Correlates of depression among school going adolescents in the urban area of Patna in eastern India

Dharmvir R. Bharati[1], Seema Kumari[2], Nidhi Prasad[1], Sanjay K. Choudhary[1], Sanjay Kumar[1], Ranabir Pal[3]

[1]Department of Community Medicine, IGIMS, Patna, Bihar, [2]Department of Community Medicine, PMCH, Patna, Bihar, [3]Department of Community Medicine, MGM Medical College, Kishanganj, Bihar, India

ABSTRACT

Background: Depression is a hidden pandemic among adolescents with multi-factorial causal risk and risk correlates. **Objectives:** To find the prevalence of depression and risk factors among school-going adolescents. **Methods:** A cross-sectional study was conducted among 838 adolescents enrolled in 6th–11th standards (age: 11–19 years) in 15 urban schools in Patna city by using the modified Patient Health Questionnaire-9 (PHQ-9); binary logistic regression was applied to find significant risk correlates. **Results:** Depression was noted among 51.2% adolescents of our study participants: mild 32.3%, moderate 14.3%, moderately severe 3.9%, severe depression 0.6%; among early adolescents (46.2%; boys-21.2%, girls-78.8%) and among late adolescents (55.3%, boys-34.7%, girls-65.3%). Adolescent depression was significantly associated in our study with female gender, late adolescence, higher classes (9th–11th), vegetarian diet, soft drink consumption, fast foods, screen time, domestic harassment, academic dissatisfaction, parental discord as well as mental illness. Girls had higher risk who were in higher classes, on a vegetarian diet, habitually on soft drink, more screen time (>3 h), face more family nuisance, parents brawling frequently, and suffering from known mental diseases. **Conclusion:** Depression was noted in more than half of the adolescents, with a higher prevalence in girls, scholastic failure, higher grades, vegetarian diet, more screen time, familial disease, and conflict.

Keywords: Adolescents, depression, risk factors, school-going children

Introduction

The World Health Organization estimated that 322 million people, nearly 5% of the global population, suffer from depression, which is one of the leading causes of hidden disease burden and a risk factor for downstream pathophysiologies.[1] Ranked as the second leading cause of disability, it is noted over decades that the age of onset of depression is decreasing and is being detected more among children and adolescents.[2]

Behavioral changes associated with hormonal changes during this period make depression difficult to diagnose, and more than 70% of the children with depression do not receive appropriate treatment,[3] and is one of the under-diagnosed health problems due to their inability to disclose candid feelings. Further, they are reluctant to seek psychiatric help due to the inherent melancholy of this growing age of confusing as well as wavering personality. Literature from the community and school-based studies from different parts of the world have shown that depression is the most common psychiatric disorder among adolescents.[4] The Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-V) has defined symptoms for depression as a spectrum of depressed moods, psychomotor agitation or retardation, diminished interest or pleasure, insomnia,

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fatigue or loss of energy, diminished ability to concentrate, significant weight loss, feelings of worthlessness or excessive guilt, and recurrent thoughts of death.[3] Studies based on screening instruments usually reported a point prevalence rate of depression ranging from 3% to 68%; the majority of the studies reported a point prevalence of more than 40%.[2] Adolescent depression not only interferes with emotional, social, and academic functioning but is also a proven risk factor for school absenteeism, educational under achievement, substance abuse, and suicidal behavior.[5] In the present study, attempt was made to estimate the prevalence of depression and its associated sociodemographic risk correlates among school-going adolescents.

Material and Methods

STUDY DESIGN AND SETTING: A cross-sectional study was carried out among adolescents enrolled in 6th–11th standard from 15 schools (middle school, high school, and higher).

SAMPLE SIZE AND SAMPLING DESIGN: Sample size calculation for this study was done by considering the expected frequency of mental depression (49.2%) as reported by Jha *et al.*[3] with an acceptable margin of error of 4, an additional 20% for design effect, and 20% for non-responders. Probability proportion to the size of the population statistical sampling technique was used to decide the number of adolescent children to be included in the study from each school and subsequently from each class and section. The required number of children from each section was selected by systematic random sampling. Finally, from among the total of 9254 adolescents, 838 were recruited as respondents in this study with the following criteria:

Inclusion criteria

1. Adolescents in the age group of 10–19 years
2. Adolescents without concurrent physical illness
3. Adolescents who were studying in the same school for more than 6 months
4. Consent of competent school authorities and assent from the participants[6]

Exclusion criteria

1. Children below 10 and above 19 years of age
2. Adolescents diagnosed with neurodevelopmental disorders (mental retardation, etc.)
3. Competent school authorities did not provide written consent for participation of the students in this study
4. All students who had taken any such screening tests before
5. Seriously ill and non-assenting adolescents

PRIMARY OUTCOME VARIABLE: To find the prevalence of depression and associated risk correlates among school-going adolescents.

Study questionnaire

A predesigned and pretested structured questionnaire was used to collect data from the study participants by interview technique to elicit the sociodemographic information on personal characteristics such as age, gender, grade of study, dietary habit, consumption of soft drink and fat-rich food items, physical activities on working and holidays, screen time, self-satisfaction, body mass index and family characteristics like numbers of family members, overcrowding at home, number of siblings, birth order, harassment by the family members, frequent parent fight (inter-personal conflicts), known mental illness of parents, and occupation of parents. The questionnaire was pretested on ten students from three schools selected purposively out of 15 schools included in the study protocol. Necessary modifications were done in the questionnaire after repeated piloting before initiation of the data collection.

DATA COLLECTION PROCEDURE: Institute Ethics Committee (IEC) of IGIMS approved the study, and necessary consents of competent school authorities were obtained. Following Helsinki Declaration in letter and spirit, the respondents were given options to participate or not. The informed consent process was followed sincerely with an explanation of participatory contribution. Each adolescent was individually explained about the purpose of the study, including the research question. All were assured that their non-participation, refusal, or withdrawal at any stage will not influence their scholastic upbringing and were ensured about the sanctity and strict confidentiality of data. Thus, after proper counseling, assent was obtained from the individual participant prior to the study, and data were collected from December 20, 2019 to March 21, 2020. Following basic personal data collection, a thorough general and systemic clinical evaluation was done. Body weight was measured (to the nearest 0.5 kg) with the subject standing motionless on the weight scale with feet 15 cm apart and weight equally distributed on each leg. Height was measured (to the nearest 0.5 cm) with the subject standing in an erect position in full inspiration against a vertical scale of portable stadiometer and with the head positioned so that the top of the external auditory meatus was in level with the inferior margin of the bony orbit, that is, Frankfurt plane. Body mass index was calculated as weight in kg/height in m².[2] Mental depression of study participants was measured using the modified Patient Health Questionnaire-9 (PHQ-9). It has nine items and is calculated by assigning scores of 0, 1, 2, and 3 to the response categories of "not at all," "several days," "more than half the days," and "nearly every day," respectively, and ranges from 0 to 27. The adolescent participants who had a PHQ-9 total score of more than 4 were classified as mentally depressed; among these, those having scored 5–9 were labeled as having mild, 10–14 as moderate, 15–19 as moderately severe, and 20–27 as severe mental depression.[7]

STATISTICAL ANALYSIS: Data were managed and analyzed using Microsoft Excel sheet, epi info2018 v. 7.2, and SPSS

16 evaluation version. Prevalence of mental depression was presented as percentages; odds ratio (OR) and 95% confidence interval (95% CI) were calculated for each categorical risk factor. Binary logistic regression (backward likelihood ratio method) was done with mental depression as a dependent variable with the dichotomous outcome and with age, gender, grade, dietary habit, consumption of soft drink and fatty food, physical activities, screen time, self-satisfaction, body mass index, numbers of family members, overcrowding at home, number of siblings, birth order, harassment by family members, frequent parental fight, and parental known mental illness and their occupation as the independent variables. An alpha level of 5% was considered as the cut-off to be statistically significant.

Results

Overall, 838 school-going adolescents from 6th to 11th grades, aged 11–19 years, participated in the study: 240 (29.64%) boys and 598 (71.36%) girls. Depression was noted among 429 (51.2%) participants: 271 (32.3%) had mild, 120 (14.3%) moderate, 33 (3.9%) moderately severe, and 5 (0.6%) severe depression. All the severe depression cases were in early adolescent girls. Depression in the early adolescent age group was 174 (46.2%); in the late adolescents was 255 (55.3%); the difference was statistically significant. In the combined 6th, 7th, and 8th standard, the proportion of depression among boys and girls was 32.8% and 32.1%, respectively, while among combined 9th, 10th, and 11th standard, the proportion of depression among boys and girls was 41.1% and 67.7%, respectively, and the difference was statistically significant (*P* = 0.000) [Table 1].

In bivariate analysis, the risk of depression was significantly higher in girls (OR = 2.236), belonging to the late adolescent group (OR = 1.444), among class 9th–11th than students from 6th to 8th standard (OR = 3.260), vegetarian diet (OR = 2.292), drinking soft drink more often (OR = 2.116), fast food eating occasional/not, more screen time (OR = 2.329), facing harassment by family members (OR = 2.035), no self satisfaction (OR = 1.753), parents fighting frequently (OR = 2.147), and suffering from a known mental disease (OR = 1.936) [Table 2].

The binary logistic regression (backward stepwise likelihood ratio) method was applied to determine the significant correlates of mental depression in the study population. Analysis showed that adolescent girls, studying in higher classes, having a vegetarian diet, taking soft drinks often, more than 3 h of screen time, suffering from harassment by family members, living with

parents who fight frequently, and parents suffering from known mental diseases had a higher risk of depression [Table 3].

Discussion

Depression is the single most common denominator known to mankind in modern times. Adolescence is the transitional period from childhood to adulthood, which begins with puberty and involves profound transformations in social, physical, and psychological aspects[8] marked by emotional instability that makes them vulnerable to depression. Behavioral changes associated with hormonal changes during this period make depression difficult to diagnose. Literature reports that more than 70% of children with depression do not receive appropriate treatment.[9] Depression imposes its toll as childhood onset of adulthood diseases. Depressive disorders are identified by the WHO as priority mental health disorders of adolescence due to high prevalence, recurrence, and ability to cause significant complications and impairment. The lifetime prevalence of major depression in adolescence is 15%–20% globally.[10]

Adolescent depression has a ripple effect on social interactions with family and peers, affecting performance at school adversely, which gives birth to a vicious cycle in which adolescents are trapped, leading to repeated bouts of depression and psychosocial impairments. The adolescents become highly susceptible to drug and alcohol abuse with sexual misadventures and antisocial behavior. Unable to break this shackle, without any outside help, suicide seems to be the only way out to these young children.[11] Major depressive disorders among adolescents have become major causes leading to suicidal behavior exhibited by them.[12] Besides gender and genetics, the important factors associated with depression in adolescents include low levels of parental warmth, high levels of maternal hostility, and escalating adolescent–parent conflicts. Further, perceived rejection by peers, parents, and teachers may increase depressive symptoms in children and adolescents.[2] Lifestyles are other important factors indicative of the adoption of non-traditional lifestyles that are associated with an increase in the prevalence of depression.[13]

Prevalence

Our study indicated that depressions are common among adolescents with a prevalence of 51.2% (mild, moderate, moderately severe, severe depression as 32.34%, 14.32%, 3.94%, and 0.60%, respectively), while research groups from India reported different values. Our data on the higher prevalence was supported by Jha *et al.*[3] from Patna, Bihar (49.2%); Rama *et al.*[10] from Bhopal,

Table 1: Prevalence of depression						
	Depression					Total
	No/Minimal (%)	Mild (%)	Moderate (%)	Moderately severe (%)	Severe (%)	
Sex						
Boys	151 (62.92)	65 (27.08)	16 (6.67)	8 (3.33)	0	240 (28.64)
Girls	258 (43.14)	206 (34.45)	104 (17.39)	25 (4.18)	5 (0.84)	598 (71.36)
Total	409 (48.81)	271 (32.34)	120 (14.32)	33 (3.94)	5 (0.60)	838

Table 2: Correlates of depression: Bivariate analysis				
Variables	Total *n* (%)	Depression *n* (%)	OR (95% CI)	*P*
Overall	838 (100)	429 (51.2)	-	-
Enrolled in class				
6th-8th class	287 (31.2)	93 (32.4)	1	0.000
9th-11th class	551 (65.8)	336 (61.0)	3.260 (2.413-4.404)	
Age group				
Early adolescent (<15 years)	377 (45.0)	174 (46.2)	1	0.008
Late adolescent (>=15 years)	461 (55.0)	255 (55.3)	1.444 (1.099-1.898)	
Gender				
Boys	240 (28.6)	89 (37.1)	1	0.000
Girls	598 (71.4)	340 (56.9)	2.236 (1.643-3.042)	
Religion				
Hindu	777 (92.7)	399 (51.4)	1	0.747
Muslim	51 (6.1)	25 (49.0)	0.910 (0.516-1.605)	0.932
Others	10 (1.2)	5 (50.0)	0.947 (0.272-3.298)	
Dietary habit				
Non-vegetarian	582 (69.5)	262 (45.0)	1	0.000
Vegetarian	256 (30.5)	167 (65.2)	2.292 (1.690-3.108)	
Taking soft drink				
No/occasionally	489 (58.4)	223 (45.6)	1	0.002
1-2 times per week	263 31.4)	151 (57.4)	1.608 (1.188-2.175)	0.001
>=3 times per week	86 10.3)	55 (64.0)	2.116 (1.316-3.402)	
Taking fast food				
No/occasional	203 (24.2)	120 (59.1)	1	0.194
1-3 times per week	328 (39.1)	175 (53.4)	0.791 (0.555-1.127)	0.002
>=4 times per week	307 36.6)	134 (43.6)	0.535 (0.374-0.767)	
Physical activities on holidays				
Sitting at home	538 (64.2)	290 (53.9)	1	0.367
Went outside for a little walk	141 (16.8)	70 (49.6)	0.843 (0.581-1.222)	0.004
Played a little	86 (10.3)	32 (37.2)	0.506 (0.317-0.810)	0.589
Run/Played outside More	52 (6.2)	26 (50.0)	0.855 (0.483-1.511)	0.890
Maximum time run/played	21 (2.5)	11 (52.4)	0.947 (0.392-2.252)	
Numbers of family members				
<6 members	339 (40.5)	179 (52.8)	1	0.442
>=6 members	499 (59.5)	250 (50.1)	0.897 (0.681-1.183)	
Overcrowding at home				
No	133 (15.9)	76 (57.1)	1	0.134
Yes	705 (84.1)	353 (50.1)	0.752 (0.518-1.093)	
Number of siblings				
<=3	341 (40.7)	173 (50.7)	1	0.876
>3	497 (59.3)	256 (51.5)	1.032 (0.783-1.359)	
Screen time				
<1 h	386 (46.1)	186 (48.2)	1	0.471
1-3 h	376 (44.9)	191 (50.8)	1.110 (0.835-1.475)	0.001
>3 h	76 (2.7)	52 (68.4)	2.329 (1.380-3.931)	
Birth order				
<=3	638 (76.1)	326 (51.1)	1	0.921
>3	200 (23.9)	103 (51.5)	1.016 (0.740-1.396)	
Harassment by family members				
No	726 (86.6)	355 (48.9)	1	0.001
Yes	112 (13.4)	74 (66.1)	2.035 (1.341-3.089)	
Self-satisfaction in study				
Yes	654 (78.0)	315 (48.2)	1	0.001
No	184 (22.0)	114 (62.0)	1.753 (1.254-2.450)	
Frequent parents fight				
No	665 (79.4)	315 (47.4)	1	0.000
Yes	173 (20.6)	114 (65.9)	2.147 (1.514-3.044)	
Parents with a known mental disease				
No	729 (87.0)	358 (49.1)	1	0.002
Yes	109 (13.0)	71 (65.1)	1.936 (1.272-2.947)	

Contd...

Table 2: Contd...				
Variables	Total *n* (%)	Depression *n* (%)	OR (95% CI)	*P*
Mother's occupation				
Housewife/laborers	793 (94.6)	405 (51.1)	1	0.768
Other	45 (5.4)	24 (53.3)	1.095 (0.600-1.999)	
Father's occupation				
No job/laborers	443 (52.9)	224 (50.6)	1	0.700
Other	395 (47.1)	205 (51.9)	1.055 (0.804-1.384)	
Body mass index (BMI)				
<5th percentile	526 (62.8)	2656 (50.4)	1	0.589
5th-85th percentile	300 (35.8)	157 (52.3)	1.081 (0.814-1.436)	0.585
>85th percentile	12 (1.4)	7 (58.3)	1.378 (0.432-4.399)	

Table 3: Binary logistic regression [Method - Backward Stepwise (Likelihood Ratio)]					
Variables	*B*	S.E.	Wald	*P*	Odds ratio (95% C.I)
Enrolled in class	0.277	0.069	15.972	0.000	1.320 (1.152-1.512)
Gender	0.437	0.179	5.956	0.015	1.547 (1.090-2.197)
Dietary habit	0.722	0.172	17.528	0.000	2.058 (1.468-2.885)
Taking soft drink	0.234	0.116	4.053	0.044	1.264 (1.006-1.587)
Screen time	0.321	0.108	8.888	0.003	1.379 (1.116-1.704)
Harassment by family members	0.648	0.185	12.240	0.000	1.911 (1.330-2.748)
Frequent parents fight	0.532	0.192	7.690	0.006	1.703 (1.169-2.481)
Parents known mental disease	0.257	0.114	5.051	0.025	1.293 (1.033-1.619)
Constant	−5.910	0.622	90.349	0.000	

Independent variables in logistic regression: Enrolled in class, Age group, Gender, Religion, Dietary habit, Taking soft drinks, Taking fast food, Physical activities on holidays, Numbers of family members, Overcrowding at home, Number of siblings, Screen time, Birth order, Harassment by family members, Self-satisfaction in study, Frequent mother & father fight, Mother/father mental disease, Mother's occupation, Father's occupation and Body mass index (BMI)

Madhya Pradesh (71.3%: mild 44.1%, moderate 24.3%, and severe 2.9%); Daya *et al.*[14] from Tirunelveli, south India (73.6%); Jayashree *et al.*[15] from Mangaluru, south India (40.8%); Singh *et al.*[16] from Chandigarh, north India (40%); Kumar *et al.*[17] from Delhi, north India (47.9%); Sandal *et al.*[18] from Chandigarh, north India (65.53%); Malik *et al.*[19] from Rohtak, north India (52.9%); Mohanraj *et al.*[20] from Chennai, south India (60.8%, mild 37.1%, moderate 19.4%, severe 4.3%); Chakraborty *et al.*[21] from Mangaluru, south India (49%); Urmila *et al.*[22] from Pariyaram, Kerala, south India (57.7%); Kumar *et al.*[17] from Delhi, north India (47.9%); and Nagendra *et al.*[12] from Davangere south India 57.7%. Three Indian studies reported low prevalence, namely Mishra *et al.*[23] from Sunderpur, Uttar Pradesh, north India (14.5%); Bansal *et al.*[24] from Pune, western India (18.4%); and Jayanthi *et al.*[25] from Kattankulathur, Tamil Nadu, south India (25%). A study reported from Bangladesh showed a prevalence of 36.6% of adolescent depression (mild 32.5%, moderate 20.6%, moderately severe 10.9%, and 5.1% suffered from severe depression).[26]

Class/Grade

In both bivariate and binary logistic regression models in the present study, it was shown that students studying in higher classes (9th, 10th, and 11th) were significantly more depressed than others. Comparable observation was shared by Singh *et al.*[16] from Chandigarh, north India; Jayanthi *et al.*[25] from Kattankulathur, south India; Mohanraj R *et al.*[20] from Chennai, south India; and Mishra *et al.*[23] from Sunderpur of Eastern Uttar Pradesh. However, no considerable difference was reported by the previous study from the same city, Patna, by Jha *et al.*[3]

Age

The present study found that the late adolescent age group was significantly more depressed than others. Other research groups from India had comparable findings: Kumar *et al.*[17] from Delhi, north India and Nagendra *et al.*[12] noted that depression increases as age advances from 15 to 18 years. Two studies from south India, viz. Chennai[20] and Mangaluru,[21] noted that depression among adolescents increases with age. However, Jayashree *et al.*[15] from south India found no association of age with the prevalence of adolescent depression.

Gender

Our present study noted that girls students were significantly more depressed; supported by reported Indian studies viz. previous study from Patna;[3] Mangaluru, south India;[15] Delhi, north India,[17] Chandigarh, north India;[18] Bhopal, Madhya Pradesh;[10] Chennai, south India,[20] Pariyaram, south India;[22] and Sunderpur, Uttar Pradesh, north India.[23] Moreover, a study from Bangladesh reported more depression among girls.[26] Nagendra *et al.*[12] from Davangere south India found depression significantly more prevalent among boys, contrary to us.

Religion

In the present study, no association of religion was observed with adolescent depression. However, a previous study from Bihar observed more prevalence of depression in minority communities (Buddhism, Jainism, etc.) among comparable study populations.[3]

Food intake pattern

In the binary logistic regression, vegetarian diet, more often intake of soft drink and fast food were significantly associated with depression in the binary logistic regression model. A study from Iran reported that the frequency of junk food consumption was significantly associated with psychiatric distress, and daily consumption of sweetened beverages and snacks significantly increased the odds of self-reported psychiatric distress.[27] A research group from Karachi, Pakistan showed a positive correlation between consumption of junk food and the occurrence of depression in children.[28]

Physical activities

No association was observed in the present study regarding physical activities with adolescent depression. A longitudinal study conducted from November 2005 to January 2010 on a community-based sample from Cambridgeshire and Suffolk, UK could not find a longitudinal association between physical activities and depressive symptoms among 736 adolescents.[29] However, two other UK-based studies had noted the association of reduction of depressive symptoms with the adolescents who were more physically active had lesser depressive symptoms.[30,31]

Screen time

In our study, screen time of more than 3 h was significantly associated with depression in both bivariate and binary logistic regression models. A 4-year study on a large sample of adolescents recruited from 31 schools in Greater Montreal noted significant associations for every increased hour spent using social media; adolescents showed a 0.64-unit increase in depressive symptoms.[32] A study from Bangladesh reported that higher screen times were significantly linked with depressive symptoms among adolescents.[27]

Birth order

No significant association of depression with birth order was observed in the present study. Another research group from Bihar noted that depression was lowest among first-born children.[3] A study from Bangladesh also reported the prevalence of depression increased with increasing birth order.[26]

Harassment by family

Our study showed significantly more depression in adolescents among those suffering from harassment by family members, concurred by a secondary analysis of the United States Commonwealth Fund Survey of the Health on nationally representative 4648 adolescents.[33]

Self-satisfaction

Lack of self-satisfaction in study had a significant positive association with depression. Two research groups from Chandigarh also supported our observation of the positive association of depression with lack of self-satisfaction.[16,18]

Frequent parent fight

Our study found a significantly positive association of parental discord with adolescent depression, supported by Indian research groups from north India[23] and south India.[25] A study from the US reported history of violence as considerably related to adolescent depression.[33]

Parents with known mental disease

A significantly positive association of mental diseases among parents was observed in this study with adolescent depression. Global researchers also noted that depression in adolescents was significantly associated with both maternal and paternal mental health.[34,35]

Mother's occupation

No significant association was noted in our study regarding maternal occupation with adolescent depression, supported by a comparative study from Uttar Pradesh, north India,[23] while a study from Madhya Pradesh reported a higher prevalence of depression when mothers were non-working homemakers.[10]

Father's occupation

No significant association was observed in this study regarding paternal occupation with adolescent depression, concurred by other studies from north, central, and south India.[10,23,25]

Body mass index

No significant association of the body mass index of adolescents was observed in the present study with depression. Our observation was supported by other studies from the UK[36] and Taiwan,[37] while studies from France[38] and Iran[39] noted a positive association.

This research group felt that adolescence is the transitional crossroad from childhood to adulthood marked by emotional instability that makes them vulnerable to depression. Mental health is one of the vital parameters for a happy, healthy, and productive life; however, mental disorders do not often receive enough attention. Naicker *et al*.[40] reported on the 10-year outcomes of a cohort of adolescents in Canada and observed that depression at ages 18–19 years was significantly associated with a range of adverse health outcomes, including depression recurrence. Adolescent depression is inadequately addressed as a public health issue in countries like India with challenges of low demand for health care, low levels of detection of depression, lack of access to evidence-based interventions, and limited prospects of prevention.[41-43]

Strengths of the Study

Exploring the load of depression and associated sociodemographic factors among adolescents contribute to the development of preventive and control strategies; yet, few studies have been reported in the literature from low- and middle-income countries. Investigators have assessed the prevalence and severity of depression and factors associated with depression among school-going

adolescents in Bihar, India, with special precautions during data collection from this vulnerable population on a very sensitive issue.

Limitations of the Study

There were several limitations in our study. First, we conducted this study on urban school-going adolescents. Thus, depression among rural school-going adolescents could not be ascertained. Second, our sample size was small as it was a self-funded study with compromised logistics. Third, our study findings from a state capital have limited external validity.

Future directions of the study

In the future, we hope to conduct a multicentric study comprising school-going adolescents from different states and cover vast regions of rural India.

Conclusion

This study categorically revealed the most updated picture of depressive symptoms among adolescents in Patna, India, with attempts to collate the information regarding the magnitude, risk factors/life events, and comorbid disorders with depression. This information will contribute to the development of preventive and control strategies for depression among adolescents by the stakeholders working on a national platform on the welfare of the adolescents.

Recommendation

Although a large amount of data are available for depression in children and adolescents from various parts of the world, there are limited data from India. This research explored the magnitude of depression and associated sociodemographic factors among adolescents and added to the existing data that are essential to the planning, implementation, and evaluation of services for the prevention, control, and treatment of the disease burden among adolescents.

Conflicts of interest

There are no conflicts of interest.

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