

Factors affecting students' mental health: A study from Jharkhand

Shrutkeerty Arya¹, Aman Raj², Shantna Kumari³

¹Student Graduation, Banasthali Vidyapeeth, Rajasthan, India

² Student Graduation, St. Xavier College, Ranchi, India

³State Consultant, National Mental Health Programme (NMHP), Ministry of Health, Education & Family Welfare, Government of Jharkhand, India Email: shantna24@gmail.com

ABSTRACT

Background: Worsening mental health of students is a concern for public health & policy. preventing poor mental health and supporting positive mental wellbeing needs to be based on evidence-informed understanding of what factors influence the mental health of students. Exploratory research is conducted to examine the current situation and factors related to the mental health of students. A cross-sectional study was conducted among students at a senior secondary school or +2 high schools in Ranchi, Jharkhand, in 2023. **Objective:** To identify factors associated with the mental health of the students. **Methods:** A total of 453 senior secondary school students aged 18 to 20 years, enrolled during the 2023–2024 academic year, were included in the sample This research, which employed the Strengths and Difficulties Questionnaire 25 items toolkit By Robert Goodman with a cut-off point of 15, revealed that a significant percentage of students have general mental health problems. **Findings:** Emotional symptoms account for the largest percentage of students, followed by prosocial behaviour, peer problems, conduct problems, and hyperactivity. The likelihood of mental health issues among students is increased by certain personal variables, such as low self-esteem or disappointment about grades, concern or depreciation about physical appearances, refraining from participating in clubs, teams, or groups, not exercising or playing sports, and having the habit of staying up late. A few school-related factors that are associated with children's mental health problems include peer pressure, public punishments, and teachers' reprimands. **Conclusion:** A significant percentage of students have general mental health problems. Students who experience physical appearance-related anxiety or insecurity are more likely to suffer from mental health problems

Keywords: Mental health, student, senior secondary school, strengths and difficulties, study pressure

INTRODUCTION

The World Health Organisation (WHO) defines health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”, emphasising the need to take care of both physical and mental health concurrently.^[1] As a relatively recent subject, mental health care has not received enough attention to date. Adolescent mental health problems are becoming more common worldwide and in Vietnam as well. An estimated 10% to 20% of children and adolescents globally are believed to suffer from mental health problems.^[2-5] According to

studies done in 10 Vietnamese provinces and cities by the Ministry of Labour, War Invalids and Social Affairs (MOLISA) and UNICEF (2018), the projected percentage of children and adolescents suffering from mental health problems ranges from 8% to 29%.^[6] As a relatively recent subject, mental health care has not high school students, who are between 18 and 20 years old, who go through significant physical, emotional, and mental changes during their teenage years. They desire to prove themselves, to become self-reliant despite their inexperience and vulnerability.^[7] Teenagers are also subject to pressure in the classroom due to competition, test-taking pressure, homework,

Access the Article Online	
DOI: 10.29120/IJPSW.2025.v16.i2.695	Quick Response Code 
Website: http://pswjjournal.org/index.php/ijpsw	



Address for Correspondence:

Ms. Shantna Kumari

State Consultant, National Mental Health Programme (NMHP), Ministry of Health, Education & Family Welfare, Government of Jharkhand, India Email: shantna24@gmail.com

How to Cite the Article: Arya S, Raj A, Kumari S. Factors affecting students' mental health: A study from Jharkhand. Indian J Psychiatr Soc Work 2025;16(2):106-13.

etc. Due to these risk factors, they are more likely to have mental health problems and require immediate assistance from friends, family, and teachers. Although many schools in Hanoi have currently established school psychological consultation rooms, students hardly use these services because of the confusing and improper procedures. Furthermore, parents and schools have not paid enough attention to the need for mental health services for students.^[8]

High School Students' Current State of Mental Health in India, as well as throughout the world, high school students' mental health problems are now a major disease burden. At least 23.3 Lakh children and adolescents in India under the age of 17 have dealt with emotional or behavioural issues (NMHS 2015-16). The "Report on National Mental Health Development in China" (2019- 2020) states that depression is detected at a rate of 40% in high school and 10% in elementary school.^[9] In Thailand, most high school graduates intend to attend college. They thus spend a lot of time studying at school and taking extra classes, which can lead to stress, illness, and a lower quality of life. In Northeastern Thailand, a cross-sectional study including 1112 grade 10 – 12 students discovered that 26.18% of them experienced significant levels of academic stress and 16.41% reported severe anxiety. Depression even affects 18.55% of high school pupils.^[10] In a study on mental health conducted by Mai Huong Day Psychiatric Hospital with 1,203 students in primary and secondary schools in Hanoi, it was found that approximately 20% of pupils had mental health problems overall. Hyperactivity rank first among problem categories, followed by emotional symptoms (11.48%), peer relationships (9.32%), and conduct problems (9.23%). Conversely, the lowest percentage - 7.75% - of people report having trouble with their prosocial behaviour.^[11] In 2015, author Tran Quynh Anh and colleagues used the Strengths and Difficulties Questionnaire 25-item toolkit to assess the mental health of high school students. Their findings show that 26.9% of students overall have mental health problems. The largest percentage (29.6%) is accounted for by the prosocial behaviour, which is followed by the peer relationships (28.9%). The percentage of students experiencing emotional symptoms is 11.4%,

while the lowest is 8.9% for hyperactivity.^[12] Author Dang Thuy Linh's 2016 study of pupils at the private high school revealed that 27% of students overall had mental health problems. Prosocial skills continue to represent the largest percentage of them (27%). The rate of issues with conduct and peer friendships was equal at 24.7%, whereas the rate of issues with hyperactivity was only 14.3%.^[13] In 2020, author Nguyen the Luu Ly conducted a study using the Strengths and Difficulties Questionnaire 25-item toolkit to evaluate the mental health of 410 high school students for the Gifted in Hoa Binh province. The findings indicated a higher rate of students experiencing mental health problems than in previous studies. Overall, 40.5% of students have mental health problems; emotional symptoms make up the largest percentage (38%); conduct problems account for 24.4% of the student group. Meanwhile, 30.5% struggle with hyperactivity; 28.8% have trouble with friendships; and 19% encounter difficulties with prosocial behaviour.^[14]

Some Factors Influencing High School Students' Mental Health: Personal factors. Age and gender: High school students exhibit distinct age and gender changes, which result in varying emotional attitudes based on gender traits. The rate of anxiety and depression in women is roughly 2.5 times and 3 times higher than that of men, respectively, according to epidemiological studies on mental illnesses conducted by the author Tran Van Cuong.^[15] In contrast, in a study by author Tran My Luong on the state of depression among high school students, the findings of comparing the levels of depression in men and women pointed out that male students had higher levels of depression than their female counterparts (2.07 compared to 1.30).^[16]

Physical characteristics: The different perception of every high school student is influenced by their physical characteristics, such as height, weight, and so on. Self-imposed pressure: High school students place fundamental pressure on themselves, such as those related to education, personal growth, and their desire to prove themselves. This causes them to create invisible pressures, which will worsen if adults fail to share and resolve problems with them.

Habits: Students who lead positive lifestyles will be more likely to have good health. On the other hand, those who adopt non-scientific habits could experience physical health issues, which could result in subpar learning and playing environments.

Addiction to the Internet and Games: Students are among the age groups that are highly dependent on the usage of electronic devices in the modern world, where technological advancements occur simultaneously with the need for their use. The issue of children becoming dependent on electronics, virtual games on devices, and unreliable online culture will arise due to excessive use of electronic gadgets and parental neglect, and this will have a profound effect on the thoughts and feelings of high school students. Engagement in school clubs and outdoor activities: Participating in school clubs or outdoor activities is also crucial to maintaining the mental health of high school students. This is because involvement in extracurricular activities allows students to try novel experiences, develop their creativity, and stay active.

Family-Related Factors

Family members: This is a factor that influences high school students' mindset. For instance, children who live with both parents typically have fewer mental health symptoms.^[17, 18]

Family's financial situation: According to Dang Hoang Minh and his fellow researchers, the higher the family income, the less likely children are to experience anxiety/depression.^[19] On the contrary, financial hardships pose a risk to students' mental health and their parents' capacity to support students' extracurricular and educational endeavours.

Parents' educational background: Several studies have demonstrated a strong correlation between the educational attainment of parents and the mental health of their teenage children. The higher the parents' education level, the lower the child's likelihood of having mental health problems.^[20, 21] Higher-educated mothers are better at providing their children with the necessary social support to deal with the negative impacts of mental health problems, according to Feinstein and colleagues.^[22]

Family harmony: High school pupils will be influenced to some extent by family harmony. As an illustration, high school students who often discuss issues with their parents and have close relationships with them are less likely to experience emotional illnesses than high school students who are unable to do so.^[6] When high school students share their problems with parents, they feel more at ease and are more likely to trust and listen to parents' advice. Parents' view on education: This may be a factor that guarantees students' growth or increases the strain on them at home. Families with rigid traditions will have strict beliefs about education, which will shape the child's sentiments of insecurity and anxiety when they do not fulfil their parents' wishes. Conversely, families that use modern educational resources will relieve children of the burden.

Family living habits: Because high school Students still rely heavily on their families, family habits will always influence personal lifestyles and daily routines. This is also a key component in the formation of personal habits. School-related factor. School-related pressure: One of the things influencing students' mental health and social psychology is pressure from school.

Relationships with teachers: Many studies show that a positive connection with teachers is considered a protective factor for the mental health of high school students.^[23, 24] However, surveys have shown that a large number of students feel that teachers don't care much about them and that excellent students, in particular, are frequently given priority, while weak ones find it difficult to please their teachers.^[6] Students' psychology is also significantly impacted by acts such as berating or threatening.^[25]

Relationships with friends at school: Friendships are substantial and should always be prioritized in a child's life along with family ties, since friends will be the ones with whom a child may share their difficult-to-state problems. In addition, studying with friends and sharing knowledge during coursework will help pupils develop teamwork skills. However, some students still find it hard to make friends and work in groups.^[6]

School violence: This is one of the variables that have a remarkable effect on high school

children's mental health. Whatever form school violence takes, it always has a detrimental influence on young people's minds and emotions. For this reason, among the element's problems, hyperactivity, peer relationship problems, and prosocial behaviour affecting students' educational environment, this one requires special attention.

Environmental and Social Factors

Social relationships: Through social ties including friends on social media and in clubs, emotional relationships at this age are gradually formed and nurtured and affect high school students' psychology considerably.^[6] *Mental health management and care system:* Students have diverse needs when it comes to mental health care, so access to management systems and central organizational structures is essential.^[6] *Adolescent mental health care,* particularly for students, is still a relatively new concern. There isn't a school psychology clinic, consultation, or team of trained physicians and nurses in the province now. There is still a lack of information and insufficient focus on the prevention of mental health problems in teenagers in general and high school students in particular.

The Strengths and Difficulties Questionnaire 25-item toolbox has been used in numerous research studies assessing the mental health of students and is very helpful for preliminary screening.

METHODS AND MATERIALS

The study employed a cross-sectional research design using quantitative methods and was conducted in Ranchi, India, between October 2023 and June 2024. A total of 453 senior secondary school students aged 18 to 20 years, enrolled during the 2023–2024 academic year, were included in the sample. Each class was treated as a cluster for sampling purposes. Students who were unable to participate in the interviews due to disciplinary or medical reasons were excluded from the study. Data was collected using the following tools: A students' personal and educational information sheet and the Strengths and Difficulties Questionnaire (SDQ) by Robert Goodman.^[26] It is a 25-item behavioural screening tool designed to assess positive and negative behaviours in children and young people, but can also be adapted for adults, with 5 scales (emotional symptoms,

conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behaviour).

Emotional symptoms: Frequently experience nausea or upset stomachs, depressive moods, irritability, wrath, anxiety, fear, lack of interest and pleasure, and are reluctant to interact with friends (questions 3, 8, 13, 16 and 24). *Conduct problems:* Regularly be out of control, violent, aggressive, and angry (questions 5, 7, 12, 18, and 22). *Hyperactivity:* Often feel anxious, agitated, restless, hasty, impulsive, and unable to concentrate (questions 2, 10, 15, 21 and 25). *Peer relationship problems:* always be aloof, prefer to be alone, have few relationships, do not get on well with friends (questions 6, 11, 14, 19 and 23). *Prosocial behaviour:* try to be kind, care about other people's feelings, share with everyone, help others when they are hurt, treat younger people well, volunteer to help others (questions 1, 4, 9, 17 and 20). Each question has three possible answers: not true, partly true, and true, with the corresponding score. Only the combined score of 20 items from each of the four problem categories - emotional, conduct, hyperactivity, and peer relationships - should be computed for assessing the mental health of high school Students. The maximum total score is 40 points.

Independent Variables: General information about research subjects (age, gender, grade, academic ranking, conduct); personal factors (physical condition, self-imposed pressure, in-school and out-of-school learning, lifestyle, internet use, gaming, use of alcohol/beer/cigarette or other stimulants, participation in clubs/extracurricular activities); school-related factors (getting along with classmates, having close friends at school, being bullied/teased, obeying school's regulations, joining extracurricular activities, teachers' taking care of research objects).

Dependent Variables: The set of variables describing the mental health status and the rate of mental health problems' manifestation in senior secondary school students according to 4 problem groups: Emotional symptoms, conduct problems, hyperactivity, and peer relationship problems.

Data Analysis Technique: Microsoft Excel for manual calculation of data. Medical statistical

algorithms are used to compute the average values and percentages.

Ethical Consideration: Before conducting the research, the study requested and received approval from the school authority. Every study participant received information regarding their right to decline to respond to any of the questionnaire's questions. Before interviews, individuals were also given a thorough explanation of the goal and scope of the study, with a focus on maintaining confidentiality and anonymity to ensure their voluntary cooperation. To protect the research objects' privacy, the questionnaire was encrypted during the data entry, processing, and reporting stages. The data on the form is solely used for research and educational purposes. Investigator training places a strong emphasis on maintaining research objects' identities and confidentiality. All filled-out surveys are safely kept, and the data is only accessible by the investigators.

RESULTS

Table 1 General Information

General Information		<i>f</i>	%
Age in years	18	178	39.29
	19	112	24.72
	20	163	35.98
Gender	Male	221	48.78
	Female	232	51.21
Grade	Grade11	191	42.16
	Grade12	262	57.83
Academic	Distinction	107	23.62
	Average	153	33.77
	Poor	193	42.60

shows that the study participants included 453 students from 18 to 20 years of age, among whom 48.7% are male and 51.21% are female. The number of students in each grade is (grade 11 is 42.16%, grade 12 is 57.83%). In the research sample, the proportion of students with distinctive academic performance is the lowest at 42.6 %. Average academic performance comes in second at 33.77%, and there were 23.62 % had a distinction in academic performance. 16.8% students showed very good, 83% good, and 44.59 % of students achieved average conduct.

Table 2 Mental Health Problems among Students

Strengths and difficulties	<i>f</i>	%
General Mental Health Problems	151	33.33
Emotional Symptoms	189	41.72
Conduct Problems	12	2.64
Hyperactivity	20	4.41
Peer Relationships	122	26.93
Prosocial Behaviour	49	1.81

Table 2 shows that a significant percentage of students have general mental health problems. Emotional symptoms account for the largest percentage of students, followed by prosocial behaviour, peer problems, conduct problems, Junk Food addiction, alcohol & Substance Use addiction and hyperactivity. Some factors related to students' mental health are: Negative notions about physical fitness: Students who experience physical appearance-related anxiety or insecurity are more likely to suffer from mental health problems.

Table 3 Relationship Between Physical Characteristics, Living Habits and Mental Health Problems of Students

Personal Factors	<i>f</i>	%
Concern Self-Conscious over physical Traits		
Yes	385	84.98
No	68	15.01
Exercise/Sports activity		
Yes	196	43.26
No	257	56.73
Stay Up Late		
Yes	237	52.31
No	216	47.68
Junk Food/Fast Food addiction		
Yes	327	72.18
No	126	27.81
Alcohol/Substance addiction		
Yes	276	60.92
No	177	39.07

Negative notions about physical fitness: Students who experience physical appearance related anxiety or insecurity are more likely to suffer from mental health problems.

Exercising/ playing sports: Mental health problems are more common in students who do not participate in sports or exercise. Staying up late: Those who have a late-night habit are more likely to experience mental health problems. Junk food & Drug addiction are more prone to mental health Problems.

Table 4 Relationship between College related Factors & Students' Mental Health Problems

College Factors	<i>f</i>	%
Violating School & College Regulations		
Yes	321	70.86
NO	132	29.13
Being punished by teachers in front of class		
Yes	264	58.27
No	189	41.72
Being compared to others by teachers		
Yes	369	81.45
No	84	18.54

Disappointment about academic scores: Pupils who often and sometimes feel dissatisfied with their academic performance are more likely to suffer from mental health problems, respectively. Being scolded, punished, ridiculed, and compared by teachers: Reprimands or punishments given by teachers in front of the class, as well as teachers ridiculing, increase the likelihood of mental health problems in Students when compared to other students.

DISCUSSION

The study's findings demonstrated that 33.3% of the study sample's students had general mental health problems, which is much higher compared to certain other domestic and international research. According to Van Roy and colleagues, only 17.8% of Norwegian students in the 10 - 19 age range experience mental health problems.^[27] It is estimated that between 15.2% and 27% of Vietnamese high school pupils suffer from general mental health problems.^[13] The time period of the research and the various learning contexts could be the reason for the difference between our study and others. In contrast to the research conducted by Anh^[28] with a rate of 14.6%, and Linh, which found a rate of 19.7%, our findings' results are greater because the study's interview period coincides with the start of exams, when students are more anxious and may result in higher rates of emotional symptoms.^[13] This outcome is consistent with the research by Tram, which found that 33.0% of students had emotional symptoms.^[29] Our findings' results are greater because the study's interview period coincides with the start of exams, when students are more anxious and may result in higher rates of emotional symptoms.^[13, 29]

The findings of the present Study offer important insights into factors affecting mental health in students. The results indicate that personal factors and school-related factors play a major role in the poor mental health of students. Emotional symptoms account for the largest percentage of students, followed by prosocial behaviour, peer problems, conduct problems, and hyperactivity. The likelihood of mental health issues among students is increased by certain personal variables, such as low self-esteem or disappointment about grades, concern or depreciation about physical appearances, refraining from participating in clubs, teams, or groups, not exercising or playing sports, and having the habit of staying up late. A few school-related factors that are associated with children's mental health problems include peer pressure, public punishments, and teachers' reprimands. Students who often stay up late have a 5.2-fold increased risk of mental health problems in comparison with those who do not.^[30-33]

However, it comes with a few limitations. The sample size was not large enough, hence, low statistical power. We used a self-reported to measure mental distress, which must be subject to desirability and recall bias. Also, the study's cross-sectional nature cannot establish the actual cause-and-effect relationship.

CONCLUSION

A significant percentage of students have general mental health problems. Emotional symptoms account for the largest percentage of students, followed by prosocial behaviour, peer problems, conduct problems, and hyperactivity.

Some factors related to students' mental health are: Negative notions about physical fitness: Students who experience physical appearance-related anxiety or insecurity are more likely to suffer from mental health problems.

Exercising/playing sports: Mental health problems are more common in students who do not participate in sports or exercise.

Staying up late: Those who have a late-night habit are more likely to experience mental health problems.

Disappointment about academic scores: Pupils who often and sometimes feel dissatisfied with their academic performance are more likely to suffer from mental health problems,

respectively. Being scolded, punished, ridiculed, or compared by teachers: Reprimands or punishments given by teachers in front of the class, as well as teachers ridiculing, increase the likelihood of mental health problems in pupils when compared to other students.

Recommendation

The following actions are required to prevent and improve senior secondary school students' mental health problems in Jharkhand-

- Students must adopt a positive, healthy lifestyle and give up bad habits. Some examples of this include joining a few clubs or groups and taking part in extracurricular activities both inside and outside of the classroom.
- Reduce the amount of time spent on social media to no more than two hours each day;
- engage in more sports and physical activities;
- Balance study and relaxation and avoid staying up late.
- Besides the regular study period, the school continues to maintain and arrange more extracurricular activities, clubs, teams, and groups, as well as life skills training programs. Schools keep creating opportunities for Students to receive psychological consultation: Organise discussions, interactions, and exchanges with students regarding psychological consulting; describe the purpose, duties, and responsibilities of the school's School Psychology Consulting Department; provide the school psychological consultation area with amenities so that children can feel at ease sharing.

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