



MENTAL HEALTH OF MIDDLE ADOLESCENTS AND ASSOCIATED FACTORS IN A RURAL CONFLICT-AFFECTED AREA OF SRI LANKA

NHS Nadeeka*

Researcher, National Centre for Immunization Research and Surveillance, Sydney Children Hospital Network, Australia. *Corresponding Author

K Wijewardena

Senior Professor, University of Sri Jayawardenapura, Sri Lanka.

ABSTRACT

Mental health problems are common among adolescents. This descriptive study aimed to assess the mental health status and their associated factors among grade 10 students in Ampara health district, Sri Lanka. Strengths and Difficulties Questionnaire (SDQ) was used to assess the mental health status of the students. Data analysis was done using the SPSS 21 software. The prevalence of mental health problems was summarized as percentages. Associated factors of them were examined using binomial logistic regression. Out of the total, 11.9% had emotional and behavioural problems. Emotional problems were the most common problem (15.1%) which was followed by conduct problems (12.9%), peer problems (12.1%) and Hyperactive/inattention problems (11.7%). Not involved in religious activities regularly (OR 2.3 95% CI 1.3-4.3), stressful life events (OR 1.9 95% CI 1.1-3.4), mother's low education level (OR 1.9 95% CI 1.1-3.4), no close family member to discuss problems (OR 2.4, 95% CI 1.3-4.2), tobacco consumption by father (2.9 95% CI 1.2-6.6) and difficulties in academic activities (OR 5.9 95% CI 2.5- 13.6) were significantly associated with the mental health of them. **Conclusion:** Mental health problems are common and significantly associated with family-related factors.

KEY WORDS : Adolescents, Associated factors, Mental health, Strengths and Difficulties Questionnaire

INTRODUCTION

Adolescence is the period between childhood and adulthood. Children between the ages of 10 to 19 years are identified as adolescents by World Health Organization (WHO). During this very sensitive period, a child becomes an adult with intellectual, physical, hormonal and social changes. Therefore, it is a period of increased vulnerability to problems related to the regulation of affect and behaviour, becoming adolescents vulnerable to emotional and behavioural problems. As WHO estimates, 10-20% of children and adolescents around the world experience mental disorders and half of them begin by the age of 14 years. If these are untreated, they will affect their development, education, and social life. A National wide (except north and east) survey had revealed nearly one fifth of the Sri Lankan students had mental health problems-. Students in the northern and eastern provinces had reported more mental health problems during time of Civil war.

Mental health of adolescents is associated with many biological, psychological and social factors (. Identify the high-risk individuals, detecting and treating their problems early are important to prevent the adverse effects like poor school attendance and performances, suicides and criminal behaviours .

Ampara health district is in the eastern province of the country and its economy is mainly based on the agriculture. It was badly affected by the long lasted civil war of the country . Therefore, this study had been conducted to examine the mental health status of the school going adolescents in a rural conflict affected area.

Subjects and Methods:

This cross-sectional analytical study had been conducted from May 2018 to March 2019 to describe the mental health status of the grade 10 students in Ampara health district. With 16.1% prevalence mental health problems, 95% Confidence interval and 3% precision, design effect of 2.1 and 10% non-response rate, the required number of students was taken as 1338.

Multistage, systematic, cluster sampling according to the proportion of the student population of each educational zone was carried out to recruit required number of the students. A class was taken as a cluster and all the students of the selected cluster had been included in the study. After explaining the process of data

collection, all the students who had parental consent to participate in the study, were enrolled in the study. A Self-administered questionnaire was used as the study instrument. The first part of the questionnaire consisted of the Strengths Difficulties Questionnaire (SDQ) to assess the mental health of the students and the second part was formulated to gather information on socio-demographic factors and associated factors of mental health problems. SDQ contains 25 items in 5 domains which are emotional symptoms, conduct problems, hyperactivity-inattention, peer problems and prosocial behaviour . It had been translated and validated into the Sinhala language and commonly used in the Sri Lankan context - .

Data analysis

Data was analysed using the Statistical Package for the Social Sciences (SPSS) 21 version. The sociodemographic data were presented as percentages. The associated factors were examined using the bivariate analysis (multiple logistic regression) and presented with the p values.

Results

Among 1340 study participants, the response rate was 97%. All the students were speaking the Sinhala language and 99.4 % of them were Buddhists. The girl's proportion was 54.6% and boy's proportion was 45.4%. Out of 1340 students, 11.9% reported an abnormal score of total SDQ. When the abnormal subscales were considered, the emotional problem was the most common (15.2%). Among the behavioural problems, conduct problems were the most common (12.9%). It was followed by the peer problems (12.1%). Out of the total population, 11.7% had reported hyperactive inattention problems. Nearly 14% of the students had reported abnormal prosocial behaviour subscale. There was no gender difference in total or subscale scores in the student population.

TABLE 1 DISTRIBUTION OF THE PARTICIPANTS HAVING ABNORMAL SCORES ACCORDING TO TOTAL AND SUBSCALES SCORE AND GENDER (N=1340)

SDQ	Boys		Girls		Total	
	No	%	No	%	No	%
Total score	73	5.4	87	6.5	160	11.9
Emotional problem	80	5.9	124	9.3	204	15.2

***Corresponding Author NHS Nadeeka**

Senior Professor, University of Sri Jayawardenapura, Sri Lanka.

Conduct problem	85	6.3	87	6.5	172	12.8
Hyperactivity /inattention	71	5.3	86	6.4	157	11.7
Peer problem	90	6.7	72	5.4	162	12.1
Prosocial behaviour	104	7.8	85	6.3	189	14.1

Associated factors of the mental health problems

Six independent factors were found to have a significant relationship with the mental health status of the students. Not involving in religious activities regularly at home , presence of stressful life events during the past six months (adjusted OR 1.9, 95% CI 1.1 – 3.4), mother's low education level (adjusted OR 1.9, 95% CI 1.2 – 3.4), not having a close family member to discuss the problems (adjusted OR 2.4, 95% CI 1.4-4.2), frequent consumption of Tobacco by father (adjusted OR 2.9, 95% CI 1.27-6.6) and difficulties in school work (adjusted OR 5.9,95% CI 2.5-13.6) were the significant associated factors of emotional and behavioural problems.

TABLE 2 ASSOCIATED FACTORS OF THE EMOTIONAL AND BEHAVIOURAL PROBLEMS (TOTAL SCORE) AMONG ADOLESCENTS.

Variable	Sig	OR	95% CI	
			Lower	upper
Not involved in religious activities regularly at home	0.005	2.4	1.3	4.3
Stressful life events during past six months	0.016	1.9	1.1	3.4
Low education level of the mother	0.016	1.9	1.2	3.4
Not having a family member to discuss the problems	0.002	2.4	1.4	4.2
Use of Tobacco by father	0.010	2.9	1.2	6.6
Having difficulties in school work	0.000	5.9	2.5	13.6

Discussion

Mental health problems are common among school going adolescent and is a public health problem in Sri Lanka (4,6,13,14)

In the present study, not being involved in religious activities regularly at home showed the nearly threefold risk of having a total abnormal SDQ score and comparable with the previous findings in the same socio economic context in Sri Lanka (14). However, he temporal association of the religious activities and mental health status of the students couldn't be explored in this study.

A mother's low education level increased the risk of emotional and behavioural problems nearly two-fold and was clearly explained in the previous studies (5). In the international literature also, parents educational level, especially mothers' educational level had been identified very important in child development and their coping abilities in later life (15).

Not having a close family member to discuss the problems was associated with more mental health problems among the students of the current study and its well identified as a risk factor of poor mental health in many times (14,16,17)

Temporal association of mental health problems with the difficulties in the school work couldn't be explained in the descriptive studies (13,14).

Frequent consumption of Tobacco by my father had increased the risk of mental health problems among the students. However the alcohol was not significantly associated with the mental health problems even though it is well highlighted in the local and international studies (13,17). This may be due to social stigma associated with alcohol in local setting.

As the results of this study and international literature, not the socio-

economic status of the family but the family relationships and behaviour of the parents were more significant factors of the mental health of the students (16).

As the response rate is 97%, it gives a good description of the mental health status of the students of the Ampara health district. To see the temporal association of the identified factors such as the difficulties in school work and not involving religious activities, longitudinal researches on mental health are encouraged.

CONCLUSIONS

Emotional and behavioural problems are common among school going adolescents and grade 10 students and it emphasizes the need for routine mental health screening in the school health programme.

REFERENCES:

1. Steinberg L. Cognitive and affective development in adolescence. 2005;9(2).
2. Arain M, Haque M, Johal L, Mathur P, Nel W, Rais A, et al. Maturation of the adolescent brain. Vol. 9, Neuropsychiatric Disease and Treatment. Dove Medical Press Ltd; 2013. p.449–61.
3. WHO. Promoting Mental Health. 2004.
4. Perera H. Mental health of adolescent school children in Sri Lanka – a national survey. 2004;81:78–81.
5. Lukumar.P. Mental health of adolescent school children (14-15 years) in Jaffna district and some of their psychosocial correlates. Post Graduate Institute of Medicine; 2006.
6. Jayawickrema W. Emotional and behavioural problems of school going adolescents aged 13-15 yrs in MOH area Maha Oya.Prevalence,correlates and association with school performances. Postgraduate institute of medicine ,Universitu of Colombo; 2012.
7. Mataraarachchi1 D, Samaranyake D. Perception of parenting styles and itsassociation with self-esteem and life satis-faction of adolescents in Grades 9 and 10 inPanadura Education Division, Sri Lanka. J ofTHE Coll COMMUNITY PHYSICIANSOF SRI LANKA. 2017;23(3).
8. Fernando G., Miller K., Berger D. Growing pains: the impact of disaster-related and daily stressors on the psychological and psychosocial functioning of youth in Sri Lanka. Child Dev. 2010;81(4):1192–210.
9. WHO. Adolescent mental health [Internet]. 2021. Available from: <https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health>
10. District-Secretariat. District Development Plan 2018-2022 [Internet]. Ampara District Secretariat ; 2018 . 9,10,116 . Available from : https://www.lk.undp.org/content/srilanka/en/home/library/democratic_governance/The-Five-Year-Ampara-District-Development-Plan.html
11. Altaee A, Sharif A, Zaragoza G, Ismail AF. Evaluation of FO-RO and PRO-RO designs for power generation and seawater desalination using impaired water feeds. Desalination [Internet]. 2015;368:27–35. Available from: <http://dx.doi.org/10.1016/j.desal.2014.06.022>
12. Goodman R. The Strengths and Difficulties Questionnaire : A Research Note. 1997;581–6.
13. Lukumar.P. Mental health of adolescent school children (14-15 years) in Jaffna district and some of their psychosocial correlates. MD (Community Medicine) - 2006. Postgraduate institute of medicine,University of Colombo; 2006.
14. Senarathne PA. Emotional, psychological problems and their correlates among school going adolescents (12-14 yrs) in Polonnaruwa District. Post graduate of medicine ,University of Colombo; 2014.
15. Ogundele MO. Behavioural and emotional disorders in childhood; a brief overview for paediatricians. World J Clin Paediatr [Internet]. 2018;7(1):9–26. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5803568/>
16. Pathak R, Sharma RC, Parvan UC, Gupta BP, Ojha RK, Goel NK. Behavioural and emotional problems in school going adolescents. Australas Med J. 2011;4(1):15–21.
17. Smeekens S, Riksen-Walraven JM, Van Bakel HJA. Multiple determinants of externalizing behavior in 5-year-olds: A longitudinal model. J Abnorm Child Psychol [Internet]. 2007;35(3):347–61. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1915644/>