EXPLORING MENTAL HEALTH PROBLEMS AMONG SCHOOL-GOING CHILDREN IN NADIA DISTRICT

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ABSTRACT

Background

Mental health problems among school-going adolescents have emerged as a critical public health issue, particularly in regions like Nadia District, West Bengal. Adolescents face multiple psychological challenges influenced by demographic and social variables. This study aims to assess the prevalence of mental health problems among school-going children and explore the impact of gender, educational level, and sibling presence. **Methods** A quantitative descriptive research design with a cross-sectional survey approach was adopted. A total of 205 school-going children were selected through simple random sampling. Data were collected using the Strengths and Difficulties Questionnaire (SDQ), developed by Dr. Robert Goodman (1997), which assesses behavioral and emotional well-being in children and adolescents. The data were analyzed using appropriate statistical techniques to determine group differences. **Results** Findings revealed that male students had relatively higher levels of mental health problems than female students, although the difference was not statistically significant. A significant variation was observed across educational levels, with secondary school students reporting higher mental health issues compared to their upper primary and higher secondary counterparts. Moreover, students with siblings reported significantly more mental health difficulties than those without siblings. **Conclusions** The study highlights the need for targeted mental health interventions among school-going adolescents, particularly at the secondary level and in families with multiple children. Gender-specific strategies may also be beneficial despite the lack of statistical significance in this domain. Interventions should include stress management programs,

resilience-building workshops, and initiatives to enhance family communication and support systems. Strengthening school-based mental health services is essential to address the growing psychological needs of adolescents in this region.

KEYWORDS: Mental Health, Adolescents, Cross-Sectional Studies, Risk Factors.

INTRODUCTION

Worldwide mental health problems of school-going children have become a major public health concern. Mental health is a complex concept that goes beyond the mere absence of mental illness, encompassing emotional, psychological, and social well-being (Mandal et al., 2024). Adolescence is a critical period of development characterised by fast physical, emotional, and cognitive transformations, rendering the adolescents particularly vulnerable to mental health disorders (World Health Organization, 2021; Sawyer et al., 2012). Recently, there has been a notable rise in mental health problems among adolescents, with conditions like anxiety, depression, and behavioral disorders becoming more prevalent (Patel et al., 2018; Thapar et al., 2015).

Adolescent mental health is shaped by a complex interaction of biological, psychological, and social factors (Sawyer et al., 2012; Thapar et al., 2015). Biological factors involve genetics, neurodevelopmental changes, and hormonal fluctuations, all of which can influence adolescents to mental health problems (Thapar et al., 2015; Compas et al., 2017). Psychological factors include individual temperament, coping mechanisms, and personality traits that influence how adolescents handle stress and adversity (Compas et al., 2017; Reiss, 2013). Social factors such as family environment, peer relationships, and socioeconomic status also play a vital role in determining adolescent mental health (Reiss, 2013; Gururaj et al., 2016).

In India, adolescent mental health problems are often underreported and poorly addressed due to stigma, lack of awareness, and limited access to mental health services (Gururaj et al., 2016; Kumar et al., 2019). This issue is especially acute in rural areas where resources are scarce and mental health literacy is low (Kumar et al., 2019; Chowdhury et al., 2017). This study aims to provide an in-depth analysis of mental health issues among school-going adolescents in Nadia District, West Bengal, examining demographic factors such as gender, educational level, and the presence of siblings. Nadia District in West Bengal, primarily rural with some urban areas, is an appropriate setting to examine these concerns. Studies have shown a high prevalence of mental health disorders among Indian adolescents, with varying

severity levels (Malhotra & Patra, 2014; Banerjee et al., 2019). In Nadia District, factors such as socioeconomic challenges, academic pressure, and limited recreational facilities contribute to elevated stress levels among students, potentially worsening mental health issues (Banerjee et al., 2019; Patel et al., 2018). Extensive research has provided substantial proof of gender disparities in mental health. Females are more susceptible to internalising diseases like anxiety and depression, whilst males are more inclined to externalising disorders such as conduct disorder and ADHD (Leadbeater et al., 2013; Nolen-Hoeksema, 2012). These disparities are influenced by societal expectations, gender roles, and varying exposure to stressors (Nolen-Hoeksema, 2012; Reiss, 2013).

To gain a full understanding of the current mental health issues among students in Nadia District, it is necessary to adopt a holistic strategy that considers the distinct socio-cultural environment of the area (Chowdhury et al., 2017; Patel et al., 2018). Nadia District, with its diverse population and changing levels of development, reflects broader societal trends affecting adolescent mental health (Chowdhury et al., 2017; Banerjee et al., 2019). Factors such as parental education, family income, and cultural beliefs about mental health significantly impact adolescent mental health outcomes (Patel et al., 2018; Gururaj et al., 2016).

Objectives of the study

According to the rationale and delimitations of the study following objectives were formulated for the study as-

i. To recognise the current state of mental health problems among students in Nadia District, West Bengal.

ii. To determine the mental health problems among students in relation on their gender.

iii. To assess the mental health problems among students based on their educational level.

iv. To investigate the mental health problems among students by their siblings.

Hypotheses of the study

H₀1: There is no significant mean difference in mental health problems between male and female students.

H₀2: There exists no significant mean difference in mental health problems among students by educational level.

H₀3: There exists no significant mean difference in mental health problems among students by siblings.

MATERIAL AND METHODS

The main aim of this study is to evaluate the current state of mental health problems among school-going children in Nadia District, West Bengal. A cross-sectional survey research design and descriptive research method were employed. Simple random sampling was utilized for data collection. The study population consisted of all school-going children in Nadia district, with a sample size of 205 adolescents from different schools in the region. The study examined gender, educational level, and number of siblings as independent variables, while mental health concerns served as the dependent variable.

Data collection involved using the Strengths and Difficulties Questionnaire (SDQ), developed by Robert Goodman in 1997. The SDQ is a widely acknowledged screening instrument for assessing emotional and behavioural problems in children, segmented into five subscales: Emotional Problems (EP), Conduct Problems (CP), Hyperactivity Problems (HP), Peer Problems (PP), and Pro-social Problems (PrS). Each subscale contains five items, scored as '0' (Not True), '1' (Somewhat True), or '2' (Certainly True), with each sub-scale score ranging from 0 to 10. The Total Difficulty score, indicative of mental health status, was calculated by summing the scores of the Emotional Problems, Conduct Problems, Hyperactivity Problems, and Peer Problems subscales.

RESULTS

Descriptive Statistics

Table 1

Independent variables wise descriptive statistics.

Independent Variables	Dimensions	Category	N	Mean	SD
Gender	**EP**	Male	114	4.75	1.717
		Female	91	4.33	1.770
	CP	Male	114	4.91	1.743
		Female	91	4.29	1.635
	HP	Male	114	4.64	1.535
		Female	91	5.10	1.407
	PP	Male	114	4.81	1.687
		Female	91	4.82	1.630
	PsP	Male	114	4.77	1.790
		Female	91	5.30	2.209
	EP	Upper Primary	52	4.38	1.751
		Secondary	74	4.91	1.761
		Higher Secondary	79	4.37	1.711
	CP	Upper Primary	52	4.38	1.817
		Secondary	74	4.76	1.662

Educational Level		Higher Secondary	79	4.68	1.714
	HP	Upper Primary	52	4.77	1.293
		Secondary	74	4.91	1.554
		Higher Secondary	79	4.84	1.572
	PP	Upper Primary	52	4.67	1.630
		Secondary	74	4.88	1.655
		Higher Secondary	79	4.85	1.695
	PsP	Upper Primary	52	4.52	1.884
		Secondary	74	5.19	2.018
		Higher Secondary	79	5.15	2.026
Siblings	**EP**	No Sibling	90	4.14	1.706
		Having Siblings	115	4.90	1.719
	CP	No Sibling	90	4.61	1.759
		Having Siblings	115	4.65	1.696
	HP	No Sibling	90	4.81	1.280
		Having Siblings	115	4.87	1.646
	PP	No Sibling	90	4.82	1.815
		Having Siblings	115	4.81	1.533
	PsP	No Sibling	90	4.79	1.997
		Having Siblings	115	5.17	1.992

*Note: EP= Emotional Problem, **CP**= Conduct Problem, **HP**= Hyperactivity Problem, **PP**= Peer Problem, **PsP**= Pro-social Problem

Interpretations

Table 1 showed that the mean score of mental health problem including dimensions based on independent variables. Gender wise, except emotional and conduct problem female students showed higher levels of hyperactivity, peer, and pro-social problem than male students. When looking at educational levels, secondary level students exhibit higher level of emotional problem, conduct problem, hyperactivity, peer problem and pro-social problem compared to upper primary and higher secondary level students. Regarding sibling status, except peer problem students having siblings showed higher emotional problem, conduct, hyperactivity and pro-social problem than those without siblings.

*Overall male students showed higher mental health problems than female students. On the other hand, secondary level students showed higher levels of mental health problem than upper primary and higher secondary level students and having siblings' students showed higher levels of mental health problem than no sibling students.

Hypothesis Testing

Table 2

Independent sample t-test of mental health problems based on students' gender and siblings.

Variable	t- value	df	MD	Std. error difference	Sig. (2 tailed)	Remarks
Gender	0.086	203	0.051	0.590	0.931	*NS P> 0.05
Siblings	-2.092	203	-1.222	0.584	0.038	*S P< 0.05

***Note: MD**= Mean Difference, **NS**= Not Significant, **S**= Significant, **df**= Degree of Freedom

Interpretations

Table 2 displayed the calculated value of the independent samples t-test, which compared the average scores of gender and siblings in relation to overall mental health problems among students. Regarding gender, there was no statistically significant difference in mental health problems [t (203) = 0.086, p>0.05]. Thus, the null hypothesis was retained at a significance level of 0.05. Regarding siblings, there was a statistically significant relationship between mental health problems, as indicated by the results of the t-test (t (203) = -2.092, p<0.05). Thus, the null hypothesis was rejected at a significance level of 0.05. Hence, the null hypothesis was rejected at 0.05 level of significance. Therefore, it can be said that the found difference in the mean scores was due to random chance factor.

Table 3

One-way ANOVA of mental health problems based on students' educational levels.

Variable		Sum of Squares	df	Mean Square	F- value	Sig. (2 tailed)	Remarks
Educational Level	Between groups	110.822	2	55.411	3.234	0.041	*S P< 0.05
	Within groups	3461.354	202	17.135			
	Total	3572.176	204				

***Note: NS**= Not Significant, **S**= Significant, **df**= Degree of Freedom

Interpretations

Table 3 displayed the calculated value of the one-way ANOVA, which compared the average scores of educational levels across students in relation to their mental health problems. The study revealed a statistically significant [F (2, 202) = 3.234, p<0.05] relationship between mental health problems. Thus, the null hypothesis was rejected at a significance level of 0.05.

Therefore, it can be said that the found difference in the mean scores was due to random chance factor.

Major Findings

The major findings of the study indicate that the overall prevalence of mental health problems among students in Nadia District, West Bengal, was 23.86. While male students exhibited higher levels of mental health problems compared to female students, the difference was not statistically significant. However, secondary school students showed significantly higher levels of mental health problems compared to both upper primary and higher secondary students, with the difference being statistically significant. Additionally, students with siblings reported higher levels of mental health problems than those without siblings, and this difference was also statistically significant. These findings highlight the need for targeted interventions, particularly for secondary school students and those with siblings, to address the factors contributing to their mental health challenges.

DISCUSSION

The study's findings offer significant insights into the mental health issues faced by school-going adolescents in Nadia District, West Bengal. Firstly, the research shows that male students have higher levels of mental health problems compared to female students, although the difference is not statistically significant. These findings align with previous research that shows males have greater rates of externalising diseases, such as conduct disorder and ADHD, whereas females are more susceptible to internalising disorders, such as anxiety and depression (Leadbeater et al., 2013; Nolen-Hoeksema, 2012). The lack of statistical significance in our study could be due to a smaller sample size or the specific socio-cultural context in Nadia District, where traditional gender roles may influence how mental health issues are expressed (Nolen-Hoeksema, 2012; Zahn-Waxler et al., 2008).

Understanding these gender differences is essential for creating effective interventions. Although males may not show significantly higher overall levels of mental health problems, the types of issues they face are different from those of females. Tailoring mental health programs to address these specific needs can make them more effective. For example, programs aimed at reducing aggression and improving emotional regulation might be more helpful for males, while those focusing on anxiety and self-esteem could better support females (Young & Korszun, 2010; Reavley et al., 2010).

Secondly, the study found that secondary level students exhibit significantly higher levels of mental health problems compared to those in upper primary and higher secondary levels. This finding aligns with existing literature suggesting that the transition to secondary education is a particularly stressful time for adolescents, characterized by increased academic demands, social pressures, and developmental changes (Eccles & Roeser, 2011; Wang & Eccles, 2012). This increased stress can exacerbate existing mental health issues or lead to new ones (Patton et al., 2016; Viner et al., 2012).

The significance of this finding underscores the need for early intervention during secondary education. Schools should implement comprehensive mental health programs that include stress management, resilience training, and peer support systems to help students cope with this challenging period. Additionally, educators and parents need to be aware of the signs of mental health problems and collaborate to provide necessary support and resources (Roeser et al., 2000; Suldo et al., 2009).

Thirdly, students with siblings reported significantly higher levels of mental health problems compared to those without siblings. This may seem counterintuitive since siblings are often seen as a source of emotional support and companionship. However, sibling relationships can also be a source of stress, particularly due to rivalry, competition for parental attention, and differential treatment by parents (Buist et al., 2013; Feinberg et al., 2012). These factors can contribute to increased mental health problems among students with siblings.

This finding highlights the importance of family dynamics in adolescent mental health. Interventions aimed at improving sibling relationships and overall family functioning can be beneficial. For example, family therapy that addresses sibling rivalry and promotes positive interactions among family members can help reduce mental health problems (Feinberg et al., 2012; Stormshak et al., 2016). Parenting programs that teach parents how to manage sibling conflicts and provide equal support to all children can also mitigate the negative impact of sibling rivalry on mental health (Buist et al., 2013).

Overall, these findings emphasize the need for a multi-faceted approach to addressing adolescent mental health, considering the various factors that influence mental health outcomes. By understanding the specific challenges faced by different groups of students, more tailored and effective mental health strategies can be developed. For instance, secondary schools can introduce mental health education and support services specifically designed to address the increased stress associated with this educational level. Similarly, programs that foster healthy sibling relationships and support parents in managing sibling dynamics can alleviate some of the mental health problems associated with having siblings.

Educational Implications

The findings from this study shed light on the pressing need for mental health support in schools, especially for adolescents. The results show that mental health issues vary significantly based on gender, school level, and whether or not a student has siblings, all of which have important implications for how we approach education. For example, the higher levels of mental health problems observed in secondary school students point to the need for schools to offer dedicated mental health programs during this crucial phase of transition. Adolescence is already a challenging time with growing academic pressures and personal changes, and schools should step in by offering services that help students manage stress, build resilience, and provide peer support. Additionally, students with siblings were found to experience more mental health difficulties, which suggests that family dynamics play a big role in a child's well-being. Schools could work with families to offer guidance on improving sibling relationships and overall family functioning, ultimately reducing stress and mental health problems. The gender differences found in this study-males facing more outward problems like aggression and females dealing with more internal struggles such as anxiety-highlight the need for gender-specific mental health programs. Tailoring support to address the unique challenges that male and female students face will make the interventions more effective. Although the study didn't find a statistically significant difference between male and female students overall, the reality is that societal expectations and pressures affect how students experience mental health challenges, and we must recognize and address these differences. The study calls for mental health education to be integrated into the curriculum across all school levels, providing students with the tools they need to handle mental health struggles. By doing so, schools can help improve not just students' emotional well-being but also their academic performance, social skills, and overall quality of life. This research urges us to create a more supportive, understanding environment where mental health is prioritized, and every student can access the resources they need to thrive.

CONCLUSION

It is imperative to prioritise the resolution of mental health issues in adolescents since it directly impacts their present state of well-being and future achievements. This study seeks to emphasise the significance of timely treatments and the necessity for all-encompassing, culturally adapted mental health services in Nadia District and comparable areas. This research aims to gain significant insights into the factors that influence adolescent mental

health and inspire successful intervention techniques by examining gender, educational level, and sibling relationships.

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