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Prevalence of Depression amongst Higher Secondary School Adolescents in Bhopal Madhya Pradesh

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ABSTRACT

Context: Depression in adolescents is an under recognized mental health problem. It can results into suicide, school drop-out, pregnancy, antisocial behavior, substance abuse, progress in to adult depression, functional disability and significant impairment.

Objectives: To find out prevalence of depression and to study the associated risk factors. Settings and Design: A Cross-sectional study was carried out in a higher secondary school in Lady Bhore (Urban Health Centre) catchment area of Bhopal.

Methods and Material: The study was started after taking permission from head of the department and from principle of the school. Students were briefed about the study and verbal consent was obtained from every student. Data was collected by standard tool- BDI and some self-generated questionnaire.

Results: A total of 136 students were included in the study. 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.

Conclusions: This study highlights the common but ignored problem of depression in adolescence. We recommend that teachers and parents should be made aware of this problem with the help of school counsellors so that the depressed adolescent can be identified and helped rather than suffer silently.

Key-words: Depression, Adolescent, Beck depression inventory

INTRODUCTION

Adolescence is an important stage in the life of an individual as it is a transition period to adulthood. During adolescence teenagers start making individual choices and develop personal life styles. Children and adolescents can experience various life stresses ranging from mild strain to catastrophic or traumatic life events[1,2]. 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[3]. The lifetime prevalence for major depression in adolescence is 15% to 20% globally[4]. Community and school studies in India have also shown depression as the most common psychiatric disorder among adolescents[6].There are many factors including biological changes during adolescent Period as well as social factors contribute in the development of depression so it is very important to find out the prevalence and factors that are associated with depression for formulation of preventive and control strategies.

METHODOLOGY

It was a cross-sectional study, carried out over a period of three months from September 2015 to November 2015, among adolescents studying in selected higher secondary schools of Bhopal, which comes under Lady Bhore Urban Health Centre catchment area and is the field practice area of Department of Community Medicine, Gandhi Medical College, Bhopal. From the selected school 2 classes 9th and 10th were selected randomly and from the 2 selected classes all the students who were present on the day of visit and willing to participate were included in the study. The data was collected using a predesigned, semi-structured questionnaire after obtaining informed consent from the concerned adolescent.

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, behavioural, 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[7].

RESULTS

A total of 136 students were included in the study of which 80 (58.8%) were males and 56 (41.2%) were females. The age ranges from 14-16 years. The mean BDI score was found to be 14.87. Table no 1 shows prevalence of depression on the basis of Beck Depression Inventory (BDI).

Out of total 136 participant, 97 (71.3%) were found to have scores corresponding to some degree of depression and 39 (28.7%) were found no depression.

DISCUSSION

This study gives us an estimate of the prevalence of depression in adolescent. The mean BDI score was of 14.87 and prevalence of depression was higher than other studies. [8,9,10,11,12] but study done at south India shows overall mean depression score was 21.42 with standard deviation of 9.34 .[13]

Many studies have observed females to be significantly more depressed than males [6, 14], present study also reported more prevalence among female adolescent.

Table 1: Prevalence of depression on the basis of BDI Criteria (n=136)

BDI Criteria	Adolescent (%)
Normal	39(28.7)
Mild depression	60(44.1)
Moderate depression	33(24.3)
Severe depression	4(2.9)

Table 2: Socio demographic factors affecting depression (N=136)

Characteristics	No depression	Depression	Total	P Value
Gender				
Male	34(87.2)	46(47.4)	80(58.8)	0.000*
Female	5(12.8)	51(52.6)	56(41.2)	
Father education				
Graduate	18(46.2)	43(44.3)	61(44.9)	0.851
Post Graduate	21(53.8)	54(55.7)	75(55.1)	
Fathers Occupation				
Services	15(38.5)	48(49.5)	63(46.3)	0.261
Business	24(61.5)	49(50.5)	73(53.7)	
Mothers education				
Graduate	26(66.7)	85(87.6)	111(81.6)	0.007*
Post Graduate	13(33.3)	12(12.4)	25(18.4)	
Mothers occupation				
Housewife	29(74.4)	91(93.8)	120(88.2)	0.003*
Service	10(25.6)	6(6.2)	16(11.8)	
Type of Family				
Nuclear	3(7.7)	16(16.6)	19(14)	0.274
Joint	36(92.3)	81(83.5)	117(86)	

* Significant at 5% level by using Fisher extracted test

Table 3: psychosocial factors correlate with depression

Factors	No depression(n=39)	Depression(n=97)	P value
Academic Satisfaction of parent	38 (97.44)	69 (71.13)	0.000*
Argument with our parents	6 (15.38)	33 (34.02)	0.036*
Peer pressure	8 (20.51)	44 (45.36)	0.011*
Pressure of examination	22 (56.41)	58 (59.79)	0.847
Loss of interest in hobbies	12 (30.77)	53 (54.64)	0.014*
Pressure of gender bias	1 (2.56)	12 (12.37)	0.108
Healthy environment	16 (41.03)	49 (50.52)	0.347
Long term illness	3 (7.69)	16 (16.49)	0.247
Extracurricular activity	14 (35.9)	65 (67.01)	0.001*
Not performing well	21 (53.85)	77 (79.38)	0.005*
Loss of family members	21 (53.85)	40 (41.24)	0.189
Upset	6 (15.38)	27 (27.84)	0.184
Avoid society gathering	11 (28.21)	40 (41.24)	0.175
Abuse	6 (15.38)	33 (34.02)	

Students from joint family were less depressed (40.1%) compared to those from nuclear family (63.3%, P =0.000).[6] Possible explanation is that in joint family system, all the members may work cohesively to solve a problem faced by any one member of the family, thereby decreasing one's stress. Studies in elementary schools in Turkey[15] have shown that parent's educational level has an

effect on their children's social and emotional characteristics. We observed that higher literacy rate in mother was associated with lower rates of depression in children. Two studies [16,17,6] have reported similar association with father's education level. Parent's occupation level had no effect on the prevalence of depression in children, an observation similar to studies in Iran [15 6]. However in our study, father's education and occupation level had no relation to their children's depression rates but mother's education and occupations shows association. Present study found that psychosocial factors like satisfaction of parents, peer pressure, pressure of examination etc. are correlated to depression, other study also shows fight of parents, bulling of school etc have significant correlations.[6]

CONCLUSION

Findings of study showed high prevalence of depression in adolescent. Purpose of this study is to highlight the common but ignored problem of depression. Findings emphasizes need of screening of depression symptoms and identifying adolescents who need further intervention because this problem can result in further problems like poor academic performance, poor coping methods and suicidal ideations. Teachers and parents should be made aware to identify this type of problem at earlier stage so that the risk for progression of mild to severe depression, other serious problems like drug abuse, suicide and violence can be minimized. Health education to parents as well as to whole community should be promoted to remove the stigma attached to these disorders. Studies similar to present study could pave the way for school-based interventions that may help adolescents with mild and moderate depressive symptoms which in turn could minimize the risk for progression into other serious problems like drug abuse, suicide and violence.

Limitation

The main limitation of the study was the absence of an external criterion like a clinical examination against which the validity of the self-report measures could be judged. Our study is also limited by inclusion of a single private school.

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