Symptoms of Depression, Anxiety, and Stress in Students in Albania

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Abstract

BACKGROUND: Depression, anxiety, and stress are increasingly concerning phenomena in our society, with serious consequences on physical and mental health. The repercussions may be particularly devastating in particular population subgroups, such as female university students.

AIM: The purpose of this study was to determine the levels of depression, anxiety, and stress among university students in Tirana.

METHODS: A cross-sectional study was conducted with a random sample of 570 students from the university students in Tirana. Information was collected on sociodemographic and academic characteristics; symptoms of depression, anxiety, and stress.

RESULTS: Female students manifest more symptoms of depression compared to male students. The higher level of symptoms of depression, anxiety, and stress was found in the first academic years. Students with somatic disease exhibit higher scores compared to the rest of students.

CONCLUSION: These findings highlight the need to adopt measures that address mental health, especially major depression, in female university students. Identifying the most frequent symptoms and finding a series of increased-risk and protective factors in female university students add to the existing knowledge and facilitate coping and recovery.

Introduction

Students' physical and psychological well-being has been recognized as an important component in achieving educational goals [1]. However, some students face a myriad of challenges during their education that may pose a risk to their psychological well-being [2]. These challenges may arise from the education curriculum itself. Mastering all the required knowledge and skills in a relatively short period can lead to high academic workload, which may overwhelm students [3]. In addition, parts of the workload may be deemed unnecessary or unrealistic. The delivery of the curriculum, in the form of teaching and evaluation methods, can impact students' psychological health as well [4]. Students are also expected to adapt to different educational demands and settings, which become more pronounced when they undergo rotations [5]. The hidden curriculum, composed of unwritten values, expectations, and power dynamics, can be another source of stress, especially when it exposes students to ethical conflicts [5]. Outright bullying or harassment against students remains prevalent too [6]. These stressors at school add to the stress from students' personal life. On the other hand, students are often deprived of their social support network and opportunities to recuperate [2]. Consequently, medical students often experience poor mental health, including symptoms of depression, anxiety, and stress. Two meta-analyses have found that, globally, more than one in four students report symptoms of depression, and up to one in 10 students report suicidal ideation [7]. Another global meta-analysis found that one in three medical students experience symptoms of anxiety [8]. Longitudinal studies have revealed that students enter medical education with psychological well-being that is comparable or even better than the general population. However, their rates of depression and anxiety increase during their time in school [9]. Mental health issues of medical students have gained significant attention, not only due to their prevalence, but also due to the short- and long-term consequences. Poor mental health may contribute to impaired academic performance and achievement of competencies [10]. The vast majority of participants in this study is medical students. This study aims to estimate the prevalence of depressive, anxiety, and stress symptoms among medical students in Albania.

Materials and Methods

This is a cross-sectional study including the student population in the universities of Tirana, Albania.

The DASS-42 test questionnaire was used, which is a test for identifying symptoms of depression, anxiety, and stress. DASS is designed of 42 questions which manage to identify symptoms of depression, anxiety, and stress. To be valid for use, the test is validated. Their selection is random and student involvement has been voluntary. The criterion for inclusion was to be a student in one of these universities, regardless the age, branch of studies and academic year. Five hundred and ninety-two questionnaires were studied by students aged 18–58 years. The questionnaire was completed anonymously within 10 min after receiving the necessary instructions. Of 592 questionnaires 22 (3.7%) had missing variables and were excluded from the study. The remaining 570 questionnaires were included in the study. Following each application of the questionnaire, the data collector (specialized psychiatrist) performed a psychiatric interview to assess somatic symptoms in the study participants. This interview was based on the specialist's clinical assessment, whereas the literature suggests that no measure meets the essential criteria of an ideal measure for somatic symptoms [11].

Statistical analysis

Data were analyzed with SPSS statistical program. The distribution of variables was tested by the Kolmogorov–Smirnov test. Student's t test and ANOVA were used to compare the mean scoring between variables. The value of $p \leq 0.05$ is considered significant. Statistical tests are two-sided.

Results

Table 1 shows the sociodemographic characteristics of participants. The mean age of students is 22.6 (4.6) years. About 64% of students

Table 1: Sociodemographic characteristics of participants

Variables	n	%
Gender		
Female	366	64.0
Male	204	36.0
Age M (SD), range	22.6 (± 4.6)	18–58
Age group, years		
18–20	141	25.0
21–23	316	55.0
24–26	65	11.0
>26	48	9.0
Academic year		
I	118	21.0
II	106	19.0
III	125	22.0
IV	167	29.0
V	47	8.0
VI	7	1.0
Type of institution		
Public	264	46.0
Private	306	54.0
Civil status		
Single	520	91.0
Married	50	9.0
Residence		
Urban	545	96.0
Rural	25	4.0

are females, 9% of students are married, and 4% come from the rural areas of the country. About 49% of students are from the capital city of Tirana while 47% of them from other cities. About 46% of students study in public universities while the rest in private ones.

The mean score of depression subscale for females M=11.5 (±12.8SD) is higher as compared to males M=8.7 (±12.6SD) (p = 0.02) (Table 2). The mean score of the whole scale is lower for the age group >26 years old (p < 0.01). Males and females do not differ regarding the level of stress (p = 0.6) and anxiety (p = 0.4).

Table 2: Results of DASS-42 test according to sociodemographic variables

Variables	Depression M (SD)	Anxiety M (SD)	Stress M (SD)	Total M (SD)
Gender				
Female	11.5 (12.8)[†]	7.9 (11.4)	8.7 (12.0)	28 (36.3)
Male	8.7 (12.6)	6.5 (11.7)	7.7 (12.3)	22.9 (36.6)
Age group, years				
18–20	10.7 (13.1)	7.6 (11.7)	8.8 (12.4)	27.1 (37.2)
21–23	10.4 (12.8)	7.3 (11.7)	8.3 (12.3)	26 (36.7)
24–26	8.9 (11.7)	6.1 (10.2)	6.8 (10.7)	21.8 (32.6)
>26	7.6 (5.4)	5.2 (7.1)	5.8 (6.6)	18.6 (19.1)[†]
Civil status				
Single	10.3 (12.7)	7.3 (11.5)	8.3 (12.2)	25.8 (36.4)
Married	12.6 (14.2)[†]	8.6 (11.9)	9.0 (12.2)	30.1 (38.3)
Type of institution				
Public	9.8 (13.0)	7.4 (11.9)	8.1 (12.3)	25.4 (37.2)
Private	11.2 (12.6)	7.4 (11.1)	8.6 (12.0)	27.2 (35.7)
Residence				
Rural	11.8 (13.2)	8.6 (12.4)	10.9 (13.9)[†]	31.2 (39.5)
Urban	10.4 (12.8)	7.3 (11.5)	8.2 (12.0)	25.9 (36.4)

[†]Significant difference.

Furthermore, the mean score of depression subscale is higher among married students (p = 0.05), while the level of stress is higher among rural students (p = 0.01). No significant difference was found between private and public sector students for any of the DASS-42 subscales nor for the total scale.

Values were found for the symptoms of depression, anxiety, and stress which vary depending on the type of the faculty, both for each sub-scale and for the total scale (p < 0.01) (Table 3).

Table 3: Results of DASS-42 test according to faculty studies

Faculty	Depression[†] M (SD)	Anxiety[†] M (SD)	Stress[†] M (SD)	Total M (SD)
Business Academy	14.5 (9.2)	12.0 (12.7)	12.5 (12.0)	39.0 (33.9)
Arts	10.1 (14.0)	7.7 (12.3)	9.7 (14.1)	27.5 (40.4)
Agricultural Economy	5.5 (4.9)	3.0 (1.4)	3.0 (2.8)	11.5 (9.2)
Economics	7.1 (11.6)	6.1 (10.6)	6.3 (10.8)	19.4 (32.9)
Electronics	11.3 (16.2)	11.4 (17.7)	11.7 (17.3)	34.4 (51.3)
Pharmacy	8.7 (10.1)	6.2 (9.9)	7.4 (10.9)	22.2 (30.9)
Philology	17.4 (14.1)	10.2 (13.3)	13.0 (14.5)	40.7 (41.9)
Foreign languages	10.7 (12.6)	6.9 (10.7)	8.5 (11.9)	26.1 (35.3)
Geology	14.0 (1.1)	13.0 (17.0)	12.0 (14.1)	39.0 (45.3)
Informatics	7.3 (10.9)	6.9 (10.3)	7.4 (11.4)	21.7 (32.6)
Engineering	10.3 (12.8)	7.0 (12.3)	7.9 (12.7)	25.2 (37.8)
Juridical	8.2 (12.5)	5.6 (10.8)	6.3 (10.8)	20.1 (34.1)
International relation	6.8 (10.5)	4.6 (8.7)	6.1 (10.4)	17.4 (29.6)
Pedagogy	17.2 (14.8)	13.2 (14.7)	11.8 (14.1)	42.3 (43.)
Medicine	6.9 (9.3)	5.2 (8.7)	7.0 (10.5)	19.1 (28.5)
Psychology	15.2 (14.0)	12.2 (14.1)	13.7 (14.7)	41.1 (42.8)
Nursery	12.6 (12.9)	8.9 (12.0)	9.4 (12.4)	30.9 (37.4)
Social sciences	11.4 (12.7)	6.9 (10.2)	7.6 (11.0)	25.8 (33.9)
Political sciences	10.3 (12.8)	11.7 (12.1)	8.7 (7.8)	30.7 (32.7)
Dentistry	6.3 (8.4)	4.5 (7.0)	4.7 (7.1)	15.5 (22.5)

[†]Significant difference.

Differences were found in the mean subscales score and overall score in relation to students' academic years (p < 0.01) (Table 4).

Students with somatic diseases had a higher mean score for the overall scale and the three subscales as compared to students without somatic diseases (p < 0.01).

Table 4: Results of DASS-42 test according to academic years

Academic year	Depression[†]	Anxiety[†]	Stress[†]	Total
	M (SD)	M (SD)	M (SD)	M (SD)
1	10.6 (13.0)	7.0 (11.2)	7.9 (11.9)	25.4 (36.1)
2	11.1 (12.8)	7.9 (11.7)	9.2 (12.5)	28.1 (37.0)
3	10.5 (13.2)	8.7 (12.8)	9.2 (12.8)	28.4 (38.8)
4	6.7 (9.2)	8.0 (6.0)	9.5 (11.0)	29.5 (13.4)
5	12.5 (4.9)	6.0 (4.2)	11.0 (4.2)	13.4 (13.9)
6	5.4 (8.0)	3.1 (6.3)	5.3 (8.9)	13.9 (23.1)

Discussion

The aim of this cross-sectional study was to examine the symptoms of depression, anxiety, and stress in a random sample of students from universities in Tirana. This is the first study in Albania that estimates the prevalence of depressive, anxiety, and stress symptoms among university students. The participants showed elevated mean scores for the depression, anxiety, and stress subscales, and significant percentages of them presented with severe or very severe levels of depression, anxiety, and stress and were suffering from current major depression. These findings have important implications for the fulfillment of the clinical needs of this group of the population, the scores for the depression subscale were higher than those found in a study [12] for Brazilian medical students. Depression scores were higher for females, younger students, married students, and those in the first academic years. No difference was observed between males and females regarding the level of stress and anxiety. These findings are consistent with those from other studies [13], who found higher depression scores for the students aged <21, with no stable partner, and [14], and found higher depression scores for students in their three first academic years, compared to those in their three last academic years. Stress scores were higher for rural students. In this study was higher than reported in the literature [15]. There were differences in the levels of depression and anxiety and stress among students of different faculties. Regarding the predominant symptoms for each subscale, the most frequent depressive symptoms were feeling down-hearted and blue and feeling that one did not have much worth as a person; the least frequent was feeling that life had no meaning and having nothing to look forward to. The previous research has demonstrated that greater life engagement constitutes a protective factor against depression in different segments of the population, which suggests that this may constitute an important psychological resource against stress [16], with stress levels being related to levels of psychological well-being [17]. Although the previous research on life engagement as a predictor of depression in the university population is scarce, our findings are consistent with the work of Rossi *et al*. [18]. In relation to personality variables, university students with higher levels of neuroticism had a higher prevalence of depression. This finding is consistent with the previous research [19]. However, there is little existing research on greater openness to experience as a predictor of depression among female university students, though our results are consistent with a study with American college students [19]. Participants with high openness to experience often demonstrate increased awareness and receptivity to their feelings, thoughts, and impulses; a need for variety; a recurring need to magnify and examine experiences; and a greater tendency to experience their emotions intensely [20]. Individuals with a high openness to experience may be more likely to experience a large discrepancy between their actual and desired states, which could expose them to a higher risk of depression. The results of this study suggest that progress is to be made in curriculum development and reform, educating learners with difficulties, understanding the individual differences and preferences and in adapting methods of instruction to the needs of individual learners.

Conclusions

Female students manifest more symptoms of depression compared to male students. The higher level of symptoms of depression, anxiety, and stress was found in the first academic years. Students with somatic disease exhibit higher scores compared to the rest of students. These findings highlight the need to adopt measures that address mental health, especially major depression, in female university students. Identifying the most frequent symptoms and finding a series of increased-risk and protective factors in female university students add to the existing knowledge and facilitate coping and recovery. It also aids in the design of targeted interventions intended to modify the most significant clinical predictors.

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