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RESEARCH ARTICLE

PREVALENCE OF ANXIETY AMONG UNIVERSITY STUDENTS, AFGHANISTAN

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Abstract

Anxiety is a common problem among university students. There is very limited information available on the prevalence of anxiety among university students in Afghanistan. This study aimed to estimate the prevalence of anxiety among university students. A cross-sectional design was used in this study. The prevalence of anxiety was assessed by using a short version of Depression Anxiety Stress Scale (DASS-21), along with sociodemographic performance. Descriptive statistics were applied using statistical package for social sciences (SPSS) version 21 for data analysis. A total of 531 (male = 203, female = 528) undergraduate students participated in this study their age range was 18 to 22 years. The prevalence of mild, moderate, and severe and extremely severe anxiety was 2.4%, 17.1%, 9.2%, and 11.3 % respectively. The overall prevalence of anxiety was found to be 40 %. The prevalence of anxiety was higher among female students, 18-19 years old students, first-year students, single students, students who live in private hostels, students with more family members, and students whose parental monthly income is low. It is suggested that authorities of universities together with mental health professionals design a comprehensive plan to address this issue and more attention should be paid on risky groups.

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Introduction:-

Anxiety is a phenomenon that more or less is experienced by all of us. It is part of our life. Based on its natural function, anxiety alerts us to a potential threat and allows us to assess and properly respond to them. However, anxiety has another side as well. This side of anxiety is more intense and continues for a long period and negatively affects the normal function, the physical and mental health of a person and can lead to developing anxiety disorders (Reactor, Bourdeau, Kitchen & Joseph – Massiah, 2016). Anxiety is a mental disorder that is related to significant suffering and impairment in functioning. It is a mix of thoughts and feelings characterized by a way of uncontrollability and unpredictability over potentially adverse life events (Wilson, Nathan, O'leary, & Clark, 1996). The estimation of WHO in 2015 showed that 264 million people in the world were suffering from anxiety disorders. These disorders are ranked as the sixth-largest contributor to non-fatal health loss globally (WHO, 2017).

Anxiety is one of the most common psychiatric disorders among university students (Bayram&Bilgel, 2008). They have a great deal to face anxiety, especially in the study process. Different and unique contributing factors have been identified for anxiety and other mood disorders among university students. These factors are new roommates, new

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friends, new lifestyles, alternate ways of thinking, exposure to new cultures (Tartakovsky, 2016). Anxiety is also related to failure in school (Ashcraft & Kirk, 2001), decreases in grade point average (Stallman, 2010), lower self-efficacy of students (Ahmed, Minnaert, Kuyper, & van der Werf, 2011), sleep disruption, loneliness (Harvard Health Publishing, 2019), financial stress, academic distress, family support and peer support (Jones, Park, & Tyler Lefevor, 2018).

Anxiety is found to be more in university students than the general population (Holliday, Anderson, Williams, Bird, Matloc, Ali, & Suris, 2016; McCready, 2018). The prevalence of anxiety among university students has been studied wildly and the results vary from one place to another or from one university to another. A research conducted in Egypt showed that the prevalence of anxiety among medical students was 64.3%. Khodadadi, Anbari, & Farahani (2018) investigated depression, anxiety, and stress in students of Lorestan University of Medical Sciences in Iran and found that the prevalence of different degrees of anxiety was 21.2%. The prevalence of mild, moderate, severe, and very severe anxiety was 10.2%, 8.3%, 2.4%, and 0.2% respectively. A study which was conducted among Turkish university students showed that 47.1% had anxiety. The prevalence of moderate to extremely severe levels of anxiety among undergraduate students in Malaysia was ranging from 51.5% to 55.0% (Gan, Nasir, Shariff & Hazizi, 2011; Al-Ani, Radeef, & Ghazi, 2015). Mutalik, Moni, Choudhari & Bhogale found that the prevalence of symptoms of anxiety among undergraduate students studying in a govt. degree college was 92.2%. Among university students, the level of anxiety differs from one group to another group. Many studies reported that the prevalence of anxiety is more among female students than male students (Choi et al., 2015; Bharadwaj, 2017; Salem, Awad Allah & Said, 2016). The prevalence of anxiety among students of different age groups is also reported to be varied. Salem, Awad Allah & Said (2016) found that 20 years of students had higher anxiety than 17-20 years students. Other studies also reported that Students whose age was >20 reported higher anxiety than students aged <20 years old (Argyropoulos et al., 2017; Wahed & Hassan, 2017). Moreover, studies have shown that first-year students experience more anxiety than others (Bayram & Bilgel, 2008; Ramteke & Ansari, 2016; Kamberi, Hoxha, Shala, Shahini, & Vehapi, 2019). Wani, et al. (2016) study results indicated that science students had high levels of anxiety than arts students. However, Bayram & Bilgel (2008) found that anxiety score was higher among students who were studying social and political sciences than those who were studying basic sciences and engineering or medicine. Salem, Awad Allah & Said (2016) found that students who were living with family reported higher anxiety than those who were living in university or with friends. Kamberi, Hoxha, Shala, Shahini, & Vehapi (2019) reported that students with low family income had reported higher anxiety levels.

It should be mentioned, that no study was found about the prevalence of anxiety among university students in Afghanistan. Limited studies that are done on a general population show that a significant number of people are suffering from psychological disorders (Waslat, 2012; Omidian & Miller 2006). According to WHO estimation more than 1.2 million Afghans suffering from anxiety disorders. Cardozo et al, (2004) conducted a national survey and found, 72 percent had anxiety. Since anxiety can create problems in learning and those students who are more anxious can find it difficult to fulfill academic responsibilities, therefore it is necessary to assess the prevalence of anxiety among university students in Afghanistan. The findings of this study will be useful for developing policies on the prevention and intervention of anxiety disorders among university students.

Method:-

Design:

In the present study, a descriptive cross-sectional survey design was used because it was appropriate for answering research questions.

Participants:

All regular undergraduate university students who were enrolled only in similar departments at Kabul University and Shaeed Prof. Rabbani Education University were the target population of the current study. The total population of this study consisted of 9107 students and they belonged to different departments and batches of an undergraduate regular program of 2019 academic year. To determine the sample size of the participants Krejcie & Morgan (1970) the following formula was used.

$$S = \frac{X^2 NP(1 - P)}{d^2(N - 1) + X^2 P(1 - P)}$$

Where: S= required sample size X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level; N= the population size; P= the population proportion (assumed to be .50 since this would provide the

maximum sample size); and d = the degree of accuracy expressed as proportion (.05). The formula showed that at least 368 individuals should be selected for the study. However to maximize confidence in generalizing the findings and to get a more accurate picture of the problem and reduce errors the researcher added 50% of the participants from the population to the already specified study sample by the mentioned formula and sample size became 552 participants (male = 208, female = 344). To select representative universities, departments and students from different universities the multistage probability sampling technique was employed. At first, purposive sampling technique was used and two public universities, Moreover both universities had only 15 similar departments, therefore in the second stage, all 15 similar departments were selected for the study. At third stage, proportionate stratified random sampling was employed and students in each of the selected departments were selected proportionality into male and female categories. Furthermore, years of the study was also considered. Finally 552 questionnaires distributed to participants using simple random sampling techniques. The researcher could collect 531 properly filled questionnaires. The rest 21 questionnaires were discarded for incompleteness. Due to this, the study analysis was done based on the response of 531 study participants.

Tools:

The questionnaire used in this study consisted of two parts: the first part dealt with socio demographic data. The second part constituted short form of Depression, Anxiety, and Stress Scale (DASS- 1). DASS 21 has 21 items that encompass 3 scales namely; depression, anxiety and stress. It is designed to measure the negative emotional states of depression, anxiety and stress with 7 items per scale (Henry & Crawford, 2005). Item 2, 4, 7, 9, 15, 19 and 20 measure anxiety. Frequency/severity ratings are made on a series of 4-point scales (Norton, 2007). The Anxiety scale comprises items evaluating somatic symptoms, situational anxiety and the subjective experience of anxious affect (Lovibond & Lovibond, 1996). The psychometric properties of the DASS-21 have been studied in different countries with good results. The Cronbach's alpha of anxiety scale ranging between 0.82 and 0.91 (Henry & Crawford, 2005; Wang et al., 2016). It also has convergent and discriminant validity that reported in several studies (Bados et al., 2005; Norton, 2007). DASS 21 is translated in so many languages for cross cultural use. The Persian translation and validation of DASS 21 is done by Asghari, Saed, Dibajnia in 2008. The Persian version of DASS has internal consistency. Chronbach alpha for the total score of DASS 21 is 0.94 and for the depression scale is 0.85. The translated version also has good convergent and discriminant validity (Asghari, Saed, Dibajnia, 2008). For the present study a pilot study was conducted on 90 non sample students to check the reliability of the translated version of ASIQ. the entire reliability of DASS- 21 were found to be 0.93. Moreover for the reliability of DASS depression scale was found to be anxiety 0.78. DASS items are scored on 0-3 scale scoring for depression, anxiety and stress, scale are derived by summing up the items in each scale. Scores obtained on DASS 21 should be multiplied by 2 get the final score. Table (1) represent the scoring method for DASS.

Data analysis:

A descriptive analysis was done of the findings. SPSS 21 version was used to analyse the data. The findings were analysed through percentage and frequencies, to find out the prevalence of anxiety.

Table 1:- Lovibond scoring scale for DASS.

	Depression scale	Anxiety scale	Stress Scale
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Very severe	+28	+20	+34

Lovibond and Lovibond (1995)

Results:-

Table 2 represents the prevalence of anxiety among university students. A total number of 531 students participated in this study of which 203 (38.2%) were male and 328 (61.8%) were female. The age range of respondents was 18 to 22 years old and majority of the respondents 351 (66.1%) were living in their own house (parental house). The overall prevalence of anxiety among university students was 40 %.

The prevalence of mild, moderate, severe and extremely severe anxiety found to be 2.4%, 17.1%, 9.2% and 11.3% respectively. As it can be confirmed from table 2 , the prevalence of mild, moderate, severe and extremely severe

anxiety among male participants reported to be 2.5%, 10.3%, 3.4% and 12.8% respectively. The prevalence of mild, moderate, severe and extremely severe anxiety among female participants was 2.4%, 21.3%, 12.8% and 10.4% respectively. On the basis of these findings it can be concluded that more female participants (46.9%) had anxiety than male participants (29%).

The majority of the students (41.8%) aged between 20-21 years old. However the prevalence of moderate (22.7%), severe (12.8%) and extremely severe (14.5%) anxiety were higher among 18 to 19 years old student than 20 to 22 years old students. Overall, the prevalence of anxiety was higher among 18 to 19 years old students than 20 to 22 years old students. Among the years of education, the prevalence of moderate (21%) and extremely severe anxiety (14.8%) was higher among first year students than students from other academic years. However, the prevalence severe anxiety found to be higher (13.9%) among second year of students.

This study also explored the prevalence of stress among social science and natural science students. The results indicated that the prevalence of anxiety was higher (41.2%) among social science students than natural science students (37.4%). Overall, 41.1% of single students and 48.4% students who had 11 to 14 family members reported to have higher anxiety than married and engaged ones and as well as than students who had 3-6, 7- 10 and 15 and above family members. Although, the number of students who were living in their own house (parental house) where higher 351 (66.1%) but the prevalence of anxiety was higher (61.8%) among students who were living in private hostel than student who were living in university hostel (40.3%), own house (parental house) (35.5%), and relatives house (30.9%). In general the prevalence of anxiety was higher (49.5%) among students whose parents' monthly income was between 6000-15000 Afghani.

Discussion:-

The main aim of this study was to estimate the prevalence of anxiety among university students. The findings of current study revealed that the overall prevalence of stress among university students to be 40 %. This shows that higher numbers of students are suffering from anxiety. The higher prevalence of anxiety among university students could be due to the current situation of the country. Daily conflicts, suicide attacks, explosions, violence, political problems, unsatisfying family requests and expansions in economic challenges make students uncertain about their future goals and as result they may not be able to pay full attention to their studies and start worrying about a lot of things. Furthermore increased academic load and students' future apprehension, on prospective employment opportunities could also contribute to the high level of anxiety. Prevalence of anxiety among university students have been extensively studied across the world and it varies from one place to another place. A study conducted by Mutalik, Moni, Choudhari&Bhogale (2016) among undergraduate students studying in a govt. degree college, Bagalkot India showed that 92.2% of students had symptoms of anxiety. Results of research conduct by Khodadadi, Anbari, &Farahani (2018) on students of Lorestan University showed that the prevalence of mild, moderate, severe and very severe anxiety was 10.2%, 8.3%, 2.4%, and 0.2% respectively. The overall level of anxiety was 21.2%. The findings of two studies conducted in Zagazig and Fayoumuniverites of Egept revealed that prevalence of anxiety among university students was 45% and 64.3% respectively (Wahed& Hassan, 2017; Salem, Awad Allah & Said (2016).

Table 2:- Prevalence of anxiety among university students, Afghanistan

	Total	Mild	Moderate	Severe	Ext. Severe
	n (%)	n (%)	n (%)	n (%)	n (%)
All	531	13 (2.4)	91(17.1)	49 (9.2)	60 (11.3)
Sex					
Male	203 (38.2)	5 (2.5)	21(10.3)	7 (3.4)	26 (12.8)
Female	328 (61.8)	8 (2.4)	70 (21.3)	42 (12.8)	34 (10.4)
Age					
18-19	172 (32.4)	2 (1.2)	39 (22.7)	22 (12.8)	25 (14.5)
20-21	222 (41.8)	4 (1.8)	29 (13.0)	20 (9.0)	22 (9.9)
22	137 (25.8)	7 (5.1)	23 (16.8)	7(5.1)	13 (9.5)
Year of study					
First	162 (30.5)	2 (1.2)	34 (21.0)	16 (9.9)	24 (14.8)
Second	122 (23.0)	3 (2.4)	22 (18.3)	17 (13.9)	13 (10.6)
Third	121 (22.8)	3 (2.5)	19 (15.7)	9 (7.4)	13 (10.7)

Forth	126 (23.7)	5 (4.0)	16 (12.7)	7 (5.5)	10 (7.9)
Field of study					
Social Science	363(68.4)	10 (2.7)	56 (15.4)	36 (9.9)	48 (13.2)
Natural Science	168 (31.6)	3 (1.8)	35 (20.8)	13 (7.7)	12 (7.1)
Marital Status					
Married	51 (9.6)	0 (0)	6 (11.8)	3 (5.9)	6 (11.8)
Single	430 (81.0)	12 (2.8)	78 (18.1)	40 (9.3)	47 (10.9)
Engaged	50 (9.4)	1 (2)	7 (14)	6(12)	7 (14)
Place of living					
Government hostel	67 (12.6)	3 (4.5)	12 (17.9)	3 (4.5)	9 (13.4)
Private hostel	84 (15.8)	3 (3.6)	23 (27.3)	10 (11.9)	16 (19.0)
Own house	351 (66.1)	7 (2)	53 (15.0)	33 (9.4)	32 (9.1)
Relatives house	29 (5.5)	0 (0)	3 (10.3)	3 (10.3)	3 (10.3)
Number of family member					
3-6	161 (30.3)	5 (3.1)	23 (14.3)	9 (5.6)	14 (8.7)
7-10	274 (51.6)	6 (2.2)	48 (17.5)	30 (10.9)	36 (13.1)
11-14	68 (12.8)	2 (2.9)	19 (27.9)	7 (10.3)	5 (7.3)
15- above	28 (5.3)	0 (0)	1 (3.6)	3 (10.7)	5 (17.8)
Parents income					
6000-15000	184 (35.9)	6 (3.3)	37 (20.1)	19 (10.3)	29 (15.8)
16000- 25000	187 (36.5)	4 (2.1)	34 (18.2)	21 (11.2)	19 (10.2)
26000-35000	86 (16.8)	0 (0)	14 (16.3)	6 (7)	9 (10.5)
35000-above	55 (10.7)	2 (3.6)	4 (7.3)	2 9 (3.6)	3 (5.4)

Abebe, Kebede, & Mengistu (2018) found that the prevalence of anxiety among students of health Science College at DebreBirhan town in Ethiopia was 23.6%, respectively. Hishan et al. (2018) found that 78.3% of university students in Joharbahru, Malaysia had anxiety.

The prevalence of anxiety found to be higher (46.9%) among female students than males (29%). This finding is in line with the findings of other studies (Choi et al., 2015; Bharadwaj, 2017; Salem, Awad Allah & Said, 2016). An interesting finding of this study was that the prevalence of anxiety among students was decreased as they moved from the first academic year to the fourth academic year. Probably it is because when the students promoting to higher classes getting more knowledge, better understandings and becoming strong enough to do better. Previous studies also reported that first-year students experience more anxiety than others (Bayram&Bilgel, 2008; Ramteke& Ansari, 2016; Kamberi, Hoxha, Shala, Shahini, & Vehapi, 2019). The same is true for the age of students as well. The prevalence of stress was lower among students of 20 to 22 years old than 18 to 19 years old. However, this finding is inconsistent with the findings of previous studies (Salem, Awad Allah & Said, 2016, Argyropoulos et al., 2017).

As per the findings of the current study the level of anxiety was higher among social science students in comparison to natural science students. Probably this is because of that the natural science students are stronger than social science students and they might be more confident about their future than the last ones. This is similar to the findings of Bayram&Bilgel (2008). Furthermore, the highest prevalence of anxiety was found among single students and followed by engaged and married students. This can have two reasons; first, the number of married and engaged participants in this study was very less compare to single students. Second, since Afghanistan is a collectivist society, so if a girl gets married and allowed to continue her education, despite many obligations she may receive a lot of support from her in-laws family and even sometimes from her paternal family. This will help her to experience less anxiety. Besides, students with more family members reported a higher level of anxiety than those students with fewer family members. This could be due competition among family members on getting attention and better things from parents and others. The highest prevalence of anxiety was observed among students who live in private hostels and followed by students, who live in university hostels, own houses, and relatives' houses. It is because students who live in university hostels, own houses, and relative houses have a more comfortable life than students who live in private hostels. This is because they pay a big amount of money for rent, food, and transport at least, which is a big reason for anxiety among them. The highest prevalence of anxiety was found among students whose parents' monthly income was between 6000 to 15000 Afghani. The reason for this is very clear. Students with less financial support suffer a lot and always worried about their situation and progress.

Kamberi, Hoxha, Shala, Shahini, & Vehapi (2019) also reported that students with a low family income had reported higher anxiety levels.

Conclusions:-

Anxiety symptoms are common among university students in many parts of the world (January et al., 2018, Becirevic, Azic, Dorcic, & Juretic, 2015, Iunes et al., 2017). Anxiety is found to be more in university students than the general population (McCready, 2018). In the current study, the overall prevalence of anxiety found to be high. This should be taken very seriously. Because of the increase in the level of anxiety may have negative effects on students' academic lives and can affect their academic tasks (Nail et al., 2015). The current study revealed that there are certain groups of students i.e. female students, 18-19 years old students, first-year students, single students, students who live in private hostels, students with more family members, and students whose parental monthly income is low, in which the prevalence of anxiety is higher. Based on findings of the current study it is recommended that authorities of universities together with mental health professionals must design a comprehensive strategic plan to address this issue and more attention should be paid on risky groups. It is worth mentioning that besides making an intervention plan for students it would be much better than university lecturers should be trained about different methods working with students having high levels of anxiety.

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