



Stress and stress coping strategies among undergratuated students of the University of Ljubljana

Stres in obvladovanje stresa med študenti Univerze v Ljubljani

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Abstract

Background: Stress is an inevitable phenomenon of students' way of life nowadays. In particular, stressors are associated with study obligations and interpersonal relationships. In a time of rapid social changes, the problem of stress among young people is highly dynamic and complicated; therefore, academic studies and research regarding this subject are among the most important tasks of society. Our study aimed to analyse the stress and coping strategies among the students of selected faculties of the University of Ljubljana.

Methods: We surveyed 622 students of the first and third year of six faculties of the University of Ljubljana, of which 40.5% were men and 59.6% women. The questionnaire was summarized according to the questionnaire used in the project "Risk Factors for Non-Communicable Diseases in Adult Population of Slovenia" was used in our study. The data were processed with SPSS. The basic statistics were calculated, and the hypotheses were checked at the level of 5% of the statistical risk ($p \leq 0.05$) using the Chi-square test.

Results: The survey showed that most students (46.8%) feel stress occasionally, 30.4% of them often, and 4.7% every day. The students of the Faculty of Medicine are more affected by stress than other students are, especially in comparison to the students of the Faculty of Sport. Women suffer from stress more than men do. A total of 82.2% of the students claimed the burden of study as the reason for tension, stress and a feeling of heaviness. Among them, most students were from the Faculty of Medicine and the least were from the Faculty of Sport; most of them were women. The students of the Faculty of Mechanical Engineering and the Faculty of Medicine study and learn continuously. Outside the examination period, 38.5% of students sleep only 5 to 6 hours per day. Only 12.8% of students can easily handle stress, 70% of them handle stress

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with some effort and 16.5% of them with great effort; among them, students of the third year and men cope with stress better than others do. As a coping strategy, a large majority (72%) of students mention sports activity, mostly students of the Faculty of Sport, and the least students of the Faculty of Education. Only 5.2% of students never engage in sport; most are active in sports from 3 to 5 days a week, from 30 to 60 minutes.

Conclusion: The study highlighted the problem of stress and coping with it with students from selected faculties of the University of Ljubljana. The survey has shown a high prevalence of self-reported stress, with the vast majority of students reporting physical activity as the most used method of coping. There were significant differences with the corresponding confidence level 95% in terms of gender and faculty. Further research and the implementation of effective measures could improve the quality of life of students, which would later also contribute to reduced levels of burnout in the workplace, as young people as students would be better aware of this problem and knew the appropriate preventive measures.

Izvleček

Izhodišče: Stres je neizogiben pojav današnjega načina življenja pri študentih. Za študente so značilni zlasti stresorji, ki so povezani s študijskimi obveznostmi in z medosebnimi odnosi. Problematika stresa pri mladih je v času hitrih družbenih sprememb zelo dinamična in zapletena, zato je na tem področju strokovno delo, podprto z raziskovalnimi izsledki, ena od najodgovornejših nalog družbe. Namen naše raziskave je bil analizirati stres ter načine spoprijemanja z njim pri študentih izbranih fakultet Univerze v Ljubljani.

Metode: Anketirali smo stanje pri 750 študentih prvega in tretjega letnika iz 6 fakultet Univerze v Ljubljani, od tega je bilo 40,5 % moških in 59,6 % žensk. Podatki so bili obdelani s SPSS. Izračunali smo osnovne statistične parametre, hipoteze pa smo na ravni 5-odstotnega statističnega tveganja ($p \leq 0.05$) preverjali s testom hi-kvadrat.

Rezultati: Raziskava je pokazala, da največ študentov (46,8 %) občasno občuti stres, 30,4 % študentov pogosto in 4,7 % študentov vsak dan; največ študentov Medicinske fakultete in najmanj študentov Fakultet za šport, a več žensk kot moških. Kar 82,2 % študentov navaja kot vzrok za napetost, stres in občutek pritiska obremenitev zaradi študija; največ študentov Medicinske fakultete, študentov prvega letnika in žensk. Največ časa se sproti učijo študentje Fakultete za strojništvo in Medicinske fakultete, več iz prvega kot tretjega letnika. 38,5 % študentov spi zunaj izpitnega obdobja le 5 do 6 ur na dan. Le 12,8 % študentov zlahka obvladuje stres, 70 % študentov z nekaj truda in 16,5 % študentov z večjim naporom; lažje študenti tretjega letnika in lažje moški. Velika večina (72 %) študentov kot metodo za obvladovanje stresa navaja športno dejavnost, največ študenti Fakultete za šport, najmanj pa Pedagoške fakultete. Samo 5,2 % študentov se sploh ne ukvarja s športom, največ se jih ukvarja 3–5 dni v tednu, in sicer 30–60 minut.

Zaključek: V prihodnje bi bilo treba še več pozornosti nameniti razvijanju različnih programov za učinkovitejše obvladovanje stresa pri študentih. Gre predvsem za spodbujanje pozitivne samopodobe in samozaupanja, razvijanje socialnih spretnosti, učenje reševanja problemov, spoznavanje in učenje različnih tehnik sproščanja ter še bolj kot doslej spodbujanje k redni in ustrezni športni dejavnosti.

1 Introduction

Students are confronted with a wide range of stressors and experience a high level of stress in their everyday lives. For them, specific stressors are associated with study obligations and interpersonal relationships. For study obligations, a high level of stress is associated with unsuccessful performance on exams (1). Eisenberg, Gollust, Goldberstein, and Hefner (2) found that for 40% of students in the first and second levels of study (undergraduate and postgraduate students) academic performance is directly and proportionally affected by their psychological and emotional problems. As many as 60% of undergraduate students have a high degree of anxiety and depression (3). They have many roles; they are

not just students. Furthermore, they are often employed, become partners and some of them even parents. Therefore, they often face a lack of time and energy (4). When students experience intense stress, they often engage in unhealthy behaviours, such as inadequate sleep habits, eating unhealthy food, and neglecting exercise (5). Students with less social support are even more prone to unhealthy habits.

A significant factor that often causes stress in students is time pressure. When students are overwhelmed by attending lectures, workshops, and other forms of learning, they experience a high level of stress. They lack time to socialise with friends, to rest, and to engage in

sport recreation (4). In recent decades, researchers have confirmed many of the negative effects of a lack of sleep among students; it has adverse impacts on both physical and mental health. Furthermore, it is necessary to regularly engage in sport. Research has shown that students who are regularly active in sport are happier, confident, optimistic, in a better mood, and have a higher quality of life. Sport-active students are less stressed and more satisfied with their lives (6).

As stress factors, some researchers also mention competitiveness among classmates, pressure on their future careers, financial problems, etc. Especially during exam periods, an increased level of stress can lead to a deterioration of physical and mental health. This can be a serious problem that the students themselves cannot face, which leads to seeking medical help (7).

Stress can be reflected in students with various physical, psychological or behavioural symptoms and causes different responses in different people. Petrova Yordanova (4) lists the findings of researchers on gender differences. Almost two-thirds of female students are often under stress, while such are just over a third of male students. For students who are under stress, they are more likely to have worse self-esteem and poorer health habits. Students who perceive more stressors often do not plan their meals, overeat, and gain weight during stressful periods. Petrova Yordanova (4) found that male students in Slovenia are less exposed to stress than their female counterparts. Podjedova (8) presents data showing that male students experience more stressful events than female students do, but they rate them more positively than female students do. Male students are more likely to use strategies oriented to problem-solving. This includes planning, actively coping with and accepting stress. Female students, however, most often use the strategies for searching for instrumental social support, which means they usually need the help of others to solve the problem.

Similarly, Škulj (9) found that male students rarely experience a sense of stress and anxiety and more often use techniques to tackle stress than female students do, so they can also deal with stress more easily. Colarič and Eder (10) found that women are more depressed and anxious than men are. Similar results are also reported by authors from Nigeria; there was twice as much prevalence of depression among females (11). The research by Dyson and Renk (12) shows that the roles of men and women have recently become very close and the differences are therefore insignificant.

The transition from secondary school to university can be very stressful for young people. A high level of stress and depression is especially noticeable for students

attending the first year (10,12) and among students who are more distant from home (13). First-year students face numerous problems, such as selecting subjects, engaging in new ways of learning, understanding textbooks and articles written in a foreign language, attending early lectures after sleepless nights, financial and health problems, etc. For many students, the time of the start of the study is also the time of changing the place of residence, which often leads to homesickness and loneliness. This often also means losing important social contacts and support of family and friends. Therefore, they need to rebuild the social network, but they also encounter many study requirements (4,14).

Students use different strategies and styles to cope with stress that have been learnt and gained on the basis of their own experience in social learning processes from childhood onwards. The characteristics of coping behaviour in childhood and adolescence are an essential basis and starting point for tackling stress in adulthood. Many researchers have found that strategies for coping with stress are a significant predictor of mental health and psychological adaptation of adolescents, especially in the field of learning (15).

Problem-solving can effectively remove stressors, which can lead to a positive impact on the health of an individual. Park and Adler (16) studied the styles of coping with the stress of medical students and assessed their mental and physical health at the end of their first year. As a result of chronic stress through medical education, all students showed a negative impact on physical and mental health. However, some differences also emerged; in students who used more planned problem solving, a minor deterioration in health was observed. The findings of Crockett et al. (17) are similar. Participants who used the avoiding coping strategy more frequently experienced anxiety and depression compared to those who chose to tackle the problem (4).

The problem of stress in young people is very dynamic and complicated in the time of rapid social changes, therefore, professional research regarding it is an urgent task. Our study aimed to analyse stress and ways of dealing with it in the students of selected faculties of the University of Ljubljana.

For the purpose of our study, we set two hypotheses:

H1: No relationship exists on the self-reported stress in the population of selected faculties of the University of Ljubljana; they are independent.

H2: No relationship exists on the cause of feeling tension, stress or pressure “the burden of study” self-reported stress in the population of selected faculties of the University of Ljubljana; they are independent.

2 Methods

2.1 Sample

First, we conducted a pilot study among 20 students. They were asked to comment on each question whether it was meaningful, understandable and clearly set. Thus, the questionnaire was corrected, supplemented and improved prior to the actual implementation of the survey. Then we personally distributed questionnaires during the classes to students of six different faculties.

We carried out the survey personally in academic year 2017/2018. The sample was formed by pre-determining the days of distribution of the questionnaires and included those students who were present at the compulsory lectures and agreed to participate in the research. Before conducting the research, we informed the students about the aim of the research. The questionnaire contained an introductory part explaining the course of the research and a request to participate. The returned completed questionnaire was considered as consent to participate in the survey. The main criteria for inclusion in the research were a certain faculty and a certain year.

The main exclusion criterion was non-cooperation or incomplete questionnaire. Participation in the survey was anonymous. The share of students offered a questionnaire was on average 48%. The share of students who completed a questionnaire was on average 18.8%. This proportion varied according to the faculty (see Table 1).

The study sample included 622 students (40.5% of male students and 59.5% of female students) of the first and third year of undergraduate studies of six faculties of the University of Ljubljana: Faculty of Medicine, Faculty of Sport, Faculty of Economics, Faculty of Mechanical Engineering, Faculty of Education and Biotechnical Faculty (basic characteristics of the sample are shown in Table 1). The share of respondents by gender was balanced across all faculties. More women than men took part in the survey, the ratio for each faculty was around 60:40 (female:men).

2.2 Questionnaire

The questionnaire used in the survey was summarized according to the questionnaire used in the project “Risk Factors for Non-Communicable Diseases in Adult

Table 1: Basic characteristics of the sample.

| | n | % | Number of students in first and third year in academic year 2017/2018 (population) | % of sample from the population |
|----------------------|------------|------------|--|---------------------------------|
| Faculty | | | | |
| BF | 91 | 14.6 | 846 | 10.8% |
| EF | 108 | 17.4 | 1166 | 9.3% |
| FME | 118 | 19.0 | 391 | 30.2% |
| FS | 117 | 18.8 | 410 | 28.5% |
| MF | 102 | 16.4 | 489 | 20.9% |
| PeF | 86 | 13.8 | 654 | 13.1% |
| Year of study | | | | |
| first | 369 | 59.3 | | |
| third | 253 | 40.7 | | |
| Gender | | | | |
| Male | 252 | 40.5 | | |
| Female | 370 | 59.5 | | |
| Total | 622 | 100 | | |

Legend: n – number, % – percentage, MF – Faculty of Medicine, FS – Faculty of Sport, EF – Faculty of Economics, FME – Faculty of Mechanical Engineering, PeF – Faculty of Education and BF – Biotechnical Faculty.

Population of Slovenia” in 2008 (18). For the purposes of our research, we have adapted the questions to the population of students, and preserved them in a format that allows comparison of results.

The questionnaire comprised eight sets of questions: general information (faculty, year and gender), the study load, stress and burnout, health status, food, physical activity, smoking habits, and alcohol.

Most of the questions were in the form of a Likert scale. Several questions had the options, where several responses could be marked, and some questions had a possible open type answer, where students could write the answer themselves. Some of the questions were of an open type, so we subsequently merged and formed the categories.

2.3 Procedure

The study design was approved by the Republic of Slovenia National Medical Ethics Committee (decision No. 59/1999 on February 2016). The data collection process was carried out in accordance with the requirements of the Personal Data Protection Act (Official Gazette of the Republic of Slovenia, No. 59/1999). The data were processed using IBM SPSS 24.0 software. The basic statistics were calculated, and the two hypotheses were checked using the Chi-square test.

3 Results

3.1 Time dedicated to study

The results of the research have shown that most students study several times a week, but there is a statistically significant difference with the corresponding confidence level 95% with regard to the faculty. The highest percentage of students who study every day and study regularly is among the students of the Faculty of Mechanical Engineering (29.7%; confidence interval [25.5% - 33.9%]), followed by the students of the Faculty of Medicine (27.5%; confidence interval [23.6% - 31.4%]). There are more students who do not study every day and on a regular basis at the Faculty of Education (10.5%; confidence interval [8.7% - 12.3%]) and the Faculty of Economics (10.2%; confidence interval [9% - 11.4%]), followed by the Biotechnical Faculty (8.8%; confidence interval [7.5% - 10.1%]) and the Faculty of Sport (4.3%; confidence interval [3.5% - 5.1%]). Most students of the Faculty of Education (55.8%; confidence interval [54% - 57.6%]) start to study only a few

days before the exam.

We have found out that more students of the 3rd year compared to the 1st year students study only a few days before the exam.

46.9% (confidence interval [44.6% - 49.2%]) of the students study less than two hours a day; most of them were students from the Faculty of Sport (70.1%). 42.4% of students study from 2 to 4 hours a day, 9% of students 5 to 7 hours a day, and 1.6% of students more than 7 hours a day. The results have also shown that the difference (significance level is 0.05) is statistically significant with regard to the faculty. The students of the Faculty of Medicine and the Faculty of Mechanical Engineering dedicate more time to study than students from other faculties.

3.2 Sleep

Outside the exam period, 52.1% (confidence interval [50.9% - 53.3%]) of the students are sleeping 7-8 hours a day, 38.5% 5-6 hours per day, 4.4% of the students less than 5 hours a day and 5% of the students more than 8 hours daily.

We also determined the number of sleep hours students would like to have at night during the working week. A majority of the 1st year students and students of the Faculty of Education would like to sleep more than 8 hours per day.

We also asked students how often they were tired after sleeping; 67.1% answered that they were tired at least 1-2 times a week, and 8.6% even every day.

3.3 Frequency of feeling tension, stress and pressures

Table 2 shows the frequency of feeling tension, stress and pressure. Almost half of the students occasionally feel tension, stress and pressure, most of them being students of the Faculty of Sport. Stress is often felt by 30.4% (confidence interval [28.1% - 32.7%]) of students and by 4.7% (confidence interval [2.4% - 7%]) every day; mostly by students of the Faculty of Medicine and the Faculty of Education and the least by students of the Faculty of Sport. Mostly tension, stress and pressure are experienced among female students (Table 2).

We verified the above stated hypotheses by applying Chi-square test. First, we tested hypothesis 1. To make a conclusion about it with 95% confidence, the value labelled Asymp. Sig. should be less than .05 (which is the alpha level associated with a 95% confidence level). Cells

Table 2: Feelings of tension, stress and pressure.

| | Never | | Very rarely | | Occasionally | | Often | | Every day | | p |
|----------------------|-----------|------------|-------------|-------------|--------------|-------------|------------|-------------|-----------|------------|-------|
| | n | % | n | % | n | % | N | % | n | % | |
| Total | 10 | 1.6 | 102 | 16.5 | 290 | 46.8 | 188 | 30.4 | 29 | 4.7 | |
| Gender | | | | | | | | | | | ≤0.05 |
| Male | 7 | 2.8 | 62 | 24.7 | 126 | 50.2 | 51 | 20.3 | 5 | 2.0 | |
| Female | 3 | 0.8 | 40 | 10.9 | 164 | 44.6 | 137 | 37.2 | 24 | 6.5 | |
| Faculty | | | | | | | | | | | ≤0.05 |
| BF | 1 | 1.1 | 19 | 20.9 | 50 | 54.9 | 18 | 19.8 | 3 | 3.3 | |
| EF | 8 | 7.5 | 25 | 23.4 | 47 | 43.9 | 23 | 21.5 | 4 | 3.7 | |
| FME | 1 | 0.9 | 18 | 15.4 | 50 | 42.7 | 43 | 36.7 | 5 | 4.3 | |
| FS | 0 | 0.0 | 24 | 20.5 | 67 | 57.2 | 23 | 19.7 | 3 | 2.6 | |
| MF | 0 | 0.0 | 7 | 6.9 | 38 | 37.7 | 47 | 46.5 | 9 | 8.9 | |
| PeF | 0 | 0.0 | 9 | 10.5 | 38 | 44.2 | 34 | 39.5 | 5 | 5.8 | |
| Year of study | | | | | | | | | | | 0.140 |
| first | 4 | 1.1 | 57 | 15.5 | 186 | 50.7 | 102 | 27.8 | 18 | 4.9 | |
| third | 6 | 2.4 | 45 | 17.8 | 104 | 41.3 | 86 | 34.1 | 11 | 4.4 | |

Legend: p – Chi square test; statistical significance; MF – Faculty of Medicine, FS – Faculty of Sport, EF – Faculty of Economics, FME – Faculty of Mechanical Engineering, PeF – Faculty of Education and BF – Biotechnical Faculty.

with frequencies smaller than five were merged. Therefore, we combined answers never and very rarely, and often and every day. We can conclude that the variables are not independent of each other ($p=.15$) and that there is a statistical relationship in the self-reported stress in the population of selected faculties of the University of Ljubljana.

3.4 Causes of feeling tension, stress or pressure

In the study, we identified the causes that lead to a feeling of tension, stress or pressure.

Most of the students (82.2%; confidence interval [79.7% - 84.7%]) state as the cause of feeling tension, stress or pressure “the burden of study”, most frequently by the students of the Faculty of Medicine, students of the 1st year and among female students. We rejected null hypothesis and confirmed ($p=.038$) alternative hypothesis, which was that there is a statistical relationship between in the cause of feeling tensions, stress or pressure “the burden of study” stress among students of different faculties of the University of Ljubljana.

18.6% (confidence interval [17.5% - 19.7%]) of students state as the cause of feeling tension, stress or pressure “problems in interpersonal relationships”, mostly by the students of the Faculty of Education, the students of the 3rd year and among female students. 14.4% (confidence interval [13.3% - 15.5%]) of students’ state as the cause of feeling tension, stress or pressure “loneliness”, 11.0% (confidence interval [9.9% - 12.1%]) of them “noisy environment”, 8.4% (confidence interval [7.3% - 9.5%]) “poor relations between colleagues”, 6.6% (confidence interval [5.5% - 7.7%]) “poor material conditions for life”, 5.5% (confidence interval [4.4% - 6.6%]) “being involved in extracurricular activities”, and 3.1% (confidence interval [3% - 4.1%]) “time constrained, overcrowded every day, lack of time to relax, quick way of life”. We did not find statistically significant differences (significance level is 0.05) in gender, faculty and age in the above mentioned causes.

3.5 Self-assessment of stress control

More than two-thirds of students (69.6%; (confidence interval [68.8% - 70.4%]) control stress with some

Table 3: Stress coping methods.

| | Physical activity (also a walk in the nature) | | p | Balanced diet and maintenance of normal body weight | | p | Relaxation techniques (meditation, yoga, autogenic training) | | p |
|----------------------|---|-------------|-------|---|-------------|-------|--|-------------|-------|
| | N | % | | n | % | | n | % | |
| Total | 445 | 72.0 | | 180 | 29.1 | | 124 | 20.1 | |
| Gender | | | 0.585 | | | 0,012 | | | 0.220 |
| Male | 184 | 73.3 | | 59 | 23.5 | | 44 | 17.5 | |
| Female | 261 | 71.1 | | 121 | 33.0 | | 80 | 21.8 | |
| Faculty | | | ≤0.05 | | | 0,004 | | | 0.013 |
| BF | 68 | 74.7 | | 31 | 34.1 | | 21 | 23.1 | |
| EF | 69 | 64.5 | | 18 | 16.8 | | 33 | 30.8 | |
| FME | 79 | 68.1 | | 26 | 22.4 | | 13 | 11.2 | |
| FS | 106 | 90.6 | | 37 | 31.6 | | 23 | 19.7 | |
| MF | 76 | 75.2 | | 39 | 38.6 | | 18 | 17.8 | |
| PeF | 47 | 54.7 | | 29 | 33.7 | | 16 | 18.6 | |
| Year of study | | | 0.715 | | | 0.787 | | | 0.004 |
| first | 266 | 72.7 | | 105 | 28.7 | | 59 | 16.1 | |
| third | 179 | 71.0 | | 75 | 29.8 | | 65 | 25.8 | |

Legend: p – Chi square test; statistical significance; MF – Faculty of Medicine, FS – Faculty of Sport, EF – Faculty of Economics, FME – Faculty of Mechanical Engineering, PeF – Faculty of Education and BF – Biotechnical Faculty.

effort, 16.5% (confidence interval [15.7% - 17.3%]) with great effort and only 12.8% (confidence interval [12% - 13.6%]) easily. The results have shown that students of the Faculty of Medicine find it harder to control the stress as compared to other students. Stress is more easily controlled by male students and third-year students.

3.6 Stress coping methods

In the study, we identified methods by which students manage stress (see Table 3).

As a method for stress coping, a great majority (72%; (confidence interval [70.1% - 73.9%]) of students mentioned “physical activity”, where the highest percentage is detected among students of the Faculty of Sport (90.6%), while the lowest among students of the Faculty of Education (54.7%). 29.1% (confidence interval [27.2% - 31%]) of students reported “a balanced diet and maintaining normal body weight” as a method of coping with stress. 20.1% (confidence interval [18.2% - 22%]) of students

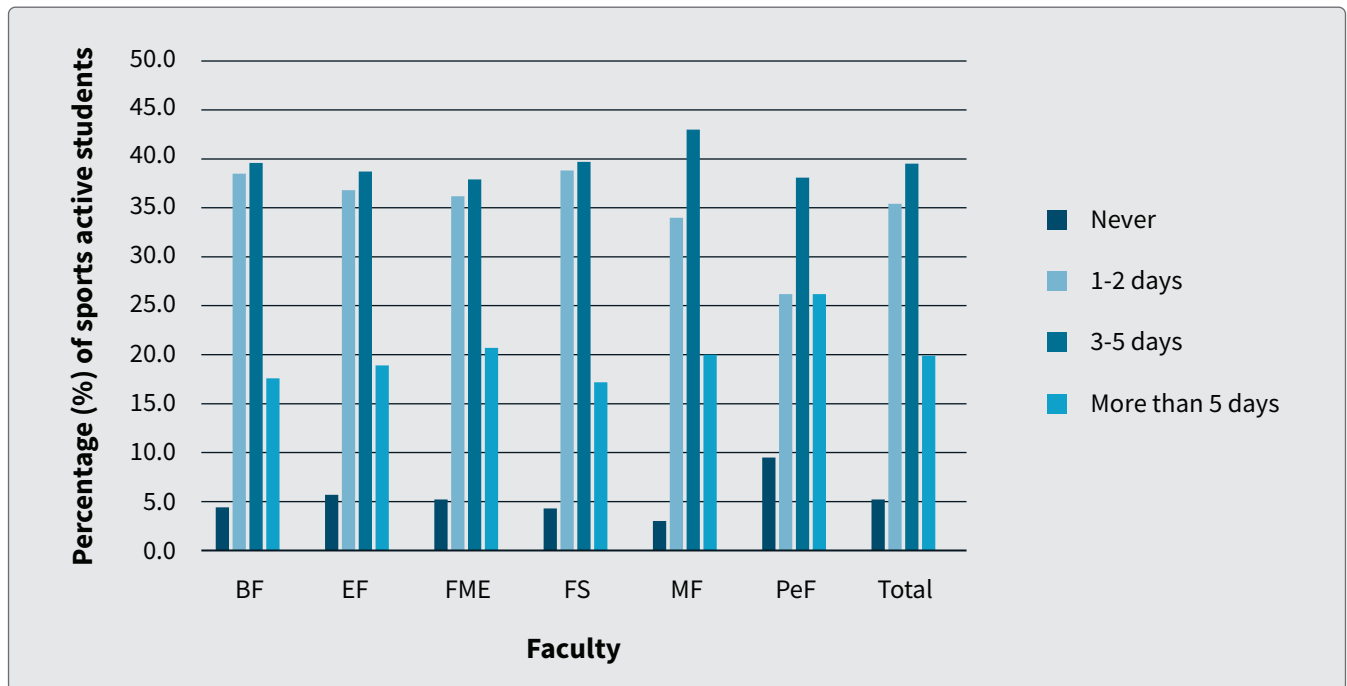
state that they try to cope with stress with a “relaxation technique (meditation, yoga, autogenic training)”. The higher percentage is registered among students of the Faculty of Economics (30.8%) and the lowest percentage among the students of the Faculty of Mechanical Engineering (11.2%) and among the 3rd year students.

3.7 Sports activity

There is a minority of students who are not engaged in sport at all (5.2%). Most of the others are sport active for 3-5 days per week (39.5% (confidence interval [38.5% - 40.5%]), a slightly lower percentage (35.4%) (confidence interval [34.4% - 36.4%]) for 1 to 2 days per week, and 19.9% (confidence interval [18.9% - 20.9%]) of students for more than 5 days per week.

Students are mostly engaged in sport 30 to 60 minutes a day, while a third of them are sport active up to 30 minutes a day, and a similar proportion more than 60 minutes per day.

From Figure 1 we can see the percentage of sports

Figure 1: Weekly sports activity among students of different faculties.

Legend: MF – Faculty of Medicine, FS – Faculty of Sport, EF – Faculty of Economics, FME – Faculty of Mechanical Engineering, PeF – Faculty of Education and BF – Biotechnical Faculty.

active students from different faculties during one week. We found no statistically significant differences (significance level is 0.05) among them.

4 Discussion

Students are a group of people that are prone to stress due to the nature of student life. They are exposed to high-stress periods during the study process and are stressed due to other factors such as finances (seeking a job), seeking a partner, being distant from home etc. (19).

In our study, almost half of the students feel stress occasionally, about a third of them often or every day; stress is felt most frequently by the students of the Faculty of Medicine and least frequently by the students of the Faculty of Sport. According to the National Institute of Public Health, about a quarter of the adult population of Slovenia is experiencing stress very often or on a daily basis and in the last four years (20), what is less than the results of our study about stress among students. The feeling of tension, stress and pressure is felt more by female students than male students. The results of our study are comparable to results from the research among American students (21-22) and Pakistani students of medicine, which indicates that students are under stress; almost all

of the older students are under even more stress than the younger ones (23). Also, most Polish students believe that stressful situations due to their studies are inevitable (24). Our results have also been confirmed by a study among students of the Faculty of Social Sciences (UL), where about half of them are experiencing stressful situations (25), and other studies that show that Slovenian students are stressed more and more often (26).

The most common cause of stress among students is the burden of study. Almost all students of the Faculty of Medicine and the majority of students of the Faculty of Education and the Faculty of Mechanical Engineering feel most burdened by their studies. The students of the Faculty of Sport and the Faculty of Economics are the least burdened. It is interesting that students of the Faculty of Education often experience stress (right after the students of the Faculty of Medicine), and they feel mostly burdened by the study, even though they dedicate much less time to their independent studies than students of the Faculty of Mechanical Engineering and students of the Faculty of Medicine. The majority of respondents (more than 60%) at the Faculty of Education are female, which may explain the higher level of stress among them. Our survey has shown that most students study several times a week. The majority of students who study every day and on a regular basis are students of the

Faculty of Mechanical Engineering and the Faculty of Medicine. Almost two-thirds of the students of the Faculty of Medicine and half of the students of the Faculty of Mechanical Engineering devote two to four hours per day to their independent study. Almost half of the students study less than two hours a day, mostly students of the Faculty of Sport.

A recent study among students of the Faculties of Medicine in Ljubljana and Maribor showed that the highest level of stress for students of both faculties is attributable to academically connected stressors, followed by personal stressors (27). A high percentage of study burdens exist among students of the 1st year. We can assume that students of the 1st year are also more burdened by the transition from the secondary school to the faculty, which is very stressful (4,10-14). Female students are more affected by stress due to their studies. Examinations, family, and relationship problems are more likely to be the source of stress among female students than among male students (28,29). Many more students of the 3rd year than the 1st year are studying only a few days before the exam. The fact that students of the 3rd year devote less time to study than students of the 1st year can be explained by the fact that the burden during the study is decreasing, or the students have simply become accustomed to the study system and know how to better manage their time.

The majority of students mention sports activity as a method of coping with stress, especially students of the Faculty of Sport, who are probably the most aware of the importance of regular sports activities. Our research has shown that 5% of students of selected faculties in Ljubljana are athletes. Most are engaged in sports 3 to 5 times a week, mostly from 30 to 60 minutes. In his survey of 1390 students of the University of Ljubljana, Majerič (30) found that in the last decade there is an increase in the proportion of sports-active students. In 2012/13, the proportion of sports-active students increased from 60.4% to 76.8% in comparison with 2001/2002 (30), but the state of their physical fitness is at a lower level than it could be (31).

Sleep is essential for survival and represents a natural state of physical rest. The 2013 NSF Recommendations for Young Adults (18-25 Years) refer to 7-9 hours of sleep a day (32). Our research shows that more than half of students in the 1st year are sleeping 7-8 hours a day, which is more than American students do. Recent generations of students go to bed later, sleep less and, therefore, report problems with studies (33). Lack of sleep has long-term negative effects on health and well-being. Insufficient night-time rest can lead to a greater potential

for injuries, lower productivity at work, increased fatigue and health problems. A short-term lack of sleep leads to drowsiness and a decline in basic cognitive functions, such as alertness, attention, and response rate (9,34).

Sport activity is the foundation of a healthy lifestyle. Of course, proper nutrition is also essential. Nearly one-third of students stated that they use, as a method of coping with stress, a balanced diet and maintaining normal body weight; the highest percentages of them were students of the Faculty of Medicine and women who are probably more aware of the importance of a healthy diet. A good fifth of students stated relaxation techniques as a method for managing stress, most of which were students of the Faculty of Economics and students of the 3rd year. Students in the USA most often cope with stress by talking with family and friends, leisure activities, sports, social support, and counselling (22,35). Research among students in European countries (such as Poland and France) indicates socialising with friends, sleeping, music, sports, solitude, and studies as methods for managing stress (7,24). In stressful times women prefer to study and sleep while men prefer to hang out with friends, play sports or isolate themselves (7).

5 Conclusion

Our research aimed to analyse the stress and coping strategies among students from selected faculties of the University of Ljubljana. We can conclude that self-reported stress is common in students of the University in Ljubljana. Most students report some stress coping activities, i.e. physical activity, a balanced diet and maintaining normal body weight, relaxation technique (meditation, yoga, autogenic training) etc., which suggests that more effective stress programmes should be offered to them.

Limitation of our study resulting from the methodology is that we focused on selected faculties of one university, i.e. University of Ljubljana, which represents only a part of the entire student population in Slovenia. The limitation represents the responsiveness of the students as well. The share of students who completed the questionnaire was on average 18.8% and this proportion varied according to the faculty. The next limitation was the time limit as the survey was conducted only in a specific time range, and thus a smaller number of students were covered.

In the future research, it would make sense to monitor the same sample throughout all their years of study, thus enabling us to follow changes in their lifestyle and to follow the development of burnout. This would also

monitor the effectiveness of preventive programmes. In the future, it would also be good to cover faculties from other universities in Slovenia. It would be useful to explore how well students are aware of what constitutes a healthy lifestyle, and what is the interest in educational programmes on this topic (workshops on methods of coping with stress and burnout). Knowledge is one of the first conditions to start thinking about changing risky behaviour, which leads to a healthier lifestyle.

Furthermore, in previous levels of education (in elementary and secondary schools), more attention should be paid to developing various programmes for

more effective stress management among young people. It is primarily aimed to promote positive self-esteem and self-confidence, develop social skills, learn problem-solving, learn about various relaxation techniques, and promote adequate and appropriate sports activities to reduce the effects of stress on young people. Students who engage in sports activities are less affected by the symptoms of depression, stress, and overweight, and are also more satisfied with their lives.

Conflict of interest

None declared.

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