## Research Article

# Prevalence of depression among school going adolescents in an urban area of Haryana, India

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### ABSTRACT

**Background:** Depression in adolescents often results in suicide, school drop-out, pregnancy, antisocial behavior, substance abuse, progressing in to adult depression functional disability and significant impairment. Depression in adolescents is an under recognized mental health problem.
**Methods:** Cross-sectional study by using simple screening instrument Beck Depression Inventory (BDI) among school-going adolescents in urban Rohtak (Haryana). All the students of class 9th & 10th of 3 government schools were included. The data was collected on a predesigned, pre-tested, semi-structured, schedule by interview technique after obtaining informed consent from the concerned adolescents/principals of schools. Statistical analysis has been done with simple proportions and percentages using SPSS20.
**Results:** A total of 374 adolescents participated in the study. More than half of study subjects were found to have scores corresponding to some degree of depression and nearly one in seven was suffering from moderate to severe depression.
**Conclusions:** This study emphasizes the need for screening for depressive symptomatology and identifying adolescents who need further intervention.

**Keywords:** Depression, Adolescent, Beck depression inventory (BDI), Urban

## INTRODUCTION

Depressive disorders are identified by the World Health Organization (WHO) as priority mental health disorder of adolescence because of its high prevalence, recurrence, ability to cause significant complications and impairment.[1] The lifetime prevalence for major depression in adolescence is 15% to 20% globally.[2] Depression in adolescents often results in suicide, school drop-out, pregnancy, antisocial behavior, substance abuse; progressing in to adult depression functional disability and significant impairment [3].Community and school studies in India have also shown depression as the most common psychiatric disorder among adolescents.[4] Depression in adolescents is an under recognized mental health problem because of their indecisiveness to disclose their feelings and seldom seeking psychiatric help. Biological changes during this period as well as social factors contribute in the development of depression. Studying the prevalence of depression in adolescents will contribute in planning the preventive and control strategies. The current study was aimed to determine the prevalence of depression among school going adolescents of urban Rohtak (Haryana).

## METHODS

The present cross-sectional study was conducted during period of December 2011-January 2012 in 3 government schools of urban area of city Rohtak (Haryana). All the students of class 9th & 10th who were present on the day of visit were included in the study.

Prior information to principal of school was given and due permission was sought after explaining the purpose of study. The data was collected on a predesigned, pre-tested, semi-structured, schedule by interview technique after obtaining informed consent from the concerned adolescent/principal of school.

The study tool used for detecting early symptoms of depression in adolescents was simple screening psychological instrument: Beck Depression Inventory (BDI). BDI is a series of 21 item with each item rated with a set of four possible answer choices of increasing intensity developed to measure cognitive, behavioral, affective, and somatic component of depression. When the test is scored, a value of 0 to 3 is assigned for each answer and then the total score is compared to a key to determine the depression's severity. The sum of all BDI item scores indicates the severity of depression. Score of 1-10 was taken as No Depression, 11-20 as Mild, 21-30 as moderate as and more than 30 as severe depression.[5]

All adolescents who scored for mild, moderate and severe depression formed the 'depression group'. Socio-demographic data was also collected on a separate semi-structured questionnaire.

The data was compiled and statistical analysis was done with simple proportions and percentages using SPSS version 20.

## RESULTS

A total of 374 adolescents participated in the study. The study subjects were in age group of 13 to 17 years. The mean age of study subjects was 15.13 years. Table 1 shows the socio demographic characteristics of study subjects. Around two-third of them were boys (67.9%). Fathers of almost half of the adolescents were laborer by occupation (50.8%) and majority of mothers were housewives (90.6%). More than half (60.9%) of study subjects belonged to nuclear family.

The mean BDI score was found to be 13.2. Out of total 374 study subjects, 198 (52.9%) of study subjects were found to have scores corresponding to some degree of depression (Table 2).

It was found that 42 adolescents (11.3%) had scores in the range of moderate depression and 7 (1.8%) had a score corresponding to severe depression (Table 3).

**Table 1: Socio demographic characteristics of study subjects (N=374).**

| Socio demographic characteristics | | Number of study subjects (%) |
|---|---|---|
| Sex | Male | 254 (67.9) |
| | Female | 120 (32.1) |
| Father education | Illiterate | 66 (17.6) |
| | Primary | 104 (27.8) |
| | Middle | 43 (11.5) |
| | Matric | 72 (19.2) |
| | Secondary | 72 (19.2) |
| | Graduation or above | 17 (4.5) |
| Father occupation | Farmer | 69 (18.4) |
| | Labourer | 190 (50.8) |
| | Service | 51 (13.6) |
| | Independent profession | 54 (14.4) |
| Mother education | Illiterate | 92 (24.5) |
| | Primary | 120 (32.1) |
| | Middle | 62 (16.5) |
| | Matric | 57 (15.2) |
| | Secondary | 39 (10.4) |
| | Graduation or above | 4 (1.1) |
| Mother occupation | Housewife | 339 (90.6) |
| | Working | 35 (9.4) |
| Family type | Nuclear | 228 (60.9) |
| | Joint | 146 (39.1) |

**Table 2: Classification of depression in study subjects (N=374).**

| | Number of study subjects (%) |
|---|---|
| No depression | 176 (47.1) |
| Depression | 198 (52.9) |
| **Total** | 374 (100) |

**Table 3: Categorization of depression on the basis of severity.**

| | Number of study subjects (%) |
|---|---|
| Mild depression | 149 (39.8) |
| Moderate depression | 42 (11.3) |
| Severe depression | 7 (1.8) |
| **Total** | 198 (52.9) |

## DISCUSSION

In current study the prevalence of depression among school going adolescents was found to be 52.9% which is comparable to 57.7% found in a study conducted by Kumar et al. in Davangere district, Karnataka.[6] Mohanraj et al in Chennai reported prevalence of depression among school going adolescents as 60.8%. The prevalence of moderate depression and severe depression was found to be 11.3% and 1.8% respectively in present study corresponding to 19.4% and 4.3% in a study conducted

by Mohanraj et al.[7] The mean BDI score was found to be 13.2 in present study almost similar to 13.7 found by Kumar et al in their study but higher than scores reported in other studies (range from 8.5 to12).[8]

## CONCLUSION

In conclusion, our study shows that more than half of school-going adolescents are suffering from depression in urban area of Rohtak and nearly one in seven is suffering from moderate to severe depression. This finding point towards the issue of high prevalence of depression in adolescence. In spite of the limitations, the purpose of the study is well served to highlight the common but ignored problem. This finding emphasizes the need for screening for depressive symptomatology and identifying adolescents who need further intervention. Teachers and parents should be made aware to identify this problem at earlier stage so that the risk for progression into other serious problems like drug abuse, suicide and violence can be minimized. Health education to parents as well as to community as a whole should be promoted to remove the stigma attached to these disorders. There should be adequate child mental health training for health care professionals. Further efforts are needed to identify the influencing risk factors and assessment of current interventions in addressing these risk factors.

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