The Association between Social Connectedness and Mental Health among Adolescent in Kelantan

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Abstract
Mental health issues become notable and alarming in Malaysia in which the number of people suffering from these illnesses rapidly increase. Despite this, epidemiologic research has established that social connectedness has potential indicator that can helps to prevent from the mental health problems. However, a comprehensive understanding of the relationship between social connectedness and mental health is currently lacking. The current study aimed to examine the association between social connectedness and mental health among adolescents in Kelantan. Data was collected from 177 (female=129, male=51) participants using a convenience sampling method. The result shows that there is a weak negative significant relationship between social connectedness and mental health with a value ($r = -.35$, $p < 0.001$). The results also shows that there is a significant difference between gender and mental health ($t= -3.33$, $df= 126.71$, $p < .005$). Male adolescent has a mean value ($M = 19.25$, $SD = 11.98$), lower than female adolescent ($M = 26.70$, $SD = 16.53$). The findings underline the importance of social connectedness and mental health that can contribute to the body of knowledge in the field of psychology.
Keywords: Mental Health, Social Connectedness, Adolescent

Introduction
Adolescence is one of the most important stages in human life. The adolescent development phase is not only a critical time for physical, cognitive, and social development, but it also signifies the sudden increase in the prevalence of mental health problems (Charmaraman et al. 2020). In this phase of development, adolescents wanted to be find their freedom and independent to choose their own way of life. They prefer not to depend so much on their parents (Mathibela & Skhosana, 2020). However, the freedom and sensation-seeking feelings of adolescents sometimes lead them to immature, unreasonable and inaccurate judgments (Suhairi et al., 2020). In addition, changes that cannot be managed well is more likely has a high tendency of adolescent to face mental health disorders that can affect the well-being of

life . Accordingly, good mental health during adolescents developmental period needs to be paid attention to ensure a smoother journey to adult life (Nebhinani & Jain, 2019).

Most of adolescent worldwide facing with a poor mental health includes trauma, abuse and depression (Gunnell et al. 2018). Suicidal attempts also became notable and alarming problems which relates with the poor mental health in Malaysia (Kadir et al. 2018). In a broader views, World Health Organization report show that one in seven adolescents aged 10 to 19 worldwide experience mental health problems. However, most of them are not identified and treated (WHO, 2021). Depression is found to be one of the most common aspects of mental health among adolescents. The prevalence of depression-related problems among adolesscent is increasing (Pataley & Gage, 2019). Data from the 2022 National Health & Morbidity Survey (NHMS) found that, mental health problems such as the prevalence of depression among adolescents showed an increase to 26.9 percent in 2022 compared to 2017 and 2012 which recorded values of 18.3 percent and 17.7 percent respectively.

A study from the United States shows that school and family connectedness during adolescence protects them from various health risks in the future such as risky sexual behavior, acts of violence and victimization, substance abuse, emotional stress and suicidal tendencies (Steiner et al. 2019). In addition, a study conducted on adolescents in Australia reported that adolescents who are connected or in contact with peers have a lower likelihood of experiencing mental health problems such as social anxiety in adulthood (Rapee et al. 2020). Based on Mohd Suhairi et al. (2020), all problems or conflicts that occur during the adolescent phase of development are very important because it will influence adolescent's future especially when they stepping into adulthood. Studies have found that adolescents who do not have good social connections or support are associated with depression, anxiety, and lack of sleep (Calmeiro & Matos, 2016). Thus, more efforts should be focused on detecting and preventing mental health problems from occurring at an early adolescent development (Fonseca et al. 2021).

In social perspectives, adolescents social connectedness is a key component to build adolescent positive development and it is associated with various positive health outcomes (Too et al. 2022). Past study found that adolescent connectedness was associated with a variety of positive outcomes (Too et al. 2022). Social connectedness are the basis of health and adolescent's well-being. Wide perspectives of adolescent connectedness relates with which relates with family, peers, and society relationship. These connectedness having a critical impact on adolescent development (Robert et al. 2021). Other studies also show that connectedness with school is associated with positive school adjustment, good academic achievement, and helps to improve psychosocial and general health (Bersamin et al. 2019). The positive adolescent connectedness has been identified as a factor that can contribute to positive development in adulthood and affect life satisfaction (Too et al. 2022).

According to Savci and Aysan (2019), the relationship with peers among adolescents is a critical factor that affects the development of connectedness. Orben et al. (2020) also stated that peers who have close relationships are seen to be able to protect adolescents from mental health problems and strengthen adolescent resilience. Basically, social connectedness consists of several different domains such as peers, family, school and community and it is the main social determinant of mental health and well-being (Winstone et al. 2021). Therefore, the objective of this study is to examine the differences in the level of mental health of adolescents based on gender and to identify the relationship between mental health and social connectedness of adolescents.

2.0   Materials and Methods

2.1   Participants

The participants were 177 adolescents (n = 126 female, n=51 male) of whom were selected from Kelantan state, Malaysia. The participant is between 18 and 19 years of age was selected using convenient sampling. Data were gathered from the survey involved self-administered questionnaires in a google form format and were distributed online through whatsApp and social media to obtain quantitative data.

2.2.   Measures

2.2.1. Hemmingway Measure of Adolescent Connectedness (HMAC)

The Hemmingway Measure of Adolescent Connectedness (HMAC) were used to measure adolescent connectedness to family, school and neighbor. The measure has been translated and validated from English into Bahasa Melayu. The Hemingway Adolescent Connectedness Scale (HMAC) conducted is a scale that has been modified by Nor Azzatunnisak (2021). This scale has 7 sub-factors containing 41 items include connectedness to neighbors, connectedness to friends, connectedness to parents, connectedness to peers, connectedness to siblings, connectedness to school and connectedness to teachers. The composite connectedness 3 dimensions namely family connectedness, friend connectedness and school connectedness. This scale uses a 5-point Likert scale where 1= not true at all, 2= not true, 3= not sure, 4= true and 5= very true. HMAC is a scale that has been slightly modified to adapt to local conditions. Based on a pilot study of the psychometric content of HMAC conducted by Nor Azzatunnisak (2021), the data shows that the reliability value produced is high, ranging from 0.78 to 0.95 for the 7 sub-constructs used. Based on the data, it can be seen that the value of the alpha coefficient for neighbors' connectedness is 0.95, friend connectedness; 0.92, parental connectedness; 0.89, sibling connectedness; 0.82, school connectedness; 0.83, peers; 0.78 and teacher connectedness is 0.78. These results show that this scale can be used in Malaysia.

2.2.2 Depression, Anxiety and Stress Test (DASS-21)

The DASS scale introduced by Peter Lovibond (1995) to measure negative emotional states involving depression, anxiety and stress experienced by individuals. The original version of this instrument contained 42 items but was shortened to 12 items (Nadhirah & Shahlan, 2022). DASS measures mental health through 3 dimensions namely depression, anxiety and stress. DASS 21 scale, the depression dimension involves 7 items (3, 5, 10, 13, 16, 17, and 21), anxiety can be seen in items 2, 4, 7, 9, 15, and 19 while stress is represented by the remaining 7 items that are items 1, 6, 8, 11, 12, 14 and 18. The scale used in this scale is in the form of a 3-point Likert scale that starts with a value of 0 to 3. This value represents the following statement; 0= does not describe my condition at all, 1= describes my condition a little or rarely, 2= describes my condition a lot or often, and 3= very much or very often describes my condition. Ramli et al. (2007), think that the DASS test is suitable to be administered in any situation whether in the clinical or non-clinical field. DASS-21 was translated into Malay using the back-to- back method. The coefficient value for the validity and reliability of the alpha coefficient of this instrument is high which is 0.79, 0.74 and .084 for depression, anxiety and stress.

2.2.3. Socio-Demographics.

We requested demographic details from the participants consisting of gender, age, religion and race.

3.0   Results

In this study, the questionnaire was distributed through social media such as WhatsApp and Facebook groups to gain the data. Then, the Statistical Package for the Social Sciences (SPSS) version 28.0 software was used to analyze descriptive analysis and correlational inference analysis. The analysis conducted to gain the demographic profiles and test the relationship between social connectedness and mental health among adolescents in Kelantan version 28.0.

3.1.   Descriptive informations

A descriptive analysis test was conducted to examine the percentage, mean and standard deviation. Result in table 3.1.1 shows 126 female (71.2%) while 51 (28.8%) were male respondents.

Table 3.1.1 Data distribution of respondents according to gender

Gender	Frequency	Percentage (%)	Mean
Female	126	71.2	
Male	51	28.8	1.71
Total	177	100.0	

Table 3.1.2 shows the distribution of data based on age, 18 and 19. Based on the table, result show that 66 (37.7 percent%) age 18 and 111 (of 62.7%) 19.

Table 3.1.2 Distribution of age

Age	Frequency	Percentage (%)	Mean
18	66	37.3	18.63
19	111	62.7	

Table 3.1.3 below shows race distribution of respondent. The Malays show the highest number of respondents which is 157 (88.7%). While Chinese are 13 (7.3%), followed by the Indians with 6 (3.4%) and others race 1(0.6%).

Table 3.1.3 Data distribution by Race

Race	Frequency	Percentage (%)	Mean
Malay	157	88.7	
Chinese	13	7.3	
Indian	6	3.4	1.16
Others	1	0.6	
Total	177	100.0	

The table below shows the religion distribution of respondents. Based on Table 3.1.4, there are 157 (88.7%), Buddhist 9 (5.1%), followed by Christian 4 (2.3%), Hindu 2 (1.1%) and other religions are 5 (2.8%).

Table 3.1.4 Distribution of respondents according to religion

Race	Frequency	Percentage (%)	Mean
Islam	157	88.7	
Buddhist	9	5.1	
Christian	4	2.3	1.24
Hindu	2	1.1	
Others	5	2.8	
Total	177	100.0	

3.2 Inferential Statistics

3.2.1 Relationship between social connectedness and mental health among adolescents in Kelantan. The result of the hypothesis testing shows that there is a negative relationship between social connectedness and adolescent mental health using Pearson correlation test. Based on Table 3.2.1, The result shows that there is a weak negative significant relationship between social connectedness and mental health with a value (r = -.35, p < 0.001). This shows that there is a relationship between social connectedness and adolescent mental health. This analysis rejected the null hypothesis.

Table 3.2.1 The Correlation of Social Connectedness and Mental Health

		Keterkaitan Sosial	Kesihatan Mental
Connectedness	Correlation Pearson	1	-.35**
	Signifikan (2 tailed)		<.001
Mental Health	Korelasi Pearson	-.35**	1
	Signifikan (2 tailed)	<.001	

Significant**, p<0.01

3.2.2   Gender difference on mental health between male and female adolescent
The results of the hypothesis tested gender differences in Table 3.2.2 shows that there is a significant difference between the level of mental health according to gender (t= -3.33, df= 126.71, p < .005). Male adolescent has a mean value (M = 19.25, SD = 11.98), lower than female adolescent (M = 26.70, SD = 16.53). The mean difference value of 7.45 shows that male adolescent is more likely to face mental health problems than female adolescent. This analysis explains that the level of mental health of male and female adolescent are difference.

Table 3.2.2 Independent sample t-test of respondent's mental health level based on gender

Gender	N	Mean	Standard deviation	t	df	Sig.
Male	51	19.25	11.98	-3.33	126.71	0.001
Female	126	26. 70	16.53			

*p< 0.005

4.0   Discussion
The present study examines the relationship between social connectedness and mental health. Thus, the current study also investigates mental health level based on gender difference. These results suggest a there is a correlation between social connectedness and adolescent mental health. An interpretation of the findings reveals a connection between is negative significant and weak. In this study, social connectedness consists of two sub-constructs, namely family connectedness and connectedness friends. While, mental health sub-factor consists of depression, anxiety and stress. The findings indicate that there is a link between social connectedness and level of mental health of adolescent in Kelantan which was supported by the previous studies carried out by Eugene (2021). The data present here

suggest that there is a relationship between adolescent depression and social connectedness but the relationship is in between weak to moderate.

This study supported by the previous study conducted by Jose et al. (2012) stated that general connectedness among adolescents such as connectedness with peers, family, school and neighbors is associated with psychological well-being over time. Van Droogen Broeck et al. (2018) found that adolescents, female adolescent with low social connections experience mental health problems more often than men and individuals who receive high social support. This situation shows that social connectedness has an influence on the mental health of adolescents. However, family connectedness and friend connectedness in this study showed no significant relationship. The results are not in line with the previous study that stated, adolescents who have a strong relationship with their parent report having a low level of stress and suicidal behavior (Foster et al. 2017).

A study from Eugene (2021) also found that adolescents' connectedness with parents, school and neighbors were likely to report lower levels of depressive symptoms. Eugene added, adolescents who have connections with parents and school also tend to report low levels of anxiety. In addition, a study by Gunn et al. (2018) suggests that connectedness between adolescents and their parents is an important indicator to reduce the symptoms of depression and anxiety in adolescents. A study by Rudolph et al. (2019) found that family support can prevent depression in at-risk adolescents. Oldfield et al. (2016) also agreed that, close relationship between parents and adolescents shows less behavioral and emotional problems and increased prosocial behavior. However, family connectedness and friend connectedness in this study showed no significant relationship. This result is contrary to a previous study that states, adolescents who have a strong relationship with their parent report having a low level of stress and suicidal behavior (Foster et al. 2017).

The results of this study can be linked to a study by Yoon et al. (2022) who found that in the adolescent period of development, adolescents usually face high levels of mental health problems and negative mental well-being. However, high levels of mental health problems are mostly reported by female adolescent compared to male adolescents. A study by Van Droogenbroeck et al. (2018) shows that there is a difference for psychological stress, anxiety and depression in adolescents where female adolescent report higher scores than male adolescent. Research by Kapungu et al. (2017) also stated that adolescents, especially female, are at higher risk of depression than male. This statement is in line with the findings by Dyer and Wade (2012) which shows that depression is common among female, significant differences between the sexes can be clearly seen especially during adolescence where the depression rate of female adolescent is almost twice the depression rate of male adolescent.

A study conducted in Norway in 2019 found that 33 percent of female adolescent and 14 percent of male adolescent aged 18-19 years had symptoms of mental stress (Johansen et al. 2021). The previous studies found that male is likely to have difficulty admitting their mental health problems and tend to hide their mental health problems. They tend to show anti-social personality and involves with substance abuse (Patel et al. 2007). While women are seen more often to report deep problems or disorders such as anxiety and depression (Van Droogenbroeck et al. 2018). This situation can occur due to several factors which can come from personal and social environment. This study has a limitation in terms of generalizing the result to the larger population. Future studies suggested to focus on other factors that can contribute which focusing on self or personal perspectives to help decreasing the mental health problem among adolescents.

5.0   Conclusion and recommendation

The findings suggest the important of social connectedness to prevent mental health problems among adolescent specifically in Kelantan, Malaysia. This is important to investigate the contribution of the social connectedness at the early stage of adolescent development to increase the chances to build positive youth development. It would be prolific to pursue research about the dimensions of the social connectedness in order to find the most significant component that can helps in inclining the mental health problems and plan for the suitable intervention for adolescent to reduce number of adolescents having mental health problems.

6.0   References

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