

# PREVALENCE OF DEPRESSION, ANXIETY AND STRESS IN COLLEGE STUDENTS OF PESHAWAR

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**INTRODUCTION:** Through the social media, it has been observed that many students face various mental and psychological issues regarding their studies and exams at the intermediate level.

**OBJECTIVE:** To investigate the prevalence of depression, anxiety and stress in college students in the pre-final examination period.

**METHODOLOGY:** This was cross sectional study consisted of randomly selected of HSSC 11th and 12th grade male (89%) and female (11%) students with an average age of 18.6 years attending Islamia College, Peshawar. The participants completed a survey consisting of demographic questions, a section instructing the participants to rate the level of concern associated with challenges related to their personal lives and daily activities, and the question version of the Depression, Anxiety and Stress Scale (DASS 42).

**RESULTS:** The results indicated that mild and moderate levels of depression were found in 59% and severe and extremely severe levels were found in 38% of students. Mild and moderate levels of anxiety were found in 9% whereas severe and extremely severe levels were found in 89% students. Mild and moderate levels of stress were found in 19% and severe and extremely severe levels were found in 79% of students.

**CONCLUSION:** These results are alarming as far as the students' mental health and wellbeing is concerned therefore, it is vitally important that all the stakeholders related to the education sector should devise proper health treatment programs for their students in order to achieve their educational and developmental objectives.

**KEY WORDS:** Anxiety; College students; DASS; Depression; Islamia College University; Stress

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## INTRODUCTION

Health has been defined by many scholars; however a comprehensive definition has been given by WHO in Mental Health Action Plan 2013-20 as, 'Health' is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.<sup>1</sup> Generally people consider their physical wellbeing as health and ignore their mental illness which is the fundamental component of health, as serious disease, however, only good mental health can enable people realize and utilize their true potential, face their normal and daily stress of life, work productively and hence contribute significantly to the development of their communities.<sup>2</sup> On the contrary, mental ill health consequentially results various severe and serious diseases like cardiovascular problems which lead to

heart attacks and death, deaths from external causes and even from cancer which are linked to psychological distress at higher levels.<sup>3</sup>

Depression is a medical illness, a most common mental disorder that causes people to experience depressed mood, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, low energy, and poor concentration.<sup>4</sup> As the secondary students enter college level, they step into a stressful environment because they have to live independently, attend tough classes, new strange and new people and get less sleep, and hence fall into the trap of the most common health problem in students, depression.<sup>5</sup> A survey conducted in 2004 enlisted other reasons as completion of syllabus before the exam, confronting the exam or the results. Sometimes self expectations as well as of parents, comparisons with others or peers pressure affect the mental health of the college students and therefore prone to depression, anxiety and stress.<sup>6</sup> Anxiety is a psychological and physiological state characterized by cognitive, somatic, emotional and behavioural components.<sup>7</sup> Anxiety is a generalized mood condition that occurs without an identifiable triggering

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stimulus<sup>8</sup> having many symptoms of depression such as feeling of persistently sadness, anxious or 'empty' feelings, feelings of hopelessness, feelings of guilt, worthlessness and / or helplessness, irritability, restlessness, and loss of interest in activities, and hobbies once pleasurable.<sup>9</sup> Such ailments are consequential for students, and students who have the symptoms of test anxiety perform poorly in exams as compared to their peers.<sup>10</sup>

Stress is 'a process in which environmental demands exceed the adaptive capacity of an organism, resulting in psychological and biological changes that may place persons at risk for disease.'<sup>11</sup> When we feel a challenge or threat to our wellbeing and as a result physiological reaction occur in our body and hormones are released which results in the physical manifestation of stress that is slowing down digestion, shaking, tunnel vision, increased breathing and heart rate, dilation of pupils and flushed skin whose response is referred to as the 'fight or flight' response.<sup>12</sup>

Depression, anxiety and stress can have a life-long or recurring effects, and to a greater degree impair people's capacity at work, school or facing daily activities of life<sup>13</sup> therefore, research in this field of mental illnesses has attracted scholars and clinicians not only around the world but in Pakistan also. Likewise a similar study regarding depression, anxiety and stress in college students has been conducted by Wilbert & Rupert<sup>14</sup> Vredenburg, O'Brien & Krames<sup>15</sup> Barrett & Boggiano<sup>16</sup> Girgenti, Mills, M. J. & Brooks.<sup>17</sup> Swanholm, Vosvick & Chng<sup>18</sup> and Keith in 2016, however, to the best of our knowledge no such study has been done to measure the level of mental health and prevalence of depression, anxiety and health at the intermediate level students in colleges at Peshawar in KPK, Pakistan. The current study aims to investigate the following questions.

1. Are depression, anxiety and stress prevalent in college students prior to their exams?
2. What is the proportion of prevalence of depression, anxiety and stress in male and female students?

## METHODOLOGY

The research site for the study is Islamia College University, Peshawar, a premier private tertiary educational institute where students are inducted in 1st Year (Pre Medical Group, Pre Engineering Group, Arts and General Science Group). The annual intake in 1st Year at ICP is 800.

The target population of the study were the apparently healthy students of Islamia College University studying at the intermediate level and of Pre Medical and Pre Engineering groups. Out of the total number of 800 at the HSSC level students, 200 participated on the day on which the instrument was administered. The purpose and the benefits were explained to all the students and written informed consent were obtained. The sample consisted of young men and women aged 18 to 22.

A cross-sectional, questionnaire-based survey was conducted during March and April 2018 in the institute Islamia College Peshawar, KPK, Pakistan to investigate the prevalence of depression, anxiety and stress among intermediate level students. The response rate was 25%. Of these participants 178 (89%) were male while 22 (11%) were female. The ages of all the participants ranged from 17 to 21 (Mean = 18.66; SD 1.36).

Data for the research was collected after taking permission from Ethical committee. The Depression, Anxiety and Stress Scale (DASS 42) developed by Lovibond and Lovibond and downloaded from Psychology Foundation of Australia (Lovibond SH, Lovibond PH, 1995). It has demonstrated satisfactory psychometric properties and is comparable to other reliable scales (Lovibond & Lovibond, 1995; Nieuwenhuijsen, de Boer, Verbeek, Blonk, van Dijk, 2003). It is a self-report instrument designed to measure the three negative emotional states of Depression, Anxiety and Stress, and their correlates. The scale contains 42 items, divided into 3 subscales of depression, anxiety and stress and each with 14 items answers using a 0-3 scale where 0 = did not apply to me at all, and 3 = applied to me very much or most of the time (range of possible scores for each scale is 0-42). The cumulative scores for the depression, anxiety, and stress scales are determined by totalling the scores for the relevant 14 items. Scores from 0-9 for depression, 0-7 for anxiety, and 0-14 are considered as normal whereas scores above these ranges indicate the degree of problem from mild to extreme (Lovibond SH, Lovibond PH, 1995).

Items of the subscales were scored according to the DASS 42 technical manual. The study raw scores were tabulated and analysed by descriptive statistics for frequencies, percentages, mean and standard deviation, while using Statistical Package for Social Sciences 21 (SPSS, Inc., Chicago, IL, USA).

## RESULTS

Results of the study are presented in tables given below; The phenomenon of psychological stressors such as Depression, Anxiety Stress among college students is a significant issue faced world-wide especially prior to and during exams. The current research regarding depression reveals that 3% of the participants were found normal, 45% were found mildly depressed whereas 55% were moderately depressed. Severe depression was found in 35% students whereas 3% of the participants were found to be extremely depressed.

As far as anxiety is concerned, the current study shows that only 2% of the participants were found normal and 1% of the participants faced mild anxiety whereas 8% were found to be moderately affected by anxiety. Severe anxiety was found in 40% whereas extremely severe anxiety was found in 49% of the participants.

The results of the current study regarding stress reveal that 2% of the participants were felt normal, 5% felt mild

stress whereas 14% were moderately stressed. Severe stress was found in 73% of the participants whereas 6% of the participants were found extremely stressed.

### DISCUSSION

It was reported by World Health Organisation (WHO) that depression is the main cause of ill health all over the world and estimates that over 300 million suffer from depression (2015). It is also reported by WHO that the two main problems faced by students in colleges are depression and anxiety. The current study agrees with previous studies<sup>19,20</sup> as both male as well as female participants were found depressed and have shown similar degrees of anxiety due to the reason that they feel that they may not cope with coming exams of ETEA and hence became susceptible to depression and anxiety. Results of the current studies showed that female students were more depressed than the male students, and this finding is in line with the studies conducted previously.<sup>21,22</sup> The barriers of depression and anxiety had a negative impact on their academic performance.<sup>23</sup> The current studies is in

line with several previous research related to psychological problems among college students (Lafay et al., 2003; Lassarre et al., 2003; Boujut et al., 2009; Strenna et al., 2009) and shows high level of depression (38%) anxiety(89% ) and stress (79%).The level of stress in our sample is slightly higher than the ones found in the literature(Vandentorren et al., 2005; Strenna et al., 2009; Dachew et al., 2015; Deasy et al., 2015; Larcombe et al., 2016; Weier and Lee, 2016). Previous studies on stress with regard to academic performance have shown that it has a negative impact on academic performance and may cause other serious problems in students.<sup>24</sup>

This research indicates that the psychological distress and problems related to it are influenced to some degree by the socio-demographic characteristics employed in this study therefore for a broader approach to study psychological ailments in the students may include predictors found by other studies such as measurements of students personality, social network and social support which are related to development of psychological distress in students (Bulent Ediz, 2017).

**TABLE 1: SEVERITY OF DEPRESSION, ANXIETY AND STRESS**

Ratings	Depression	Anxiety	Stress
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-19	10-14	19-25
Severe	20-27	15-19	26-33
Extremely Severe	28+	20+	34+

**TABLE 2: AGE OF THE PARTICIPANTS, MEAN AND STANDARD DEVIATION**

Parameter	Mean	Standard Deviation
Age	18.6	1.364

**TABLE 3: GENDER DISTRIBUTIONS OF THE PARTICIPANTS' FREQUENCY AND PERCENTAGES**

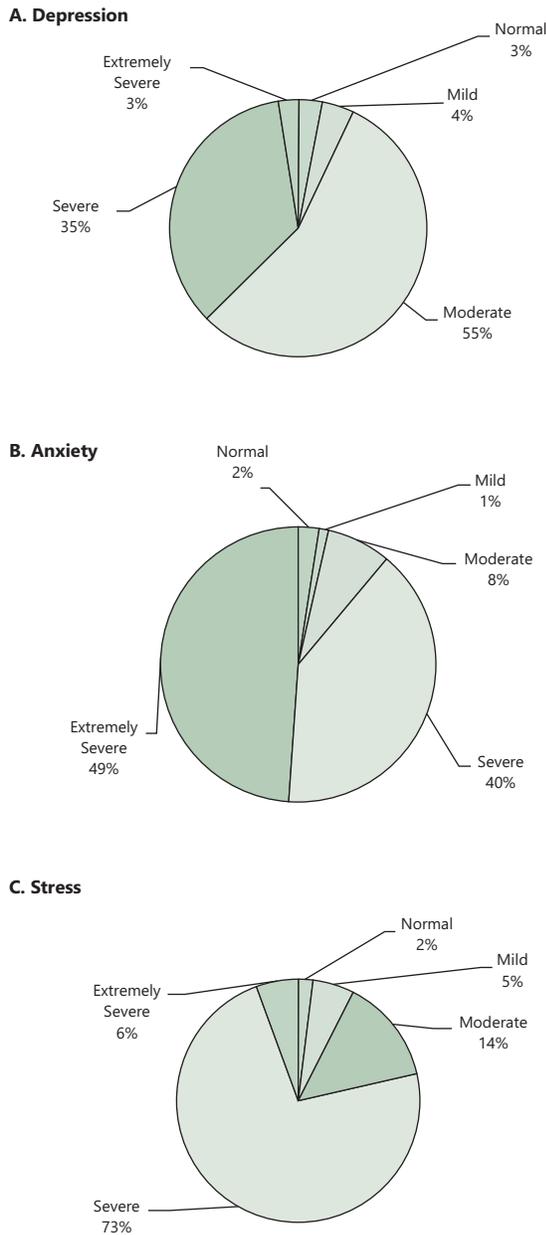
Parameter	Frequency	Percentage
Male	178	89.0
Female	22	11

**TABLE 7: 7DASS SCORE IN MALE AND FEMALE STUDENTS**

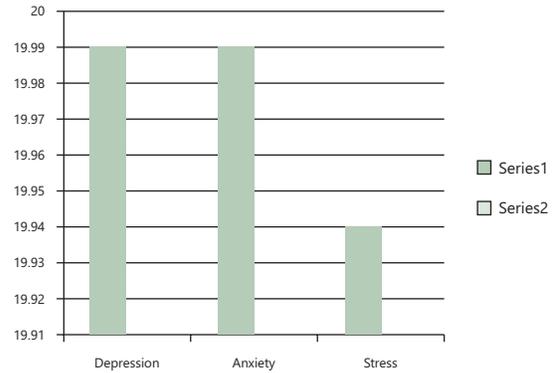
Parameters	Male	Female	P Value
Depression	19.99±23.94	24.98±21.16	0.497962
Anxiety	19.99±23.01	24.98±21.18	0.37536
Stress	19.94±30.33	24.95±29.35	0.4059

(Data presented in mean ± SD) (\*P value <0.05\*\*P value <0.00001). The t-value is -257.08. The P-value is 0.00001)

**FIGURE 1: Pie Chart A, B & C showing Depression, Anxiety and Stress in Participants**



**Table 8: Bar Chart showing Depression, Anxiety and Stress in Student**



psychological stressors prior to and during exams. Parents should counsel, and boost and motivate their children to boldly face the situation. It is also recommended that the college should update and improve their existing counselling services, implement systematic methods to monitor the mental health of students on regular basis and devise such activities and programs which would help reduce the mental suffering of the college students.

In the light of the current research, the following questions need further research and exploration:

1. Do the psychological ailments of depression, anxiety and stress affect the academic performance of students in the post exam scenario and to what degree?
2. Do depression, anxiety and stress influence the personality traits of students post exam scenario and to what degree?

As the study was conducted randomly about half a month before the final exam so most of the students didn't volunteer rather excused themselves from the research due to certain reservations hence the responses level is low. Moreover, being a society with cultural norms of male female segregation it is socially unacceptable behaviour to talk to females therefore the author could not get the enough data from the females, and especially when their final exams are on their heads. Furthermore, the author used the English version of DAS 42 Questionnaire, if the Urdu version of the questionnaire would have been used, it would have given different results. Lastly, the cross-sectional study does not allow casual inferences therefore further studies of longitudinal nature are required to get in depth assessment of the mental health of the students.

**CONCLUSION**

The current study reveals grave sources of concern within the students' community not only for the academicians but for the students and parents too. These alarming results open venues for further and repeated studies of this nature. Sharing the information and collaborative investigation of other institutions would greatly help to address the issue earnestly. Teachers should motivate and educate the students through discussions about the seriousness of the

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**NOTES ON CONTRIBUTORS**

The study was part of MQ work, he was involved in every part of Manuscript writing, analysis, Protocol developments and data collection process.

**CONFLICT OF INTEREST**

Authors declare no conflict of interest.

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