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Original Research Article

A Study on the Prevalence of Depression among Young Adults in South India

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ABSTRACT

Background: The study was aimed at finding out the prevalence of depressive symptoms among young adults in Karnataka.

Methodology: The study was a college based cross sectional survey. Socio demographic data sheet and Patient Health Questionnaire (PHQ-9) was administered 1500 college students aged between 18-30 years of age. The study carried out in the medical, dental, paramedical, engineering and other degree college students among colleges in Mangalore, Karnataka.

Results: majority of the respondents were females, day scholars, Hindus and came from nuclear families. 34.4% felt minimal depression, 38.0% felt mild depression, 13. 2% had moderate depression, 4.5% had moderate to severe depression and 1.7% had severe depression.

Conclusions: The common mental disorder of depression is common among young adults. Awareness creation for parents and teachers can help them to identify, support and refer adults with depression to appropriate professionals. Teachers delivered, peer-delivered and professional delivered School based mental health programme and crisis management help line are few ways to deal with depression among the young adults.

Key words: Prevalence, Depression, Young adults.

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INTRODUCTION

Depression is a common psychiatric condition that negatively affects feeling, thinking and acting. Depression causes feelings of sadness and/or a loss of interest in activities once enjoyed. Depression can lead to a multiple emotional and physical problems and can decrease a person's ability to function at work and at home [1]. The young people in the age group of 10-24 are characterized by immense growth and development. It is a stage of vulnerability often influenced by several risk and protective factors that affect

their health and safety [2]. A study from Kerala among adolescents reported that 11.2% of school dropouts had severe and extreme grades of depression as against 3% among school going adolescents [3]. Another study from Noida Uttar Pradesh showed 38% of adolescents had depression [4]. A psychiatric morbidity study among school adolescents in Tamil Nadu found that about 29% of girls and 23% of boys had depression [5]. Another school based study among adolescents from Tamil Nadu reported that 37.1% were mildly depressed, 19.4% were moderately depressed and 41 4.3% severely depressed [6].

Feeling lonely ethnicity, using drugs, being bullied and lack of parental supervision were highly correlated with depression among adolescents [7]. Higher levels of depression were found to be related to more external locus of control and a tendency to attribute outcomes to causes which are internal, stable, and global [8]. Socio-demographics, life events, sexual abuse, physical abuse, and exposure to violence were found to be associated with depression among adolescents [9]. Engagement in sexual activity, parental monitoring of adolescent activity and paternal affection and support were related with adolescent depression [10].

Depression during adolescence is associated with academic difficulties, risky behavior engagement, non-suicidal self-injury in later in adolescence and lower income levels, higher divorce rates, suicidality in adulthood [11-13]. More distressingly, 75% of individuals undergoing depression during adolescence will make a suicide attempt in adulthood [14]. So the objective of the current study was to assess the prevalence of depression among young adults.

METHODOLOGY

Study population: The present study was a cross sectional survey carried out in the medical, dental, paramedical, engineering and other degree college students among colleges in Mangalore, Karnataka. Young adults aged 18 - 30 years and registered in the colleges, participated in the study. Based on the findings from previous studies from similar setting and power calculations for primary outcomes, 1500 young adults were recruited for the study. Inclusion criteria for the study were; a) students between the age group of 18 and 30 years of age, b) students who were willing to take part in the study by signing an informed consent after listening to the study process and the students below the age of 18 and above the age of 30 are excluded from the study.

Tools of data collection: Self-rated semi-structured questionnaire to collect information on potential factors that influence depression like age, gender, marital status, education status and employment status was used for the study.

In addition, the Patient Health Questionnaire (PHQ-9) was used to assess the level of depression among the respondents. The PHQ-9 is a nine items tool covering DSM-IV criteria for Depression such as anhedonia, depressed mood, trouble sleeping, feeling tired, change in appetite, guilt, self-blame, or worthlessness, trouble concentrating, feeling slowed down or restless and thoughts of being better off dead or hurting oneself [15]. Each item is rated on a 4-point scale from 0 to 3 (0 – never, 1 – several days, 2 - more than half the time, and 3 - nearly every day) during the two weeks prior to and including the day of survey completion. The overall scores ranged from 0 to 27. The cutoff score is 9. The PHQ-9 had a sensitivity of 88 % and a specificity of 88 % for detecting depression [15].

Study procedures: After obtaining ethical approval from Institutional Review Board, K. S. Hegde Medical Academy, Mangalore, the researchers approached various colleges to seek permission to conduct study among students and invited them to participate in the study. After obtaining consent, the researcher distributed the self-rated semi-structured demographic questionnaire and the Patient Health Questionnaire (PHQ-9). The data was analyzed using the Statistical Package for Social Sciences (SPSS) version 16.0.

The Institutional Review Board (IRB) of K. S. Hegde Medical Academy, Mangalore gave ethical clearance to the protocol. Witnessed written informed consent was taken from all participating subjects. Participants were informed (A) about their right to withdraw consent at any stage and to refuse to answer any question (B) that data collected would be anonymized and could be used by other researchers beyond

the term and scope of the current study. To ensure confidentiality, the researchers had assigned unique codes to each participant which was maintained throughout the study period. All identifying information was stored separately from the interview data. Those requiring advanced medical care were referred to the Department of Psychiatry, K. S. Hegde Medical Academy, Mangalore.

RESULTS

Table 1 – Demographic Details of the respondents

Variable	Mean (S.D.) / N (%)
Age	19.67 (1.421)
Female	1340 (89.3)
Religion	
Hindu	941 (62.7)
Muslim	283 (18.9)
Christian	245 (16.3)
Stream	
Medical and Allied health science	321 (21.4)
Humanities and Science	346 (23.1)
Management and commerce	1499 (55.4)
Residence	
Home	1041 (69.7)
Hostel	358 (23.9)
Staying with, Relatives, Friends, Paying guest	83 (5.5)
Staying alone	11 (0.7)
Family type	
Nuclear	1182 (78.7)
Joint	212 (14.1)

In the current study majority of the respondents (89.3%) were female, mean age of the young adult was 19.67 (SD±1.421) and most of them (62.7%) were Hindus. Majority of the students (69.7%) were day scholars and 23.9% of them were hostellers. Among the college students 78.7% were from nuclear family and 14.1% were from joint families.

Table 2 depicts the responses of the young adults in the different items of the PHQ. Majority of the respondents (45.4%) felt 'little interest or pleasure doing things several days' and 8.9% felt 'no interest doing things nearly every day' for the last two weeks. Among the students, 50.5% felt 'not at all feeling depressed' and 9.5% and 6.2% felt 'depressed more than half of the day' and 'almost every day' for the last two weeks. Responding to sleep related question, 12.8% had sleep related problems 'almost every day'. Among the respondents 14.1% felt tired 'more than half of the day' and 9.1% felt low energy 'almost every day' while 7.3% had problems (poor eating or over eating) with eating 'almost every day' for the last two weeks. In the study 7.3% felt badly about themselves more than half of the day and 5.6% had the same feeling 'almost every day' for the last two weeks. Similarly, 4.1% had concentration problems 'almost every day' and 3.5% had death wishes 'almost every day' for the last two weeks.

Table 3 illustrates the level of depression among the respondents. In the study, only 8.1% not felt any depression at all. Otherwise, 34.4% felt minimal depression, 38.0% felt mild depression, 13. 2% had moderate depression, 4.5% had moderate to severe depression and 1.7% had severe depression.

DISCUSSION

The current cross sectional study on depression among young adult aged between 18-30 years of age was carried out among 1500 college students in Mangalore Karnataka. The mean age of the sample was 19.67

(SD $\pm$ 1.421), most of them (89.3%) were female and 62.7% were Hindus and 78.7% were from nuclear families. A study conducted among college going students on depression reported that mean age was 19.4 (SD $\pm$ 1.2) years and 70.2% were females [16]. An Indian study reported that mean age of the sample was 20.84 (SD $\pm$ 1.6) years, 40.5% were male and 59.5% were female, 57% were Hindus and 77.5% were from nuclear families [10].

Table 2 - Patient Health Questionnaire (PHQ) item-wise finding

No	PHQ	Not at all Mean(S.D)	Several days Mean (S.D)	More than half the day Mean (S.D)	Nearly every day Mean (S.D)
1.	Little interest or pleasure in doing things	464 (30.9)	681 (45.4)	222 (14.8)	134 (8.9)
2.	Feeling down depressed or hopeless	758 (50.5)	507 (33.8)	143 (9.5)	93 (6.2)
3.	Trouble falling or staying asleep or sleeping too much	620 (41.3)	491 (32.7)	197 (13.1)	192 (12.8)
4.	Feeling tired or having little energy	491 (32.7)	662 (44.1)	212 (14.1)	136 (9.1)
5.	Poor appetite or over eating	838 (55.8)	413 (27.5)	141 (9.4)	109 (7.3)
6.	Feeling bad about yourself-or that you are a failure or have let yourself or your family down	940 (62.6)	367 (24.5)	110 (7.3)	84 (5.6)
7.	Trouble concentrating on things, such as reading the newspaper or watching television	955 (63.6)	394 (26.2)	90 (6.0)	62 (4.1)
8.	Moving or speaking so slowly that other people could have noticed? Or the opposite being so fidgety or restless that you have been moving around a lot more than usual	1116 (74.4)	278 (18.5)	62(4.1)	45 (3.0)
9.	Thoughts that you would be better off dead or of hurting yourself in the some way	1220 (81.3)	184 (12.3)	44(2.9)	53 (3.5)

Table 3 - Level of depression of the respondents

Variables (PHQ)	Mean (S.D) / N (%)
Not at all	122 (8.1)
Minimal depression	516 (34.4)
Mild depression	571 (38.0)
Moderate depression	198 (13.2)
Moderately severe depression	68 (4.5)
Severe depression	26 (1.7)

The sample size of the current study was 1500 young adults aged between 18-30 years of age. 800 students studying in class IX to class XII participated in a study from Uttar Pradesh [4]. 338 school going children participated in another study [3], 964 school going adolescents participated a study from Tamil Nadu [6].

The present study findings were very significant because prevalence rate of depression among the population was alarmingly high. In the study 34.4% felt minimal depression, 38.0% felt mild depression, 13.2% had moderate depression, 4.5% had moderate to severe depression and 1.7% had severe depression. Another study from Tamil Nadu stated that 9.3% were minimally depressed, 25.4% were mildly depressed, 45.7% were moderately depressed and 19.6% severely depressed [5]. In another study, the overall prevalence of depression among students was 38%. Majority of subjects (75.7%) were having mild depression followed by moderate depression (23.5%). Only 1 study subject was found to have moderately severe depression [4]. Prevalence of severe and extreme depression among adolescents was 9.5% [3]. Another study from India on depression among adolescents reported that 39.2% presented with 'no depression'. Mild depression was found in 37.1% adolescents. The number of adolescents who reported moderate depression was 19.4% and severe depression was 4.3% [6].

The Patient Health Questionnaire (PHQ-9) with nine items was found to be very effective and useful tool to assess level of depression among young adults. There were many studies used the same tool to assess depression among adolescents. The same tool was used to assess depression among in-school adolescents in Nigeria [17]. Two other studies from India also utilized the same scale to assess the level of depression among adolescents [4,10]. Another tool which was often preferred by researchers to assess level of depression among adolescents is Beck Depression Inventory (BDI). There were number of studies with BDI as a tool to assess depression [3,6,16,18–20].

CONCLUSIONS

The depression and suicidal thoughts are common among young adults in Mangalore, Karnataka. These findings are corroborative and go in hand with many other study findings from across the country. Creating a supportive environment both in college and at home will help the young adults to express their feelings. Various crisis support networks such as crisis phone help line, online support systems, peer discussions, one to one counseling and consultation can be recommended for the support of the students. Finally, it is recommended that, in the study area, the current national policies and programs for young adults should prioritize the suicide prevention and tackling depression among young adults.

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