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Self-Assessment of the Serbian University Students' Need for Referral to Psychologist or Psychiatrist

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SUMMARY

The World Health Organization specifies that young people should be healthier and more capable of performing their roles in society. The aim of the study was to determine the need of the Serbian university students for referral to psychologist or psychiatrist in accordance with their self-estimation, as well as the association of this need with particular characteristics of students.

The cross-sectional study was carried out at the three state universities from January to June in the academic year 2008/2009, and included 2.285 students of both sexes. The students filled in a questionnaire consisting of 22 questions referring to demographic and socio-economic characteristics, lifestyle habits, attitudes, health assessment, as well as their mental health characteristics.

Out of all students tested, 16,3% unequivocally reported the need for professional help. It was found that female students were more likely to seek psychologist/psychiatrist assistance ($p < 0.001$). The need for a psychologist was the least among the Novi Sad University students and those from technical faculties ($p < 0.01$).

Our country should develop specific action plans and comprehensive strategies for mental health promotion and prevention of mental disorders. These plans and strategies must be supported by the highest political organizations and authorities at every level.

Key words: need, students, self-assessment, psychologist, psychiatrist

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INTRODUCTION

University students play a pivotal role in one country. First of all, upon graduation, they become not only a firm integrative part but creative carriers of the society as well. Both the old and the new are mingled in students: the way the society used to be prior to their faculty entering and the rising pathway they are going to follow and participate in. Moreover, they are crucial part of the developmental process of one country.

However, students are a special group of population in many ways. Abrupt transition from high school to a university setting, which in turn generally implies separation from immediate family, the move from adolescence to early adulthood, increased pressure due to the study regime and strenuous exams, the first real independence that brings greater exposure to psychoactive substances and alcohol, with economic dependence on parents or the state - these are all the factors that further increase the pressure and affect the student population and provoke numerous health disorders.

The World Health Organization as a part of its strategy *Health for all for the European region by 2020* specifies that young people should be healthier and more capable of performing their social roles (aim 4) and that psycho-social condition of all people should be improved by health services that would be at disposal to all people suffering from mental disorders (aim 6) (1).

However, we have no appropriate, real data or evidence for the most common morbidity types, students' health problems and their etiology. Also, we have no research indicating how successfully the students were treated. Finally, we have no established measurements proving a cause-and-effect link to students' health problems and offering adequate solution.

All the above mentioned facts especially relate to mental health problems of students. In fact, many of the symptoms that students themselves recognize, or are noticed by colleagues, teachers, and parents, are not given the necessary attention in terms of requiring professional advice or assistance (2-5). Additionally, the student health centers, and other health care facilities lack special services to approach the problems of students adequately. Some potential problems are not approached seriously, that is, some severe symptoms or obvious signs of psychological problems are very often ascribed to the subjective transient phase of the student lifestyle (5, 6).

According to recent research in developed and developing countries, psychosocial problems, such as stress, tension, depressive symptoms, anxiety, alienation, emotional problems, and the others, have increasingly been cited as risk factors for many social diseases (5-8). Yet, in the Serbian society, they have not been given enough attention.

Socio-economic environment that dominates our country, the existing differences in wealth and socio-economic groups, striking poverty, unemployment, fru-

stration regarding current or former socio - political trends, insecurity, uncertain professional achievements, along with all other factors, such as fear and anxiety prior to exam, stress due to achieved or non - achieved results, separation from family and greater exposure to psychoactive substances and alcohol - represent good reasons to suspect the existence of a higher prevalence of mental disorders and the tendency of its increasing growth in our student population (8-10).

AIM

The aim of the study was to determine the need of the Serbian University students for referral to psychologist or psychiatrist in accordance with their own assessment, as well as to establish the link between these events and particular socio - demographic characteristics and some students' habits.

EXAMINEES AND METHODS

Material

The cross-sectional study was carried out at the three state universities from January to June in the academic year 2008/2009 and included 2.285 students of both sexes. The students filled in a questionnaire consisting of 22 questions referring to demographic and socio-economic characteristics, their lifestyle habits, styles and attitudes, health assessment, as well as their mental health characteristics.

Survey was performed by students and teaching assistants of the Universities of Niš, Belgrade and Novi Sad at lectures, in dormitories, reading rooms and student clubs. The questionnaire was intended to last a maximum of 10 minutes, including the time needed for interviewer instructions.

Statistical analysis

The data were collected by several teams consisting of two people using Excel 2003, whereby cross-checking was done for any given survey.

The total number of received questionnaires was 2.532, 247 of which were rejected due to incomplete responses.

Distribution of respondents was done according to:

- Sex
- University
- Group of faculty

The investigated factors were compared between these groups.

The self- estimation of the need for appropriate professional assistance was taken as an output parameter of this research.

Statistical analysis was performed using SPSS 17.0 (SPSS Inc., Chicago IL, USA) in Windows XP environment.

The research results were shown in tables and graphics. Statistical analysis included the use of descriptive statistics (percent prevalence, mean) and analytical parametric (Student's t-test, ANOVA) and non-parametric tests (Pearson's χ^2 test, Fischer's exact probability test) and binary logistic regression tests. Statistical significance was taken at $p < 0.05$.

RESULTS

The total number of students tested in this study was 2,285-707 students from the University of Niš (30.9%), 1,004 students from the University of Belgrade (43.9%) and 574 students from the University of Novi Sad (25.1 %) (Table 1).

Out of that number, 1,121 (49.1%) were male and 1,164 were female examinees (50.9%).

General characteristics of the tested students

The mean value of age for all tested students was 22.51 ± 2.10 , while the mean value of years of study for all students tested was 3.15 ± 1.67 . For male students, this value amounted to 22.64 ± 2.21 for the middle age and 3.20 ± 1.65 for the year of study, while for female students examined these values amounted to 22.39 ± 1.98 for age and 3.10 ± 1.69 for the year of study.

T-tests of independence showed no statistical significance for the study year between male and female students.

Statistically significant difference was found referring to age. Specifically, male students were older than female students ($t = 2.854$, $df = 2283$, $p < 0.01$).

All faculties were divided into three groups:

- Biomedical sciences (such as medicine, dentistry, pharmacy, veterinary science, special education, physics, mathematics, physical education and the like);
- Social (law, economics, political science, organizational science, art) and
- Technical (mechanics, electronics, transportation, agricultural and others).

Of the total number of all students (2,285), 769 students were from a group of biomedical science faculties (33.7%), 714 from the faculties of social science (31.2%) and 802 students from a group of technical faculties (35.1%) (Table 1).

The one way ANOVA test showed no significant statistical differences in age and year of study among students from different faculty groups.

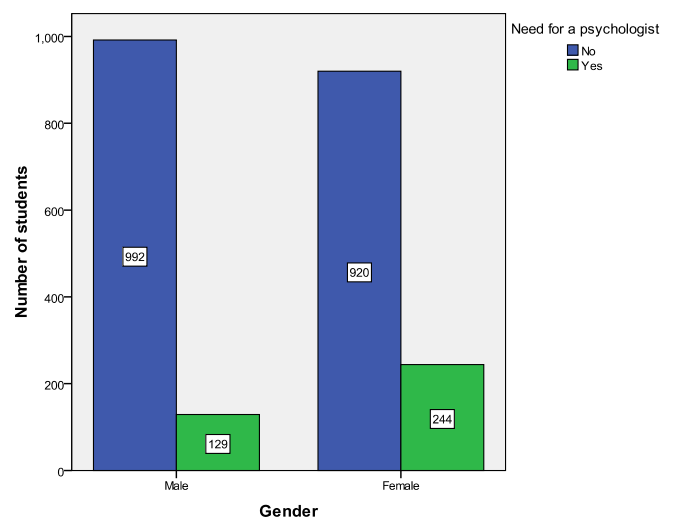
For each of the three universities separately (which applies to all universities in overall score), it was

found that the number of female students studying at some of the biomedical science faculties was significantly larger in relation to male students. Conversely, a significantly larger number of male students studied at technical faculties ($\chi^2 = 112.816$, $df = 2$, $p < 0.001$).

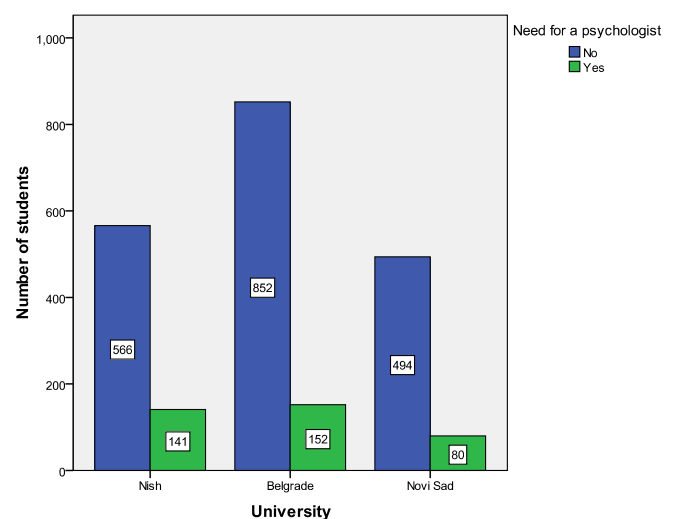
Students' needs for a psychologist/psychiatrist

Students were questioned about the existence of apparent need for professional assistance. Along with this, 16.3% of all tested students unequivocally reported the referral need for type of assistance.

It was also found that the female students were more likely to ask for professional help ($p < 0.001$, $df = 1$, $\chi^2 = 37.371$) (Graph 1).



Graph 1. Students' needs for a psychologist/psychiatrist in relation to sex



Graph 2. Students' needs for a psychologist/psychiatrist in relation to university

This kind of help is the least needed among students of the University of Novi Sad ($p < 0.01$, $df = 2$, $\chi^2 = 10.206$) (Graph 2).

As for the differences between faculty groups, it was shown that the technical faculty students were the least numerous for professional help ($p < 0.001$, $df = 2$, $\chi^2 = 18.670$).

Socio-demographic characteristics and some students' needs in relation to the need for a psychologist/psychiatrist

Binary logistic regression was used to test the influence of prognostic value of certain parameters on the expressed need of students for assistance from the practitioner (psychologist or psychiatrist); as the output parameter of mental health, a binary logistic regression was used.

First we examined the influence of socio - demographic characteristics of students (gender, university, college, year of study, age, GPA, number of siblings, place of residence, the existence of one' own room, the height of the weekly pocket money, time of

arrival at current residence and home region) on the need for a psychologist or psychiatrist (Table 2).

The adequacy of the model was established using Hosmer-Lemeshow test of goodness-of-fit, whereby the strength of determination Cox & Snell $R^2 = 0.031$ for this model is a method of Forward Stepwise (Likelihood Ratio).

It was shown that female students, social faculty students and those who have a weekly pocket money up to 500 din express more need for a psychologist.

Then, the influence of the following parameters on the need for a psychologist was examined: personal hygiene, number of cups of coffee and tea daily, the relationship of nutrition to the perception of health of students, physical activity, sleep quality and time of going to sleep and activity in the actions for health promotion (Table 3).

The strength of determination is Cox & Snell $R^2 = 0.018$ for this model. It is Forward Stepwise method (LR) for the need for psychologist.

According to this model, students who are unable to do physical exercise and drink less coffee are in a fewer need for professional help.

Table 1. Distribution of students according to sex, faculty and university

UNIVERSITIES	FACULTIES							
	Biomedical		Social		Technical		Total	
	N ^o	%	N ^o	%	N ^o	%	N ^o	%
Niš								
Male students	127	18,0	89	12,6	89	12,6	305	43,1
Female students	230	32,5	108	15,3	64	9,1	402	56,9
Total	357	50,5	197	27,9	153	21,6	707	100
Belgrade								
Male students	109	10,9	163	16,2	262	26,1	534	53,2
Female students	160	15,9	188	18,7	122	12,2	470	46,8
Total	269	26,8	351	35,0	384	38,2	1004	100
Novi Sad								
Male students	55	9,6	69	11,8	159	27,7	282	49,1
Female students	88	15,3	98	17,1	106	18,5	292	50,9
Total	143	24,9	166	28,9	265	46,2	574	100
Total								
Male students	291	12,7	320	14,0	510	22,3	1121	49,1
Female students	478	20,9	394	17,2	292	12,8	1164	50,9
Total	769	33,7	714	31,2	802	35,1	2285	100

Table 2. Students' socio-demographic characteristics and need for a psychologist

Independent variables	Need for a psychologist		
	df	p	OR
Sex (gender)	1	0.000	0.561
	Biomedical	1	0.038
Faculty	Social	1	0.018
	Technical	2	0.042
	With parents	1	0.618
Place of residence	Dormitory	1	0.066
	Rented apartment	1	0.685
	Other	3	0.028
	No pocket money	1	0.629
	Up to 500 din	1	0.044
Weekly pocket money	From 501 to 1.000	1	0.807
	From 1.001 to 3.000 din.	1	0.220
	Over 3.000 din	4	0.038
Constant	1	0.000	0.203
Correctly classified			83.1%

Table 3. Some students' habits and need for a psychologist

Independent variables	Need for a psychologist		
	df	p	OR
Number of coffees a day	1	0.017	1.102
	4-6 times a week	1	0.999
	Twice to three times a week	1	0.999
Physical exercises	Twice to four times a month	1	0.999
	Several times a year	1	0.999
	Unable to do exercises	4	0.002
Constant	1	0.999	0.000
Correctly classified			83.1%

DISCUSSION

One of the greatest advantages of the study is that it comprised a large number of students of both sexes from the three largest state universities, of all years of study and of all ages (19-25 years). In addition, the pattern is quite uniform and is the representative sample of the student population in Serbia.

Limitation of this study is that mental health problems determined were only based on students' self-assessment.

Students represent national assets and investment for the future. However, they are faced with numerous stress factors, such as academic overload, growing competitiveness, heightened aspiration for achievement and material security and uncertainty about the future. Since all this can provoke psychological problems, students' health has been the topic of various studies in the recent years (11, 12).

Multiple protective and risk factors are involved in psychological well-being and distress of students. Specific risk factors for the development of psychopathology include high levels of anxiety, lower self-efficacy, as well as some hereditary traits. Moreover, some students enter faculty with the already existing mental health problems.

The most common mental disorders among students are addiction diseases and substance use, depression, self-harm and suicide, anxiety disorders and disorders related to nutrition (12).

Acquiring and improving knowledge of the student population are key factors in the development of mental health promotion programmes in order to meet their needs and to help them cope with various problems. Better understanding of the personality profile of students and care for them can be helpful in the academic life and career choice and prevent future mental health problems.

National epidemiological study conducted in the United States during 2001 and 2002 on a sample of 43.093 respondents aged 19-25 years (interviews „face to face“) was aimed, among other things, to compare the mental health of university students and their non-college attending peers. Nearly one half of all respondents had some kind of psychiatric disorder in the past year (compared to the time of the study) but less than 25% of people with mental disorders addressed for professional help (13).

According to our research results, even 16.3% of all tested students undoubtedly reported the need for a psychologist/ psychiatrist.

There is a widely held view that the number and severity of mental health problems of students are increasing. Counselling services in many universities are limited in the number of advisors who can be employed to meet the growing demand. In addition, it is believed that many students do not seek the help of these due to the lack of knowledge about problems and mental

health services, stigma and denial of the seriousness of the problem. If left unrecognized and untreated, mental health problems can lead to study interruption, or suicide, or to initiate other risky, dangerous behaviors that can lead to serious injury, disability or death (14).

The students, being away from home for the first time very often, are exposed to increased risk for mental health disorders that may affect their academic achievement and quality of life (15). Regulations governing the detection of early symptoms of mental health deterioration and informing families of students in case of a crisis are key factors to reduce the risk of mental health disorders.

More favorable health status implying better psychological well-being and less anxiety was positively associated with optimism, the existence of expressed health values and religiosity (16). Health care promoters should adopt strategies that strengthen the personality traits and values in relation to the mental health of students.

Large longitudinal study conducted in the U.S. showed that more than half of students suffered from at least one mental health problem. Among students with at least one mental health problem in the beginning of the study, 60% developed at least one mental health problem two years later. Among students with mental health problems at the beginning of the study and after two years, less than one half of them underwent treatment within that time interval (17).

These findings suggest that mental disorders are present and persistent in the student population. Although the majority of students with mental disorders is probably aware of the need for treatment, most of these students do not undergo any treatment at all, even after more than two years (17).

The study conducted by Eisenberg, Golberstein and Gollust showed that among students with positive symptoms of depression or anxiety, the percentage of those who did not receive any services ranged from 37% to 84% depending on the disorder. Predictors for such a situation include deficiencies of perceived needs, unawareness of existence of free services or insurance, as well as skepticism about the effectiveness of treatment and low socio - economic backgrounds (18).

The same authors have also dealt with public perception of stigma and the question of whether it prevents individuals to use mental health services, despite the increase in interest and legal regulations in this regard (19). The sense of stigma was higher among males, older students, students from Asia and the Pacific islands, the exchange students, students with lower socioeconomic status and students with current mental health problems (19, 20).

Although we did not directly deal with public perception of stigma, some of our results indicate that groups of students express greater need for a psychologist/ psychiatrist. Thus, our study shows that female students and those who have a weekly pocket money of up to

500 din are in a greater need for a psychologist assistance.

Advising medical students through the site at UCD School of Medicine in California has provided easily accessible services of psychologists who understand the rules, values and traditions, as well as the experience of medical training (21). Counselling can help students with problems that have been under pressure during the studies. Such counselling offers students the opportunity to learn new coping skills and improve their understanding of themselves and their environment, which in turn affects their professional development.

On-line psychological services also provide faculty staff with reference resources when they come into contact with students who have specific psychological challenges and problems. In this way, students who are experiencing stress because of their grueling training regime are encouraged to seek counselling when they exhausted the usual coping (21).

A higher level of psychological morbidity requires the need for interventions such as social and psychological support to improve the quality of students' lives.

CONCLUSION

Mental health is a global public good. It is part of the health and welfare of citizens and the basic human right. It is a prerequisite for a vibrant, socially responsible and productive community. It enhances social cohesion and social capital and improves safety in the environment (22).

Mental and behavioral disorders are present in people of all ages in all regions, countries and societies and they are always present in 10% of the adult population. More than one in four people will develop a mental disorder during their lives.

Various mental health disorders are common among the student population. Therefore, it is important to notice them at a very early stage in order to timely implement the appropriate treatment, whether in the form of counselling, psychotherapy, group work or drug treatment.

16.3% of all tested students clearly expressed the referral need for psychologist or psychiatrist. Female students, students of social faculties and those who have less weekly pocket money are more likely to express the need for assistance from psychologist. Professional assistance is the least needed among the University of Novi Sad students and technical faculty students.

Up measures

Our country needs to develop specific action plans and comprehensive strategies for mental health promotion and prevention of mental disorders. These plans and strategies must be supported by the highest political organizations and authorities at every level.

In addition, in order to achieve these objectives, the development of effective regulations in the field of mental health should be supported by: capacity building and involvement of other sectors and people, effective implementation, monitoring and evaluating the implementation and results and providing applied sustainability at local and national level.

After all, people must be encouraged to become actively engaged in the promotion of mental health (MENTAL HEALTH FOR ALL!), not only as objects of professional treatment, but as a competent and committed promoters of mental health in their families, neighborhood, school, college and jobs.

Positive mental health is a state of well-being in which an individual understands his abilities, can cope with normal life stress conditions, work productively and is able to contribute to the community.

Components of mental health promotion and prevention of mental disorders would have to be structurally integrated into the existing effective health promotion programmes and social legislation in schools, universities, workplaces and all communities.

All universities and colleges should be encouraged to provide effective, accessible counseling for its students. These services will assist in developing an atmosphere where students can learn that education involves the engagement of the whole personality.

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SAMOPROCENA POTREBE STUDENATA UNIVERZITETA U SRBIJI ZA OBRAĆANJEM PSIHOLOGU ILI PSIHIJATRU

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Sažetak

Svetska zdravstvena organizacija precizira da mladi ljudi treba da budu zdraviji i sposobniji za ispunjavanje svojih uloga u društvu. Cilj rada je utvrđivanje potrebe studenata univerziteta u Srbiji za psihologom ili psihijatrom u skladu sa njihovom sopstvenom procenom, kao i povezanost ove potrebe sa određenim karakteristikama studenata.

Studijom preseka na 3 državna univerziteta u periodu januar-jun školske 2008/2009. godine obuhvaćeno je 2285 studenata oba pola. Studenti su popunjavali upitnik koji je bio sastavljen od 22 pitanja koja su se odnosila na demografske, socioekonomske karakteristike, njihove stavove, navike i stilove života, procenu sopstvenog zdravlja, kao i karakteristike vezane za mentalno zdravlje.

Od svih ispitivanih studenata 16,3% nedvosmisleno se opredelilo potvrdno u smislu potrebe za pomoći stručnog lica. Takođe je nađeno i da devojke znatno više nego muškarci imaju potrebe za stru-

čnom pomoći psihologa/psihijatra ($p < 0,001$). Najmanje potrebe za ovakvom vrstom pomoći imaju studenti Univerziteta u Novom Sadu i studenti sa tehničkih fakulteta ($p < 0,01$).

Naša država treba da razvije specifične akcione planove i sveobuhvatne strategije za promociju mentalnog zdravlja i prevenciju mentalnih poremećaja. Ovi planovi i strategije moraju da budu potpomognuti najvišim političkim telima i organima na svakom nivou.

Ključne reči: potreba, studenti, samoprocena, psiholog, psihijatar

