Original Research Article

Depression Among College Students: Prevalence And Associated Risk Factors

Gurmanbir Singh Dhillon[1], Simranpreet Kaur[2]

[1]Resident, Dept of Community Medicine, Armed Forces Medical College, Pune.
[2]Assistant Professor, Shri Mata Vaisho Devi University, Katra, Jammu & Kashmir
Corresponding author: Gurmanbir Singh Dhillon
Email – gurmandhillon2290@gmail.com

ABSTRACT

Background: Depression is defined as persistent presence of low mood & sadness along with decreased interest in previously rewarding activities. Various studies conducted among college students have shown prevalence of depression to be ranging from 26% to 71%. The aim of the study was assessing the prevalence of depression among college students in J&K and to see effect of associated risk factors in occurrence of depression.
Methodology: Survey among college students using self-designed sociodemographic questionnaire and pre validated Patient Health Questionnaire-9 to assess prevalence of depression; Study design: Cross-sectional study; Study sample: 924; Statistical analysis: Using SPSS version 26
Results: Out of total responders, Females were 660 (71.4%). Mean age of study population was 20.82 ± 2.29. Overall prevalence of depression was 59.8% among responders (32.3% Mild, 18.2% Moderate & 9.3% were Moderately severe to Severe). Prevalence amongst females was 60.3% and amongst males 58.3%. In associated risk factors, Odds of depression among those with history of Smoking was 3.57 (1.22-10.49 95% CI); History of Depression in Family 3.43 (2.04-5.79 95% CI); Personal history of Trauma/Major Accident/Assault 2.77 (1.64-4.70 95% CI); History of Long term treatment for medical condition in subjects 2.84 (1.55-5.19 95% CI); History of Chronic illness/ Life threatening illness in 1st degree relatives 1.94 (1.07-3.50 95% CI).
Conclusion: High prevalence of depression among college going students is a major cause of concern with need to focus on creating awareness about it among students and college authorities, to improve health seeking behaviour with special attention to those with history of risk factors developing depression.

Keywords: Depression; College students; Prevalence; Risk factors

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INTRODUCTION

Depression has been defined by WHO as a mental health issue which is characterised by persistent sadness or low mood and lack of interest in previously rewarding or activities of interest and may also manifest along with disturbed sleep, decreased appetite, tiredness and poor concentration. It is an all-pervasive mental health issue affecting all age groups and strata of society [1].

During adolescence and early adulthood almost every individual experiences some or the other kind of stressors, to which every individual has different kind of reactions and coping strategies. Some might fail in such an adjustment and might end up having clinical level of depression with its debilitating effects. University students are a group of people who reside on hostels, away from protective & affectionate environment of their families. Along with this they face other issues of adjusting to a new environment where their academic requirements are a lot different from that of schools, they have a new peer group to adjust with and also face bullying by seniors. All these factors have a varied affect on individuals mental health which some are not able to cope with. Inability to do so might land them into having anxiety or depression

[2]. Previously conducted studies have shown that depression affects a large number of students [3] and university students are more affected when compared with general population [4]. These adverse mental health situations can at times lead to catastrophic outcomes suicide [5]. NCRB report on Accidental deaths and Suicides in India, 2020 [6] highlights an increase in suicide rate at national level compared to previous years which is currently at 11.3 per lakh population. Students accounted for 8.3% share of the total suicides in the year 2020 with 34 students committing suicide everyday. This mind boggling data highlights the urgency of addressing this health issue in India, especially among university students.

Mental health issues including depression have been among leading causes of YLDs and DALYs at the world level [7]. There has been a steady rise in number of mental health related cases with varying case load in various Indian states. Owing to the gravity of the issue which can be made out from the years of life lost and disability adjusted life years [8], a lot need to be done in terms of health policy decision making at national and international level to address this grave issue. Some efforts have been made in this direction in terms of National Mental Health Policy, 2014 and a revised Mental Healthcare Act, 2017 to reach out to the masses and to provide better access to healthcare services but before doing that we need to have a better understanding of what needs to be done. What is required is to clearly delineate as to whom and where to reach out to, knowing the priority and the most vulnerable group of people so as to gain maximum with minimum exhaustion of health infrastructure and resources, especially in a resource poor setting like ours where focus is still on controlling and eliminating communicable diseases along with ramping up fight against incoming epidemic of non-communicable diseases. Therefore it is crucial to have a better knowledge of the trends and distribution of these upcoming health issues which have previously not been stressed upon due to various sociocultural as well as socioeconomic reasons.

Consequent to depression one ends up having decreased social and economic productivity. In addition, persistent depression has been associated with cardiovascular diseases, stroke, hypertension, etc. Various studies conducted over different population settings have shown prevalence of depression to be ranging from 26% to 71% [9-11]. This study is aimed at assessing prevalence of depression among college students in Jammu & Kashmir and to see effect of sociodemographic factors and other risk factors on prevalence of depression among college students.

METHODOLOGY

Study location: Study was carried out among students of a University located at Katra, Jammu & Kashmir which has a residential campus. It offers courses to students doing graduation, post-graduation and pursuing doctorate in various streams of arts, humanities, biotechnology, engineering and architecture.

Study population: A total of 924 students from various schools of university participated in the study of which there were 264 male participants & 660 females.

Measures used:

- A self-structured socio-demographic questionnaire was used to collect information about participants with respect to their age & gender, personal history of any chronic illness, major accident or assault and substance abuse, family history of depression, chronic disease in parents/siblings and broken family/separated parents and socio-economic status of family.
- **Patient Health Questionnaire-9 (PHQ-9):** [12] was used to assess the prevalence of depression among university students. PHQ-9 is a self-administered tool which uses nine criteria on which Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) diagnosis of depressive disorders is based upon and is derived from the primary care evaluation of mental disorders (PRIME-MD, Pfizer Inc., New York, NY) tool. It helps in screening of depression based on the scoring which ranges from 0 to 27 for this tool as each item can be scored from 0 (i.e. not at all) to 3 (i.e. nearly every day) and a score of 5 to 9 indicates mild depression, 10 to 14 indicates moderate depression, 15 to 19 indicates moderately severe depression and a score of 20 to 27 is indicative of severe depression. In a study by Kroenke et al [13] it had been suggested that if a single screening cut point was to be chosen then a score of 10 can be taken as a cut off for major depression with a sensitivity of 88%, specificity of 88% and positive likelihood ratio of 7. It is a screening tool and not a diagnostic tool. Before making a clinical diagnosis of a depressive disorder, the treating

physician should rule out physical causes of depression, grief due to loss of near ones and history of a manic episode.

Data collection and Analysis: Students were centrally educated about the study being conducted and a Google form consisting of both the questionnaires was circulated among students and ethical clearance was taken from IEC. All the students responding to the questionnaire were assumed to be consenting to participate in the study and their responses were recorded and considered for further analysis using SPSS software package.

RESULTS

Mean age of study population was 20.82 ± 2.29 with 71.4% female responders. Majority (i.e.57.6% responders) belonged to Upper middle class as per Modified Kuppuswamy Scale. Rest 17.8% belonged to Upper class, 16.2% belonged to Lower middle class and 8.4% to Upper lower class.

Prevalence of depression was found to be 59.8% among responders, with 32.3% having mild depression, 18.2% having moderate depression, 6.7 having moderately severe depression and 2.6% having severe depression. Amongst female responders 60.3% were found to have depression and amongst males 58.3% were found to have depression.

Associated risk factors

Association of depression with respect to risk factors was found to have odds among those with history of Smoking/ other substance abuse to be 3.57 (1.22-10.49 95% CI); History of Depression in Family OR 3.43 (2.04-5.79 95% CI); Personal history of Trauma/Major Accident/Assault OR 2.77 (1.64-4.70 95% CI); History of Long term treatment for medical condition in subjects OR 2.84 (1.55-5.19 95% CI); History of Chronic illness/ Life threatening illness in 1st degree relatives OR 1.94 (1.07-3.50 95% CI).

Positive history for risk factors like smoking or other substance abuse, history of depression in family, history of major accident/ trauma/ assault, chronic illness among respondent and history of chronic illness/life threatening disease in first degree relative of respondents were found to have significant association towards developing depression.

No significant association was seen for female preponderance, history of separated parents and alcohol consumption with Female sex having OR 1.52 (0.72-1.64 95% CI), history of Separated parents having OR 1.99 (0.94-4.20 95% CI) and history of alcohol consumption having OR 1.32 (0.78-2.24 95% CI).

Table 1: Risk factors involved in Depression

	Odds Ratio	Lower 95% CI	Upper 95% CI
Alcohol consumption	1.32	0.78	2.24
H/o Smoking	3.57	1.22	10.49
H/o Depression in Family	3.43	2.04	5.79
Personal H/o Trauma/ Major Accident/ Assault	2.77	1.64	4.70
H/o Long term treatment for medical condition	2.84	1.55	5.19
H/o Separated parents	1.99	0.94	4.20
H/o Chronic disease/ Life threatening disease in 1st degree relative	1.94	1.07	3.50
Female sex	1.52	0.72	1.64

DISCUSSION

Depression among university students is a serious mental health issue with serious implications of their psychological, emotional and social behavior ultimately leading to worse academic outcomes. There have been studies done in university students [14-17] which highlight need for enhanced emphasis on this target population. Few studies have been done in India in different study settings in past [9-11] but students of universities in Union territory of Jammu and Kashmir have not received much attention on this subject matter. Owing to the special politico-socio-cultural setting of this geographical area, as such the residing population receives lesser attention to issues pertaining to mental health. In the present study we have attempted to look for prevalence of mental health issues with specific attention to depression in university students of this area. Prevalence of depression along with its associated risk factors were studied and we have tried to compare the findings of the study with that of similar studies carried out in similar target population in other settings [15,18].

The findings of the study showing a prevalence of depression to be 59.8% in university students with 27.5% having moderate to severe depression is similar to that of other studies done in students in a varied study settings in India [9-11] as well as outside of india [14-18]. The local politico-socio-cultural setting which plays a role in mental health status of an individual doesn't seem to have increased the prevalence of such issue, which might be thought to be otherwise, disproportionately compared to their counterparts in other states.

Comparison of those having positive history of smoking were found to have more chances of developing depression compared to others which has also been highlighted in other studies [19-21] showing an association of baseline depression or anxiety with smoking behaviour. In contrast to findings of a systematic review done for depression among students [22-24] our study dint show any significantly higher odds of depression among female students. Even alcohol consumption did not show significant odds of having depression which is again contrary to that shown by other studies in different settings [23,24]. These findings can be explained by the changing social dynamics and cultural exposure of our society which can be attributed to perversion created by exposure to internet and influence of social media. During the conduct of this study, all the students who were found to be having probable depression, since the tool used (PHQ-9) is a screening tool and not a diagnostic one, were counseled and encouraged to meet counselor & psychiatrist for further evaluation.

Limitations

Since the tool used for screening for depression in this study is a self-reporting subjective type; therefore there are chances of exaggeration or minimization by the person completing them. Hence we recommend that further studies are needed to evaluate mental health status of college students of this area using some quantitative & qualitative methods.

CONCLUSION

High prevalence of depression among college going students in urban Indian setting is a major cause of concern, as it has direct implications on their academic outcomes as well as social behaviour and indirectly affecting the growth of country, both social as well as economic. There is a need to focus on creating awareness about it among students and college authorities, so as to improve health seeking behaviour among students on mental health issues. Further, there is a need for special attention to those with history of risk factors which have shown higher odds of developing depression and to develop effective screening and treatment strategies suited for this group.

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