

STUDY OF DEPRESSION IN UNIVERSITY AND COLLEGE LEVEL STUDENTS IN DISTRICT DERA ISMAIL KHAN. KHYBER PAKHTUNKHWA PAKISTAN.

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ABSTRACT: *The main aim of the present study was to assess the prevalence of depression among university and college-level students in district Dera Ismail Khan, Khyber Pakhtunkhwa Pakistan. It is a cross-sectional study at Gomal University Dera Ismail Khan, Qurtuba University Dera Ismail Khan, Government Degree College No.1 boys Dera Ismail Khan. A total of 451 male and female students participated in this study from October 2017 to February 2019. The data were collected using a pre-tested, structured questionnaire to collect information. In our study result shows a significant difference in the effect of depression in male and female university students ($p < 0.05$). There is a significant difference exist (0.034*), (0.005*), (0.029*) between gender, class system, grades, and depression levels. however, there is no significant difference in the effect of depression in various variables ($p > 0.05$). In this study result, 14.85 percent of adults are Normal and 85.15 percent are depressed. In this study, it is concluded that depression is common in females and in males in different Pakistan universities. there is a significant difference exist between gender, class system, grades, and depression levels and the students who have low grades are more depressed than other students.*

Key Words. Depression, College, University, Students, Smoking, Pakistan.

INTRODUCTION

One of the numerous worldwide-accepted contributing factors towards mental health problems is Depression [1] its salient features of depression include conditions of emotional excitement, emotional problems, hopelessness, and helplessness considered its main causes. Among mental health problems, depression is one of the most prevalent problems in the world among students of different age groups studying at the high school, college, and university levels [2]. While, Former literature demonstrated that serious psychological morbidity termed, as depression is particularly a common disorder recorded among students of different age groups [3, 4].

According to world surveys research data indicated depression is the most prevalent problem among teenagers studying at the college level by badly affecting students' mental ability to perform activities of daily life. Mostly observed symptoms associated with depression are feelings of sadness, disappointment among students commonly denoted as mental illness, whilst, according to the " National Institute of Mental Health [5] findings observations were made that many students during their college experience feelings of sadness as the first symptoms of depression.

In the present century, depression is well defined as a psychiatric disorder that is basically a common mental illness also expressed in terms of psychiatric cold that has negative effects on our behaviors, specifically, expressed as a less productive attitude, loss of concentration, and anti-social behavior. Nevertheless, in United States suicide, among major causes of death, the 11th leading cause of death that occurs nearly every 16 minutes and depression is the main Psychiatric disorder that has revealed at the spot of death roughly among all suicide committers [6-8]. On the contrary, positive mood consequences with good feelings that motivate us to do every good deed in relevant to requirements [9].

Similarly, the prevalence of depression among mature university students is also an immensely persistent mental problem throughout the country [10-12]. The main reasons contribute towards mental illness are struggle for acquiring

bounteous grades, planning for future life goals and achievements and evasion from home causes anxiousness for many students [13], finally, as a result of all above-mentioned stresses depression is diagnosed in some students. The victims possess severe symptoms of mental illness by showing anti-social behavior, remain isolated, cry and skip classes and avoidance, however, they are not familiar that they are victims of notorious mental illness called depression. Numerous researcher's investigations proposed an immense prevalence of depression among students of the university level [14-17].

A globally widespread disease that affecting around 151.2 million of the population is depression and it is considered the third most common reason for mental disability form the topmost causes according to a worldwide survey by 2030 [18]. Nevertheless, it is estimated that the probability of developing depression prevalence is 7- 12 % for men, and 20- 25 % for women was recorded World widely. All the above-mentioned findings are regardless of creation, educational background, incomes, or social lifestyles [19]. However, in the Pakistani population, about 6% of people are suffering from this notorious mental sickness called depression. The result is search data revealed that at least one member in four families is suffered from depression [20]. It is a challenging disease for developing countries to overcome and manage such problem psyche problems such as a non-communicable disease like depression, along with infectious diseases and malnutrition that are still predominant in these countries where a very small proportion of gross domestic products are held in reserve for health purposes [21].

Currently, a number of studies have been revealed the truth on the depression percentage among students [22] that attained a standard of widespread mental problem, while, going to continue to increase among the student population. One study according to an estimate on its occurrence stated that the rate of depression varied from 10% to 40% among university students in Turkey [23]. Additionally, Green, [24] showed that adult students represented higher rates of depression symptoms rather than the non-student adult

population. Many other studies in this area indicated the symptoms of depression ranged from 27% or more in students of university level, represent as most common problems encountered by records from university counseling centers [25].

OBJECTIVES

The main aim of the present study was to assess the prevalence of depression among university and college-level students in district Dera Ismail Khan, Khyber Pakhtunkhwa Pakistan.

2. MATERIALS AND METHODS

STUDY POPULATION

A descriptive natured questionnaire study was carried out from October 2017 to February 2019 in different colleges and universities of district Dera Ismail Khan, Khyber Pakhtunkhwa Pakistan, to evaluate the depression level prevailing among students. A total of 451 respondents (students) participated in this study belonging to different universities including Gomal University Dera Ismail Khan, Qurtuba University Dera Ismail Khan, Government Degree College No.1 boys Dera Ismail Khan. The research criteria were established between participants studying in intermediate to Ph.D. Scholars.

QUESTIONNAIRE

After an extensive literature review on the effects of depression on university-level students, a questionnaire proforma was designed. Permissibly evaluating the rate of depression among participants "Depression Screening Test" was applied. Above mentioned questionnaire proforma included 18 items and a depression measuring tool consisted of 5-point Likert scale, according to this range 0 means (Not at all), range 1 means (Just a little), range 2 means (Somewhat), range 3 means (Moderately), range 4 means (Quite a lot), while ranging 5 means (Very much), on which depression levels were scored.

DATA COLLECTION

The data was collected during the organized field surveys performed personally by the researchers. On the predetermined dates different universities were visited and

questionnaires were filled from randomly selected participants. The responses were taken individually, moreover, the names and identities of the students were kept anonymous to respect their privacy.

STATISTICAL ANALYSIS:

The statistical analysis was divided into a preliminary step and subsequent validation step. We performed cross-tabulation of all variables Age, BMI, Weight, Height, and CGPA with depression level. We also performed a Chi-square test to test the significance of our study. Statistical analysis denoted that except Grade* depression level ($P=0.001$), all remaining variables were not proved significant at $P=0.05$ level of significance, the data was analyzed through one-way ANOVA to test the mean difference among all variables. Test results showed there is no difference between variables means at 0.05. We also performed a Post Hoc test to validate our results. Analysis of whole data was performed by using IBM SPSS, statistical Version 19.0.

3. RESULTS

This currently conducted research work contained data of 451 university students (male = 165 and female = 286), ranges their age limit between 19 to 45 years. Correspondingly, qualification levels of students fluctuated from Bachelor to doctoral. Final results illustrate a significant difference ($p < .05$) in the rate of effects of depression among male and female university students. There is a significant difference exist (0.034*), (0.005*), (0.029*) between gender, class system, grades, and depression levels Nevertheless, in the case of various variables there is no significant difference was depicted in the effect of depression ($p > .05$). In the present study, a total of 1159 university students from bachelor to doctoral programs were examined with age ranging from 19 years to 45 years. The influence of depression on the opposite gender (male and female) students showed a significant difference in relation to depression levels as well as gender, class system, grades but not in case of various variables.

Table I. Associations of depression with various variables among students.

Associations of depression with various variables among students.					
Factor	Distribution	Depression Level	Factor	%	P. Value
Smoking	Yes	No	66	14.6	0.105
		Perhaps	161	35.7	
		Mild	117	25.9	
		Moderate	60	13.3	
		Severe	13	2.88	
		NO	No	1	
	Perhaps	14	3.1		
	Mild	8	1.77		
	Moderate	7	1.55		
	Severe	4	0.89		

Gender		0.034	
Male	No	20	4.43
	Perhaps	57	12.6
	Mild	50	11.1
	Moderate	34	7.54
	Severe	4	0.89
Female	No	47	10.4
	Perhaps	119	26.4
	Mild	76	16.9
	Moderate	32	7.1
	Severe	12	2.66
Class system		0.005	
	No	48	10.6
	Perhaps	149	33
	Mild	113	25.1
	Moderate	52	11.5
	Severe	16	3.55
	No	19	4.21
	Perhaps	27	5.99
	Mild	13	2.88
	Moderate	14	3.1
	Severe	0	0
Grade		0.029	
A	No	55	12.2
	Perhaps	141	31.3
	Mild	93	20.6
	Moderate	44	9.76
	Severe	12	2.66
B	No	12	2.66
	Perhaps	34	7.54
	Mild	33	7.32
	Moderate	20	4.43
	Severe	4	0.89
C	No	0	0
	Perhaps	0	0
	Mild	0	0
	Moderate	2	0.44
	Severe	1	0.22

In the present work, table-1 illustrated the socio-demographic configurations of our population study (n = 451). Smoking, gender, class, class system, and grades were associated with depression. This obvious representative figure demonstrates the occurrence of depression severity among respondents. In our study result, nearly 14.85 percent of adults have

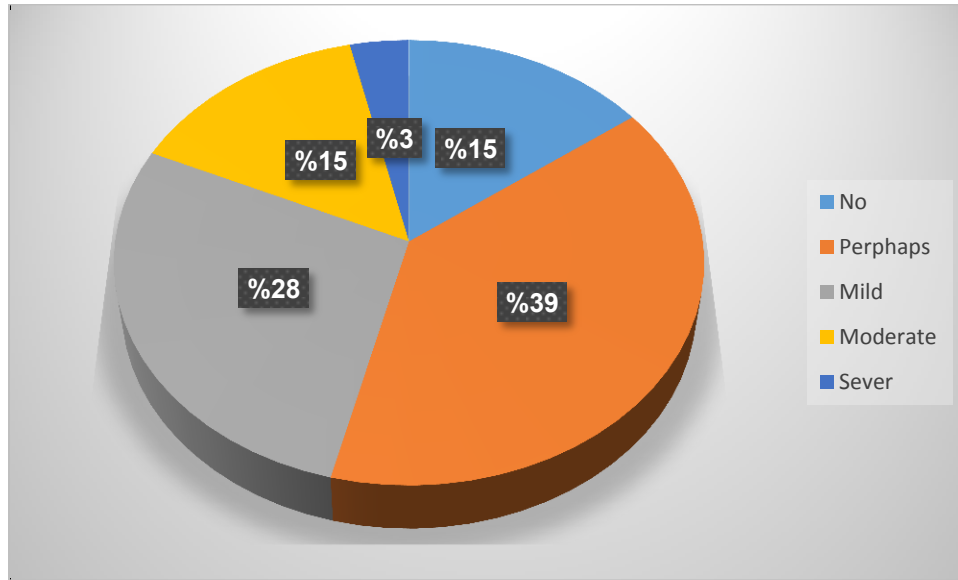
depression level 0(Normal) 85.15 percent are depressed. The highest number of adults falls in category level 1(Perhaps) 39.02%. Similarly, 27.93% of adults have depression level 2 (Mild) and 14.63% of adults have depression level 3(Moderate). The lowest number of adults falls in depression level 4 (sever) which is only 3.54%.

Table II. Cross-tabulation of various variables among students

Factors	Depression Level	Mean±S.E	P.Value
Age			0.737
	No	2.92±.36	
	Perhaps	2.07±15	
	Mild	2.32±21	
	Moderate	2.21±27	
	Severe	2.08±52	
Height			0.209
	No	.54078±.063	
	Perhaps	.40793±.0343	
	Mild	24.90578±2.338	
	Moderate	19.295±2.48	
	Severe	.296±.08509	
BMI			0.758
	No	4.705±.573	
	Perhaps	4.569±.347	
	Mild	8.179±738	
	Moderate	5.709±7028	
	Severe	3.18±79	
Weight			0.32
	No	11.226±1.393	
	Perhaps	12.769±3.192	
	Mild	11.384±.547	
	Moderate	.44078±063	
	Severe	.30793±034	

In the current study, only 14.85 %, adults were found with no depression while the remaining 85.15 percent were depressed. The highest number of adults falls in category level 1(Perhaps) 39.02%. Similarly, 27.93% of adults have depression level 2 (Mild) and 14.63% of adults have depression level 3(Moderate). The lowest number of adults falls in depression level 4 (sever) which is only 3.54%. Outcomes of the multiple regression analysis included age, weight, height, BMI, and Cumulative Grade Point Average

described in Table-II. There is no significant difference exist between age, weight, height, BMI, and depression levels. The findings of multiple regression analysis of age, height, weight, CGPA, and BMI are given in Table 2. Non-significant differences were found between age, height, weight, BMI, and depression levels. The graph represents different depression levels of 451 university and college students.



The figure shows the distribution of depression severity among these respondents.

DISCUSSION

The objective of this research work was to evaluate the frequency of depression among university and college-level students belongs from Dera Ismail Khan, Khyber Pakhtunkhwa, Pakistan, and examine the correlation of depression with demographics and occupational environment. According to our explored knowledge, the current research study is a full-fledged epidemiological study that demonstrates depression found mostly among university students in Pakistan with an elaborate survey response rate. The current work was designed to estimate the frequency of depression in university students of Pakistan and its relationship with the occupational environment and demographics. According to our findings, 14.85% of students were Normal, 39.02% are perhaps, 27.93% are Mild, 14.63% are Moderate and just 3.54% were severely depressed. While the illustrative pervasiveness of depression amongst students of different universities indicated a wide range of variation in a number of many countries. Sequentially, depression is one of the most predominant problems in the mental health of students of different educational levels including high school, college, and university [2]. Preceding research findings revealed that psychological morbidity, particularly depression is a common mental disorder found amongst students [3,4]. Previous findings of psychological problems encountered by counseling centers illustrated that depression was the top of the five most common mental problems among college students. They highlighted that it is accounted for 39% of problems, a higher rate than anxiety, problems with romantic relationships, and the self-esteem of students across different settings [26]. According to many recent studies rates of depression have been studied amongst students [22]. Sequentially, they reported that depression is a predominant mental weakness that continues to increase in different student populations. For instance, one study stated that the rate of depression varied from 10% to 40% among university students in Turkey [23]. In addition, [24] indicated that adult students reported higher levels of symptoms of depression

compared to the adult non-student population. Other studies in this area have also found that the symptoms of depression range from 27% and over, among students and these symptoms represent the most common problems encountered by university counseling centers [25]. Although the prevalence of depression in the student population rather than to the general population has not been well researched, whilst, numerous studies have demonstrated at the rate of depression amongst particular groups of students. Correspondingly, a full-fledged systematic review of published data about depression updated from January 1980 to May 2005 in Canadian and US medical students, reportedly, higher levels of depression were observed as compared to the general population [27]. However, based on this study we cannot conclude that the prevalence of depression in students is higher than the general population because the study used only Canadian and US medical students. Nevertheless, a sample of this systematic review only included 40 studies from January 1980 to May 2005. According to a previous a conducted study enlightened 27.1%, 47.1%, and 27% rates of depression, anxiety, and stress, respectively among Turkish university students in 2008 [28]. While In another study survey in Pakistan prevalence of depression 40.9% was recorded that is considered very high [29]. In our study, we found a high number of depression in female students. Few previous relevant research findings of university or college students are opposing our results and revealed higher rates of depression among female students [3]. A study that was conducted in Pakistan showed a high depression prevalence of 40.9%. In the present study, we found a higher number of depression among female students during our study survey. Few previous relevant studies claimed that males have lower rates of depression than females while others claimed that depression prevalence did not depend on gender difference. The outcomes of present research work were similar to findings of elevated frequencies of depression in most Asian

countries, however, 27.1% of depression was recorded amongst Turkish university students⁽²⁸⁾.

Additionally, students also experienced differences in the methods of instructions at schools, colleges, and university levels. Commonly it is concerned smoking acts as a causal factor for depression, however, according to our conclusions non-smokers were more depressed. This is in contradiction to the current concept that nicotine causes depression [30]. Though, it is a possibility smoking might be a coping mechanism for non-depressed trainees but proved non-significant at the end of our analysis. Normally, Smoking is considered as a causal factor for depression [31], but in our study, non-smoker trainees were found more depressed. Although, these conclusions contradict the concept of nicotine causes depression. However, there is a possibility that non-depressed trainees have a tendency for smoking to tackle depression, whilst, according to our present research reports, these results are non-significant.

4. CONCLUSION

In culmination, our survey data suggests that the prevalence of depression was considerably (85.15%) among university students and these consequences uncover many aspects associated with depression among University Students. However, we recommend a prospective cohort, multicenter studies to provide effective, generalizable information on this disease. Nevertheless, further studies may be a suggestion to conclude its effects on a patient's care. To overcome such worrisome frequency, there is an urgent need to establish liable strategies for the demonstration of screening programs of medical and surgical post-graduate trainees about prior detection of depression to manage this morbid condition.

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