement/disagreement was evaluated on a 6-point Likert scale ranging from 1 (*I completely disagree*) to 6 (*I completely agree*). According to its authors, the scale has a good internal consistency with Cronbach's alpha (α) of 0.88, as do the subscales: exhaustion $\alpha=0.80$, cynicism $\alpha=0.80$, and the feeling of inadequacy $\alpha=0.67$ [4]. The present research yielded $\alpha=0.86$, which indicates good scale reliability and internal consistency. Reliability was also good for the exhaustion subscale, $\alpha=0.73$, and cynicism, $\alpha=0.88$, while a somewhat lower value was obtained for the feeling of inadequacy – $\alpha=0.55$. Since the scale, as well as the subscales, is small, mean values of correlation between the items were also calculated. In the burnout scale, the mean value of correlations between the items is 0.42, while the

correlation of item pairs ranges from 0.14 to 0.80. In the exhaustion subscale, the mean value of correlations between the items is 0.40, while the correlation of item pairs ranges from 0.24 to 0.50. In the cynicism subscale, the mean value of correlations between the items is 0.71, while the correlation of item pairs ranges from 0.64 to 0.80. In the inadequacy subscale, the mean value of correlations between the items is 0.37, which is the same as the correlation of item pairs. All of the above results confirm the scale's validity on the research sample.

Research sample

The sample comprises 50 students of master academic studies out of the total of 135 enrolled at the Faculty of Occupational Safety, the University of Niš for the 2020/21 academic year. The research encompassed 21 male students (M), 42%, and 29 female students (F), 58%. The majority of the respondents, 37 (74%), have their tuition fee paid from the state budget, i.e. are budget-financed (B), while 13 (26%) pay for their own tuition, i.e. are self-financed (S).

The data were collected via a survey conducted using a Google questionnaire in November 2020.

The results were processed using descriptive statistical methods (frequency, percentages, mean value, standard deviation). The Chi-square test was used to identify the differences according to gender and tuition fee status, whereas eta squared was used to determine the influence between the groups. Data were processed through SPSS 20.0.

RESULTS AND DISCUSSION

Moderate burnout was found in 58.2% of the respondents, severe burnout in 32%, and mild burnout in only 9.2%. Moderate burnout was prevalent regardless of the students' gender and tuition fee status (Table 1).

Table 1. Burnout degree in relation to gender and tuition fee status

Gender		Mild	Moderate	Severe	Σ
M	N	6	9	6	21
	%	28.5	42.9	28.6	100
F	N	2	17	10	29
	%	6.9	58.6	34.5	100
Tuition fee status					
B	N	8	19	10	37
	%	21.6	51.4	27	100
S	N	0	7	6	13
	%	0	53.8	46.2	100

Even though the values of Pearson Chi-Square 4.291, $df=2$, Asymp. Sig. 0.117 and Pearson Chi-Square 3.992, $df=2$, Asymp. Sig. 0.141 do not indicate a statistically significant relationship, the data shown in Table 1 suggest that a higher percentage of female students and self-financed students exhibit moderate and severe burnout.

The values obtained for all three subscales indicate that a considerably higher percentage of female students

exhibit moderate exhaustion, cynicism, and feeling of inadequacy compared to the male students.

Table 2. Gender and burnout dimensions

Exhaustion		Mild	Moderate	Severe	Σ
M	N	6	9	6	21
	%	28.5	42.9	28.6	100
F	N	2	17	10	29
	%	6.9	58.6	34.5	100
Pearson Chi-Square=6.633, $df=2$, Asymp. Sig. 0.036					
Cynicism					
M	N	11	3	7	21
	%	52.4	14.3	33.3	100
F	N	11	16	2	29
	%	37.9	55.2	6.9	100
Pearson Chi-Square=10.666, $df=2$, Asymp. Sig. 0.005					
Inadequacy					
M	N	8	8	5	21
	%	38.1	38.1	23.8	100
F	N	2	20	7	29
	%	6.9	69	24.1	100
Pearson Chi-Square=8.001, $df=2$, Asymp. Sig. 0.018					

Eta squared of 0.045 indicates a moderate influence of gender on exhaustion. A somewhat higher percentage of male students (71.4%) partly agree, agree, or completely agree that they feel overburdened by their schoolwork compared to the female students (68.9%), but more female students in comparison partly agree, agree, or completely agree that they often sleep badly because of matters related to their schoolwork (F: 37.9%, M: 28.6%) and that they brood over matters related to their schoolwork a lot during their free time (F: 86.2%, M: 76.2%); an almost equal number of female and male students believe that the pressure of their schoolwork causes them problems in their close relationships with others (F: 37.9%, M: 38%). Eta squared values indicate that gender does not influence the first item, moderately influences the second item (0.061), and only weakly influences the third and the fourth item (0.011 and 0.020, respectively).

Although eta squared of 0.001 indicates that there is no influence of gender on academic cynicism, this dimension is slightly more pronounced among the male students. Higher percentages of male students partly agree, agree, or completely agree that they feel a lack of motivation in their schoolwork and often think of giving up (M: 23.9%, F: 20.6%), that they feel that they are losing interest in their schoolwork (M: 38.1%, F: 31%), and that they continuously wonder whether their schoolwork has any meaning (M: 47.6%, F: 37.8%). Eta squared values for all three items do not indicate an influence of gender on academic cynicism (0.008, 0.001, and 0.007, respectively).

Eta squared of 0.055 indicates a moderate influence of gender on the feeling of inadequacy, which is more pronounced among the female students, more of whom partly agree, agree or completely agree that they often have feelings of inadequacy in their schoolwork and that they used to have higher expectations of their schoolwork than they do now (37.9% and 65.5%,

respectively) than the male students (28.6% and 57.1%, respectively). Eta squared values indicate a moderate influence for the first item (0.061) and a weak influence for the second (0.030).

Results from previous studies on the relation between gender and academic burnout vary. The results obtained in the present study do not correlate with the results of a study involving university students where it was determined that exhaustion, as a burnout dimension, was more pronounced among male students [4, 5], but they partially correlate with results from other studies [1]. The high percentage of female students who exhibit moderate and severe burnout (Fig. 1) might be explained by the traditional understanding of the place and role of women in Serbian society. Namely, in addition to their professional, or in this case school, duties, they are usually responsible for doing housework and taking care of younger or older members of their households.

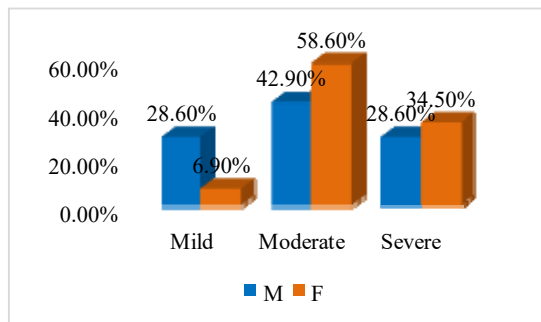


Figure 1. Students' gender and burnout

The data shown in table 3 indicate that a higher percentage of self-financed students exhibit moderate exhaustion and cynicism compared to budget-financed ones, but also that more budget-financed students feel inadequate than the self-financed ones. Although no statistical significance was found between the tuition fee status and burnout dimensions, the obtained mean values and eta squared values indicate that there is some influence of the tuition fee status on burnout dimensions, albeit a weak (B: $M=2.1081$, $SD=0.61390$; S: $M=2.3077$, $SD=0.75107$; eta squared 0.018) and moderate one on cynicism (B: $M=1.6486$, $SD=0.71555$; S: $M=2.000$, $SD=0.81650$; eta squared 0.043) and the feeling of inadequacy (B: $M=1.9459$, $SD=0.66441$; S: $M=2.3077$, $SD=0.63043$; eta squared 0.057).

Cumulative percentages indicate that a higher percentage of self-financed students partly agree, agree, or completely agree that they feel overburdened by their schoolwork (77%) compared to the budget-financed students (67.5%), that they often sleep badly because of matters related to their schoolwork (S: 46.2%, B: 29.4%), that they brood over matters related to their schoolwork a lot during their free time (S: 84.7%, B: 81.1%), and that the pressure of their schoolwork causes them problems in their close relationships with others (S: 38.5%, B: 37.8%).

Table 3. Tuition fee status and burnout dimensions

Exhaustion		Mild	Moderate	Severe	Σ
B	N	5	23	9	37
	%	13.5	62.2	24.3	100
S	N	2	5	6	13
	%	15.4	38.5	46.2	100
Pearson Chi-Square=2.517, df=2, Asymp. Sig. 0.254					
Cynicism					
B	N	18	14	5	37
	%	48.6	37.8	13.5	100
S	N	4	5	4	13
	%	30.8	38.5	30.8	100
Pearson Chi-Square=2.291, df=2, Asymp. Sig. 0.318					
Inadequacy					
B	N	9	21	7	37
	%	24.3	56.8	18.9	100
S	N	1	7	5	13
	%	7.7	53.8	38.5	100
Pearson Chi-Square=2.876, df=2, Asymp. Sig. 0.237					

Eta squared values indicate that the first item is not influenced by the tuition fee status, the second item is moderately influenced (0.075), while the third and fourth items are only weakly influenced (0.019 and 0.013, respectively).

A higher percentage of self-financed students partly agree, agree, or completely agree that they feel a lack of motivation in their schoolwork and often think of giving up (30.8%), that they feel they are losing interest in their schoolwork (46.2%), and that they continuously wonder whether their schoolwork has any meaning (46.2%) compared to the budget-financed students (18.9%, 29.7%, and 40.5%, respectively). Eta squared indicates that there is no influence of the tuition fee status on cynicism for the first item but that there is a moderate influence for the other two items (0.043 and 0.040, respectively).

The feeling of inadequacy is more pronounced among the self-financed students. Cumulative percentages indicate that more students in this category partly agree, agree, or completely agree that they often have feelings of inadequacy in their schoolwork and that they used to have higher expectations of their schoolwork than they do now (46.2% and 76.9%, respectively) compared to the budget-financed students (29.7% and 56.7%, respectively). Eta squared for both items indicates a moderate influence (0.075 and 0.093, respectively) of the tuition fee status on the feeling of inadequacy.

Such high percentages of students exhibiting moderate and severe burnout (Fig. 2) might be explained by personal factors as well as organizational and social circumstances surrounding the students. Since all self-financed students exhibit moderate or severe burnout, further research into this problem is warranted, as are prompt organizational preventive measures. Special attention should be given to the analysis of how well study programmes are harmonized with the actual needs of the economy and the society, how students find the means to finance their own studies, and how

the teaching process is organized.

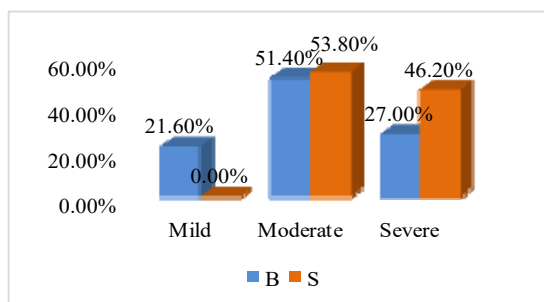


Figure 2. Students' tuition fee status and burnout

Research limitations and significance

The main limitation of this research is the sample size and the examination of the influence of a small number of sociodemographic variables on student burnout. Future studies should focus on aspects such as students' age, financial status (how they provide for themselves during their studies), duration of studies, living situation, health status, and so forth.

The greatest significance of this research is that it brings into focus the fact that there are master's students studying technical and technological sciences who exhibit burnout. Accordingly, the research should serve as a motivation to conduct further research and initiate specific activities by the faculties or universities.

CONCLUSION

The highest percentage of the surveyed students were found to exhibit moderate burnout. Gender differences were also observed for specific burnout dimensions, specifically, exhaustion and the feeling of inadequacy were more pronounced among the female students, while cynicism was prevalent among the male students. In terms of the tuition fee status, moderate and severe burnout were the most pronounced in self-financed students, for all three dimensions.

Burnout can affect the quality of life, which is why research on this issue is necessary in order to avoid long-term negative psychosocial effects on students as well as potential issues that higher education institutions could face if students were to drop out because of burnout.

Regardless of the aforementioned limitations, and because of the high percentage of students exhibiting

moderate and severe burnout, students need to be acquainted with some of the personal burnout prevention strategies and institutions need to devise institutional prevention strategies. This, however, requires additional efforts from every faculty employee and the creation of a special team that would analyze the incidence of burnout and propose organizational preventive strategies.

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BIOGRAPHY of the first author

Vesna Miltojević is a full professor at the Faculty of Occupational Safety in Niš. Holding a PhD in sociological sciences, she teaches the following courses: Sociology, Sociology of Occupational Safety, and Social Ecology. A particular area of her interest involves the social aspects of occupational safety and environmental protection, such as motivation for work and safe work, and sustainable development.



Sagorevanje studenata master studija – studija slučaja

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Rezime: Brnaut sindrom vezuje se za dugotrajnu izloženost stresu na radnom mestu, a kao dimenzije se navode iscrpljenost, cinizam i neadekvatnost. Studenti su izloženi raznim stresogenim faktorima tokom studija bez obzira što nisu formalno u radnom odnosu. Cilj istraživanja bio je ispitivanje odnosa nekih sociodemografskih varijabli i dimenzija sagorevanja studenata master akademskih studija. Primenjen je School Burnout Inventory (SBI-U 9). Dobijeni rezultati pokazuju da postoji veza između pola i statusa studenata i sagorevanja. Pol je povezan sa iscrpljenošću i neadekvatnošću, a status stunetnata sa sve tri dimenzije.

Ključne reči: sagorevanje, pol, status studenata, preventivne mere.

