

Mental Health Problems and Self-Esteem among the Schoolchildren of Secondary School in Dharan **Kamala Paudel¹ Bhuwan Kumari Dangol² & Roshana Shrestha³**

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ABSTRACT

Introduction: Mental health and its related problems are growing concerns over the country. It is challenge to determine the epidemiology of childhood mental disorders. Early detection and effective intervention is necessary for holistic development of the futures citizens. **Objectives:** To assess the mental health problems and self-esteem of schoolchildren studying in urban Schools of Dharan Sub-metropolitan City. **Materials and method:** Cross-sectional descriptive research design was followed. The study population included schoolchildren studying in grade 9 and 10 in schools of Dharan (n = 450). Simple random sampling technique was used to select the school and students. Mental health problems were assessed using self-administered Strength and Difficulties Questionnaire and self-esteem level was monitored using self-administered Rosenberg Self-esteem Scale. Data was analyzed by using descriptive and inferential statistics. **Results:** Majority (55.6%) of the students were male. Among the total students 12.9% had mental health problems. Gender difference was statistically significant as girls had higher (14.5%) mental health problem (p value = 0.027). Girls (15%) were statistically significant more likely to have emotional problems within domain of mental health problem than boys (p value = 0.003.) whereas boys had conduct problem. Self-esteem level was significantly negatively correlated with mental health problems (r = -0.256, p= 0.000). **Conclusion:** Mental health problem is high prevalent among school children. There was statistically significant negative correlation between mental health problems and self-esteem of the schoolchildren.

KEYWORDS

Mental health problems, Self-esteem, School, Schoolchildren.

INTRODUCTION

Mental disorders among children are described as “serious deviations from expected cognitive, social, and emotional development”. The most common disorders among adolescents include depression, anxiety disorders, attention deficit/hyperactivity disorder and substance use disorder (Burke, Martini, Çayır, Hartline-Grafton, & Meade, 2016). The evidence shows one in five adolescents experience significant symptoms of emotional distress and nearly one in ten are emotionally impaired (Perkins, Cortina, Smith-Darden, & Graham-Bermann, 2012). Data from a recent meta-analysis have estimated the worldwide prevalence of mental disorders in children and adolescents to be around 13% (Rocha, Graeff-Martins, Kieling, & Rohde, 2015).

Mental disorders are important public health issue in the United States because of their prevalence, early onset, and impact on the child, family, and community, with an estimated total annual cost of \$247 billion. A total of 13%–20% of children living in the United States experience a mental disorder (Avenevoli et al., 2013). A study was conducted in three urban schools in Bangalore of India in behavioral difficulties and mental health disorders among aged 11 to 16 years. This study showed that 10.36 % of the participants studied had abnormal which would suggest that they were likely to suffer from some degree of mental health issues (Reddy, Biswas, & Rao, 2011). A study was conducted to investigate the prevalence of mental health issues among school children aged 11-17 years from one of the private school in Biratnagar. Among all the participants in this study 18.6% had some level of mental health problems (Rimal & Pokharel, 2013).

Abraham Maslow described two different forms of "esteem": the need for respect from others in the form of recognition, success, and admiration, and the need for self-respect in the form of self-love, self-confidence, skill, or aptitude (Karthikeyan, 2017). Low self-esteem during adolescence predicts poorer mental and physical health, worse economic well-being, and higher levels of criminal activity in young adulthood (Erol & Orth, 2011)

METHOD

A Descriptive, Cross sectional study design was used. There were altogether forty two private and sixteen secondary level schools in Dharan Sub-Metropolitan City. The study was conducted in two government schools and two private schools. The name of the government schools were Shree Himali Secondary School and Shree Public High School similarly, name of the private school were Bishnu Memorial Higher Secondary School and Depot Secondary School. The sample populations were all school children studying in grade 9 and 10 in secondary schools of Dharan. Simple random sampling technique (lottery method) was used and then, enumerative sampling technique was applied to select the students from class 9 and 10 of each school. Sample size was 442. Content validity of the tool was established by consulting with guide and expertise of the different sectors. Internal consistency of the tool was calculated after pretesting among 10% of sample size. Cronbach's alpha value of SDQ (Strength and difficulty questioner) and RSES (Rosenberg self esteem scale) was 0.89 and 0.85 respectively. For Ethical

Consideration permission from Institutional Review Committee, BPKIHS was (Code no. IRC/0798/016) taken to conduct the study. First of all, permission was taken from the school. Then informed written consent was obtained from all participants who were above 16 years old and assent was also obtained from parents those students who were below 16 years old. Confidentiality was established throughout the study period.

Data was collected using self-administered tool from the students. Researcher herself distributed and collected the questionnaire from the respondents. Students were allotted one hour to complete the questionnaire. Data Management by statistical analysis was done through SPSS 16 version. Descriptive statistics was used to describe the various socio-demographic variables. Inferential statistics was used to illustrate the association between the outcome variable with independent variables. Spearman rho correlation was used to show the correlation between mental health problems and self-esteem.

RESULTS

Table 1: Socio-demographic Characteristics of the Respondents

(n=450)			
Characteristics	Categories	Frequency	Percent
Age group (years)	11-14	135	30.0
	15-17	304	67.6
	18-20	11	2.4
	Mean age in years \pm SD = 15.03 \pm 1.12		
Gender of the Student	Male	250	55.6
	Female	200	44.4
Ethnicity	Janajati	274	60.8
	Brahmin/Chhetri	110	24.8
	Dalit	32	7.1
	Madhesi	26	5.8
	Muslim	8	1.7
	Islam	6	1.3

Table 1 illustrates that more than half of the schoolchildren (67.6%) were in the age group of (15 -17) years with mean age 15.03. There was preponderance of male students (55.6%). Majority of the students were from Janjati (60.8%), followed by Brahmin.

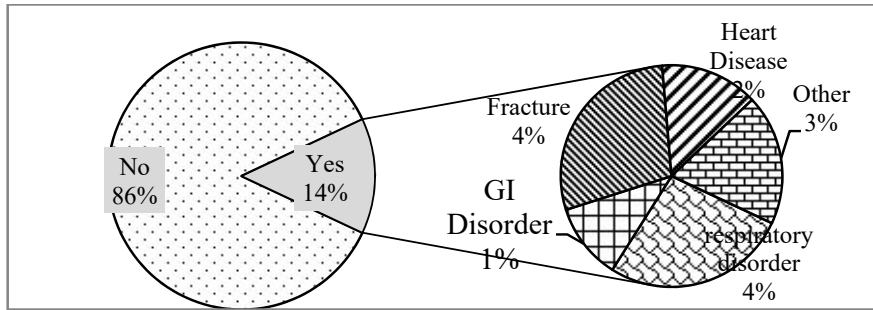


Figure 1: History of Chronic Physical Illness/Injury of the Respondents (n=450)

Figure 1: Only 14% of the respondents had different types of physical illness/injury. Among them, common problems were fracture and respiratory disorder i.e. 4%.

Table 2: Mental Health Problems of the Respondents as per SDQ Score.

Mental Health Problems (SDQ Score)	Male		Female		Total	
	No.	%	No.	%	No.	%
Normal	185	74.0	125	62.5	310	68.9
Borderline	36	14.4	46	23.0	82	18.2
Abnormal	29	11.6	29	14.5	58	12.9
Mean ±SD= 13.44±4.934						

Table 2 displayed that majority (68.9%) of the schoolchildren scored normal SDQ Score. Whereas, 18.2% and 12.9% of the school children had borderline and abnormal SDQ score. Among them, female students (14.5%) had more mental health problems. Mean, ±SD of the abnormal score was 13.44 ±4.934.

Table 3: Mental Health Problems of the Respondents

(n =450)

Mental Health Problems	Normal		Borderline		Abnormal		p value
	Male	Female	Male	Female	Male	Female	
Emotional Problems	213	146	12	24	25	30	0.003
	85.2%	73.0%	4.8%	12.0%	10.0%	15.0%	
Conduct Problems	157	123	48	45	45	32	0.646
	62.8%	61.5%	19.2%	22.5%	18.0%	16.0%	
Hyperactivity Problems	219	170	19	17	12	13	0.678
	87.6%	85.0%	7.6%	8.5%	4.8%	6.5%	
Peer Problems	141	105	81	71	28	24	0.709
	56.4%	52.5%	32.4%	35.5%	11.2%	12.0%	
Pro-social Scale	184	154	32	32	34	14	0.064
	73.6%	77.0%	12.8%	16.0%	7.5%	7.0%	

Table 3 depicts that emotional and hyperactivity problems were higher in female than male participants which was statistically significant ($p < 0.05$).

Table 4: Self-esteem Level of the Respondents.

(n=450)

Self-esteem Level	Frequency	Percentage
Low (0-14)	91	20.2
Normal (high 15-25)	352	78.2
Very high (26 – 30)	7	1.6
Mean Self-esteem \pmS.D. = 17.62 \pm3.565		

Total possible score=30, Cut off value =15-25

Table 4 shows that majority of the respondents (78.2%) had normal self-esteem. Mean score of the self-esteem level of the respondents was 17.62 \pm 3.565

Table 5: Association between Mental Health Problems and Selected Socio-Demographic Characteristics of the Respondents (Age, Gender, Chronic Illness, Ethnicity)

(n=450)

Characteristics	Categories	Mental Health Status			p Value
		Normal	Borderline	Abnormal	
Age of the Students	≤14 years	104 77.0%	14 10.4%	17 12.6%	0.066
	15-17years	198 65.3%	66 21.8%	39 12.9%	
	18-20	7 63.6%	2 18.2%	2 18.2%	
Gender of the Students	Male	185 74.4%	36 14.4%	29 11.6%	0.027*
	Female	125 62.5%	46 23.0%	29 14.5%	
Chronic Physical Illness/injury	No	276 71.3%	64 16.5%	47 12.1%	0.015*
	Yes	33 53.2%	18 29.0%	11 17.7%	
Ethnicity of the Students	Janjati	194 70.8%	46 16.8%	34 12.4%	0.847
	Brahmin	71 65.1%	22 20.2%	16 14.7%	
	Dalit	23 67.6%	6 17.6%	5 14.4%	
	Other	20 60.6%	8 24.2%	5 15.2%	

*p value significant at <0.05

Table 5 shows that there was statistically significant association of gender and chronic physical illness/injury with the mental health problems ($p < 0.05$).

Table 6: Association between Mental Health Problems and Selected Socio-demographic Characteristics of the Respondents (Types of school, Score in final exam, Income)
(n=450)

Characteristics	Categories	Mental Health Status	p Value
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		Normal	Borderline	Abnormal	
Type of School	Government	154 70.6%	37 17%	27 12.4%	0.84
	Private	156 67.2%	45 19.4%	31 13.4%	
	Distinction	37 75.5%	9 18.4%	3 6.1%	
Division scored in last year annual examination	First Division	128 70.7%	34 18.8%	19 10.5%	0.009*
	Second Division	118 67.8%	26 14.9%	30 17.2%	
	Third Division	27 58.7%	13 28.3%	6 13.0%	
	>2,25,000	4 66.6%	1 16.6%	1 16.6%	
Monthly Family Income	22,500-2,25,000	101 66.4%	28 18.4%	23 15.1%	0.617
	<22,500	204 69.9%	53 18.2%	35 12.0%	

*p value significant at <0.05

Table 6 depicts that there was statistically significant association between division scored in last year annual examination and mental health problems (p <0.05).

Table 7: Association of Self-esteem Level with Selected Socio-demographic Characteristics of Respondents

Characteristics	Categories	Level of Self-esteem	p Value
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		Low	High	Very High	
Age of the Students	≤14 years	26 19.3%	108 80.0%	1 0.7%	0.01*
	15-17years	58 19.1%	240 78.9%	6 2.0%	
	18-20	7 63.6%	4 36.4%	0 0.0%	
Gender of the Students	Male	44 17.6%	200 80.0%	6 2.4%	0.106
	Female	47 23.5%	152 76.0%	1 0.5%	
Ethnicity of the Students	Janjati	49 17.9%	220 80.3%	5 1.8%	0.114
	Brahmin	22 19.8%	88 79.3%	1 0.9%	
	Dalit	13 40.6%	19 59.4%	0 0.0%	
Chronic Physical Illness/injury	Other	7 21.2%	25 75.8%	1 3.0%	0.375
	No	75 19.3%	306 78.9%	7 1.8%	
	Yes	16 25.8%	46 74.2%	0 0.0%	

*p value significant at <0.05

Table 7 shows that there was statistically significant association between age and level of self-esteem of the students (p<0.05).

Table 8: Association of Self-esteem Level with Selected Socio-demographic Characteristics of Respondents

(n = 450)

Characteristics	Categories	Level of Self-esteem			p Value
		Low	High	Very High	

Type of school	Government	54 24.8%	160 73.4%	4 1.8%	0.050*
	Private	37 15.9%	192 82.8%	3 1.3%	
Division obtained in last year annual exam	Distinction	4 8.2%	44 89.8%	1 2%	0.010*
	First division	27 14.9%	151 83.4%	3 1.7%	
	Second division	47 27.0%	124 71.3%	3 1.7%	
	Third division	13 28.3%	33 71.7%	0 0.0%	

*p value significant at <0.05

Table 8 depicts that there was statistically significant relationship of type of school and division obtained in last year annual exam ($p < 0.05$).

Table 9: Correlation between Self-esteem Level and Mental Health Problems of the Respondents

(n = 450)

Mental Health Problems	Correlation (r) with Self-esteem of Schoolchildren	p value
Mental Health Problems	- 0.256	0.001
Emotional Problems	- 0.212	0.001
Conduct Problems	-0.047	0.324
Hyperactivity Problems	- 0.161	0.001
Peer Problems	- 0.205	0.001

Table 9 shows that mental health problem was statistically significant negative correlation with self-esteem ($r = - 0.256$, $p < 0.05$). Similarly, emotional problems, hyperactivity problems and peer problems also have statically significant negative correlation with self-esteem.

DISCUSSION

The present study showed that 12.9% of the participants had an abnormal SDQ score, which would suggest that they were likely to suffer from some degree of mental health issues. This finding is congruent with the study conducted in three urban schools of Bangalore, India which showed that 10.36%(Reddy et al., 2011). Contrast result has been found in the study done in Brazil showed 18% (Cury & Golfeto, 2003)(Arman, Keypour, Maracy, & Attari, 2012), in Iranian school children 20% (Arman et al., 2012), in Andhra Pradesh, India, among the schoolchildren, 22.43% (Bele, Bodhare, Valsangkar, & Saraf, 2013). These difference in the findings may be due to the variation in different culture of the different settings.

The mean score (13.44%) of mental health problems in this present study is comparable to the mean score (10.5%) of self-reported mental health problems among a pilot sample of adolescents from 5 developing countries: Serbia, India, Nigeria, Turkey, and Indonesia (Atilola, Balhara, Stevanovic, Avicenna, & Kandemir, 2013).

This study reveals that 11.5% of male and 14.5% of female participants had mental health problems but in contrast, a British study reveals 5.2% males and 5.1% females had mental health problem. This would indicate that the Nepalese children are more at risk of developing mental health problems than those in developed countries because of lack of awareness regarding mental health as well as inadequate health services. Gender variation in the prevalence of mental health problem in the context Nepalese children may be due to more emphasis is given in male child. It is noted in this present study that there was high score in two domains of mental health problems. Emotional problem was statistically significant high (15%) in girls whereas conduct problem was high (18%) in boys though it was not statistically significant. These findings are similar to the findings from a study done in Biratnagar, Nepal, (Rimal & Pokharel, 2013) where conduct problems was high in boys and it was not statistically significant whereas emotional problems was statistically significant high in girls ($p < 0.05$). Similar findings were found in the study done Dutch girls and boys. Girls had statistically significant high emotional problem whereas boys had statistically significant high conduct problem ($p < 0.05$) (Muris, Meesters, & van den Berg, 2003). In this study, the mean self-esteem score of schoolchildren was 17.62 with the standard deviation of ± 3.565 . This findings is similar with the study conducted in Kathmandu, mean = 18.7 (Bhatta, 2012) and the study conducted in India, mean \pm SD = 21.22 \pm 3.71 (Latha, Hegde, Bhat, Sharma, & Rai, 2006) is comparable with this study. In the contrary, current finding is lower than the finding of the study conducted in Malaysia mean \pm S.D = 27.65 \pm 3.48 (Sherina et al., 2008). These differences may be due to the difference in scoring system where, score range was 10-40 was used in the study and range from 10-50 was used in our study.

There were statistically significant difference in gender, history of chronic physical illness/injury, academic performance with the mental health problems at $p < 0.05$. These findings were consistent with a study conducted in a regional population of Australian adolescents (Dray et al., 2015). The findings this study demonstrated that there was statistically significant association between the age and self-esteem level of the schoolchildren. This finding is consistent with a study conducted in Malaysia (Sherina et al., 2008). In this current study, there was statistically significant negative correlation between mental health problem as well as its domain such as emotional problems, hyperactivity problems and peer problems with self-esteem level of schoolchildren it is supported with the study conducted in Hong Kong Chinese adolescents (Li, Chan, Chung, & Chui, 2010).

CONCLUSION

There is gender difference in prevalence; male has higher estimates of behavior or externalizing problem i.e. conduct disorder whereas, emotional problems are more common

amongst females. There is also statistically significant difference in the total rating of the mental health problems, female has higher mental health problems than male children. Male may have been more easily picked up for any of the externalizing disorders and thus get help however, girls suffering from internalized problems. Emotional problems have been under diagnosed at schools and get neglected when it comes to intervention. This suggests a self-rated assessment is the best for the complete picture could be obtained.

Mental health problems are significant negative correlation with self-esteem level of schoolchildren, which means that mental health problems interfere in adjustment, success and academic achievements of the schoolchildren.

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