



PREVALENCE OF SEVERE DEPRESSION AMONG ADOLESCENTS IN RURAL AREA OF MUZAFFARPUR, BIHAR

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ABSTRACT **BACKGROUND:** Children, adolescents, and young adults with life-limiting conditions experience various challenges that may make them more vulnerable to mental health problems, such as anxiety and depression. Across the globe, depression is a common psychiatric disorder and is the main cause of disability among adolescents. **AIMS AND OBJECTIVE:** The objective is to estimate the prevalence of severe depression among rural adolescents. **METHODS AND MATERIALS:** Cross-sectional study included 200 adolescents from a selected RHTC area of SKMCH Muzaffarpur, Bihar. **RESULT:** Of the total 200 adolescents, eight were excluded due to refusal to participate in the study or who were not present in the house even after three separate visits, and other six had permanently migrated from the study area. Out of 186 participants selected, 92 (49.46%) were male and 94 (50.54%) were females. Around 72 (38.71%) were in the age group of 10–14 years and 114 (61.29%) were between 15 and 18 years of age. The mean age (standard deviation) of the participants was 16 ± 1.9 years. According to the type of family, 46 (24.74%) participants were from nuclear family and 140 (75.26%) participants were from joint family. 132 (70.96%) showed depression and 54 (29.04%) were found to be having no depression. The subcategories of depression show mild mood disturbance in 7.8%, borderline depression in 14.2%, 11%, and 8% with moderate depression had severe depression. **CONCLUSION:** This small rural area of Muzaffarpur shows the proportion of depression and few stressors causing depression such as sleep duration, outdoor sports activities, socioeconomic status, and parental fighting, and education level of participants.

KEYWORDS : Adolescent, Severe depression and anxiety

INTRODUCTION:

Adolescence is a period of transition in terms of both physical and mental. During this phase, the adolescent develops stronger bonding with peer groups and romantic interest.[1] There is always physiological and psychological development during this part of life.[2] Globally, depression is one of the leading causes of illness and disability.[1] Even in developed nation's depression is a known health burden among children, adolescents, and adults. One in four children in the age group of 13–15 years in India suffers from depression, which affects 86 million people in the South-East Asia region, the World Health Organization. In adolescents, major depression is projected to rank second-most cause of human illness by the year 2020.[3] Unfortunately, half of the depressed adolescents go undiagnosed in primary care settings.[3,4] Declining physical exercise, overutilization of gadgets during bedtime affects the sleep quality thereby predisposing to rise of depression.[2,4] A number of literatures have also shown that sleep deprivation and depression both have bidirectional relationship.[5-8] Depression can have effect on the academic performances of students, hence limiting their career opportunities.[9-14]. Depression is a serious mental disorder among adolescents, which can often have an impact on social functioning, family relationships, and academic performance in adolescents [8]. These problems can become chronic, leading to mental and substance use disorders which is the cause of about 40-5% of disability adjusted life years (DALYs) in adolescents [9]. In worst cases, depression can lead to suicide [10]. Despite its serious consequences, depression in adolescent generally remains under-diagnosed and under-treated [11].

AIMS AND OBJECTIVE:

The objective is to estimate the prevalence of severe depression among rural adolescents.

MATERIAL AND METHODS:

Study design

This present community-based cross-sectional study was carried out among the adolescents in the age group of 10–18 years residing in rural

areas of Muzaffarpur district of Bihar. Data were collected from April 2021 to September 2019. The proportion of children currently attending school in the age group of 6–17 years is 86.9% and 90.4% in both rural and urban areas of Muzaffarpur district, respectively.

Sample size and sampling technique:

The first stage was cluster sampling where clusters were selected, based on probability proportional to size. A list of all eligible adolescents residing in the selected villages was prepared with help of the Integrated Child Development Scheme supervisors, AWW, and ASHA. The second stage of sampling involved selecting the adolescents from within the clusters by simple random sampling. Probability proportionate to size strategy was adopted to enroll required number of participants from each village. From each house, one participant was selected. If one house consists of both boy and girl of the same age group then lottery system was adopted to choose a participant and to avoid selection bias. Data collection was done by a team comprising a final year psychology student and a 2nd year MBBS student on every Sundays and public holidays to ensure the presence of adolescents at home.

Inclusion and exclusion criteria:

Adolescents residing for more than 6 months in the selected village/area were included in the study. Participants on treatment for chronic illness, or any medically diagnosed mental illness and also those not giving consent were excluded from the study.

STATISTICAL ANALYSIS:

Statistical analysis data were entered into SPSS software version 22. Independent variables that were found to be statistically significant in univariate analysis were considered for the logistic regression model to determine the important correlates. $P \leq 0.05$ was considered statistically significant.

Ethical clearance was obtained from the Institutional Ethical Committee of the Sri Krishna Medical College, Muzaffarpur.

Informed consent was obtained from parents/guardians after explaining them about the purpose of the study. Assent was also obtained from the participants.

RESULT:

Of the total 200 adolescents, eight were excluded due to refusal to participate in the study or who were not present in the house even after three separate visits, and other six had permanently migrated from the study area. Out of 186 participants selected, 92 (49.46%) were male and 94 (50.54%) were females. Around 72 (38.71%) were in the age group of 10–14 years and 114 (61.29%) were between 15 and 18 years of age. The mean age (standard deviation) of the participants was 16 ± 1.9 years. According to the type of family, 46 (24.74%) participants were from nuclear family and 140 (75.26%) participants were from joint family. 132 (70.96%) showed depression and 54 (29.04%) were found to be having no depression. The subcategories of depression show mild mood disturbance in 7.8%, borderline depression in 14.2%, 11%, and 8% with moderate depression had severe depression.

DISCUSSION:

In this study, mid and late adolescent age group, i.e., 15–18 years were found more depressed, this corroborates with the finding of Jayashree *et al.*, [15] on the contrary Jha *et al.* [16] and Shukla *et al.* [17] found significant association between higher proportion of depression with the increasing age which may be attributed to factors such as more academic and parental pressure compared to lower standards. [18] Findings of higher depression among females well corroborate with some of the previous studies. [19,20,16,15] There can be various reasons such as fear of getting married at an early age, especially in rural areas, incomplete education, hormonal changes, and extra work at home. However, Umesh *et al.* [21] and Chauhan *et al.* [22] did not support any similar association. The type of family seems to be having no role in depression which is also explained by Jayashree *et al.* [15] and Jha *et al.* [16] In contrast to our study, a finding by Umesh *et al.* [21] shows a statistically significant difference with type of family. It was observed that adolescents who were never engaged in playing any outdoor games were more depressed compared to others. This is in line with the finding of Nair *et al.* and [16] Chauhan *et al.* [22] We also found an association between sleep deprivation (i.e., sleeping <6 h) and depressions. In this regard, our results are consistent with other studies. [23,24]. In addition, we found socioeconomic status of the family and parental fighting to be significantly ($P < 0.05$) associated with depression. This observation is in consonance with a previous study done by Nair *et al.* and [19] Jayashree *et al.* [15].

CONCLUSION:

This small rural area of Muzaffarpur shows the proportion of depression and few stressors causing depression such as sleep duration, outdoor sports activities, socioeconomic status, and parental fighting, and education level of participants.

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