Anxiety during COVID-19 Pandemic among Students of University of Shkoder, Albania

E. Hasmujaj and V. Dizdari

ABSTRACT

The main purpose of the present study is to investigate the extent of anxiety symptoms during the COVID-19 pandemic on university students of Shkoder. Another purpose is to find out the relationship between anxiety symptoms with some demographical variables such as gender, age, level of study, field of study and having been infected or not by coronavirus. Data was collected using the Corona Disease Anxiety Scale (CDAS), administered online to assess the anxiety level. The sample consists of 175 university students from different Faculties of the University of Shkoder. The results showed that the prevalence rate of heavy anxiety during the pandemic is about 10.3%. T-test indicated that female students are more prone to experience anxiety during the pandemic than male ones. Anova analysis indicated that midwifery students show the highest level of anxiety compared to other fields of studies. But anxiety was not associated with age, level of study or having been infected by coronavirus. These findings are important in detecting the psychological consequences of the Covid-19 pandemic in different societies.

Keywords: Anxiety, CDAS, Covid-19, Students.

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I. Introduction

The Coronavirus disease 2019 (COVID-19) pandemic has emerged as a significant and global public health crisis affecting 192 countries, with about 183.000.000 cases and more than 3.900.000 confirmed deaths to July 2021 (John Hopkins Coronavirus Resource Center).

Major focus areas regarding the COVID-19 pandemic have been concentrated on physical health; however, the coronavirus pandemic has also an adverse impact on mental health (Fiorillo & Gorwood, 2020). Elevated psychological distress related to the COVID-19 pandemic has been evidenced worldwide, including depression, anxiety and health anxiety (Lee, 2020; Rajkumar, 2020; González-Sanguino et al., 2020; Mazza et al., 2020; Taylor et al., 2020).

While young adults and students are less likely to be hospitalized of COVID-19 (Bialek et al., 2020), they have been identified as a vulnerable group, reporting elevated psychological distress and higher anxiety levels associated with the COVID-19 pandemic (Shah et al., 2021; Lei et al. 2020; Huang & Zhao 2020). The anxiety is associated with three or more of the following symptoms for at least six months: restlessness, feeling keyed up or on edge, being easily fatigued, difficulty in concentrating or mind going blank, irritability, muscle tension, sleep disturbance, and irritability (Munir et al., 2019; Adwas et al., 2019).

Studies about psychological distress related to the coronavirus pandemic in Albania, especially among young adults and students are limited, so we conducted this study whose main purpose is to explore the prevalence of anxiety during the COVID-19 pandemic among university students of Shkoder. According to existing literature and recent findings in other countries, we examined if gender and having been infected by coronavirus are risk factors for ongoing anxiety related to COVID-19 (González-Sanguino et al., 2020; Mazza et al., 2020). We also tried to find out if there are other differences related to age, level and field of study in anxiety.

The findings from the current study can be used by other researchers and psychological professionals to develop appropriate interventions and inform future research to reduce anxiety and other psychological problems among university students during the COVID-19 pandemic.

Based on the review of the existing literature, the researcher addressed the following research questions, which will guide this study;

- 1. What is the prevalence of anxiety during the COVID-19 pandemic among students of the University
- 2. Are there differences in the rates of anxiety during the COVID-19 pandemic in relation to gender, age, level and field of study?
- 3. Are there differences between students that have been infected or not by coronavirus in the rates of anxiety during the COVID-19 pandemic?

II. METHODS

A. Design

This study used a cross-sectional design aimed to assess the prevalence of anxiety during pandemic Covid-19 among university students. Data was collected on the whole study population at a single point in time. That relies heavily on statistical techniques and mathematical numerical data, in order to answer to the research questions.

B. Participants and Procedure

The population of this study includes students from the University of Shkoder, Albania. It was created a purposive, non-probability sample of 175 subjects, where n = 158 (90.3%) are female and n = 17 (9.7%)are male, ranged in age from 18 to over 26 years old, with a mean age of \pm 20.8.

The more detailed distribution of demographic findings can be seen in Table I. We invited students via e-mail to complete the online questionnaire (in google forms), informing them about the aims of the study and ethical guidelines for research through an informed consent form.

C. Assessment Tools

a) Demographic Questions

Participants were given at the beginning of the questionnaire some demographic questions which included standard categories such as gender, age, level of study, field of study and if they have been infected or not by coronavirus.

b) Corona Disease Anxiety Scale (CDAS)

CDAS is created by Alipour, Ghadami, Farsham and Dorri (2020). This questionnaire included 18 items and 2 factors; items 1 to 9 measure the physical symptoms, and items 10 to 18 measure the psychological symptoms (Alipour et al., 2020).

Each answer is scored based on a Likert scale from 0 to 3. The marking for this questionnaire ranges from 0 to 54, the higher the marks are the greater the level of anxiety is. In this study, Cronbach's alpha score for this scale was estimated 0.92.

D. Data Analysis

Data were analyzed using SPSS version 23.0 software (SPSS Inc., Chicago, IL), using reliability analysis, descriptive statistics, independent sample t-test and one-way Anova.

III. RESULTS

A. Distribution of Demographic Characteristics

TABLE I: DEMOGRAPHIC	CHARACTERISTICS	OF THE RESPONDENTS

Variables	Groups	Frequency	Percent
G 1	Female	158	90.3%
Gender	Male	17	9.7%
	18-19	59	33.7%
	20-21	71	40.6%
Age group	22-23	26	14.9%
	24-25	8	4.6%
	+26	11	6.3%
	First-year	68	38.9%
	Second-year	52	29.7%
Level of study	Third-year	24	13.7%
	Fourth-year	25	14.3%
	Fifth-year	6	3.4%
	Psychology	44	25.7%
	Social Work	63	35.4%
Field of study	Nursery	22	12.6%
	Midwifery	6	3.4%
	Economics	40	22.9%
	Yes	35	20%
Infected	No	90	51.4%
	I don't know	50	28.6%

Table I shows the demographic characteristics of the sample. These findings suggest that 158 participants (90.3%) were female and 17 participants (9.7%) were male. In terms of age, 59 participants (33.7%) were in the age range of 18-25 years, 71 (40.6%) were aged 20-21, 26 (14.9%) were aged 22-23; 8 (4.6%) were in the age range of 24-25 years and 11 (6.3%) were over 26 years old. In terms of the level of study, 68

participants (38.9%) are first-year students, 52 participants (29.7%) are second-year students, 24 (13.7%) third-year students, 25 (14.3%) fourth-year students, and 6 students (3.4%) fifth-year students. 44 participants (25.7%) are students of Psychology; 63 (35.4%) of Social Work; 22 (12.6%) of Nursery; 6 (3.4%) of Midwifery and 40 (22.9%) of Economics. To the question if they have been infected by coronavirus, 35 participants (20%) answered "Yes", 90 participants (51.4%) answered "No" and 50 participants (28.6%) answered "I don't know."

B. The Prevalence of Anxiety during Pandemic

As shown in Table II of our 175 participants 75.4% had low anxiety (n = 132), 14.3% had moderate anxiety (n = 25) and 10.3% of the respondents had a potentially concerning level of anxiety (n = 18). Mean score of anxiety variable is M = 13.10 and the standard deviation SD = 9.85.

TABLE II: DESCRIPTIVE STATISTICS (FREQUENCY, PERCENTAGE, MEAN, STANDARD DEVIATION) OF ANXIETY

Variable	Groups	Frequency	Percentage (%)	Mean	S. Deviation	Total
	Low level	132	75.4			
Anxiety	Middle level	25	14.3	13.10	9.85	175
	High level	18	10.3			

C. Gender Differences in Anxiety

We used independent samples t-test to examine gender differences in anxiety levels.

Homogeneity of variance according to Levene's test was statistically non-significant, which enabled further analysis (p = 0.199 > 0.05). The mean value of anxiety in female students (M = 13.72, SD = 9.91) is greater than in male ones (M = 7.29, SD = 7.15), the results are statistically significant, so we can see gender differences in anxiety [t (173) = 2.598, p = 0.010 < 0.05], we can see also differences according to physical symptoms in anxiety level [t (173) = 3.123, p = 0.002 < 0.05], where the mean value in female students (M = 10.46, SD = 6.22) is greater than in male students (M = 5.59, SD = 5.04), but there is no differences in terms of psychological symptoms related to anxiety [t (173) = 1.327, p = 0.186 > 0.05].

TABLE III: MEAN, STANDARD DEVIATION, F AND T FOR MALE AND FEMALE STUDENTS IN ANXIETY

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Variable	Gender variable	N	Mean	S. Deviation	t (173)	F	P
Anxiety	Female	158	13.72	9.91	2.500	1.662	0.010
	Male	17	7.29	7.15	2.598	1.002	0.010
Physical symptoms	Female	158	10.46	6.22	2 122	0.599	0.002
	Male	17	5.59	5.04	3.123		
Psychological symptoms	Female	158	3.26	4.75	1.327	3.254	0.186
	Male	17	1.71	2.47	1.327	3.234	0.180

D. Age Group Differences in Anxiety

For a comparison of more than two group means, we used one-way analysis of variance (ANOVA). Homogeneity of variance according to Levene's test was statistically non-significant (p = 0.755 > 0.05).

As can be seen from the Table IV, the mean score of anxiety is higher in 24-25 age group (M = 18.50, SD = 12.81), but the results are statistically non-significant [F (4,170) = 1.078, p = 0.369 > 0.05].

TABLE IV: MEAN, STANDARD DEVIATION, F AND P FOR DIFFERENT AGES ON ANXIETY

Groups	N	Mean	S. Deviation	F (4, 170)	p
18-19	59	11.66	8.28		
20-21	71	13.49	10.96		
22-23	26	12.73	8.91	1.078	0.369
24-25	8	18.50	12.81		
+26	11	15.18	9.64		

E. Level and Field of Study in Anxiety

As reported in Table V, ANOVA showed that there is no statistically significant difference between groups F [(4, 170) = 2.189, p = 0.072 > 0.05]. These findings show that there is no difference in level of anxiety among students of different years of study.

TABLE V: MEAN, STANDARD DEVIATION, F AND P FOR LEVEL OF STUDY ON ANXIETY

Groups	N	Mean	S. Deviation	F (4, 170)	р
First	68	13.13	11.27		
Second	52	12.48	8.84		
Third	24	10.62	5.89	2.189	0.072
Fourth	25	17.76	10.27		
Fifth	6	8.87	7.08		

Regarding to the field of study, as can be seen from the Table VI, the results are statistically significant [F(4,170) = 2.743, p = 0.030 < 0.05]. Homogeneity of variance according to Levene's test was statistically non-significant even in this case (p = 0.708 > 0.05), so the mean score of anxiety is higher in midwifery students (M = 24.67, SD = 9.66) followed by nursery students (M = 14.05, SD = 10.02) and the lowest anxiety level is reported by economics students (M = 10.87, SD = 9.15).

TABLE VI: MEAN, STANDARD DEVIATION, F AND T FOR ACADEMIC DISCIPLINE IN ANXIETY

Variable	Field of study	N	Mean	S. Deviation	F (4, 170)	p
	Psychology	44	13.29	11.59		
	Social Work	63	12.93	8.27		
Anxiety	Nursery	22	14.05	10.02	2.743	0.030
	Midwifery	6	24.67	9.66		
	Ecomomics	40	10.87	9.15		

F. Having been Infected or not by Coronavirus in Anxiety

Regarding to the question if they have been infected by coronavirus, Table VII shows that the results are statistically non-significant [F (2,172) = 2.243, p = 0.784 > 0.05]. Although the mean score of students that have been infected by coronavirus is higher (M = 13.91, SD = 9.08) compared to other groups, the results have not statistical value. Homogeneity of variance according to Levene's test was statistically nonsignificant even in this case (p = 0.977 > 0.05).

TABLE VII: MEAN, STANDARD DEVIATION, F AND P FOR BEING INFECTED OR NOT BY CORONA VIRUS IN ANXIETY LEVEL

Variable	Infected	N	Mean	S. Deviation	F (4,170)	р
	Yes	35	13.91	9.08		
Anxiety	No	90	12.62	10.30	2.243	0.784
	I don't know	50	13.38	9.69		

IV. DISCUSSION

This study was one of the first to measure psychological symptoms as a result of COVID-19 pandemic in a sample of university students in Albania. The results suggest that 24.6% of total number of participants reported moderate to high levels of anxiety symptoms. Similar to the current results, a study conducted with university students in China found that 25% of the participants experienced anxiety about finances and academic delays following the COVID-19 outbreak (Cao et al., 2020; Kibbey et al., 2021). The prevalence of higher levels of anxiety in this study is about 10.3%, in the same line Al Salman et al. (2020) examined secondary school students during the academic year 2018–2019 and reported around 10% of severe anxiety.

Our findings indicated that female students show higher level of anxiety than male students, which is consistent with results of recent studies (Kibbey et al., 2021; Lai et al., 2020), and might be understood considering the well-documented sex difference in affective disorders (McLean et al., 2011; Kibbey et al., 2021). But contradictory with the present study are the results of previous research of the authors who showed that there were no gender differences in anxiety among students of the Psychology and Social Work Department, University of Shkoder (Hasmujaj, 2021).

The findings of this study showed that there is no age differences in terms of anxiety during the pandemic, but contradictory with the present study are the results of other authors who showed that aging is a risk factor for developing various forms of emotional distress during the COVID-19 pandemic (Ahmed et al., 2020; Huang & Zhao, 2020). Also, according to our findings, level of study was not related to anxiety. It was reported the same result in a study conducted to determine the predictors of anxiety during the COVID-19 pandemic in Poland (Malesza & Kaczmarek, 2020). Earlier studies on different topics reported mixed findings on differences in risk perceptions according to level of study (Bratt et al., 2000; Erblich et al., 2000; Malesza & Kaczmarek, 2020).

There were higher mean levels of anxiety in midwifery students followed by nursery students. A survey by the Royal College of Midwives (RCM) shows over half (57%) of midwives, maternity support workers (MSWs) and student midwives feel the current crisis has had a negative impact on their mental health¹. Also a quantitative study carried out with nursing students during the COVID-19 pandemic has found high levels of anxiety (Savitsky et al., 2020). This result suggests that people who are more in contact with the disease can be at risk of having higher level of anxiety. According to the final finding: the mean score of students in our sample that have been infected by coronavirus is higher compared to other groups, but the difference is not statistically significant. Accordingly, anxiety increase is often seen in groups who discern high infection risk, and the study of Kef (2021) showed that it also correlates highly with having a symptom.

¹ https://www.rcm.org.uk/media-releases/2020/may/midwives-mental-health-hit-by-pandemic/.

A. Limitations of the Study

First, this study was conducted using non-probabilistic sampling techniques, which limits generalisation for the entire university. Second, the data were collected using an online self-administered questionnaire and there is a risk that participants did not take the compilation seriously.

V. CONCLUSION AND RECOMMENDATIONS

This study revealed that 75.4% of the university students reported low levels of anxiety related to the COVID-19 pandemic, 14.3% of them mild levels of anxiety and the prevalence of higher levels of anxiety is about 10.3%. A sex difference was found, with female students presenting higher levels of anxiety. There were no statistically significant differences regarding to the level of study, age and being infected or not by coronavirus. In terms of field of study, midwifery students show higher level of anxiety, followed by nursery students and the lowest level of anxiety is reported by social work students.

A. Recommendations

Different activities and seminars should be organized by the universities for students suffering from anxiety and other psychological consequences related to Covid-19 pandemic. On the other hand students need to replace the time spent reading, watching or listening to news stories about COVID-19 with healthy activities like practicing yoga, exercising, meditation, joining some team sports, etc. Psychologists need to promote programs and services on treating psychological problems during the pandemic; this can encourage skeptical and shy students to seek professional help.

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CONFLICT OF INTEREST

No potential conflict of interest was reported by the authors.

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