

Prevalence and Predictors of Depression among Adolescent Students

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Abstract:

This article is a review of relevant literature concerning adolescent depression, a complex and multidimensional phenomenon that strikes adolescents in a variety of ways and with varying degrees of intensity. In this article, a review of literature has been done to provide evidence regarding the magnitude and factors of depression among school-going adolescents. The review of literature was done using various sites online such as Pub Med and Google Scholar to find the relevant articles that provide information on magnitude of adolescent depression and its associated factors by use of various scales such as Kutcher Adolescents Depression rating scale, The Center for Epidemiologic Studies Depression Scale (CES-D), Beck's Depression Inventory-21 (BDI-21). These scales were used in these studies to measure depression and identify its contributing factors. Depression has been found to range between 18 and 50% among various study populations. The prevalence was high among those study groups who were having both parents working, familial disharmony, peer pressure, poor relationship with family members and poor academic performance, residential school, eve teasing etc. A large proportion of the adolescent population who suffers from depression goes unrecognized either due to poor understanding of the various factors associated with it or due to less efficient screening and treatment opportunities. Therefore, a clear understanding of the various factors is must to identify depression in its earlier course and suitable treatment options to be provided along with the follow-up care.

Keywords: Depression, Adolescents, School-going adolescents.

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Introduction:

The World Health organization has defined adolescence as the period in human growth and development that occurs after childhood and before adulthood, from ages 10 to 19 years.¹ Around 1.2 billion adolescents aged 10-19 years today make up 16 per cent of the world's population. More than half of all adolescents around 340 million globally live in Asia. In Bangladesh 20.9% of total population is in this

group.² Adolescence is a time of tremendous growth and potential, it is also a time of considerable risk during which social contexts exert powerful influences. The transition from childhood to adulthood involves major physical, psychological, cognitive and social transformations which may be stressful to the adolescents. These transformational challenges are often associated with emotional turmoil including depression.³ A period of two weeks or longer during which there is either depressed mood or loss of interest or pleasure, and at least four other symptoms that reflect a change in functioning, such as problems with sleep, eating, energy, concentration, and self-image. It is estimated that in this age range, 20% have some type of psychological disorder and the most common disorder is depression. Depression in adolescents constitutes a global public health concern⁴. According to the World Health Organization, by the year 2020, childhood and adolescent mental health problems will become one of the leading causes

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of morbidity, mortality and disability among children worldwide, depression was ranked as the third leading cause of the global burden of disease in 2004 and will move into the first place by 2030.⁵ Depression is the single largest contributor to the global burden of disease for people aged 15–19, and suicide is one of the three leading causes of mortality among people aged 15–35.⁶ The causes of depression are multifactorial, encompassing genetic, biological, behavioral, and social domains including academic stress and stressful life events may be contributing factor in depression. Various studies on the prevalence and the factors associated with depression among the adolescents have indicated that the individuals known to suffer from depression in any form have increased suicidal tendencies and are also associated with poor academic performance. As depressive disorders are common during adolescence, a variety of factors contribute to this disorder and depressive symptomatology is frequently undiagnosed, it is especially undertreated in adolescents, early screening to identify and treat depression is needed to prevent the development of adulthood depression and other mental disorders. There are various tools that have been designed to assess the magnitude and severity of depression among adolescents. These scales when used judiciously can screen as well as diagnose the adolescents suffering from this mental agony. Data from low- and middle-income settings are scarce. The wide variations in language and cultural diversity within the countries of this region further make the identification and management of adolescents with depression is a major challenge. In this article, a review of literature has been done to provide evidence regarding the magnitude and factors of depression among school-going adolescents.

This review article will help in throwing light on the studies conducted in this regard to reflect the mental health status of adolescents. Such studies can help in understanding of the problem and planning the kinds of services and mental health interventions required by identifying the risk factors, prevalence and the socio-demographic factors and their relationship with depression in the adolescent age group.

Methodology:

The review was undertaken in multiple ways. Majority of the research done in this regard was done using internet. The major sites accessed for relevant literature were Google Scholar and Pub Med. Various tools used to assess depression include Beck depression inventory (BDI), Center for Epidemiologic Studies Depression Scale for children and adolescent (CES-DC), 11 and 6-Items Kutcher Adolescent Depression Scale: KADS-6 and 11 etc. The relevant information regarding the socio-demographic data, academic performance, peer pressure, substance abuse and recreational activities have been taken.

Results and Discussion:

In the studies under taken for review, the prevalence of depression varies from 32-50% in Bangladesh and 18-57% in India. A number of factors play important role in the development of depression among the adolescents. Almost all of the studies have pointed out on factors, Economic difficulty, physical punishment at school, teasing at school, nuclear family, poor relationship with parents, academic under-performance etc. In order to find out the prevalence of depression in adolescents attending schools, Bansal et al. conducted a study in Pune during 2009 and found that 18.4% were depressed. Economic difficulty, physical punishment at school, teasing at school and parental fights were significantly ($P < 0.05$) associated with higher BDI scores, indicating depression⁷. Mohanraj et al. in Chennai among school-going adolescents during 2010 with Beck Depression Inventory (BDI) found that of the adolescents, 378 (39.2%) presented with 'no depression'. Mild depression was found in 358 (37.1%) adolescents. The number of adolescents who reported moderate depression was 187 (19.4%) and severe depression was 41 (4.3%). Thus a total of 228 (23.7%) adolescents presented with moderate to severe depression. There were no significant gender differences but a higher proportion of girls (27%) reported moderate to severe depression than boys (21%). There was an association between age and depression with increasing depression in older adolescents⁸. A study conducted in Bangladesh by SMB Billah et al. to determine the factors related with

depression among adolescent students, 165 male adolescent students aged 15 to 19 years from 2 urban schools and colleges were interviewed with semi-structured questionnaire in 2012. The socio demographic details, smoking and depression histories were recorded. The Center for Epidemiologic Studies Depression Scale (CES-D) was used to measure the presence of depression. Study revealed that almost 49% respondents were depressed and 66% were smokers. Among the smokers 82.7% were depressed while 17.3% were depressed among nonsmokers. Parental smoking affected 62.5% respondents for depression against 59.4% normal respondents whose parents were nonsmokers. Domestic violence, familial disharmony, stressful events in the life, failure in love also played roles for depression. Depression level was higher among adolescent smoker than nonsmoker students.⁹ A study was done in 2013 by Airin J. et al. to assess the level and determine the factors of depression as well as to estimate the proportion of eve teasing among female adolescent students. The study was carried out among 203 female students of class-IX and X aged 14 to 16 years. Beck Depression Inventory (BDI) was used to measure the level of depression. Study found that among 203 female adolescents 32% respondents had moderate depression, 17.7% had mild mood disturbance, 10.3% had borderline clinical depression, 4.9% had severe or extreme depression and 35% respondents found normal. The study also revealed that 75.9% school going girls aged 14 to 16 years experienced eve teasing. Poor school performance, friction with family members, lack of friendly relationship with teachers, no communication with friends are associated with depression. This study also revealed that, 53.2% depressed adolescent girls and 46.8% adolescent girls with no depression experienced eve teasing and depression is higher among girls who experienced eve teasing. So eve teasing is an important factor for female adolescent depression¹⁰. A study conducted by Verma et al. in school-going adolescents of class 12th in Raipur city, India, in 2014 over a sample of 321 students found that 40.49% students were mildly depressed and 19% had major depression. Depression was found more in females (59.49%) as compared to males

(56.24%). Among various factors examined for association with depression, statistically significant factors identified were working mothers, students staying away from home, poor relationship with family and self or parental dissatisfaction with academic achievement. Peer pressure also had significant association. Having a hobby acted as a protection against depression.¹¹ In a study carried out by Shelke Umesh S et al. in 2014 among adolescents school students from 8th to 12th class of rural Maharashtra with 6 item KADS (Kutcher Adolescent Depression Scale) revealed that, 6.66% of students were screened positive for depression by the scale. No statistical difference was found in number of students with depression with respect to sex, class and socioeconomic status. However the residence and type of family showed significant difference in number students of depression¹². A study done in 2014 by Arun Vashisht et al. to find out the prevalence of depression among school going adolescents and the socio environmental risk factors associated with it. Cross sectional study was carried out among 1632 school going adolescents (13-19yrs) in the rural and urban areas of district Ambala. Two pretested questionnaires were used. Depression subscale of Symptom Check List 80 (SCL 80) was used for ascertaining the prevalence of depression and a self-report questionnaire to assess effect of socio-environmental factors. Study revealed that 29.9% adolescents had evidence of depression having cut off score > 13 in depression subscale of SCL 80. 7%. Depression was found to be associated with increasing age, low socio economic status and urban students¹³. A study conducted by Lodha Rama S et al. in 2015 among 136 students of 9th and 10th grade from selected schools with BDI and some self-generated questionnaire, found that, 60 (44.1%) of study participants were found to have scores corresponding to mild degree of depression and 33(24.3%) were suffering from moderate depression whereas 3% were suffering from severe depression.¹⁴ In a study carried out by Nagendra et al. in Davangere district in Karnataka, over 3141 students revealed that the prevalence of depression in study group was 57.7%. Residential school students were more depressed (74.5%) than non-residential school

students (52.1%, $P= 0.000$). Students from joint families were less depressed (40.1%) compared to those from nuclear families (63.3%)¹⁵. A study done by Dr. Kunal Kishor Jha et al. in 2016 to explore the prevalence of depression and its associated socio-demographic factors among school-going adolescents studying in 9–12th standard from forty schools located in an urban area of Patna, Bihar. The self-administered questionnaire of Beck's Depression Inventory II was utilized to assess the prevalence of depression. Study found that among the 1412 selected students, the prevalence of depression was found to be 49.2%, wherein the prevalence of severe depression was 7.7%. The overall prevalence of depression was significantly ($P < 0.001$) higher among girls (55.1%) than boys (45.8%) Elder students were found to be more depressed than younger students. Depression was found to be statistically significantly associated with gender and religion ($P < 0.005$). Guilty feeling (69.48%) was one of the most prominent clinical factors associated with depression followed by pessimism (58.14%), sadness (56.52%), and past failure (55.81%).¹⁶

Conclusion:

The review of the above studies revealed that the adolescents who felt academic frustration, academic conflict, academic pressure and academic anxiety, familial disharmony, experience eve teasing are more likely to suffer from depression. Children not living with both parents had an increased risk of developing depression which was higher in those staying with a single parent (either mother or father) and the highest in those staying with neither parent (staying with grandparents or with nonrelatives). Presence of peer pressure has a strong association with the onset and severity of depression. Individuals who had a hobby were found to be least associated with depression.

It is hereby recommended that early screening should be instituted in schools by adequately trained counselors. Early intervention, including counseling, cognitive behavior therapy, and referral should be given when necessary. Schools should conduct seminars and workshops for teachers and set up student counseling services by mental health professionals.

Table-I

Showing various studies that were reviewed in this article along with the Year, study population and the results found

Sl. No.	Name of Author	Year	Study population	Result
01	Bansal et.al.	2009	125 Adolescents in public schools of Pune	18.4%were depressed
02	Mohanraj et al.	2010	964 school going Adolescent students of Chennai	23.7% students were depressed
03	SMB Billah et al.	2012	165 male adolescent students of urban schools in Dhaka	49% respondents were depressed
04	Nagendra et al.	2012	3141 adolescent school students of Karnataka	57.7% of students were depressed
05	Airin J. et al.	2013	203 female adolescent students of urban schools in Dhaka	32% respondents had moderate depression
06	Verma et al.	2014	321 school-going adolescents in Raipur city, India	40.49% students were mildly depressed
07	Shelke Umesh S et al.	2014	300 adolescents school students of rural Maharashtra	6.66% of students were screened positive for depression
08	Arun Vashisht et al.	2014	1632 school going adolescents in the rural and urban areas of Ambala.	29.9% adolescents had evidence of depression
09	Lodha Rama S et al.	2015	136 adolescent school students of Bhopal	44.1%) of study participants were found to have mild degree of depression,24.3% moderate and 3% severe depression.
10	Dr. Kunal Kishor Jha et al.	2016	Among 1412 adolescent students in Bihar	49.2% were depressed

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