

PREVALENCE OF PROBABLE MENTAL ILLNESS AMONG COLLEGE STUDENTS IN A SELECT UNIVERSITY IN BANGALORE RURAL DISTRICT

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ABSTRACT

Background: Mental health is an important aspect in defining the "health status" of a person. Mental health of young adults plays an important role in shaping one's life, social relationships, career and ultimately a country's economy.

Aims & Objective: (1) To assess the prevalence of probable mental illness among college students in a select university in Bangalore rural district; (2) To find the risk factors associated with probable mental illness.

Material and Methods: This study was a cross sectional study undertaken at a private university (having colleges dealing with various academic streams under it) in Bangalore rural district. 404 students under the university were taken for the study considering the sample size required was 300. The General Health Questionnaire-28 (GHQ-28) was used to screen each participant for mental illness. Data was analyzed using measures of central tendency, frequencies & Chi square test.

Results: A total of 404 students participated in the study. Males were 265 (65.6%) and females were 139 (34.4%). The mean age of the participants was 20.37 years with SD 1.7 years. Age of the participants ranged between 18- 26 years. A total of 152 (38%) participants were screened positive for mental illness. Probable mental illness was significantly higher among: (a) females; (b) those who reported abuse by parents; (c) those who reported gender bias at home; (d) whose parents were separated/ divorced/ one parent had died; (e) those who were day scholars. Whereas no significant association was found between probable mental illness and (a) age; (b) academic streams; (c) parental marital disharmony; (d) absence of siblings; (e) father being alcoholic. About 50 (12%) participants reported to have had definite suicidal thoughts.

Conclusion: The prevalence of probable mental illness is 38% in this study which is high. We recommend screening programmes for mental illness among college students which can go long way in preventing severe forms of mental illness and dire consequences like suicide among young adults

Key-Words: Mental Illness; College Students; Screening; Risk Factors; Suicidal Thought

Introduction

World Health Organization has defined health as "a state of complete physical, mental and social wellbeing and not merely an absence of disease or infirmity". Thus mental health is an important aspect in defining the "health status" of a person. Young adults are the backbone of a country's economy. Mental health of young adults plays an important role in shaping their career, in their familial and social relationships, in forming habits like substance abuse among them and on the whole in facing their life ahead.

According to a meta-analysis done by Vikram Patel et al^[1]; most mental disorders begin during youth i.e. 12-24 years of age, although they are often first detected later in life. This study also reported that the prevalence of mental illness among young people aged of 12-24 was found to be ranging from 8%- 57%. The same study also found that at least one out of every four to five young people in the general population will suffer from at least one mental disorder in any given year. Five of the 10 leading causes of

DALY in people aged 15-44 years are mental disorders like unipolar depressive disorders, alcohol use disorders, self-inflicted injuries, schizophrenia, and bipolar affective disorder. Mental health of college students is an important public health concern. Prevalence of depression and risk of suicide in particular among this group deserves due attention. They are at a risk of mental disorders as they are exposed to variety of risk factors such as- academic stress, stress of choosing and shaping career, emotional stress, peer pressure with regard to substance abuse, familial issues, pressure to earn a living etc. They are unlikely to report any of the symptoms of mental disorder to a health care practitioner; mainly due to the stigma attached with it, especially in a country like India.

Screening for mental disorders at an early stage helps in prevention of complications of mental illnesses or development of other serious forms of the same. It also helps in preventing serious consequences of mental illness like suicide through early intervention. Currently here are no national programmes mandating screening for mental

illness among college students. Moreover there is dearth of studies in India, focusing on the mental illness among young adults.

Aims: (1) To assess the prevalence of probable mental illness among college students in a select university in Bangalore rural district; (2) To find the risk factors associated with probable mental illness

Materials and Methods

Study Design: This study was a cross sectional study undertaken at a private university in Bangalore rural district. This private university had colleges dealing with various academic streams under it. Students from all the academic streams were included in the study. Study subjects consisted of students studying in the above mentioned university and who consented for the study. Sample size was 300; considering prevalence of mental illnesses among college students to be 25%^[1,2], absolute precision to be 5%. Considering the sample size, all the 404 students under that university were taken for the study. Permission was sought from the management of the university and informed written consent was taken from each participant.

Data Collection: Information regarding the number of students in each college was obtained from college registers. Demographic details and also details regarding family (whether parents are living together or divorced or separated or one parent has died), parental marital disharmony, presence of siblings, alcohol addiction by parent, gender inequality at home, abuse by parents, current place of stay etc were collected.

Study Tool: The General Health Questionnaire-28 (GHQ-28)^[3,4] was then used to screen each participant for mental illness. General Health Questionnaire 28 has 28 questions to screen for probable mental illness for adults above the age of 18 years. It consists of 4 domains namely, (i) Somatic symptoms (items 1- 7); (ii) Anxiety/ insomnia (items 8- 14); (iii) Social dysfunction (items 15- 21); and (iv) Severe depression (items 22- 28). For each of the questions first two responses score 0 & next two responses score 1. A total Score of ≥ 5 is suggestive of mental illness/caseness.

Data Analysis: Data was analyzed using measures of central tendency, frequencies & Chi square test.

Results

A total of 404 college students were included in the study.

Table-1: Demographic profile of respondents

Characteristics	Value	
	Gender	Males
	Females	139 (34.4%)
Age	Mean age (SD) in years	20.37 (1.7)
	Range	18- 26 years
Place of Residence	Home (Day Scholars)	147 (36.5%)
	Hostel/ paying guest	257 (63.5%)

Table-2: Distribution of students based on academic streams

Course	Males	Females	Total
Graduate studies	79 (63%)	46 (37%)	125
Polytechnic	114 (88%)	16 (12%)	130
Nursing	16 (25%)	47 (74%)	63
Pharmacy	56 (65%)	30 (35%)	86
Total	265	139	404

Table-3: Age wise distribution of GHQ positive students

Age (Years)	GHQ		Frequency	OR
	< 5	≥ 5		
18	33 (56%)	26 (44%)	59	1
19	40 (60%)	27 (40%)	67	1.167
20	72 (64%)	40 (36%)	112	1.418
21	53 (69%)	24 (31%)	77	1.740
22	27 (61%)	17 (39%)	44	1.251
23	13 (62%)	8 (38%)	21	1.280
24	8 (53%)	7 (47%)	15	0.900
25	5 (71%)	2 (29%)	7	1.970
26	1 (50%)	1 (50%)	2	0.788

Chi square for trend= 0.288, p= 0.59117

Table-4: GHQ score by academic stream

Course	GHQ Score		Total
	< 5	≥ 5	
Graduate studies	71 (57%)	54 (43%)	125
Polytechnic	84 (67%)	46 (33%)	130
Nursing	40 (63%)	23 (37%)	63
Pharmacy	57 (66%)	29 (44%)	86
Total	252 (62%)	152 (38%)	404

Chi square= 2.53, p> 0.05

Table-5: Risk factors v/s GHQ scores (probable mental illness)

Risk factors	GHQ Scores		Total	χ^2	P value
	< 5	≥ 5			
Parental Marital Status	Living together	235 (64%)	133 (36%)	368	3.867 <0.05
	Not together*	17 (47%)	19 (53%)	36	
Place of Stay	Home	82 (55.7%)	65 (44.3%)	147	4.281 <0.05
	Hostel/ paying guest	170 (66%)	87(34%)	257	
Gender	Male	180 (68%)	85 (32%)	265	10.10 <0.05
	Female	72 (52%)	67 (48%)	139	
Gender Bias at Home	Present	4 (25%)	12 (75%)	16	9.9 <0.05
	Absent	248 (64%)	140 (36%)	388	
Abuse by Parents	Present	5 (24%)	16 (76%)	21	14.03 <0.05
	Absent	247 (64.5%)	136 (35.5%)	383	
Parental Marital Disharmony	Present	14 (52%)	13 (48%)	27	1.366 >0.05
	Absent	238 (63%)	139 (37%)	377	
Having Siblings	Yes	238 (62%)	146 (38%)	384	0.3 >0.05
	No	13 (68.4%)	6 (31.6%)	19	
Father Alcoholic	Yes	20 (71.4%)	8 (28.5%)	28	1.07 >0.05
	No	231 (61.6%)	144 (38.4%)	375	

< 5: Absent; ≥ 5 : Present; * Divorced/separated/one parent has died

Table-6: Gender v/s reported suicidal thoughts

Gender	Suicidal Thought		Total
	Absent	Present	
Male	235 (89%)	30 (11%)	265
Female	119 (86%)	20 (14%)	139
Total	354	50	404

Chi square = 0.79, p > 0.05

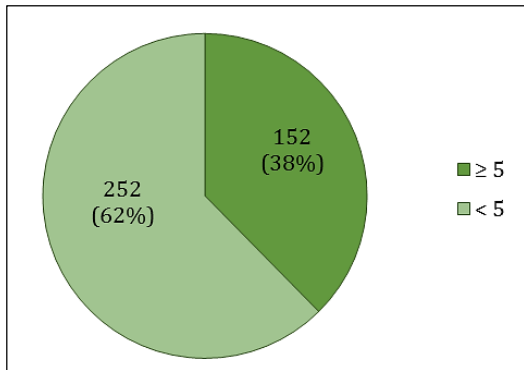


Figure-1: Probable mental illness detected using GHQ-28

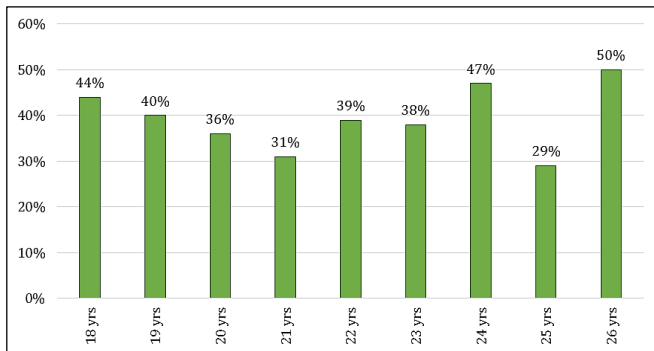


Figure-2: Age wise distribution of GHQ positive students

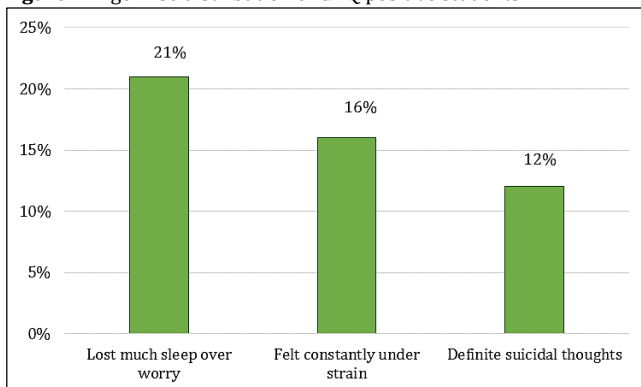


Figure-3: What did the college students report

Refer Table 1 for demographic profile of respondents. Participant belonged to different academic streams namely- graduate studies (BSc, B Com, BA), polytechnic, nursing and pharmacy (table 2). A total of 152 (38%) students were found to have probable mental illness (figure 1). Figure 2 shows the distribution of probable mental illness among different age groups. Odd's ratio showed an increasing trend in prevalence of probable mental illness from age 18 to 21 years and a decreasing trend from age 23- 26 years (table 3). However there was no significant association between probable mental illness and age or academic streams (table 3 & 4). Prevalence of probable mental illness was significantly higher among females and among those who reported abuse by parents and also among those who reported gender bias at home.

Probable mental illness was significantly higher among those whose parents were separated/ divorced/ one

parent had died and also among those who were day scholars. Whereas no significant association was found between probable mental illness and parental marital disharmony, absence of siblings and father being alcoholic (table 5). When looked at some important individual questions in the questionnaire, it was found that about 50 (12%) of the respondents reported that they had 'definite suicidal thoughts' (figure 3) and no significant association was found between gender and suicidal thoughts.

Discussion

This study was a cross sectional study to screen the college students for probable mental illness and also to find out associated risk factors. In this study, as high as 38% of the college students between the age group 18- 26 years were screened positive for mental illness using GHQ 28. In many other studies the prevalence ranged between 20- 27% in the same age group.^[1,2] But in this study we screened students for mental illness and other studies have used diagnostic tools.

Our study showed a significant association between probable mental illness and female sex as well as reported gender bias at home. In India in majority of places there exists male preference^[5] at home, preference right from serving food to buying clothes and getting education etc. Females may get stressed up under such situation. In Indian setting there is social discrimination as well. Females get lesser opportunity to speak out or share their grievances. They are culturally expected to tolerate lot of abuses, torture and discrimination. But the situation is changing now with female education, working status and economic independence. The study was done in a peri urban area, where many parents may not be educated. Male preference is a possibility in such an area.

This study also showed a significant association between reported abuses at home by parents and probable mental illness. This is consistent with the findings of several other studies^[6,7] and reports^[8,9]. This study also showed a significant association between probable mental illness and parents' current marital status. Significantly less number of those respondents whose parents were living together had probable mental illness. It is well known fact that, togetherness of parents induces a sense of security among children.^[8,9] They develop confidence to face tough situations in life. Their tolerance to many blows of life will be higher. This may be the reason for their sound mental health. Parental marital disharmony, having siblings, father's alcoholic status were not shown to be significantly associated with probable mental illness in this study. Probably by that age students develop coping abilities to

many problems at home. They start spending more time with peer group, by the college going age, irrespective of whether they have siblings or not. These may be some of the explanations for the above findings. Association of the above mentioned factors with mental illness among younger children is a potential area for future research.

An interesting finding is that though many participants' parents had marital disharmony, their mere living together seemed to be protective against probable mental illness. In this study 12% of the participants reported to have had definite suicidal thoughts. In a study^[10] done in the United States of America by CDC (Centre for Disease Control); 5.7% of the adults aged between 18- 29 reported to have had suicidal thoughts. The corresponding statistic is alarmingly high in our study. No significant association between gender and suicidal thoughts was found in this study, whereas in the CDC study, prevalence of suicidal thoughts was significantly higher among females.

In this study no significant association was found between gender and having had definite suicidal thoughts. Whereas in the abovementioned study by CDC, significantly higher number of females than males had suicidal thoughts. Similarly significantly lesser number of those staying in hostel/ paying guest had probable mental illness compared to those staying at home. The probable reason may be that majority of the time they stay away from tensions at home or economic problems at home. Moreover most of their time they spend with peer group with whom they usually are comfortable to share their feelings and grievances. Many studies have shown that a good relationship with the peers is protective against mental illness.^[8,9,11]

Limitations

Though this study was done in Bangalore rural district, the study area is currently a peri- urban area. The findings may not entirely represent the prevalence of probable mental illness among young adults either in a completely rural or a completely urban set up. This study included students studying in different academic streams. The results may not entirely reflect the mental health status of general population in that age group; as the stressors may vary. This study has focused on screening for mental illness among college students. As an incidental finding we also found some associated risk factors like female sex, abuse by parents, gender discrimination at home. Many other risk factors^[8,9] like: stress for performing well in studies, economic stress, emotional trauma, bereavement, stress of marriage etc can also play a role in mental health. This is a potential area for future research.

Conclusion

The prevalence of probable mental illness among students aged between 18-26 years was as high as 38% in this study. Risk factors for probable mental illness were found to be female gender, abuse by parents, gender bias at home, parents' current marital status (separated/divorced /one parent had died), staying at home (day scholars).

Recommendations

Currently in India, there is no programme for screening for mental illness among young adults. But prevalence of probable mental illness is found very high in this study. We recommend a system of screening for mental illness among this age group, followed by diagnosis and early intervention. Such an intervention may go long way in preventing severe mental illness and dire consequences like suicide among young adults.^[12]

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