Prevalence of Mental Health Problems among High School Students

Sir,

Adolescence is a transitional phase between childhood and adulthood, characterized by a number of cognitive, emotional, physical, intellectual, and attitudinal changes as well as by changes in social roles, relationships, and expectations. While it is a phase of tremendous growth in preparation of adults’ roles and skills to sustain pressures and challenges, it is also a transition phase that can increase risk of various, psychological disorders, adjustment problems, and suicidal tendencies.

According to the National Mental Health Survey of India (2015–2016), the prevalence of psychiatric disorders among adolescents (13–17 years) is around 7.3%. Approximately 40%–90% of “adolescents with depression” have a comorbid psychiatric disorder such as anxiety disorders, conduct disorders, substance abuse, or personality disorders. Suicide is a leading cause of death among young people, leading to death of at least 25% of deaths in adolescent boys and 50%–75% in adolescent girls. Therefore, there is a need for a positive and promotive mental health among adolescent youths, to ensure a smooth progress of adolescents to their adult life.[1]

Children spend more time in school than in any other formal institutional structure. As such, schools play a key part in children’s development, from peer relationships and social interactions to academic attainment and cognitive progress, emotional control and behavioral expectations, and physical and moral development. All these areas are reciprocally affected by mental health.[2] There are studies in India, showing a higher (44.1%) prevalence of depression among higher secondary school students.[3] According to the burden of mental disorders across the states of India (2017), one among every seven people in India had a mental disorder, ranging from mild to severe.

Prevalence of mental disorders was highest in Tamil Nadu comparing to the other states in South India.[4] Given the background of increasing mental health problems among adolescents, this study was undertaken to estimate the prevalence of the problem and to identify the influencing factors.

This cross-sectional study was conducted over a period of 2 months among high school students (15–17 years) in a government-aided school in Coimbatore. Based on a prevalence of 27.2%, mental health problems among high school children in a study done in Karnataka, considering an absolute precision of 5%, the sample size was estimated to be 305.[5] Approval was obtained from the institutional human ethics committee, and informed consent was collected from the student’s parents. Sociodemographic profile was obtained using a validated questionnaire. DASS-21 scale developed by Lovibond, and Lovibond was used to screen for symptoms of depression, anxiety, and stress.[6]

Results were available for 290 students. The age range of the students varied from 15 to 18 years. Among the participants, 49% were females. Around 87.9% of participants belong to nuclear family. Students were categorized into three groups based on the academic scores in the examination before conduct of the study and around 10% had scores below 50%. Around 2.4% of study participants were being raised by single parents. Among the study participants whose parents were living together, 3.1% perceived that the parental relationship was not good. Some of the important findings to note are, half of the students (50.3%) were facing trouble concentrating. An important point for concern is around 35.8% of the students had parental pressure for academic excellence. Another area for concern that more than half (62.7%) of the students felt that they had academic pressure.

Figure 1 depicts the range of mental health problems found among students. At least half of the students had some form of mental health problem ranging from mild to extremely severe. Anxiety symptoms were more common followed by depression, and stress was the least prevalent. Noteworthy is that one-fourth of students had severe/extremely severe anxiety symptoms.

Table 1 depicts the sociodemographic factors, their perception of academics, and relationship with peers were associated with mental health problems among students using multivariate

![Figure 1: Prevalence of mental health problems among students](image-url)
analysis. It was found that males had a higher risk of developing depression (odds ratio: 3.167, confidence interval CI: 1.871–5.360) compared to females, and the association was found to be statistically significant. A significant association between problems in concentration, feeling of academic pressure, and mental health problems was found among the students. There were no significant influences in factors such as age, family income, academic performance, and parental relationship with mental health problems.

Overall, the present study revealed that at least 50% of students had some form of mental health problems in varying severity. Depression (56%) and anxiety (64%) were more prevalent than stress (39%). The prevalence of severe/extremely severe mental health problems was estimated to be 10%–15%. Many of them exhibited more than one symptom. This could be possibly due to overlapping symptoms and a lack of clarity in the delineation of symptoms by adolescents as compared to adults. The results of the present study were similar to the study done by Pradheep et al. in Karnataka.\(^5\)

To conclude, the present study reveals that at least half of the high school students did have high scores for mental problems varying in severity from mild to severe as detected by the DASS-21 scale. There are few studies related to mental health problems among adolescents though the burden of problems is increasing day by day. Further qualitative studies would help in in-depth understanding of the underlying factors for mental health problems among students. It is recommended that government should take initiative to start a counseling center with psychologists, school counselors, and psychiatric social workers in every school with the facility or access for screening periodically. Early diagnosis and necessary counseling/treatment will reduce the mental health problems among adolescents. Mental health education and trainings should be a part of routine school activity.

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**Conflicts of interest**

There are no conflicts of interest.

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**Table 1: Association of sociodemographic profile with depression, anxiety, and stress**

| Variable name | Depression | Anxiety | Stress |
|---------------|------------|---------|--------|
| **Sex**       |            |         |        |
| Female (reference) |            |         |        |
| Male           | 3.17 (1.87-5.36)* | 1.06 (0.63-1.79) | 1.43 (0.85-2.42) |
| **Family income (Rs.)** |            |         |        |
| Up to 10,000 |            |         |        |
| Above 10,000   | 1.39 (0.81-2.37) | 1.33 (0.79-2.24) | 1.72 (1.02-2.91)* |
| **Problem in concentration** |            |         |        |
| No (reference) |            |         |        |
| Yes            | 0.44 (0.25-0.77)* | 0.354 (0.20-0.63)* | 0.55 (0.32-0.97)* |
| **Feeling of academic pressure** |            |         |        |
| No (reference) |            |         |        |
| Yes            | 0.80 (0.44-1.44) | 0.81 (0.46-1.43) | 0.52 (0.29-0.95)* |

*\(P<0.05\). OR: Odds ratio, CI: Confidence interval

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**References**

1. Adolescent Mental Health: Issues, Challenges, and Solutions. Available from: https://www.anip.co.in/temp/AnnIndianPsychiatry314-2496565_065605.pdf. [Last accessed on 2020 Mar 29].

2. Fazel M, Hoagwood K, Stephan S, Ford T. Mental health interventions in schools 1: Mental health interventions in schools in high-income countries. Lancet Psychiatry 2014;1:377-87.

3. Lodha RS, Patel S, Maata S, Negi P, Sahu N, Pal DK, et al. Prevalence of depression amongst higher secondary school adolescents in Bhopal Madhya Pradesh. Natl J Community Med 2016;7:856-8.

4. Sagar R, Dandona R, Gururaj G, Dhalliwal RS, Singh A, Ferrari A, et al. The burden of mental disorders across the states of India: the Global Burden of Disease Study 1990–2017. The Lancet Psychiatry. 2020.

5. Tarikere PS, Prakash B, Kulkarni P, Murthy N. Factors affecting mental abnormalities among high school children in tribal, rural and urban Mysuru, Karnataka. Natl J Community Med 2018;9:255-9.

6. DASS-21 Scale. Available from: https://maic.qld.gov.au/wp-content/uploads/2016/07/DASS-21.pdf. [Last accessed on 2019 Sep 23].

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