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Emotional and Behavioral Problems among Adolescents in Pokhara City in Nepal

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ABSTRACT

Background: Adolescents are highly vulnerable to psychiatric disorders, which often have serious negative consequences for their academic achievement and potential social life. The aim of the study is to estimate the prevalence of emotional and behavioral problems among adolescents.

Methods: A descriptive cross-sectional study design was adopted to identify the emotional and behavioral problems among adolescents using cluster sampling technique. Assessment was done on students of grade 7-11 from two schools in city in Nepal using self-administered questionnaire, Youth Self-Report (YSR-11/18) 2001, developed by Achenbach System of Empirical Based Assessment and self developed socio-demographic questionnaires. Data was coded and analyzed using SPSS (20). Descriptive statistic and inferential statistic (Chi square, Fisher Exact and Odds ratio-OR) were used to analyze data.

Results: Altogether 330 adolescents were enrolled in study with mean age 14.3 yrs (range 11-18, male-152, female-178). Prevalence of EBPs was 30.0% (Male-38.8% female-22.5%). Internalizing problems (35.8%) were more common than externalizing (18.5%). Occurrence of EBPs was significantly associated with Sex (OR= 2.2 p=0.001), type of family (OR=1.8 p=0.035) and types of school (private: public OR=2.1 p=0.004).

Among narrow band scales most common problems were social (17.6%), thought (15.5%), somatic (13%), anxious depression (12.1%) and aggression(10.3%). There was significant association between sex with EBPs on narrow band scales, male adolescents were more likely to have thought-problem (OR=3.7 p=<0.001, rule-breaking problem (OR=8.5, p=0.02), aggressive behavior (OR=3.7 p=0.001) while female were more likely to have social problems (OR=2.6 p=0.002).

Conclusions: Emotional and behavioural are a serious mental health concern among adolescents. An intervention strategy (School-based mental health service) maybe required to understand their problems and provide appropriate counseling.

Keywords: Adolescents; emotional and behavioral problems; youth self report.

INTRODUCTION

Adolescence is defined by World Health Organization (WHO) as the age group of 10-19 years. In Nepal, adolescents constitute 21.31 percent of the population, comprising nearly one fifth of the total population.[1] During adolescents period they need special care as they undergo a complex process of emotional, physical and social changes, and are especially vulnerable to maladaptive patterns of thinking and behavior.[2-4] Failure to adjust with these changes leads to psychosocial and psychiatric problems.[4] Change in family structure, due to migration, urbanization; and at the same time adolescents' risk-taking behavior, high academic stress, living with adversities, make them vulnerable to psychosocial problems and psychiatric problems.[5,6] Childhood experience and development is critically important for sound mental health during adulthood. At the same time they are more malleable than adults and thus more amenable for screening and treatment.[7]

METHODS

The ethical approval for the conduction of the research study was obtained from Institutional Review Board, Tribhuvan University (TU), Institute of Medicine (IOM). Across-sectional descriptive study design was adopted to find out the emotional and behavioral problems among adolescents. This study was conducted in the two higher secondary schools (1 public and 1 private school) in a

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Pokhara city in Nepal, using cluster-sampling technique. The 18 wards of the Pokhara, sub-metropolitan city were divided as clusters, among them simple random sampling technique was applied to select two wards. Between those selected wards, again simple random sampling technique was applied to assign the ward for private and government school. List of all private higher secondary school, and list of all government higher secondary school, of the respective assigned ward were enumerated for the random selection of one school from each ward to include in the study.

EBPs was assessed on 310 students of grade 7-11, between 11 to 18 years of age using self-administered questionnaire, Nepali version of Youth Self-Report (YSR-11/18) 2001, and self developed socio-demographic questionnaires.

Pretesting was done in 10% of sample. Informed consent was obtained before data collection. The data was collected by the investigator through the distribution of self-administration questionnaires YSR/11-18, among the students in their respective classroom at the convenient time allocated by school authority. Around 35-40 minutes were required to complete the questionnaires by the students.

The obtained data were scored according to the Manual for the ASEBA School-Age Forms and Profiles (2001). High score of EBPs were categorized as Clinical cases while borderline and normal cases as Non-clinical cases. Based on the normality test, non-parametric test were applied, as the data were not normally distributed. Data was coded and analyzed using SPSS (20). Descriptive statistic and inferential statistic (Chi square, Fisher Exact and Odds ratio-OR) were used to analyze data.

The Youth Self-Report (YSR-11/18) is a screening tool for EBPs among adolescents between 11-18 years of age, developed by Achenbach System of Empirical Based Assessment (ASEBA).[8-9]Translations of ASEBA forms are available in more than 100 languages;[9] it is also available in Nepali language. The YSR/11-18 can be self-administered to adolescents with at least fifth grade of reading skills. It has good test-retest reliability and internal consistency.[10]

The YSR/11-18 consists of two sections: social competence/adaptive functioning, and behavior problem (behavior profile).In this study only behavioral problem section of YSR/11-18 was used, it comprises of 112 problem items that can be scored on a 3-point scale. These items provide scores for 8 Narrow-band scales or syndromes (Anxious/depressed, Withdrawn/depressed, Somatic complaints, Social problems, Thought problems, Attention problems, Rule-Breaking behavior, and Aggressive behavior), and 3Broad-band scales (Internalizing Behavior problems, Externalizing Behavior problems, and Total Behavior problems). Items from the Narrow-band scales such as Anxious/depressed, Withdrawn/depressed and Somatic complaints are the components of the Internalizing Behavior problems, while items from Rule-Breaking behavior and Aggressive behavior are components of the Externalizing behavior problems. The Total Behavior Problems includes items from all Narrow-band scales.[8-9]

RESULTS

A total of 330 adolescents attending were included in the study. The mean ages of the adolescents were 14.31 years and SD 1.636. The male and female adolescents were 46.1 percent and 53.8 percent respectively. Majority of the respondents (81.5%) were Hindu by religion. Janajati and Brahmin ethnicity both constitute more than 30 percent.

Table 1. Socio- demographic Characteristics of Adolescents. (n=330)

Socio-demographic Characteristics	Frequency	Percentage (%)
Age		
11-14 years	187	56.7
15-18 years	143	43.3
Mean ± S.D.	14.31 ± 1.636	
Sex		
Female	178	53.9
Male	152	46.1
Religion		
Hindu	269	81.6
Buddhist	46	13.9
Christian	15	4.5
Ethnicity		
Janajati	127	38.5
Brahmin	100	30.3
Dalit	57	17.3
Chettri	46	13.9
Type of family		
Nuclear	237	71.5
Joint	93	28.5
Type of school		
Private	198	60
Government	132	40

The pattern of EBPs among adolescents based on broad-band scale of YSR: internalizing and externalizing behavior problems were 35.8 percent and 18.5

percent respectively. The prevalence of emotional and behavioral problems among the adolescent were found to be 30.0 percent. Based on narrow band scale, the pattern of EBPs among adolescents among adolescents were, 17.6 percent have social problem, 15.5 percent have thought problem, and around 10 percent have somatic complaints, anxious/depressed, and aggressive behavior.

Table 2. Pattern of EBPs based on Broad Band Scale of Youth Self Report (YSR). (n = 330)

Emotional and behavioral problems	Normal case No. (%)	Borderline No. (%)	Clinical case No. (%)
Internalizing behavior problems	136 (41.2)	76 (23.0)	118 (35.8)
Externalizing behavior problems	231(70.0)	38 (11.5)	61 (18.5)
Total behavioral problems	167 (50.6)	64 (19.4)	99 (30.0)

Table 3. Pattern of EBPs based on Narrow Band Scale of Youth Self Report (YSR). (n = 330)

Emotional and behavioral problems	Normal case No. (%)	Borderline No. (%)	Clinical case No. (%)
Anxious depressed	225 (68.2)	65 (19.7)	40 (12.1)
Withdrawn depressed	260 (78.8)	42 (12.7)	28 (8.5)
Somatic Complaints	238 (72.1)	49 (14.8)	43 (13.0)
Social problems	220 (66.7)	52 (15.8)	58 (17.6)
Thought problem	249 (75.5)	30 (9.1)	51 (15.5)
Attention problem	289 (87.6)	27 (8.2)	14 (4.2)
Rule breaking behavior	307 (93.0)	15 (4.5)	8 (2.4)
Aggressive behavior	257 (77.9)	39 (11.8)	34 (10.3)

Among the different demographic variables there is significant association between sex, religion, type of family and types of school for the occurrence of total emotional and behavioral problems among adolescents. Male adolescents are 2.1 times more likely to have problem than female adolescents. Adolescents from nuclear family are 1.8 times more likely to have problem than from joint family. Adolescents having only one close friend are 1.7 times more likely than having two or more friends. Adolescents studying in private school are 2 times more likely than from government school. In the association between selected demographic variables and externalizing problem, there was a significant association between sex and types of school of the adolescents for the occurrence of externalizing problems. Male adolescents are 3.8 times more likely to have problem than female adolescents. Adolescents studying in private school are 3.7 times more likely to suffer from externalizing problem than adolescents studying from government school.

Table 4. Association between Demographic Variables and Total Emotional and Behavioral Problems (EBPs) among Adolescents. (n = 330)

Demographic Variables	Total EBPs		x^2 value	OR (95% CI)	P value
	Clinical case No. (%)	Non Clinical Case No.(%)			
Sex					
Male	59 (38.8)	93 (61.2)	10.429	2.189	0.001*
Female	40 (22.5)	138 (77.5)		(1.354-3.537)	
Age					
11 - 14	53 (28.3)	134 (71.7)	0.565	0.834	0.452
15 - 18	46 (32.2)	97 (67.8)		(.519-1.339)	
Religion					
Non Hindu	25 (41.0)	36 (59.0)	4.299	1.830	0.038*
Hindu	74 (27.5)	195 (72.5)		(1.029-3.256)	
Ethnicity					
Brahmin/ Chettri	43 (29.5)	103 (70.5)	0.037	0.954	0.847
Janajati/ Dalit	56 (30.4)	128 (69.6)		(.594-1.534)	
Type of Family					
Nuclear	79 (33.3)	158 (66.7)	4.450	1.825	0.035*
Joint	20 (21.5)	73 (78.5)		(1.039-3.206)	
Type of school					
Private	71 (35.9)	127 (64.1)	8.090	2.076	0.004*

Gov-ernment	28 (21.2)	104 (78.8)		(1.249-.452)	

CI: Confidence interval, OR: Odds ratio, Test statistics: Chi-square (x^2), *p- value significant at 0.05, Non Hindu: Buddhist and Christian, Non Clinical Case: Normal and Borderline case

Table 5. Association between Demographic Variables and Externalizing Problems among Adolescents. (n=330)

Demo-graphic Variables	Externalizing Problem		x^2 value	OR (95% CI)	P value
	Clinical case No. (%)	Non Clinical Case No. (%)			
Sex					
Male	44 (28.9)	108 (71.1)	20.472	3.848	0.000*
Female	17 (9.6)	161 (90.4)		(2.095-7.105)	
Age					
11 - 14	32 (17.1)	155 (82.9)	0.540	0.812	0.463
15 - 18	29 (20.3)	114 (79.7)		(.465-1.417)	
Religion					
Non Hindu	14 (23.0)	47 (77.0)	0.991	1.407	0.320
Hindu	47 (17.5)	221 (82.5)		(.717-2.762)	
Ethnicity					
Janajati/ Dalit	33 (17.9)	151 (82.1)	0.084	.921	0.773
Brahmin/ Chettri	28 (19.2)	118 (80.8)		(.527-1.609)	
Type of Family					
Nuclear	47 (19.8)	190 (80.2)	1.012	1.396	0.314
Joint	14 (15.1)	79 (84.9)		(.727-2.679)	
Type of school					
Private	50 (25.3)	148 (74.7)	15.046	3.716	0.000*
Govern-ment	11 (8.3)	121 (91.7)		(1.854-7.45)	

In the association between selected demographic variables and internalizing problem, variables there was a significant association between types of family, and number of close friends. Adolescents from nuclear family are 2.1 times more likely to have problem than from joint family. Adolescents having only one friend are 1.8 times more likely to have problem than having two or more friends.

Table 6. Association between Demographic Variables and Internalizing Problems among Adolescents. (n=330)

Demo-graphic Variables	Internalizing Problem		x^2 value	OR (95% CI)	P value
	Clinical case No. (%)	Non Clinical Case No. (%)			
Sex					
Male	62 (40.8)	90 (59.2)	3.106	1.501	0.078
Female	56 (31.5)	122 (68.5)		(.955-2.360)	
Age					
11 - 14	69 (36.9)	118 (63.1)	0.244	1.122	0.621
15 - 18	49 (34.3)	94 (65.7)		(.711-1.769)	
Religion					
Non Hindu	26 (42.6)	35 (57.4)	1.535	1.429	0.215
Hindu	92 (34.2)	177 (65.8)		(.811-2.518)	
Ethnicity					
Janajati/ Dalit	68 (37.0)	116 (63.0)	0.260	1.126	0.610
Brahmin/ Chettri	50 (34.2)	96 (65.8)		(.715-1.773)	
Type of Family					
Nuclear	96 (40.5)	141 (59.5)	8.256	2.197	0.004*
Joint	22 (23.7)	71 (76.3)		(1.275-3.786)	
Type of school					
Private	74 (37.4)	124 (62.6)	0.563	1.194	0.453
Govern-ment	44 (33.3)	88 (66.7)		(.752-1.895)	

DISCUSSION

The present study revealed 30% of the school-going adolescents are having emotional and behavioral problems. In the other study conducted within a country, 24.5% to 35 % of the adolescents had emotional and behavioral problems.[11,5]Thus a one-third of our adolescents, by even the most conservative estimate, are suffering silently from the emotional and behavioral problems without even being recognized. Because of

rapid industrialization and urbanization majority of young couple are employed and live in unitary setup, so unavoidably they get less time to look after their children. Under these circumstances, psychosocial problems, such as EBPs are on the rise.[6]

The emotional and behavioral problems were observed, high (38.8%) among male adolescents as compared to female (22.5%) adolescents. The male adolescents were 2.1 time more likely to have the problem than the female adolescents.

On analysis of emotional and behavioral problems based on broad band scale of YSR, it was found that internalizing problems (35.8%) was the most common and externalizing problem (18.5%) was almost half of it. The study also revealed the significant association between the sex and externalizing problem among adolescents, male adolescents were almost 4 times more likely to have externalizing problem compare to female adolescents.

The pattern of EBP among the adolescents, based on narrow band scale of YRS, it was found that most common problem was social problem (17.6%), followed by thought problem (15.5%), somatic complaint (13.0%), anxious/depressed (12.1%), aggressive behavior (10.3%), withdrawn/depressed (8.5%), about (4.2%) have attention problem and rule breaking behavior (2.4%) was the least.

In almost all syndrome of narrow band scale, male adolescents score higher than the female adolescents, except in social problem syndrome. The findings of this study showed, more male adolescents (13.8%) were anxious/depressed compared to females adolescents (10.7%); about (9.9%) male adolescents were withdrawn/depressed compared to females adolescents (7.3%).

Factors like religion, type of school and type of family were found to be significantly associated with emotional and behavioral problems among adolescents. School environments can affect the mental health of students through the academic and social stresses experienced by students. The use of corporal punishment in schools harms students physically, psychologically and academically.[12] In the study adolescents studying in private school are nearly four times more likely to have externalizing problem than the adolescents studying in public school.

Similarly adolescents from nuclear families are also twice more likely to have internalizing problem than those adolescents from joint families.

CONCLUSIONS

Emotional and behavioral problems are a serious mental health concern among adolescents As a sizeable population of adolescents needs support in coping with emotional and behavioral problems, an intervention strategy (School based mental health service) is required to understand their problems and provide appropriate counseling.

REFERENCES

1. Central Bureau of Statistics. Statistical year book Nepal. 13th ed. Kathmadu: Central Bureau of Statistics; 2011. [FullText]
2. Casey BJ, Duhoux S, Cohen MM. Adolescence: What do Transmission, Transition, and Translation have to do with it?Neuron. 2010 Sep 9; 67(5): 749-760 [PubMed]
3. Steinberg L. Cognitive and affective development in adolescence. Trends Cogn Sci. 2005;9(2):69-74.[PubMed]
4. Mishra A, Sharma AK. A clinico-social study of psychiatric morbidity in 12 to 18 years school going girls in urban Delhi. Indian J Community Med. 2001;26(2):71-5. [FullText]
5. Rimal HS, Pokharel A. Assessment of Mental Health Problems of School Children Aged 11-17 Years Using Self Report Strength and Difficulty Questionnaire (SDQ). Journal of Nepal Paediatric Society. 2013 Sep 1;33(3):172-6.[FullText][DOI]
6. Ahmad A, Khalique N, Khan Z, Amir A. Prevalence of psychosocial problems among school going male adolescents. Indian J Community Med. 2007;32(3):219. [Link]
7. Fryers T, Brugha T. Childhood Determinants of Adult Psychiatric Disorder. Clin Pract Epidemiol Ment Health. 2013:1–50.[PubMed]
8. Achenbach TM. Achenbach system of empirical based assessment (ASEBA), YSR/11-18 forms & profiles. Burlington, VT:University of Vermont, Research Center for Children, youth, & families. [FullText]
9. Achenbach TM. Multicultural Evidence-Based Assessment Using the Achenbach System Of Empirically Based Assessment (ASEBA) For Ages ½-90+. Psychologia: Avances de la Disciplina. 2015;9(2):13-23. [Link]
10. Chad E, Adam B, Jonathan IM, Bruce FC, John RW. The Youth Self Report: Applicability and Validity Across Younger and Older Youths. J Clin Child Adolesc Psychol. 2011:2, 338-346. [Link]

11. Ojha SP, Nepal MK, Regmi SK, Khalid A, Koirala NR, Gurung CK. An exploratory study of emotional and behavioral problems in physically disabled children and adolescents. J Inst Med. 2000;22(3&4):212–220. [FullText]

12. Bordin IA, Duarte CS, Peres CA, Nascimento R, Curto BM, Paula CS. Severe physical punishment: risk of mental health problems for poor urban children in Brazil. Bull World Health Organ. 2009;87:336-44.[FullText]