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Research Article

Prevalence of Common Mental Disorder and Associated Factors among Regular Undergraduate Students in Health Science College of Mettu University, 2022

Abebayehu Meketa*

Department of Information Technology, Mattu University, Metu, Ethiopia

ABSTRACT

Introduction: Common mental disorders are a set of distress expressing with anxiety, depressive, impulsiveness, eating disorder, suicide and other unexplained symptoms typically encountered in students exist in university. The internal and external factors like burden of education, environmental weather condition discomforted, family support problems (lack of enough financial support) having too much assignment, exams and other related works are affects the occurrence of common mental disorders. It used to determine the prevalence of CMD, explores the relationship between factors associated with it, and helps to raise awareness of the existing problem, helps family, teachers and the community to support students with CMD by providing different provisions.

Methods and materials: Institution based cross sectional study design was conducted in Mettu University from April 15 to May 15, 2022 G.C. A total of 367 students were selected using stratified sampling technique and Self-Reporting Questionnaire (SRQ) was used to determine the prevalence of common mental disorders. Finally, this data would entered and analyze by SPSS computer software application

Results: Prevalence of common mental disorder among students was found to be 30.5%. In the multivariate analysis; participants who have chronic physical illness (AOR=2.82, 95% CI=1.122-7.086). Participants who were getting money from parents, one times per month (AOR=4.073, 95 CI=2.105-7.883). Respondents who didn't use alcohols (AOR=0.67, 95% CI=0.385-0.943) were significantly associated.

Conclusion: In this study, one third of health science students reported having common mental disorder confirming the presence of common mental disorder in health science students being high.

Keywords: Prevalence; Common mental disorder; Mettu University

INTRODUCTION

Common mental disorders are a set of suffering states demonstrating with depressive, anxiety and unexplained mind or brain symptoms typically encountered in community and primary care settings. And also, in the health policy and international consensus defined health in its broadest context of physical, mental and social components for about last 30 years. Student integration into a university is a multifaceted process, achieved during the daily routine through relationships established between the expectations and abilities of the students and the structure and norms of the institution. This process involves two important factors [1]. The first one is external aspects of the academic and social environment and the second is internal aspects of the individual, such as ability to face situations, psychosomatic physical reactions and mood state. In the field of health care, some characteristics of the teaching process and of the reality of university life for students in some courses have been implicated as conflict generators, able to negatively affect student academic performance, physical health and psychological well-being [2].

College students struggle with developmental issues and some are struggling with more multifaceted and chronic problems [3]. The more common problems faced by university students are mood disturbances, destructive behaviors, interpersonal

Correspondence to: Abebayehu Meketa, Department of Information Technology, Mattu University, Metu, Ethiopia, Tel: 977086754; E-mail: abebayehu5254@gmail.com

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problems and impairment of self-concept [4]. University students often claim to experience stress, anxiety, symptoms of depression, eating problems and other psychological issues, which have significant negative impact on their academic performance and their mental health [5].

Most studies conducted in this area have focused on medical students and courses, considering the various studies of the course itself, which expose students to sources of tension, from the admission process to graduation (last date of graduation). Such stress factors include coming into contact with death and with immeasurable pathological procedures, performing the first physical exam on a patient, fear of acquiring diseases and feelings of inadequacy when confronting certain diseases. All of this may lead the students to engage psychological defense mechanisms such as dissociation or isolation of the affect. The showed that approximately one-fourth of medical students in the USA present symptoms of mental distress [6]. In a study conducted in nine American medical schools, the authors found that approximately 90% of students reported requiring medical attention due to various health problems and 46% presented at least one of the psychiatric symptoms investigated (stress, fatigue, anxiety, depression, headache and eating disorders) during the course.

In my research study, the investigation were limited to college of health sciences students in Mettu University. I understand that it is more practical to compare these students among themselves since they have subjects in common and their activities often overlap, both during training and in practice. The objectives of this study was to identify the prevalence of CMDs among college of health sciences students and to determine the association between CMD prevalence and some characteristics of the teaching-learning process.

Students may use khat to gain immediate relief from their psychological distress which may worsen again after longer time of chewing and in Ethiopia, there are studies showing discrepant and inconsistent results of common mental disorder among college/university students [7].

MATERIALS AND METHODS

Study design and study setting

An institutional based cross sectional study would be conduct at Mettu University to assess the prevalence of common mental disorders and its associated factors among regular undergraduate students of college of health science. A cross-sectional study would conducted from the April to May 2022 G.C. All regular undergraduate medical and health science students of Mettu University.

Study population and source

The source population were all regular undergraduate medical and health science students of Mettu University and all regular undergraduate students' college of health science of Mettu University included into the sample were the study population of this study.

Sample size determination

The minimum sample size of the required for this study were determined by using single population proportion formula:

$$n = \frac{(Z\ \alpha/2)2\ P\ (1-P)}{d2}$$

n=Minimum sample size required for the study

z=Standard normal distribution with confidence interval of 95%; z=1.96

d=Absolute precision or tolerable margin of error; d=0.05

p=p is the anticipated population proportion

There is a research which done in Jimma University, Ethiopia, therefore, 35.2% used to anticipate the proportion of the population of students who experience common mental disorder.

$n = \frac{(Z\,\alpha/2)2\ P\ (1-P)}{d2} = \frac{(1.96)2(0.352)\ (1-0.352)}{(0.05)2} = 350$ and 5% were used for non-respondents and final sample size of 367.

Sampling technique

Stratified sampling technique was used to select the study participants. It is the form of random sampling in which the college is divided into sub-departments (strata) according to aim and objectives of the study.

For my research, I was collected data from all 815-health science college students. I was taken a random sample of the total population by using 367 students. Suppose that 181 students were pharmacy, 99 students are psychiatry, 118 students are midwifery, 50 students are medical, 167 students are nurse, 107 students are public health and 93 students are health informatics. I would be used a proportional stratified random sampling. When the stratum of the sample was proportional to the random sample in the population. Those seven strata were created from the stratified random sampling process. To check the proportionate stratified random sample would obtained using the formula:

$$\frac{number\ of\ student * sample\ size}{Total\ number\ of\ studnets}$$

Data collection tools and procedures

In my research wok, I was collected data using face-to-face interview based on the prepared semi-structured questionnaire sample information were collected on socio-demographic factor, psychological factor, substance and clinical factors.

Operational definition

Common mental disorders: In this study, students who were found to have had 9 or more symptoms of the 20 SRQ20 questions are considered as having common mental disorders [8].

Substance use

Current users: Subjects who used specified substance currently.

Ever users: When subjects use specified substance even once in their lifetime.

Data processing and analysis

Data was checked, coded and entered to Statistical Package for Social Science (SPSS) version 16 for analysis.

RESULTS

Characteristics of the participants

A total of 367 questionnaires are distributed to the health science students and only 357 were judged and respond correctly. But, the other 10 are invalid and not correctly respond. For those students I simply add five students male and female equally to fulfill my sample size and among those 211 (57%) were males while 156 (43%) were females (Tables 1 and 2).

Table 1: Socio-demographic variables of respondents, Mettu University, College of Health Science, South-West, Ethiopia, June 2022 (n=367).

No.	Questions	Answer	Frequency (No)	Percent (%)
1	Sex	Male	211	57
		Female	156	43
2	Age	>22	132	36
		≤ 22	235	64
3	Religion	Orthodox	115	31
		Muslim	77	21
		Protestant	127	35
		Others specify	48	13
4	Ethnicity	Oromo	172	46.5
		Amhara	134	36.5
		Others specify	61	17
5	Department	Psychiatry	45	13
		HO	48	13
		Midwifery	53	14
		Nursing	75	21
		Pharmacy	82	22
		Health informatics	41	11
		Medical laboratory	23	6
7	Marital status	Single	334	91.1
		Married	33	8.9
8	Residence	Rural	276	75.2

	Urban	91	24.8

Table 2: Substance use assessment of respondents, Mettu University, College of Health Science, South West, Ethiopia, June 2022 (n=367).

		Responses	Frequency	Percent (%)
Have you ever substance use history?	Khat	Yes	162	44.1
		No	205	55.9
	Alcohol products (wine, beer and etc.)	Yes	155	42.2
		No	212	57.8
	Tobacco products (chewable, smoking and etc.)	Yes	77	21
		No	290	79
	Others (hashish, cannabis, cocaine and etc.)	Yes	68	18.5
		No	299	81.5
Do you use substance with the last three months?	Khat	Yes	144	39.2
		No	223	60.8
	Alcohol products (wine, beer and etc.)	Yes	133	36.2
		No	234	63.8
	Tobacco products (chewable, smoking and etc.)	Yes	77	21
		No	290	79
	Others (hashish, cannabis, cocaine and etc.)	Yes	55	15
		No	312	85

From a total of 367 respondents 33 (9%) of them have chronic physical illness which is a HPT illness history and 334 (91%) have no any past chronic physical illness history.

Among the 367 respondents, 77 (21%) of them have peoples who have had close to them and support them and 290 (79%) doesn't get any support from others. 67 (18.3%) not concerned by teacher and not show in what they are doing, 200 (54.5%) have a little concern and interest and the others 100 (27.1%) get full concern and interested to help them.

Prevalence of common mental disorders

In the current study, around three fourth 367 (69.5%) of the study participants had low prevalence of common mental disorder and 112 (30.5%) had high prevalence of common mental disorder (Figure 1).

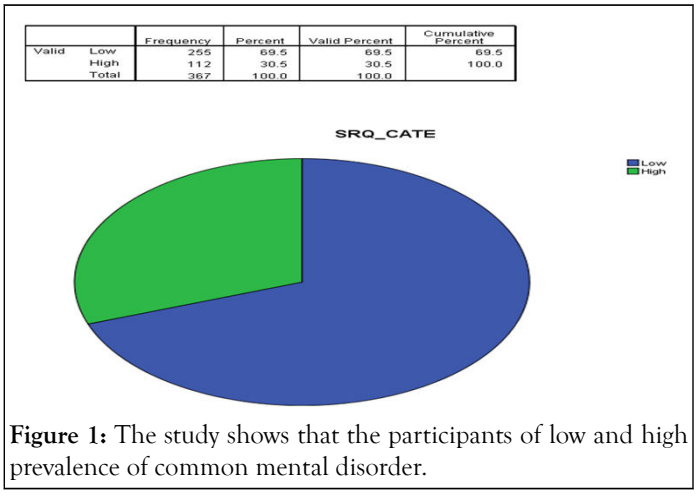

Figure 1: The study shows that the participants of low and high prevalence of common mental disorder.

Factors associated with common mental disorders

The variables significant on bi-variate analysis and candidate for multi-variate was: Department (1.952-6.572, 95% CI, P=0.010), residents (0.158-0.563, 95% CI, P=0.238), drinking alcohols (0.385-0.943, 95% CI, P=0.027), having history of physical chronic illness (1.122-7.086, 95% CI, P=0.027) and frequency of money they got from parents (2.105-7.883, 95% CI, p=0.001) (Table 3).

Table 3: Bivariate logistic regression analysis of associated factors of common mental disorder among college of health science students at Mettu University, South-West Ethiopia, June 2022 (n=367).

Variable	Category	Mental distress		COR	95% CI		P value
		No N (%)	Yes N (%)		Lower	Higher	
Department	Psychiatry	38 (84.5)	7 (15.5)				
	HO	22 (45)	26 (55)	2.976	1.952	6.572	0.01
Residence	Rural	177	90	0.264	0.158	0.563	0.238
	Urban	78	13				
Have chronic illness	No	228 (68.3)	106 (31.7)	1			
	Yes	6 (18.2)	27 (81.8)	2.602	1.122	7.086	0.027
Freq of money gotten	≥ 3 mont	78 (86.7)	12 (13.3)	1			
	Per month	177 (63.9)	100 (36.1)	4.953	2.105	7.883	0.001
Use alcohol	Yes	98 (63.2)	57 (36.8)	1			
	No	157 (74.1)	55 (25.9)	0.602	0.385	0.943	0.027

DISCUSSION

The prevalence of common mental disorder among health science students was found to be 30.5% in the current study.

The finding was in line with studies carried out in Jimma University (28.2%,) Addis Ababa University (32.6%), Kombolcha Town (32.4%), Harar town (28.1%), Brazilian (31.5%), India (29.6%) [9-12].

This study is higher than the study carried out in Adama University (21.6%), Ambo University (24.5%), Illu Ababore zone (27.2%), Ethiopian migrant (27.6%), adolescents worldwide (25.0%) [13-17].

The possible reason for the difference that this study result lower than my study might be due to the differences in the socio-cultural and environmental factors or the difference in the SRQ-20 cut-off points we used and year of the study, differences in measurement tools used, level of knowledge and understanding of the participants, sample size and economic variations.

This study is lower than the study carried out in Gonder University (40.9%), rural Eastern Ethiopia (37.5%), Brazil (33.7%), Vila Velha University (45.6%), Sao Paulo (44.7%), Sergipe (40.0%), Southeast Bahia (32.2%), Netherlands (48.0%) [18,19].

The main reason why this is higher the SRQ-20 cut-off points we used, the sample size, study areas, academic work, level of mental health services, participant's educational status, measurement tools used, to the academic challenge, new social interaction within the mixed cultural pool and separation from pre-existing social support.

Participants who have chronic physical illness (AOR=2.82, 95% CI=1.122-7.086) were around three times more likely to develop common mental disorders than those, who do not have chronic physical illness. Participants who were getting money from parents, one times per month (AOR=4.073, 95% CI=2.105-7.883) was around three times more likely to develop common mental disorders than those, who do not getting per month. Respondents who didn't use alcohols (AOR=0.67, 95% CI=0.385-0.943) were around three times less likely to develop common mental disorders than those, who do not use alcohols.

CONCLUSION

In my study one third of health science students reported having common mental disorder confirming the presence of common mental disorder in health science students being high. The prevalence of common mental disorder was relatively high among male students. Being male sex, lack of interest and confidence towards the field of study, never attend religious programs, conflict with friends, having financial problem, their families not living together, lack of vacation, use of substance (Khat, alcohol and cegarette). The probabilities of having common mental disorder were higher among students who perceive health science as difficult, living environment as

crowded and feeling insecure about their safety. Designing prevention and treatment programs to address contextually relevant factors is very important.

ETHICAL CONSIDERATION

Ethical clearance were obtained from MeU College of health sciences official of cooperation would written. Informed agreement are obtain from students (defendants) who are participate in the study. Each respondent was informed about the objective of the study that privacy and confidentiality of information given by each respondent was keeping properly and names was not be recorded. Anyone who was not willing to participate in the study was not be forced to participate. I would also informed that all data obtained from them would kept confidentiality by using code instead of any personal identifier and was meant only for the purpose of study.

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