

# Depression, Anxiety, And Stress Among Adolescents In Kuantan And Its Association With Religiosity- A Pilot Study

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## ABSTRACT

Adolescence is a period of time when the development of personality and psychology is taking place. Studies have shown that religiosity can affect the mental health of a person. Many tools have been developed to assess religiosity of a person; one of them is the Santa Clara Strength of Religious Faith (SCSORF) scale. In this study, a translation and validation for SCSORF Malay Version (SCSORF-M) is done, and subsequently used to look for the association between religiosity and mental health in adolescents. Fifty questionnaire papers have been distributed to 50 students in secondary schools in district of Kuantan. The mean score for depression, anxiety, and stress are 5.83, 5.59, and 8.34 respectively. Only 10 (24.4%) have no depression, 9 (22%) have no anxiety, and 13 (31.7%) have no stress. The mean score for SCSORF-M scale was 35.3 (range 25-40). Family income has shown to correspond negatively with the depression, anxiety, and stress, while religiosity has shown to be correlating negatively with depression and stress, but positive correlation with anxiety. SCSORF-M has positive convergent correlation with Duke's University Religiosity Index Malay Version (DUREL-M) in all domains. SCSORF-M has shown good Cronbach's alpha value (0.84). In conclusion, religiosity is an important factor to contribute to the outcome of mental health among adolescents. SCSORF-M can be used as an assessment tool for religiosity.

**KEYWORDS:** religiosity, mental health, adolescents, Santa Clara Strength of Religious Faith, Bahasa Melayu

## INTRODUCTION

Neuropsychiatric disorders are currently estimated to contribute to 13% of the global burden of disease<sup>1</sup>. According to World Health Organization (WHO), mental health is defined as: "...the capacity of the individual, the group and the environment to interact with one another to promote subjective well-being, and optimal functioning, the use of cognitive, affective and relational abilities, towards the achievement of individual and collective goals consistent with justice".<sup>2</sup>

The study on mental health has started since hundreds of years ago.<sup>3</sup> Many activities of daily living are affected by the mental health status of an individual. The modern medicine, which mainly referred to the western originated knowledge of medicine, is evolved from the secular worldview. Before the western civilization took place as a leading civilization, Muslim world has already contributed a lot in medicine. During this era, Muslim physician has never separated the physical and spiritual aspect of medicine.<sup>4</sup> Avicenna (972-1036) for example, had written in his magnum opus 'The Canon' that in medicine, there should not be

any separation between the physical from the spiritual aspect, as it inter-relates with each other. Al-Kindi, who is believed to be the first who write regarding the Ilmu-Nufus, also described clearly regarding the relationship between the ruh (soul), belief, and the mental status.<sup>5</sup> Al-Ghazali also has written in his 'Alchemy of Happiness' regarding the relationship between happiness and the inner-heart (soul).

After that, the gap between science and religion became widened. In 1969, Victor Sanua stated that, 'there are no scientific studies which show that religion is capable of serving mental health'.<sup>6</sup> Only in the late nineteenth century, Jean Charcot and Sigmund Freud began to associate religion with hysteria and neurosis.<sup>7</sup> Larson et al (1992), on the other hand, tried to revise Sanua's hypothesis by doing 2 systematic reviews, each in 1986 and 1992.<sup>8</sup> They found that about 72% of their 35 papers reviewed suggest a positive relationship between religiosity and good mental health. This contradicting finding had triggered many other researchers to explore more on the relationship between the mental health and faith/religiosity. Many measurement of religiosity scales have been developed since then, including the Santa Clara Strength of Religious Faith (SCSORF) questionnaire.

This study is intended to translate the SCSORF and validate the Santa Clara Strength of Religious Faith Malay Version (SCSORF-M), as well as to look at its

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relationship with depression, anxiety, and stress in adolescent population.

## METHODOLOGY

### Study Design

This is a cross-sectional study by using a self-administered questionnaire. Permission has been obtained from the Ministry of Education and Pahang Department of Education prior to that. A written consent from parents has been obtained following the protocol of Good Clinical Practice and ethic requirement. Participants have been briefed few days before to enable them to obtain the relevant socio-demographic information from their parents.

A special permission from the original author of Santa Clara Strength of Religious Faith (SCSORF), Thomas G Plante, was also acquired before the commencement of this study.

### Translation process of the SCSORF

The translation process of SCSORF was carried out by four independent bi-lingual translators who are fluent in English and Malay. Forward translation was done by two Malay native speakers and backward translation was done by the other two Malay native speakers. The forward and back translated versions were reconciled and sentence by sentence revision was done. A harmonized version of Malay version of SCSORF (SCSORF-M) was produced.

The harmonized version is then reviewed by two physicians and one psychiatrist to ensure satisfactory face, semantic, criterion and conceptual equivalence.

### Validation process

The finalized BM version (SCSORF-M) then was tested for its reliability and validity. Reliability in this study was determined by its internal consistency by looking at Cronbach's alpha values. Validity analysis has been done by using Convergent Validity Test with the scale that has been validated, which is the Malay Version of Duke University Religion Index (DUREL-M).

### Selection of respondents

A group of students from Sekolah Menengah Kebangsaan Panglima Perang Tengku Muhammad (SMKPPTM) were approached with the assistance from the school counselor. Fifty students have agreed to participate.<sup>9</sup>

All the participants were bi-lingual. The participants were given the following questionnaires:

1. The Malay version of Depression, Anxiety, and Stress Scale (DASS-21)
2. The Malay version of DUREL (DUREL-M)
3. The Malay version of SCSORF (SCSORF-M)

### Research Tools

*Duke's University Religiosity Index Malay Version (DUREL-M)*

DUREL is first published in 1997 in the American Journal of Psychiatry. It is developed by a group of researchers in Duke's University, after intensive review of previous studies have been done in North Carolina and the study conducted by Hoge in Duke University Hospital<sup>10</sup>. It is used to measure religious commitment of the respondent. It consists of five items covering three major dimensions of religious commitment: organization religious activity (ORA, one item); non-organizational religious activity (NORA, one item); and intrinsic religiosity (IR, three items). ORA consists of public religious activities, such as frequency of attending religious services or participating in other group-related religious activity. NORA consists of religious activities performed in private, such as prayer or reading the Bible. IR is the degree of personal religious commitment or motivation. The DUREL has an overall score range from 5 to 27. It was translated into the Malay language and has been validated<sup>11</sup>. Cronbach's  $\alpha$  was good (0.80).<sup>12</sup>

### *Depression, Anxiety, and Stress Scale-21 Malay Version (DASS-21)*

DASS was developed by a group of researchers in University of New South Wales, Australia, around year 1995. It is a set of three self-report scales designed to measure the negative emotional states of depression, anxiety and stress. The original DASS consist of 42-item questionnaire, while the short version DASS21 consists of 21 items. DASS have been shown to have high internal consistency. It has been validated in various languages including Bahasa Malaysia. It also has good reliability, with very good Cronbach's alpha values of 0.84, 0.74 and 0.79, respectively for depression, anxiety, and stress scale.<sup>13,14,15</sup>

### *Santa Clara Strength of Religious Faith (SCSORF)*

SCSORF was developed by Dr Thomas G. Plante in 1997, after having clinical contact with religious patient.<sup>16</sup> It is a brief (10-item, or five-item short form version), reliable, and valid self-report measure assessing strength of religious faith and engagement. It is suitable for use with multiple religious traditions (including Muslim) as well as for people without any interest in or affiliation with religious organizations or traditions and perspectives. The internal consistency of the scale have found corrections ranging from 0.94 to 0.97 using Cronbach Alpha's and split-half reliability scores ranging from 0.90 to 0.96.<sup>17</sup> However, most of the study were conducted in Europe<sup>17</sup>.

## RESULTS

There are fifty (50) questionnaire papers have been distributed to participants who have consented for enrolment in the study. Nine (9) of them have been rejected due to incomplete answer (8) and 1 was not returned. All 41 remaining papers have been analyzed by using SPSS Version 20.

Out of 41 students, 8 (19.5%) are from form 1 (13 years old), 10 (24.4%) are from form 2 (14 years

old), and 24 (56.1%) are from form 4 (16 years old) students. 29 of them are female (70.7%) while 12 (29.3%) are male. Almost all participants are Muslim (95.1%), while only 2 (4.9%) are Buddhist. From 41 participants, majority of them (61%) are coming from middle class group, with household income of RM1000-RM4999. 2 (4.8%) of them are from lower income group (lower than RM1000), while 14 (34.2%) are coming from upper middle and higher class, with household income of above RM5000 (Table 1).

**Table I** Demographic Distribution

Variables	No.	%
<b>Age (year)</b>		
13	8	19.5
14	10	24.4
16	23	56.1
<b>Gender</b>		
Male	12	29.3
Female	29	70.7
<b>Religion</b>		
Islam	39	95.1
Hindu	0	0
Buddha	2	4.9
Christian	0	0
Others	0	0
<b>Family Income</b>		
< 1000	2	4.8
1000-4999	25	61
5000-9999	7	17.1
> 9999	7	17.1

The mean score for depression, anxiety, and stress are 5.83, 5.59, and 8.34 respectively. Only 10 (24.4%) have no depression, while 31 (75.6%) have at least mild depression. The anxiety status of respondents shows that 9 (22%) of them have no anxiety, while 32 (88%) of them have at least mild anxiety. The status of stress shows that 13 (31.7%) of them have no stress, while 28 (68.3%) are suffering from at least mild stress (Table 2).

**Table II:** Distribution of Stress, Anxiety, and Stress

Domain	Mean (SD)	No. (%)
<b>Depression</b>		
Normal	5.83 (3.52)	10 (24.4)
Mild		8 (19.5)
Moderate		18 (43.9)
Severe		2 (4.9)
Extremely		3 (7.3)
<b>Anxiety</b>		
Normal	5.59 (3.42)	9 (22.0)
Mild		8 (19.5)
Moderate		9 (22.0)
Severe		8 (19.5)
Extremely		7 (17.1)
<b>Stress</b>		
Normal	8.34 (3.62)	13 (31.7)
Mild		8 (19.5)
Moderate		10 (24.4)
Severe		10 (24.4)
Extremely		-
Severe		-

For religiosity, the mean score for Santa Clara Strength of Religious Faith scale was 35.3 (range 25-40). The mean score for ORA is 4.07 (range 1-6), NORA is 4.24 (range 1-6), while IR is 12.66 (range 7-15) (Table III).

**Table III** Distribution of Religiosity

Scales	Range	Mean (SD)
<b>DUREL-M</b>		
Organized Religiosity (ORA)	1-6	4.07 (1.42)
Non-organized Religiosity (NORA)	1-6	4.24 (1.39)
Intrinsic Religiosity (IR)	7-15	12.66 (2.18)
SCSORF	25-40	35.05 (3.86)

Family income has shown to correspond negatively with the depression ( $p=0.26$ ), anxiety ( $p=0.28$ ), and stress ( $p=0.65$ ). The religiosity has shown to be correlating negatively with depression ( $p=0.63$ ) and stress ( $p=0.79$ ), and having positive correlation with anxiety ( $p=0.47$ ). However, all are not statistically significant (Table 4).

Table IV Relationship between Family Income and Religiosity with Mental Health

	Depression (Sig.)	Anxiety (Sig.)	Stress (Sig.)
Family Income	-0.18(0.26)	-0.17(0.28)	-0.07(0.65)
SCSORF	-0.08(0.63)	0.11(0.47)	-0.04(0.79)

SCSORF-M has positive correlation with DUREL-M in all domains, with strong correlation with IR (Table 5). It also has shown good Cronbach's alpha value (0.84).

Table V Convergent Validity test for SCSORF-M

	ORA (Sig.)	NORA (Sig.)	IR (Sig.)
SCSORF-M	0.03 (0.85)	0.39 (0.01)	0.78 (<0.01)

## DISCUSSION

Religiosity and spirituality are important factors to determine the good outcome in life. However, it is very difficult to be measured objectively in a study. Many tools have been developed to estimate roughly regarding the level of religiosity/spirituality of a person. SCSORF was developed to fill the research gap in providing a better understanding regarding religiosity and spirituality.

Mental health problem in adolescents in Malaysia is estimated to be 11.4% (NHMS 2015).<sup>18</sup> In this pilot study, it is found that 75.6% of respondents are depressed, 88% are anxious, while 68.3% are stressed. However, it is understood that the limitation of this pilot study is the sample size, which can contribute to the result.

The religiosity level of respondents is above average, which the SCSORF gives mean score of 35.3 (max 40). Mean score achieved by using DUREL-M was also high, whereby ORA is 4.07 (max 6), NORA was 4.24 (max 6), and IR was 12.66 (max 15). This might be due to the formal religious and moral education which is given to the schooling students in Malaysia. Further study need to be done with larger sample size to identify the trend of religiosity among the secondary school students.

Although they are not statistically significant, the study has shown that the higher family income can be protective against depression, anxiety, and stress. Religiosity, on the other hand, is likely to be protective towards depression and stress, but interestingly, not for anxiety. However, this finding needs to be confirmed with further study with a larger sample size.

SCSORF-M has strong internal reliability, with Cronbach's alpha of 0.84. It means that this tool can be used in adolescents and with multiracial and multi-religion background. This study also has proven that SCSORF-M is able to measure the religiosity likewise the DUREL-M. The strong correlation is found to be with the Intrinsic Religiosity from DUREL-M, which possibly means

that SCSORF-M is more sensitive to measure the spirituality aspect.

Although the convergent correlation shows positive correlation with DUREL-M, it is recommended that further study can be made to compare it with other religiosity or spirituality measurement tools.

## CONCLUSION

The Malay version of SCSORF displayed good internal reliability and convergent validity in measuring the religious commitment and strength among the students of SMKTPPTA. It could also be used for assessment of religiosity in the other Malaysian adolescents.

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