

## Spiritual Well-Being and Mental Health among Malaysian Adolescents

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**Background:** Adolescents are vulnerable to various mental health problems. The existing body of knowledge on the role of spirituality on adolescents' mental health status is limited and disjointed. The main aim of this study was to examine impact of spirituality on adolescents' mental health problems, after controlling for possible sociodemographic factors. **Method:** A total of 1190 Malaysian adolescents selected through a multistage proportional stratified random technique from the Federal Territory of Kuala Lumpur and Selangor state filled out questionnaires including the Spiritual Well-Being Scale, the General Health Questionnaire-28 (GHQ-28), and sociodemographic characteristics. A two step hierarchical multivariate logistic regression using SPSS software for Windows (SPSS Inc., Chicago, Ill., USA) was employed to test hypothesis. **Results:** Using the recommended cut-off point of 6 or more for the total GHQ-28, the prevalence rate of possible mental health problems was calculated 54.6% (CI 95%: 51.8 to 57.4 ). The findings from hierarchical multivariate logistic regression showed existential well-being (OR =0.42,  $p \leq .001$ , 95% CI: 0.32–0.54) and religious well-being (OR =0.63,  $p \leq .01$ , 95% CI: 0.47–0.85) were statistically associated with 58% and 37% lower odds of mental health problem, respectively, over and above sex, living arrangements of adolescents, parental education and household income. **Conclusion:** The present study found noticeable rates of mental health problems among Malaysian adolescents and pointed out the importance of spirituality as a resilience factor might help children to cope with physiologic, physical and psychological changes through adolescence, successfully.

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### Introduction

The word adolescence is derived from the Latin verb 'adolescere' that refers to grow into maturity [1]. Adolescence is characterized by critical physical and psychological changes [2]. It is a critical stage in the life cycle [3] that has also been viewed as a challenge and a delight. It "is a delight because there is great pleasure to be gained for adults in the idealism and enthusiasm for life apparent in this stage of a young person's development. It is a challenge, however, because there are undoubtedly many difficulties and obstacles to be overcome if adults and teenagers are to get on well with each other"[4].

The high prevalence of mental health problems in adolescents has been noted by several studies [1, 5]. It is noted that 10% to 25% of adolescents experience severe mental distress during adolescence [6].

While mental health problems can affect anyone at any point in life due to several factors such as genetics or family history of a disorder, chemical imbalances in the brain, or psychosocial and environmental stressors, it is extremely common in the adolescent period and can lead to substance use, school dropout, antisocial behaviour, and

consequently decreasing quality of life in adulthood [7].

Recent longitudinal and cross-sectional studies show evidence that children and adolescents with mental health problems are at risk of disorder later in the life course [8], developing negative outcomes later in life [9], experiencing social stigma of mental illness [10], developing patterns of antisocial and violent behavior [11], lower educational achievement, decreased quality of life [12], unemployment or underemployment, lower social class in adulthood [13-15], abuse [16], disability [17], and increased suicide rates as the third leading cause of death among adolescents [12, 18, 19].

According to the Population and Housing Census 2000, the adolescent age group (10-19 years of age) constitutes about one-fifth of the total population of 23.3 million in Malaysia [20]. Results of previous studies show that rates of mental health problems among Malaysian adolescents are quite high. For example, the finding from a survey in Malaysia the prevalence rates for emotional problems and aggressiveness were reported 49% and 41%, respectively [21].

However, impact of religiosity and spirituality on the mental health of aging populations has been well investigated and usually a positive effect has been documented [22, 23], it has not well researched among adolescents and little available works also emerged disjointed and non-significant evidence for such associations. For example, results of a review study showed only 25% of the studies reviewed had a positive association between religiosity /spirituality and mental health [24]. In addition, only existential well-being not religious well being was found to be as a significant predictor of adolescents and youth mental health status [12, 25, 26].

A second shortcoming is that most of the research in the field of spirituality and adolescents' mental health has been conducted in the Western world, such as Christianity and Judaism, with more attention to Hinduism and Buddhism samples and other religions such as Islam has been ignored in research. The purposes of this study were:

1- To describe mental health status and spiritual well-being (existential and religious well-being) among Malaysian adolescents.

2- To examine protective effects of spirituality (existential and religious well-being) on the mental health, after controlling for sociodemographic factors.

### Materials and methods

Data for this study was obtained from a cross-sectional school survey entitled "Mental and Spiritual well-being among adolescents" conducted from 2009 to 2010. The survey employed a self group-administered questionnaire which was distributed to 1200 16-year old Malay Muslim students who were selected using a multistage proportional stratified random sampling procedure from the Federal Territory of Kuala Lumpur and Selangor state (representing one-fourth of the Malaysian population). The survey was carried out at two stages. Initially, a simple random sampling technique was employed to select schools from different districts. Finally, the survey questionnaires were group-administered to all fourth year secondary school students in the selected schools, resulting in a sample of 1200 respondents. All students were informed that their participation is entirely voluntary and their identity shall be entirely confidential. Of the 1200 questionnaires distributed 1190 were collected back. Since 10 questionnaires distributed weren't collected back, response rate was calculated 99%.

### Ethical approval

Ethical approval was obtained from the Ministry of Malaysian Education (No: KP (BPPDP) 603/5/JLD2 (178) - 25/02/2010).

### Data analysis

The prevalence of mental health problem was computed for the total sample as well as by sociodemographic factors. A series of Chi squares were used to determine if demographic differences were statistically significant. To examine spiritual well being as predictor of mental health, we conducted a hierarchical logistic regression. In the first block of predictors, we entered demographic variables (sex, parental education, household income, and birth order); in a second block we entered spiritual well being. All analyses were conducted using SPSS software for Windows (SPSS Inc., Chicago, Ill., USA). Missing observations were treated by the "pairwise" deletion method.

### Measurements

#### Mental health status

Mental health status was assessed using General Health Questionnaire-28 (GHQ-28) , which has previously been validated against ICD-10 psychiatric diagnoses among Malay culture [27] . This questionnaire contains four subscales, measuring somatic complaints, anxiety and insomnia, social dysfunction, and severe depression. The often-recommended GHQ scoring method (0-0-1-1) was used to compute the total score and subscales score. Lower scores indicate higher well-being and functioning, while higher scores indicate psychological distress. According to previous study in Malaysia, for this study score 6 or over was considered as poor mental health[28].

#### Spirituality

Spiritual well being was measured using the 12-item spiritual well-being scale (SWBS) [29, 30] as one of the most commonly used measures of spirituality. This spiritual scale has already been validated in Malaysian context [31]. This scale comprised of two dimensions namely religious well being and existential well being. Maselko and associates [32] citing Ellison[33] state that religious well-being subscale measures individual's relationship with God' or a higher power whereas existential well-being subscale measures person's perceptions of meaning and purpose in life. In this study, the word "God" was replaced by "Allah".

The overall score on the SWBS is obtained by summing all 12 items. Subscale scores are generated by summing scores of the 6 items on each subscale. The Religious Well-being subscale measures individual's relationship with God or a higher power.

The Existential Well-being subscale measures perceptions of life purpose and satisfaction. Each subscale has a scoring range of 6 to 24 with a higher score indicating higher religious and existential wellbeing. Religious and existential well being was classified into two categories (low: below mean and high: equal or greater than mean) according to their mean values.

### Demographic characteristics

Sociodemographic variables included sex, parental education, living arrangement of adolescents, and household income. Sex was coded as 0 for boys and 1 for girls. Parental education as a proxy for socioeconomic status [34] was measured using the highest level of education attained by the adolescent's parents. Students were asked to identify the highest level of education completed by both their parents (never attended school, primary school, secondary school (PMR), secondary school (SPM), University/ College). Parental education was then classified as low (never attended school and primary school) middle (secondary school including PMR and SPM) and high (University/ College). Household income was measured by asking students to report father's and mother's monthly income. According to average Malaysian household income [35], respondents were then classified into two categories including below RM 3500 and equal or above RM3500 to reflect low and high-income households, respectively.

### Results

Of the 1190 adolescents examined in this study, there are a relatively equal percentage of males (55%) and females (45%). In the present study, however, majority of the respondents (85%) were living with both their parents, fifteen percent were living in a single parent household or living without any parent. Table 1 presents descriptive statistic of sociodemographic factors and specific variables in the study. About 52% of the respondents reported their household income lower than average Malaysian household income.

Two of the 1190 respondents did not answer questions in the SWB Scale. Among the other 1188 respondents, the mean score reported for total spiritual well-being was 43.0 (SD =3.66, possible range 12-48). The mean religious well-being and existential well-being scores were calculated 22.7(SD=1.88) and 20.3(SD=2.62), respectively. The statistical results are summarized in Table 1. In present study alpha coefficients were calculated for the Spiritual Well-Being Scale, .74; Religious Well-Being Scale, .71; and Existential Well-Being Scale, .70. Furthermore, the two-factor structure of this

scale was supported using principal components factor analysis.

Mental health was measured by the GHQ-28. The mean values (standard deviation) and reliability results for the total GHQ-28 and its four subscales are shown in Table 1. The mean value reported for total GHQ-28 was 6.4 (SD=3.61). Cronbach's alpha was .82 for the whole test, and it ranged from .67 to .82 among the scales, with somatic symptoms and social dysfunction subscales showing lower value. In addition, results of factor analysis for the GHQ-28 showed that previously reported factor structure was fairly supported.

In accordance with the previous studies [27, 36, 37] using the recommended cut-off point of 6 or more for the total GHQ-28, the prevalence rate of possible mental health problem was calculated 54.6% (CI 95%: 51.8 to 57.4 ).

Sociodemographic characteristics of the respondents by mental health status are displayed in Table 2. The crude analysis revealed that mental health problem was significantly associated with sex ( $\chi^2=21.58$ ,  $p\leq.001$ ), living type ( $\chi^2=10.85$ ,  $p\leq.001$ ), parental education ( $\chi^2=9.30$ ,  $p\leq.01$ ), and household income ( $\chi^2=7.59$ ,  $p\leq.01$ ), where higher prevalence of mental health problems were related to female adolescents, lower parental education, and low household income. However, living with both parents was significantly associated to lower prevalence of mental health problems. Lastly, similar test was conducted to examine relationship between religious and existential well being with mental health problems.

The results revealed significant relationship between religious well being and mental health problems ( $\chi^2=14.94$ ,  $p\leq.001$ ) as well as existential well being and mental health problems ( $\chi^2=61.30$ ,  $p\leq.001$ ). As it can be seen from Table 2, the prevalence rates of mental health problems among respondents who reporting high levels of religious and existential well being were statistically lower than adolescents with low levels of religious and existential well being (50.9% vs. 63.1%) and (44.0% vs. 66.7%), respectively.

### Results of hierarchical multivariate logistic regression

In the last step, a 2-step hierarchical multivariate logistic regression was conducted to test protective effects of religious and existential well on the mental health problems with adjusting for sociodemographic variables (See Table 3). Results of first step indicated the variation in the prevalence of adolescents' mental health problems is significantly influenced by sex (OR =1.93,  $p\leq.001$ , 95% CI: 1.48–2.51), household income (OR =0.73,  $p\leq.05$ , 95% CI:

0.54–0.98), and living arrangements of the respondents (OR =1.90,  $p \leq .01$ , 95% CI: 1.23–2.94). In contrast, the main effect of adolescents' parental education was not significantly associated with mental health problems of adolescents at multivariate analysis.

Findings from second step revealed adolescents reporting high levels of religious and existential well-being had substantially lower risks of mental health problems, after controlling for sociodemographic factors. Compared to those with low levels of

existential well-being, being in the high levels of existential well-being was associated with a 58% reduction in the odds of mental health problem (OR =0.42,  $p \leq .001$ , 95% CI: 0.32–0.54). In addition, individuals in the high levels of religious well-being had a 37% lower odds of mental health problems compared to individuals reporting low level of religious well-being (OR =0.63,  $p \leq .01$ , 95% CI: 0.47–0.85).

**Table 1.** Descriptive statistic of sociodemographic factors and specific variables in the study

Variable	n	%	Mean	SD	Cronbach's alpha
Sex					
Girls	656	55.1			
Boys	534	44.9			
Parental education	90	7.6			
Low education	518	44			
Middle education	570	48.4			
High education					
Living arrangements					
Living with both parents	1011	85			
Living with others	179	15			
Household income					
Below *RM 3500	528	52.4			
RM 3500 +	479	47.6			
Mental health status					
Somatic symptoms	1190		0.94	1.32	0.67
Anxiety and insomnia	1190		1.11	1.51	0.78
Social dysfunction	1190		3.85	1.93	0.67
Severe depression	1190		0.46	1.1	0.82
Total GHQ-28	1190		6.4	3.61	0.82
Spiritual well-being					
Religious well-being	1188		22.7	1.88	0.71
Existential well-being	1188		20.3	2.62	0.70
Total spiritual well-being	1188		43	3.66	0.74

\* Note: 1USD is equivalent to 3.1 RM (Ringgit Malaysia) at time of the data collection

**Table 2.** Frequency and distribution of mental health problems by spirituality and sociodemographic factors

Variable	Categories	n	%	CI 95%
Sex	Girls	398	60.7	56.9-64.3
	Boys	252	47.2	43.0-51.4
Parental education	Low education	33	63.3	27.4-47.0
	Middle education	219	57.7	38.1-46.6
	High education	284	49.8	45.7-53.9
Living type	Parents	532	52.6	49.5-55.7
	Others	118	65.9	58.7-72.5
Household income	below *RM 3500	307	58.1	53.9-62.3
	RM 3500 +	237	49.5	45.0-53.9
Religious well being	Low	224	63.1	58.0-68.0
	High	424	50.9	47.5-54.3
Existential well being	Low	367	66.7	62.7-70.5
	High	281	44.0	40.2-47.9

Table 3. Summary of hierarchical multivariate logistic regressions on mental health disorder: effect of Spiritual Well-Being controlling for sociodemographic variables

Variable	Categories	Reference categories	OR	95.0% CI for OR	
Sex	Girls	Boys	1.93***	1.48	2.51
Living arrangement	Other	Living with both parents	1.90**	1.23	2.94
Household income	RM 3500	Below RM 3500	0.73*	0.54	0.98
Parental education	Middle	Low	0.85	0.50	1.44
	High		0.83	0.47	1.44
Religious well being	High	Low	0.63**	0.47	0.85
Existential well being	High	Low	0.42***	0.32	0.54

\*p≤.05 , \*\*p≤.01 , \*\*\*p≤.001

Hosmer and Lemeshow Test ( $\chi^2=7.03$ , df=8, p=.533)

### Discussion

Of the 1190 adolescents examined in the study 54.6% were at risk for possible mental health problems. This high prevalence rate of Malaysian adolescents' mental health problems observed in the present study is highly consistent with the results of previous studies among adolescents [1, 5, 6, 38-40]. For instance, the findings from a study among 2052 Korean adolescents showed that 74.3% of the respondents had frequently experienced interpersonal sensitivity, 56.9% for depression, 48.8% for anxiety and 41.6% for hostility. In Malaysian context, results of a recent study showed more than 50% of the Malaysian adolescents have high social stress and loneliness [39]. In addition, Eskin [40] investigated the psychological problems of a sample of 1381 Turkish adolescents using the General Health Questionnaire (GHQ-12). Author found that majority of the respondents (61.5%) had mental health problems. This high prevalence of mental health implies a need for effective mental health intervention programs for this vulnerable age group.

Female adolescents were more likely to have mental health problems compared to male. Sex differences in adolescents' mental health can be viewed as consistent with several studies indicating that female adolescents scored significantly higher level of mental health difficulties [39, 41, 42] than their male counterparts. In an attempt to explain sex differences in adolescents mental health , Pearson [43] stated several reasons. First, changes associated with puberty more negatively influenced young women than young men, consequently girls feel less confident about their bodies and their physical attractiveness. Second, poor body image experienced by young women may have an especially severe impact on their mental health. Finally, relationship between sex and mental health may be mediated by interpersonal relationships, because young women may be more reactive to stress within these relationships. Our result also supported the notion

that female sex may experience greater mental health problems than male at all stages of the life course from adolescence to adulthood [43].

With regard to living arrangement of adolescents, consistent with several previous studies [44-46] which have found crucial role of living arrangement towards adolescents' mental health , bivariate analysis as well as multivariate logistic regression showed a significant association between living arrangement and mental health problems, where adolescents living in a single parent household or living without any parent were more likely to have mental health problems. These findings highlight immense impact of living arrangements of adolescents on their lives.

The next well known significant factor related to mental health of adolescents was the income of their parents. This finding corroborates prior work [47-50] showing a link between parental socioeconomic status and mental health of adolescents. It has been noted that the effects of parental income on health of children is long lasting, because poor health in childhood is contributed to lower educational attainment, inferior labour market outcomes and worse health later in life [48].

The last sociodemographic factor which had a positive significant correlation with adolescents' mental health at a bivariate level, but was not independently predictor of adolescents' mental health at multivariate analysis was parental education. It can be postulated that some variables such as economic status may moderate effects of parental education on the adolescents' mental health. Our result would be consistent with a study among Australian children that showed parental education was not associated with having a high healthy lifestyle score [51].

As the main aim of this study was to examine impact of spirituality on mental health of adolescents, results of hierarchical multivariate logistic regression confirmed protective effects of religious and existential well being, after controlling for possible



sociodemographic factors. In comparison to what was already known in Malaysian context from a sample of 358 undergraduate students with a mean age 22.3 years, which found only existential well-being predicted psychological health [26], our study showed that adolescents' mental health status is significantly influenced by both religious well being and spiritual well being. Similar findings were found from a sample of 134 adolescents from a Midwestern suburban high school. The authors found that after controlling for demographics factors, existential well-being and religious well-being were significantly associated with depressive symptoms[12]. Our study also supported the findings from a systematic review of recent studies published between 1998 and 2004 which found higher levels of spirituality is associated with better mental health in adolescents[52].

Our results supported the findings from a few studies conducted in Islamic countries which examined effects of religiosity/spirituality on the physical and mental health of adolescents. For example, Abdel-Khalek [53] studied impact of religiosity on physical and mental health among a sample of 6339 adolescents ages ranged from 15 to 18 from Kuwait as an Islamic country. The findings of this study indicated that religiosity was significantly and positively associated with happiness, mental health, and physical health. Further study by Abdel-Khalek [53] explored the associations between religiosity, health, and psychopathology among two samples of 460 Kuwaiti and 274 American college students. Results indicated that religiosity was significantly and positively associated with ratings of physical health, mental health, and optimism. He also conducted another study to examine effects of religiosity on the mental health among a sample of 7211 Saudi adolescents. Results showed that religiosity was significantly correlated with psychological well being and depression. In other words, religious respondents were happier, healthier, and less depressed [54].

Since present study revealed that existential well being was associated with a 58% reduction in the odds of mental health problems compared to a 37% by religious well being, supports the evidence suggesting existential well-being is more important for mental health than religious well-being [12, 32, 52, 55, 56]. The existential well-being through several ways such as promoting hope, courage, resilience, coping abilities, and higher levels of self-esteem may contribute to better mental health [55, 57].

Our study was conducted among a sample from an Islamic society. The findings suggesting a significant association between spirituality and

mental health are also in consonance with the teachings of Al-Quran. In Islamic point of view, every human being is made up of two elements namely body and soul. Both of these components have basic needs. The soul component has some spiritual needs such as knowing Allah,, belief in Him and worshipping Him. Meeting of these spiritual needs results in man's feeling of security and happiness[58]. Similarly, Hamzah and Maitafsir [59] citing Hanafi (1996) express those who live in consciousness of Allah will be safe and protected against sickness of the mind. In addition, the importance of spirituality to mental health has been mentioned in various verses of the holy Quran. For example, Allah (SWT) says in the holy Quran:

Prosperous is he who purified it and failed is he who buried it.

We send down (stage by stage) in the Quran that which is a healing and a mercy to those who believe: to the unjust it causes nothing but loss after loss.

"He is successful who purifies himself, and remembers the name of his Lord, and so prays

Those who believe, and whose hearts find comfort in the remembrance of Allah, is it not with the remembrance of Allah that hearts are satisfied.

Overall, results of this study showed a high prevalence rate of mental health problems among Malaysian adolescents. In addition, since during adolescence majority of the adolescents may experience storm and stress [60], the study highlighted the importance of spirituality as a resilience factor to help adolescents to pass this stage of life successfully.

### Implications

This study identified vulnerable adolescents who are experiencing poor mental health that need special attention from policy makers and those who working with adolescents. These vulnerable groups include female adolescents, those who are not living with both parents, and poor family. The results showing protective role of spirituality to prevent mental health problems in adolescence, it is also suggested that religious leaders as well as families should design and implement educational programs to strengthen spirituality among adolescents [58, 61]. Lastly, we suggest social workers, counselors and other mental health professionals working with adolescents integrate spirituality as an important resource into their therapeutic work for development and maintenance of adolescents' mental health. In addition, educational and practical programs to enhance the spiritual development of adolescent should be implemented in the family and school settings.

### Limitation s

Since this study was conducted in a cross-sectional design, longitudinal study is needed to clarify causal relationship between spirituality and mental health. Because exactly how spirituality positively influence adolescents' mental health is still unknown, further research is needed to clarify the processes between spirituality and mental health. As there is little known about ways to promoting spirituality among adolescents, it is suggested future studies focuses on the how to strengthen spirituality. Last limitation that should be acknowledged is related to the issue of ceiling effects of spirituality scale [62] which makes it difficult to distinguish between adolescents with high and low levels of spiritual well being and religious well being.

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