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Research Article

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Parental Engagement and Adolescents Mental Health Wellbeing: Cross-Sectional Study from Sri Lanka

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Background: Parental engagement is one of the key factors that can influence adolescents mental health status, although these associations are not fully measured in the local context. This study will estimate the prevalence and association of parental engagement with adolescents and mental health status in Sri Lanka. **Method:** This current study is a secondary analysis of nationally representative data for Sri Lanka. The data was collected from 3262 school attending students in grades 8-12 in the Sri Lankan Global School-based health survey (GSHS) 2016. A two-stage cluster sample design was used to select the representation of samples. The binary variables i.e. loneliness, anxiety and suicidal ideation, were modelled using multivariable logistic regression models with predictors representing gender, age, grade, parental supervision and parental understanding. **Result:** It is estimated that the prevalence of parental supervision and parental understanding is 85.3% and 78.5%, respectively. The analysis of both good parental supervision and parenting understanding has reduced the loneliness, anxiety and suicidal thoughts among the adolescents population, compared to those who don't have good parental engagement. **Conclusion:** It is seen that there is a higher prevalence of parental and children engagement in Sri Lanka compared to other demographical regions. However, the prevalence of mental health remains higher as compared to the global average. The results suggest that national policies and programs should be integrated for both parents and children. Parents need more knowledge on good parenting, while adolescents need support on coping with their mental health.

Keywords: Parental Understanding, Parental Supervision, Mental Health, Adolescents, Sri Lanka

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Introduction

Parental engagement towards adolescents significantly impacts their health, developmental outcome, and risk behaviors [1]. The age between 13 -19 years is a critical transition period to adulthood, in which adolescents continuously changes physically, mentally and psychologically [2]. Around 10-20% of these young people, especially those who live in lower-middle-income countries, suffer from different types of mental health problems [3]. Increased mental health issues and attempts to self-harm among adolescents and young people are challenged worldwide. In this age group, parental engagement in their lives can help them to learn about minimizing stress, as well as maintaining good physical and mental health. In a study among Canadian adolescents, it has been seen that good parental involvement is more strongly associated with a reduction in suicidal thoughts and attempts [4].

Additionally many previous studies have confirmed that strong bonding between parents and children results in a significant decrease in developing the risk of mental health problems [5,6], substance abuse [7] and violence [8]. There is a limitation in studies of different cultural contexts on the association between parental engagement and adolescent mental health [9], which has also been explored in many published studies conducted in western countries indicating individuality and independence. However, in the Sri Lankan context, collectivism should consider the parent-child relationship [10]. The Sri Lankan health authorities acknowledge the severe nature of mental health, including increased psychosocial problems, suicide rates and substance abuse [11]. Previous studies have estimated that 61% of the reported suicidal attempts in Sri Lanka are below 25 years. It is observed that there are less effective programs nationally to support adolescents mental and psychological needs.

Parental engagement and mental health issues are complex areas that can be measured using different concepts. In the case of parental engagement, two concepts have been used by previous researchers, i.e. Parental understanding and Parental supervision [12]. To evaluate mental health issues, three domains have been used, i.e. loneliness, anxiety and suicidal ideation [13,14]. The World Health Organization (WHO), along with Central disease prevention (CDC), collaboratively designed the Global school-based health survey (GSHS), which provides an excellent understanding of relationship analysis between parental engagement and mental health. Given the background on the importance of adolescent mental wellbeing, the present study aims to identify the correlation between parental engagement on adolescents mental health to have a better understanding of the country context, which will support the development of children mental health programs.

Method

Study source: This study is an analysis of secondary data from the Global-School based health survey, which is available in the WHO (World Health Organization) microdata library online [15]. The students self-report their responses to each question in the questionnaire. The WHO jointly develops the questionnaire, CDC (Centers for Disease Control and Prevention) and other united national agencies to measure the adolescents behavioral lifestyle, the environment they are exposed to, protective and negative factors that impact their life. In previous studies also validate the GSHS as acceptable validly [16].

Sampling technique and sample size: The students study population was selected by using two-stage clustering methods. In the first stage, schools were selected based on the probability proportional to the number of enrolments in classes 8-13. Total 40 schools were selected Appendix 01. In the second stage, the classroom was chosen randomly from the selected school. All students in the selected school were eligible to participate. The probability selection of samples and the nonresponses were validated with the appropriate weighting factors to increase the likelihood of the study data [15]. The study was ethically approved by the University of Colombo. The questionnaire was translated into Sinhala and Tamil local languages. All participants gave consent. Appropriate steps were taken to ensure confidentiality and reduce the contamination of the responses. There were 89% responses from the students, and all selected schools participated in the study.

Study Variable: The Response variables were parental understanding and supervision. One question was used to identify the variable, i.e. Parental Understanding (Q4) and the other question (Q5) identified parental supervision.

Details of the predictor variables on mental health are: one question was used to determine the loneliness (Q6) and the other to identify anxiety (Q7), whereas two questions (Q8 and Q9) were used to derive the suicidal ideation. Details of all the variables used, and data recording strategies are shown in Table 01. The standard Sri Lankan GSHS survey is included in Appendix 02.

Data Analysis: Data were imported from the WHO database into R-Software (Version 3.6.0) for analysis. In the descriptive analysis, all the variables were summarized using total frequency and percentage.

We constructed an individual logistic regression model on all response variables on mental health. During our analysis, we consider both single and multivariable model analysis. For a single variable, we anticipate that the individual predictor variable corresponds to gender, age, grade and parental engagement. For the multivariate logistic regression model, we used all predictor variables and developed a final model with statistically significant ($p<0.05$) predictors. For the model selection, we have considered Akaike Information Content (AIC) and the likelihood ratio test. We generated the odds ratio (OR) and respective 95% confidential interval from the final multiple logistic regression model.

Result

Table 01: The variables used in the study and coding strategies used for the analysis.

Variable	(Question No.) Survey Question	Coding
Demographical		
Gender	(Q1) What is your sex?	0= Female 1= Male
Age	(Q2) How old are you?	0= 12 years or younger 1= 13 and 15years old 2= 16 years or older
Grade	(Q3) In what grade you are?	0= Grade 8 and 9 1= Grade 10 and 11 2= Grade 12 and 13
Parental Engagement		
Parental understanding	(Q4) During the past 30 days, how often did your parents or guardian understand your problems and worries?	0 = Never and Rarely 1 = Sometimes, Most of the time and Always
Parental supervision	(Q5) During the past 30 days, how often did your parents or guardian know what you were doing with your free time?	0 = Never and Rarely 1 = Sometimes, Most of the time and Always
Mental Health		
Loneliness	(Q6) During the past 12 months, how often have you felt lonely	0 = Never and Rarely 1 = Sometimes, Most of the time and Always
Anxiety	(Q7) During the past 12 months, how often have you been so worried about something that you could not sleep at night	0 = Never and Rarely 1 = Sometimes, Most of the time and Always
Suicidal Ideation a	(Q8) During the past 12 months, did you ever seriously consider attempting suicide	0 = No One = Yes
	(Q9) During the past 12 months, did you make a plan how you would attempt suicide	0 = No 1 = Yes
a Suicidal ideation is a combination of two questions Q8 & Q9, final coded as 0 or 1, where 0= No in both questions and 1= yes in both question		

Table 02: Represent the summary data of different variables (frequency, Percentage) measured on the GSHS 2016 data.

Variable		Frequency (n)	Percentage (%)
Demographical			
Gender	Male	1437	44.30
	Female	1805	55.70
Age	12 years or younger	66	2.00
	13 and 15years old	2196	67.30
	Grade 12 and 13	999	30.70
Grade	Grade 8 and 9	1491	45.90
	Grade 10 and 11	1395	42.90

	Grade 11 and 12	364	11.20
Parental Engagement			
Parental understanding	Yes	2547	78.50
	No	698	21.50
Parental supervision	Yes	2757	85.30
	No	476	14.70
Mental Health			
Loneliness	Yes	1002	30.80
	No	2248	69.10
Anxiety	Yes	650	20.20
	No	2575	79.80
Suicidal Ideation	Yes	119	3.70
	No	3103	96.30

A total of 3263 adolescents in class 8-12 participated in the Survey. Table 02 presents the summary statistics of demographical, parental engagement and mental health variables. At the end of the survey collection, we received higher female (55.7%, n=1805) responses than males (44.3%, n=1437). It is estimated that 78.5% of the participants got an excellent understanding parents and 85.3% of them had good parental supervision. Approximately 40.3% of the participants experienced some form of mental health problem in the last 12 months: loneliness, anxiety and suicidal ideation.

Table 3. Estimation of odds ratio (OR) on the unadjusted (single variable) and adjusted (multivariable) logistic regression models of response mental health variable.

Variables		Unadjusted		Adjusted	
		CI (95%)	P-value	CI (95%)	P-value
Loneliness					
Gender	Female	1		1	
	Male	0.87 (0.74-1.01)	0.061	0.83 (0.71-0.98)	0.024
Age	<13 years old	1		1	
	13-15 years old	1.17 (0.69-2.17)	0.551	1.22 (0.68-2.33)	0.517
	16-17 years old	1.94 (1.12-3.57)	0.024	1.42 (0.76-2.79)	0.288
Grade	Grade 8-9	1		1	
	Grade 10-11	1.25 (1.06-1.47)	0.007	1.23 (0.92-1.37)	0.237
	Grade 12-13	2.70 (2.13-3.42)	<0.001	2.37 (1.70-3.29)	<0.001
Parental Supervision	No	1		1	
	Yes	0.65 (0.53-0.79)	<0.001	0.82 (0.65-1.03)	0.088
Parental Understanding	No	1		1	
	Yes	0.58 (0.48-0.69)	<0.001	0.60 (0.49-0.73)	<0.001
Anxiety					
Gender	Female	1		-	-
	Male	1.11 (0.93-1.32)	0.236		
Age	<13 years old	1		1	
	13-15 years old	0.68 (0.39-1.24)	0.188	0.65 (0.37-1.19)	0.089
	16-17 years old	1.03 (0.59-1.91)	0.909	0.98 (0.56-1.80)	0.142
Grade	Grade 8-9	1		-	-
	Grade 10-11	1.21 (1.00-1.46)	0.048		
	Grade 12-13	1.75 (1.34-2.28)	<0.001		
Parental Supervision	No	1		1	
	Yes	0.55 (0.44-0.69)	<0.001	0.62 (0.48-0.79)	0.001
Parental Understanding	No	1		1	
	Yes	0.66 (0.55-0.81)	<0.001	0.79 (0.64-0.99)	0.043
Suicidal Ideation					
Gender	Female	1		-	-
	Male	0.91 (0.62-1.31)	0.604		
Age*	<13-15 years old	1		-	-
	16-17 years old	0.98 (0.03-0.05)	0.921		
Grade	Grade 8-9	1		-	-
	Grade 10-11	1.14 (0.77-1.69)	0.521		

	Grade 12-13	1.25 (0.67-2.20)	0.459		
Parental Supervision	No	1		1	
	Yes	0.24 (0.16-0.35)	<0.001	0.35 (0.22-0.54)	<0.001
Parental Understanding	No	1		1	
	Yes	0.29 (0.20-0.43)	<0.001	0.44 (0.29-0.68)	0.001

*There is no data for age group <13 years with suicidal ideation, so we merged age categories less than 13 years and 13-15 years into one group.

OR: Odds Ratio 95% CI: 95% Confidence Interval

Parental Engagement: Table 3 represents the logistic regression models of loneliness, anxiety and suicidal ideation. The parental supervision (OR 0.82; 95% CI 0.65, 1.03; P=0.088) and parental understanding (OR 0.60; 95% CI 0.49, 0.73; P<0.001) reduces the risk of loneliness among adolescents. Also, anxiety is less among the adolescents who had good parental supervision (OR 0.62; 95% CI 0.48, 0.79; P=0.001) and parental understanding (OR 0.79; 95% CI 0.64, 0.99; P=0.043). Suicidal ideation is lower by 0.35 and 0.44 times in parental supervision and understanding, respectively.

Discussion

The present study was conducted to examine the association of parental engagement on adolescents mental health among school attending students between grades 8-13. The prevalence of parental engagements was estimated as Parental supervision (85.3%) and Parent understanding (85%), which is higher compared to other regional studies [17]. While the prevalence of mental health among adolescents was estimated as loneliness (30.8%), anxiety (20.2%) and suicidal ideation (3.7%), these rates are higher than the global average [3]. We observed that parental understanding and parental supervision had reduced the risks of loneliness, anxiety and suicidal ideation in adolescents. It has been observed that mental health problems are more experienced by females than males, which is consistent with other published reports that females seek more help than males [18]. However, many other factors contribute negatively to mental health in females, such as social-economic disadvantage, violence, inequality and taking care of their siblings [19]. Loneliness is a destress and painful experience that is characterized by dissatisfaction with social relationships [20]. We have found that loneliness experienced by adolescents can be reduced by good parental engagement, which is similar to other studies stating that parental warmth [21], degree of the relationship and parenting style act as a protecting factor against loneliness [22].

We noted that good parental engagement had reduced anxiety among adolescents. Anxiety is a severe functional impairment and distress which results in problems associated with society, family and schooling. It is believed that 60% of children with an anxiety disorder are familial [23]. And two-fold higher if one of their parents have an anxiety disorder [24].

The study suggests that environmental and genetic factors play an essential role in the familial transmission of anxiety [25]. Three different parenting styles can be considered for a better understanding of the psychology of parental attitudes towards their children and anxiety: permissive, authoritarian and authoritative styles. *Permissive* is characterized by low demands, low control autonomy granting, high acceptance and not punitive. *Authoritarian* parents provide increased demand, high control, low acceptance and exert punitive measures. *Authoritative* parents provide well support, value autonomy, warmth and avoid restrictions or punitive measures, but exert high control and demands. Early research on parental engagement suggests that authoritative parenting was positively correlated with child school engagements, assertiveness, education success. In contrast, permissive and authoritarian parenting is negatively associated with adolescent performance and wellbeing [26,27]. A study published on parental involvement and childhood anxiety stated that; Parenting styles, parental control, parental acceptance & rejection, parental behaviors, parent-child relationship, the cultural context of parenting are some of the factors associated with childhood anxiety [28].

Suicide rates are a higher and common problem in the South Asian region [29]. Our study indicates that parental supervision and better understanding have reduced suicidal thoughts among adolescents. A study from four thousand households in Sri Lanka has shown that household environment has a significant association with the risk of suicide more than the community influences [30].

Adolescents were more likely to attempt suicide when they have conflict, negative arguments, expressing anger, verbalized hostility by parents or close members [31]. But substance abuse like alcohol doubles the risk of suicidal ideation. The suicide epidemic of the country remains a serious problem, but its peak dropped down after the 1990s due to policy amendments by the presidential task force on suicide prevention in 1997 [32]. But still, there are not well-established programs to support the mental health needs, especially the adolescents population.

Mental health and adolescents are complex areas. Much research is needed, such as how the economic, food security and other environmental factors influence both parents and adolescents and how it impacts mental health. Although our study finds an overview of the association of parental engagement and adolescents, it is believed that pertinent findings can be quickly oriented on social policy and programs. To enhance more support for adolescents, community and school-based welfare centres and programs should help students to cope up with their mental health and understand their physical as well as emotional wellbeing.

Programs should be introduced to support the parents to understand better adolescent age groups and how to provide adequate care to their children, establishing more study in-depth and multiple associations on parental-adolescent bonding, mental health and providing effective interventions to resolve this issue at a national level.

Limitation: The present study consists of some limitations. First, this survey was conducted five years back; it may not reflect the current status of mental health, especially during and after the post-COVID-19 pandemic. Secondly, it does not include all the adolescents population in Sri Lanka, the UNESCO (United Nations Educational, Scientific and Cultural Organization) had stated that one in three children are out of school in lower and middle-income countries [33], school dropouts, disable school children's and school absentees are not included.

Thirdly, the study variables used in this study are limited for analysis. The outcomes due to many other major influencing factors such as economic of family, food insecurity, influence from friends, substance abuses are not being considered in this study.

Conclusion

Using the countrywide school-based survey data, we observed 72.6% of the adolescents in Sri Lanka have good parental engagement, and 40.3% of the adolescents suffer from mental health problems. We observed that parental engagement and parental supervision had reduced the odds of experiencing loneliness, anxiety or suicidal ideation among adolescents in Sri Lanka. The results suggest that more welfare activities should be introduced for parents on better understanding and parenting of their children and creating more social services to cope with children's mental health management. These activities should be widely available in all parts of the country.

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Author Contribution

Gajarishiyan Rasalingam (Principal Author): Conceptualization, literature review, methodology, formal analysis, investigation and writing.

Arrosan Rajalingam: Data administration work, literature Review and writing

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