International Journal of Evaluation and Research in Education (IJERE)
Vol. 10, No. 1, March 2021, pp. 150~160
ISSN: 2252-8822, DOI: 10.11591/ijere.v10i1.20870

Religiosity, religious coping and psychological distress among Muslim university students in Malaysia

Mohd Hazreen Abdul Rashid[1], Nurul Azreen Hashim[2], Azlina Wati Nikmat[3], Mariam Mohamad[4]
[1]Department of Psychiatry, Hospital Selayang, Malaysia
[2,3]Department of Psychiatry, Faculty of Medicine, Universiti Teknologi MARA (UiTM), Malaysia
[4]Department of Population Health and Preventive Medicine, Faculty of Medicine, Universiti Teknologi MARA (UiTM), Malaysia

Article Info

Article history:

Received Jul 17, 2020
Revised Dec 21, 2020
Accepted Jan 22, 2021

Keywords:

Distress
Muslim
Religiosity
Religious coping
University students

ABSTRACT

High demands of academic life and social changes caused relatively high prevalence of psychological distress among university students compared to the general population. The aim of this study was to determine the prevalence of psychological distress among university students and to examine the factors associated with them. This was cross sectional study involving 467 Bachelor degree students from various faculties in Universiti Teknologi MARA. Participants were assessed using the Brief Religious Coping Scale (Brief RCOPE), the Hatta Islamic Religiosity Index 1996 (HIRS96) and the Depression, Anxiety and Stress Scale (DASS 21). This study highlighted relatively high prevalence of depression, anxiety, and stress among the students of UiTM Shah Alam. We also found consistent significant association between negative religious coping with both anxiety and depressive symptoms. Consistent with the earlier studies done among Muslim samples, the positive religious coping is not significantly associated with better psychological outcomes although only small effect was observed towards the depressive symptoms.

Corresponding Author:

Nurul Azreen Hashim
Department of Psychiatry
Faculty of Medicine
Universiti Teknologi MARA (UiTM)
Sungai Buloh Campus, 47 000, Sungai Buloh, Selangor, Malaysia
Email: azreenhashim@yahoo.com

1. INTRODUCTION

University students face challenges in adapting to psychosocial changes besides having to cope with academic and social demands. University education is considered a transition phase in a person's life before entering professional career [1]. A student is expected to juggle between the changes in their social dynamics and academic performance. This high expectation may lead to a very stressful environment and subsequently cause hazards to their physical and mental health if left unattended [2]. The National Health and Morbidity Survey [3] showed that the prevalence of mental health problems among adults in Malaysia has showed an increasing trend; from 10.7% in 1996 to 29.2% in 2015. In the survey, the prevalence of young Malaysians who are suffering from mental health problems between the ages of 16-19 years and ages of 20-24 years is 34.7% and 32.1% respectively, with both age groups occupying the top two positions in comparison to the other age groups. Depression, anxiety and stress are the three most common psychological problems among the college students [2, 4].

A recent study performed on Malaysian university students reveal that 27.5% had moderate, and 9.7% had severe or extremely severe depression; 34% had moderate, and 29% had severe or extremely severe anxiety; and 18.6% had moderate and 5.1% had severe or extremely severe stress. Depression and anxiety correlate higher among older students (20 and above) and those born in rural areas. Whereas, stress scores were notably higher among females, Malays, older students (20 and above), and those whose family had either low or high incomes compared to those with middle incomes [2]. Koenig [5] found that in stressful situations, religion is often used for coping or adaptation, such as a cry out for help to God or performing religious rituals. Religion is defined as an organized system of beliefs, practices, and ways of worship [6]. Religiosity on the other hand is a multi-dimensional sociological term. It consists of various aspects such as participation in religion activities, intrinsic faith, belief, religious attitudes and practices, religious identity, and affiliation [7].

A number of studies concluded that religion might help an individual to cope with a variety of personal and environmental stressors, such as illness [8], the loss of a child [9], trauma [10], terrorist threat [11] and war [12]. However, the benefit of using religious coping is not limited to only during the severely traumatic experience or medical illnesses. Greer and Brown [13] found that minority college students who turned to religion reported less minority stress and higher academic performance. University enrolled students who used religious coping also reported higher satisfaction with life and less pathological adjustments [14].

However, there is a complex relationship between mental health and religiosity or spirituality. Many studies have found that religious coping is typically related to more positive outcomes to stressful events. Pargament, *et al.* [15] found that religious coping efforts involving the belief in a just and loving God, the experience of God as a supportive partner, involvement in religious rituals, and the search for spiritual and personal support were significantly related to better outcomes, such as recent mental health status and spiritual growth. Other studies have found religious coping to be related to more negative outcomes, such as greater distress while coping with the loss of a family member to homicide [16] and more negative mood, lower self-esteem, and greater anxiety while coping with a major negative life event such as an illness or injury, death of a close friend or relative, or relationship problems [17]. On the other hand, factors such as religious education background and year of study may influence coping attitude among students [18, 19].

University education is a stressful phase in any individual's life. This is depicted in the higher prevalence of mental health problems such as anxiety and depression among the age group of individuals who attend college. The prevalence of anxiety and depression has been on a steady rise and fast becoming an economic burden to all countries worldwide. Even though religion has been used to cope with the distress, negative religious coping method can also lead to poorer outcome and mental health problems. Other studies that were conducted in the West had the majority of the participants among the Jews or Christians and thus only describe religiosity and religious coping from the Judeo-Christian traditional perspective [20]. While there are literatures available in describing the level of anxiety, depression and stresses and coping strategies used among Malaysian university students, studies on religiosity and the use of religious coping among the university students in Malaysia are scarce.

As the majority of the university students in present days will form the national workforce in the future, it is important to identify the negative religious coping among the study population and help them address the struggle. By understanding the association between religiosity, religious coping and their effects on the psychological well-being, it is hoped that positive religion coping can be encouraged or taught to help the students to cope with the stressful events in their life. Therefore, this study aimed to identify religiousity, religious coping method and its association with depression, anxiety, and stresses among university students.

2. RESEARCH METHOD

This was a cross-sectional study design with the aim to identify the association between religiosity, religious coping, and distress level among students of Universiti Teknologi MARA (UiTM) main campus in Shah Alam. UiTM is the largest universiti system in Malaysia, offering tertiary education exclusively for native (*Bumiputra*) students with majority are Malays in origin (muslim). The inclusion criteria for this study include Muslim students, age between 18 to 25 years old who registered under bachelor or diploma program and able to comprehend Malay language. The exclusion criteria are non-muslim students and students with major mental illness that resulted in cognitive impairment.

For this study, only Muslim students were included. Cluster random sampling method were used in which each cluster represented one faculty that offer bachelor's degrees in UiTM Shah Alam campus. These faculties were given a number and randomly picked with the help of a random number table. The respective lecturers of the classes were contacted to facilitate the data collection process (Figure 1). Students were briefed regarding the study at the end of lecture. The questionnaires took about 15 minutes to complete, which include socio-demographic profiling, the Malay version of hatta islamic religiosity scale (HIRS96) to

measure religiosity, the Malay version of Brief R-COPE to measure religious coping methods and the Malay version of the depressive, anxiety and stress scale (DASS21) to measure the level of distress.

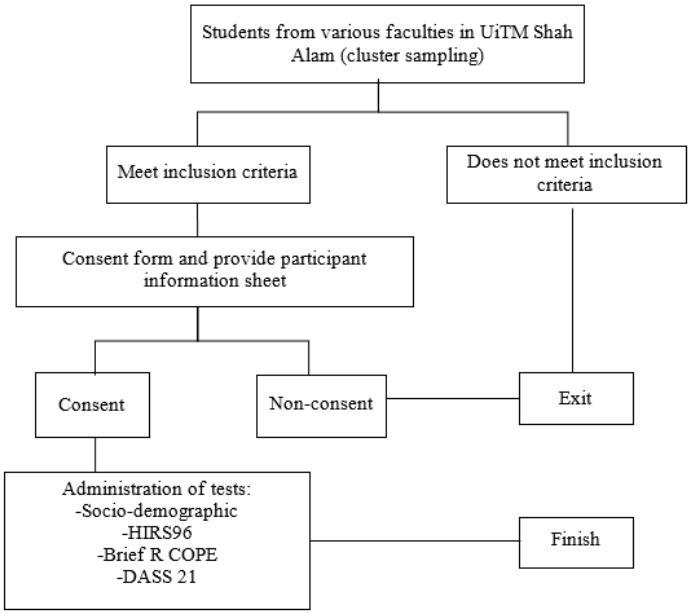

Figure 1. Recruitment flow chart

Students were required to fill up a socio-demographic form that describes the age, gender, study major, year of study, past attendance to religious school and current involvement in religious organizational activities. Brief religious coping scale (Brief RCOPE) consists of two subscales. The positive religious coping subscale (PRC) of the Brief RCOPE taps into a sense of connectedness with a transcendent force, a secure relationship with a caring God, and a belief that life has a greater benevolent meaning. The negative religious coping subscale (NRC) of the Brief RCOPE is characterized by signs of spiritual tension, conflict and struggle with God and others, as manifested by negative reappraisals of God's powers (e.g., feeling abandoned or punished by God), demonic reappraisals (i.e., feeling the devil is involved in the stressor), spiritual questioning and doubting, and interpersonal religious discontent.

Each scale has seven items, scored on a 1-to- 4 four-point Likert scale (1-not at all, 2-somewhat, 3-quite a bit, 4-a great deal). Mean scores for PRC and NRC can range from a minimum of 7 to a maximum of 28. Scores on the seven items for each scale were summed, with higher scores representing greater presence of the construct [16]. The reliability and validity of the translated Malay version of Brief RCOPE was established in a previous study [21]. P COPE and N COPE had high internal consistency in this study (Cronbach's α for P COPE=0.87; N COPE=0.88)

Hatta Islamic Religiosity Index 1996 (HIRS96) is an Islamic religiosity scale which was developed by a local researcher MHS was chosen as the majority of the UiTM students are Malay Muslims. This questionnaire assesses a person's knowledge, practice, Quran reading and attitude towards enjoining good and forbidding evil. Reliability and validity for this scale showed high interrater reliability and that the measure was valid in discriminating between the two groups that they studied ($p<0.05$) [22]. The higher score indicates higher index of religiosity.

Depression, Anxiety and Stress Scale (DASS-21) is a 21-item DASS measures distress level and have been widely used in many studies. It consists of depression, anxiety, and stress items. Each measure consists of seven items. The total score ranges from 0 to 63. The total for each subscale ranges from 0 to 21 [23]. Higher score indicates a greater level of distress. The scale was translated into the Malay language and has been validated [24]. All subscales showed high internal consistency (Cronbach's α for depression=0.87, anxiety=0.85, stress=0.90). Additionally, study showed that DASS-21 performed better as compared to BDI and HADS based on sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) [25].

Data were entered and analyzed using the statistical package for social science (SPSS) version 25.0. Prior to analysis, all variables were examined for accuracy of data entry, missing values, pattern of distributions and assumptions of multivariate analysis. Missing values were treated by using mean

substitution, hot-deck imputation or regression imputation depending upon variable type [26]. Data normality were assessed and transformed prior to data analysis where necessary [27]. Descriptive statistics and categorical variables are presented as counts, proportions, or percentages. Categorical data were analyzed using $\chi 2$ (Chi-square); where distributional assumptions were violated, the Fisher Exact test was used. Analysis of variance (ANOVA) was used to examine differences between variables. Ethical approval was obtained from the Universiti Teknologi MARA Ethics Committee. Permission to conduct the study was sought from the Vice Dean office of the university.

3. RESULTS AND DISCUSSION

3.1. Demographic profiles, religious coping types and religiosity among study participants

Table 1 describes the sociodemographic summary of the participants recruited with religiosity score and the types of religious coping. A total of 467 students were included for the study with the mean age of 21.76 (SD = 1.357). There was a slight predominance of female subjects (52.8%) compared to male (47.2%). The highest number of subjects were those of first year students (33%), followed by third years (27%), second year students (23.5%), diploma (9.5%), and final year students (7.1%). The majority of the students answered yes to having received formal religious education (80.8%) but only 30.9% answered to be actively involved in religious activity. In terms of the type of religious coping, the majority of 89.6% used positive religious coping and only 12.5% used more negative religious coping. The mean score for religiosity using the Hatta Islamic Religiosity Index is 60.58 with SD=11.45.

Table 1. Characteristics of study participants

Variables		Mean (SD)	n (%)
Age		21.76 (1.357)	
Gender	Male		216 (47.2)
	Female		242 (52.8)
Year of study	Diploma		43 (9.5)
	First year degree		149 (33)
	Second year degree		106 (23.5)
	Third year degree		122 (27)
	Fourth year degree		32 (7.1)
Religious education	Yes		370 (80.8)
	No or Unsure		88 (19.2)
Religious activity	Yes		141 (30.9)
	No or Unsure		316 (69.1)
Positive religious coping	Not at all or Somewhat		48 (10.4)
	Quite a bit or A great deal		412 (89.6)
Negative religious coping	Not at all or Somewhat		405 (87.5)
	Quite a bit or A great deal		405 (12.5)
Religiosity		60.58 (11.447)	

Standard deviation (SD), number (n)

3.2. Symptoms of depression, anxiety and stress among participants

Table 2 describes the descriptive data of each subscale of depression, anxiety and stress under DASS-21 with the corresponding frequency of severity. A total of 279 participants or 60.3% of them scored normal under the depression subscale, 66 (14.3%) with mild level of depression, 74 (16%) with moderate depression, 4.5% or 21 participants showed severe depression and 23 (5%) of participants had extremely severe depression. For the severity of anxiety, 192 or 41.6% of participants exhibited normal level of anxiety, 9.5% or 44 participants with mild anxiety, 103 (22.3%) showed moderate anxiety, 56 (12.1%) with severe anxiety and 67 (14.5%) of participants showed extremely severe anxiety. For the severity of stress, 306 (66.1%) of participants showed normal level of stress, 61 (13.2%) with mild stress, 66 (14.3%) moderate level of stress, 26 (5.6%) have severe stress and 4 (0.9%) with extremely severe stress.

Table 2. Subscales and total score of the depression, anxiety and stress scale-21 (DASS-21)

	Mean (SD)	n (%)
Depression subscale	9.11 (8.056)	
Normal		279 (60.3)
Mild		66 (14.3)
Moderate		74 (16)
Severe		21 (4.5)
Extremely severe		23 (5)
Anxiety subscale	10.34 (7.581)	
Normal		192 (41.6)
Mild		44 (9.5)
Moderate		103 (22.3)
Severe		56 (12.1)
Extremely severe		67 (14.5)
Stress subscale	12.29 (7.817)	
Normal		306 (66.1)
Mild		61 (13.2)
Moderate		66 (14.3)
Severe		26 (5.6)
Extremely severe		4 (0.9)

Standard deviation (SD), number (n)

3.3. Analysis of association between sociodemographic profiles, types of religious coping and religiosity with depression, anxiety and stress among study subjects

Using the Chi-square test to examine categorical variables and independent t-test for continuous variable, an analysis of association between each demographic factor and the outcome of depression, anxiety and stress was performed. For this association analysis, severity of each depression, anxiety and stress were categorized into two groups only; either normal or mild-to-extremely severe so that a binary outcome can be included into the analysis. As described in Table 3, significant association was found between depressive symptoms and age (t-test=-2.314, p value=0.021), year of study (Chi-square=4.902, p value=0.027), religious activity (Chi-square=-4.85, p value=0.03), the use of both positive (Chi-square=11.305, p value=0.001) and negative religious coping (Chi-square=9.154, p value=0.002) and the marks of religiosity on HIRS-96 (t-test=2.456, p value=0.014).

Table 3. Analysis of association between sociodemographic profiles, types of religious coping and religiosity with depression among participants using Chi-square or t-test

Variables		Symptoms of depression		Statistics		
		Normal, n (%)	Mild-extremely severe, n (%)	χ^2	*t*	p value
Age	Mean (SD)	21.64 (1.32)	21.94 (1.39)		2.314	0.02
Gender	Male	127 (58.8)	89 (41.2)	0.24		0.87
	Female	144 (59.5)	98 (40.5)			
Year of study	Diploma, 1st and 2nd year	187 (62.8)	111 (37.2)	4.902		0.02
	3rd and 4th year	80 (51.9)	74 (48.1)			
Religious Education	No or Unsure	46 (52.3)	42 (47.7)	2.145		0.14
	Yes	225 (60.8)	145 (39.2)			
Religious Activity	No or Unsure	176 (55.7)	140 (44.3)	4.85		0.02
	Yes	94 (66.7)	47 (33.3)			
Positive Religious coping	Not at all or somewhat	18 (37.5)	30 (62.5)	11.305		0.00
	Quite a bit or A great deal	258 (62.6)	154 (37.4)			
Negative Religious coping	Not at all or somewhat	252 (62.2)	152 (37.8)	9.154		0.00
	Quite a bit or A great deal	24 (41.4)	34 (58.6)			
Religiosity	Mean (SD)	61.64 (11.28)	58.98 (11.55)		2.456	0.01

Number (n), standard deviation (SD), Chi square (χ^2), t-test (t)

As illustrated in Table 4, for the outcome of anxiety symptoms, significant associations were found between symptoms of anxiety and gender (Chi-square=5.917, p value=0.017), year of study (Chi-square=4.099, p value=0.043), and negative religious coping (Chi-square=6.142, p value=0.013). Table 5 describes the results of association tests between the symptoms of stress with the sociodemographic variables, religiosity and types of religious coping. When measured against symptoms of stress, significant associations were only found between stress and the independent variables of gender (Chi-square= 9.211, p value=0.002), negative religious coping (Chi-square=5.518, p value=0.019) and also religiosity score (t-test=2.313, p value=0.021).

Table 4. Analysis of association between sociodemographic profiles, types of religious coping and religiosity with anxiety among participants using Chi-square or t-test

Variables		Symptoms of anxiety		Statistics		
		Normal, n (%)	Mild-extremely severe, n (%)	χ^2	*t*	p value
Age	Mean (SD)	21.64 (1.33)	21.833 (1.37)		1.428	0.15
Gender	Male	100 (46.3)	116 (53.7)	5.917		0.01
	Female	85 (35.1)	157 (64.9)			
Year of study	Diploma, 1st and 2nd year	132 (44.3)	166 (55.7)	4.099		0.04
	3rd and 4th year	53 (34.4)	101 (65.6)			
Religious education	No or Unsure	34 (38.6)	54 (61.4)	0.14		0.70
	Yes	151 (40.8)	219 (59.2)			
Religious activity	No or Unsure	119 (37.7)	197 (62.3)	2.888		0.08
	Yes	65 (46.1)	76 (53.9)			
Positive religious coping	Not at all or somewhat	15 (31.3)	33 (68.8)	2.142		0.14
	Quite a bit or A great deal	174 (42.2)	238 (57.8)			
Negative religious coping	Not at all or somewhat	174 (43)	231 (57)	6.142		0.01
	Quite a bit or A great deal	15 (25.9)	43 (74.1)			
Religiosity	Mean (SD)	61.54 (11.53)	59.29 (11.36)		1.527	0.12

number (n), standard deviation (SD), Chi square (χ^2), t-test (t)

Table 5. Analysis of association between sociodemographic profiles, types of religious coping and religiosity with stress among participants using Chi-square or t-test

Variables		Symptoms of stress		Statistics		
		Normal, n (%)	Mild-extremely severe, n (%)	χ^2	*t*	p value
Age	Mean (SD)	21.68 (1.30)	21.89 (1.45)		1.483	0.139
Gender	Male	156 (72.2)	60 (27.8)	9.211		0.002
	Female	142 (58.7)	100 (41.3)			
Year of study	Diploma, 1st and 2nd year	202 (67.8)	96 (32.2)	3.366		0.067
	3rd and 4th year	91 (59.1)	63 (40.9)			
Religious Education	No or Unsure	54 (61.4)	34 (38.6)	0.657		0.418
	Yes	244 (65.9)	126 (34.1)			
Religious Activity	No or Unsure	197 (62.3)	119 (37.7)	3.155		0.076
	Yes	100 (70.9)	41 (29.1)			
Positive religious coping	Not at all or somewhat	28 (58.3)	20 (41.7)	1.438		0.231
	Quite a bit or A great deal	276 (67)	136 (33)			
Negative Religious coping	Not at all or somewhat	273 (67.4)	132 (32.6)	5.518		0.019
	Quite a bit or A great deal	30 (51.7)	28 (48.3)			
Religiosity	Mean (SD)	61.46 (11.357)	58.87 (11.463)		2.313	0.021

number (n), standard deviation (SD), Chi square (χ^2), t-test (t)

To use multiple logistic regression, all independent variables (the sociodemographic factors, the types of religious coping and religiosity) were first screened using simple logistic regression. From the results for each simple logistic regression done on each independent variable, the variables with p-value less than 0.25 were selected to be included in binomial multiple logistic regression using the forward LR method. The result of the multiple logistic regression is shown in Table 6 which shows that students who use positive religious coping were shown to have 67.1% reduced odds of having depression symptoms compared to those who do not use positive religious coping (adjusted OR=0.329, p value=0.001). Students who use the negative religious coping have the increased odds of experiencing symptoms of depression by 2.8 times than students who do not use the negative religious coping (adjusted OR=2.841, p value=0.001). The subjects were also showed to have an increase in odds by 22% to have depression symptoms for each increment in one year of age (adjusted OR=1.277, p value=0.002).

Students who used the negative religious coping have an increased odd of experiencing anxiety symptoms by 2.3 times than students who did not use the negative religious coping. (Adjusted OR=2.337, p value 0.009). With regards to the symptoms of anxiety, female students have increased odds of having symptoms of anxiety by 60% compared to male students (adjusted OR=1.604, p value=0.019). The odds of experiencing symptoms of anxiety are also noted to be 1.6 times higher in students in the third or fourth year of study compared to those in diploma, first and second years (adjusted OR=1.550, p value = 0.043). With regards to stress symptoms, the female students were also shown to experience it 2.2 times more than male students (adjusted OR 2.249, p value<0.001). On the other hand, religiosity is shown to reduce the symptoms of stress by only 2.7% with each one-point increment in the religiosity index score (adjusted OR= 0.973, p value 0.004).

Table 6. Results of multiple logistic regression

	Crude OR (95% CI)	Adjusted OR (95% CI)	Wald statistics (df)	P value
Symptoms of depression				
Positive religious coping	0.358 (0.193, 0.664)	0.329 (0.169, 0.641)	10.662 (1)	0.001
Negative religious coping	2.333 (1.333, 4.084)	2.841 (1.578, 5.115)	12.115 (1)	0.001
Age	1.178 (1.024, 1.355)	1.277 (1.095, 1.490)	9.741 (1)	0.002
Symptoms of anxiety				
Negative religious coping	2.159 (1.162, 4.013)	2.337 (1.241, 4.401)	6.914 (1)	0.009
Gender	1.592 (1.094, 2.319)	1.604 (1.080, 2.384)	5.480 (1)	0.019
Year of study	1.515 (1.012-2.268)	1.550 (1.014-2.368)	4.097 (1)	0.043
Symptoms of stress				
Gender	1.831 (1.236, 2.711)	2.249 (1.471, 3.439)	13.984 (1)	<0.001
Religiosity	0.98 (0.964, 0.997)	0.973 (0.956, 0.991)	8.323 (1)	0.004

Odds ratio (OR), confidence interval (CI), degree of freedom (df)

3.4. Discussion

Studies on religiosity and the use of religious coping among the university students in Malaysia are scarce, particularly among the Muslims. Most studies that were conducted in the West had the majority of the participants among the Christians and thus only describe religiosity and religious coping from the Christian traditional perspective. This study attempted to address the gap in the literature on stress, anxiety and depression among Malaysian university students particularly of the Muslim faith.

The study aimed to investigate the sociodemographic profiles among the diploma and undergraduate students of UiTM Shah Alam and how they may affect the types of religious coping, the religiosity and their subsequent effects on the symptoms of depression, stress and anxiety among the students of UiTM Shah Alam. The mean age of study subjects was 21.9 (SD ±2.37) with slightly more female participants at 51.8% which was consistent with the gender make-up of most public universities in Malaysia [28]. The majority of students who participated were first year, second year and third year undergraduate students.

Majority of the participants admitted of having received a specific form of formal religious education which included the "*sekolah pondok*" or additional religious education outside the compulsory religious education required for all students under the Malaysian education system. Islamic education in Malaysia is compulsory for all Muslim students attending formal education. Outside the obligatory lesson hours during school time, some federal states like Johore also impose compulsory additional hours to cover additional subjects in Islamic faith like the Arabic language or basic Islamic theology *(akidah)*. Besides the mainstream education system, school children can also be sent by parents to study within the alternative Islamic education with heavier emphasis more esoteric Islamic practices like the memorization of Al Quran [29].

The students who were subjects in this current study tend to show strong religious faith and practical aspects of religion in their daily life. This was consistent with earlier studies that similarly noted Muslims in general tend to show higher commitment to their faith compared to the members of other organized religion [30]. The religious beliefs and practices were expressed openly in both the public and private spheres. As such, it could be argued that the practice of Muslim faith in Malaysia has taken the shape to be recognized as the "social norm" [31].

With regards to the use of religious coping, consistent with earlier researches, the number of students who used positive religious coping was markedly high than those who did not. A significant number of populations turned to use religious coping in the face of acute trauma or extreme distress in the West [32]. In a study done in 2018 that measured positive religious coping among Muslim students among Malaysian, Turkish and Palestinian, the positive religious coping was measured using the Islamic Positive Religious Coping [33]. It was found that Malaysian samples scored higher mean of religiosity score when compared to the Turks and the Palestinians. This was also the same with the use of negative religious coping where it was dramatically lower in Muslim subjects compared to when study done in non-Muslim subjects [34].

The mean score of stress, 12.3 (SD 7.82) in this study and the severity of stress were comparable to another local study with 18.6% scored moderate stress and 5.1% had either severe or extremely severe stress [2]. However, the mean score and severity of anxiety and depression were lower compared to the same study. The prevalence of stress, anxiety and depression in this study were more comparable to a study done among Turkish students [35]. The differences in prevalence of depression, anxiety and stress among these studies can perhaps be attributed the heterogeneity of sample students being studied. The sample population in UiTM consisted of a more balanced mix of students who study both technical and social science courses such as visual arts, sports science, and graphic designs besides engineering and technical courses. The difference in the intensity of academic courses and works could perhaps explain the difference in level of stressors in a student's academic life. This study found significant association between symptoms of depression with age,

year of study, religious activity, positive religious coping, negative religious coping, and religiosity. However, when included in a multiple logistic regression, only positive religious coping, negative religious coping, and age were significantly associated with the symptoms of depression.

The correlation between age and depression was found to be consistent with past findings in studies done among local university students and in Turkish subjects [35]. The association between the symptoms could be possibly be attributed to the change in expectation amidst the reality of challenging life after the college years is over. The essence of the depressive symptoms captured using the DASS-21 was characterized mainly by a loss of self-esteem and incentive, associated with a perceived low probability of attaining significant life goals for the individual as a person which was broader than the feelings of sadness [36]. As college period is also considered to play a significant transformative role in an individual's life, the nearing end to it can be treated with a feeling of grief associated with depression.

The present study also supported the hypothesis that positive religious coping was inversely related to the negative psychological adjustment such as depression and anxiety [32]. The effect was however small compared to the effect of negative religious coping. A prospective study attempted to investigate the role of religious coping on stress over time to predict depression and found out that positive religious coping had no role to moderate the effect of stress on depressive symptoms [37]. Similarly, in a study done to identify the predictors of religious struggle and religious behavior, there was no association between religious participation and religious struggle and poor psychological outcomes [20]. One possible explanation was that when subjects answered the positive religious coping scales on RCOPE, the rituals and ceremonies were only "part and parcel" of being a Muslim. The rituals are habits that were regularly committed to without any serious consideration, question, or tension.

In contrast, the questions under the negative religious coping scale seriously asked them to re-evaluate their intrinsic religiosity or relationship with the divine. The proportion of subjects who answered to have used negative religious coping was markedly minimal. One possible explanation for this observation is that most subjects may think that the idea of abandonment of Allah (God) unthinkable and may lead them to 'shirk', a notion that Allah is being assigned an equivalence and thus committing blasphemy. The same phenomenon was also observed in Muslim samples in other studies done internationally [38]. Negative religious coping was noted to have a positive association with depressive symptoms in the current study. This was consistent with the results of a meta-analysis done by Ano and Vasconcelles [32]. More recently, such finding was also noted in a study done among Muslim Somali students in USA [34].

Religiosity failed to show any significant association with the symptoms of depression in the current study. This was again in contrast with a study done in the West [34] and a study done in Indonesia among Muslim adolescents where depression was negatively associated with religiosity [39]. It should be noted however that the instrument used to measure depression was different and religiosity was operationally defined as voluntary participation in religious activities [39]. Gender, the year of study and negative religious coping were associated with having symptoms of anxiety in this study. All three variables were also found to have significant associations with anxiety under multiple logistic regression analysis. Male students showed lower mean of DASS-21 anxiety subscale score compared to female students. This was in contrast to another local study which showed that there was no significant difference between the mean of anxiety score between the male and female [2] but more coherent with results from studies done on students from Turkey [35] and Hong Kong [40]. The association of female gender with anxiety can be explained by several theories. Possible explanation for this finding can be based on the self-construal theory that postulated that men and women construe themselves in a different way. Men tend to keep an independent self-construal in which others are represented as separate from self, whereas women tend to construct and maintain and interdependent self-construal [41]. This difference is self-construal resulted in higher anxiety in women as they fear more types of social situation and are affected in greater degree by interpersonal relationship.

The use of positive religious coping was not associated with symptoms of anxiety in any significant way. This was in contrast with studies done in Western countries where positive religious coping served as adaptive functions and individuals who used positive religious coping strategies experienced less depression and anxiety. Subject's bias could be the cause of this discrepancy. Due to the stronger embeddedness of religion into the social fabric of Muslim community in Malaysia, a participant was more likely to answer to have used positive religious coping despite being in the state of anxiety. As such, the subject was also more likely to answer no to the series of questions in negative religious coping for fear of social disapproval due to the highly sensitive nature of the question or out of fear of committing blasphemy.

The current study however showed that students who use negative religious coping are twice likely to experience the symptoms of anxiety than those who do not. This could be explained by the contents of the negative religious coping scale itself, as captured by the negative RCOPE questions. Negative religious coping involves reappraisal of events as a form of punishment from God, the feelings of being neglected by God, confused about one's relationship with God which are all highly distressing. Current body of literature

supports the hypothesis that negative religious coping was significantly associated with poor psychological outcome including anxiety [32].

Religiosity was not significantly associated with symptoms of anxiety in this study. The effect of religiosity on anxiety was variable. Some studies showed that the greater religiosity, the greater the anxiety. This particularly true when religion was measured as extrinsic, when the goal of religious involvement is motivated by external gains such as economic or social goal [42]. The subscales under the Hatta Religiosity Islamic Scale did not include any component to discriminate between the extrinsic or intrinsic religious motivation.

This study also found that gender and religiosity were associated with having symptoms of stress. The stress level was noted to be higher among females due to several possible reasons. Beiter [43] found that more female students place academics as an important source of stress compared to their male counterparts. A similar observation was noted in a Turkish sample [35] and a study done locally, where the mean score for stress was higher in female sample compared to the males [2]. The present study also supported the hypothesis of existing literature that religiosity was negatively associated with the level of stress and is a protective factor. In a study conducted among Pakistani university students, religious conduct was inversely associated with the symptoms of stress and anxiety among the students [44].

The main limitation of this study was its cross-sectional nature. The implication is that the predictive relationships described by the study's statistical analyses are, strictly, associations rather than causations. Other factors which may confound the findings have been included in the demographic data and will be used as covariates to adjust the data analyses (e.g. financial status, educational level, marital status). Subject to these caveats, this study will provide evidence for decision-makers in understanding the association between religiosity, religious coping and their effects on the psychological well-being.

4. CONCLUSION

The high prevalence of stress, anxiety and depression is useful to alert the university administration, clinicians, parents, and policymakers in general regarding the state of mental health of the university students in present days. The higher prevalence of stress and anxiety among female students underscores the importance to address them with gender-specific issues that might contribute to their problems. The significant association between age and depression may call for a specific policy intervention to monitor symptoms of psychological distress among different years of study. It is also worth exploring how religiosity can be incorporated into the counselling service provided by the university administration. Specifically, for UiTM, the Academy of Contemporary Islamic Studies (ACIS) can be consulted for collaborative efforts for religion based psychosocial approach.

ACKNOWLEDGEMENTS

Authors wish to thank our interviewees, whose responses have provided the foundation on which our research was based. Authors would also like to thank Assoc. Prof. Eizwan Hamdie Yusoff for his advice and guidance in assisting this project.

REFERENCES

[1] T. Uehara, *et al.*, "Annual transition of major depressive episode in university students using a structured self-rating questionnaire," *Asia-Pacific Psychiatry*, vol. 2, no. 2, pp. 99-104, 2010.
[2] K. Shamsuddin, *et al.*, "Correlates of depression, anxiety and stress among Malaysian university students," *Asian Journal of Psychiatry*, vol. 6, no. 4, pp. 318-323, 2013.
[3] Institute for Public Health. *National Health and Morbidity Survey 2015 (NHMS 2015). Vol. II: Non-Communicable Diseases, Risk Factors & Other Health Problems*. Ministry of Health Malaysia, 2015. https://doi.org/10.1017/CBO9781107415324.004
[4] N. Kumaraswamy, "Academic stress, anxiety and depression among college students: A brief review," *International review of social sciences and humanities*, vol. 5, no. 1, pp. 135-143, 2013.
[5] L. N. Dyrbye, M.R Thomas and T.D Shanafelt, "Systematic review of depression, anxiety, and other indicators of psychological distress among U.S. and Canadian medical students," *Academic Medicine*, vol. 81, no. 4, pp. 354-373, 2006.
[6] H.G Koenig, "Religion, spirituality and psychotic disorders," *Archives of Clinical Psychiatry*, vol. 1, pp. 40-48, 2007.
[7] J. D Emblen, "Religion and spirituality defined according to current use in nursing literature," *Journal of Professional Nursing*, vol. 8, no. 1, pp. 41-47, 1992.
[8] M M.A. Musick, H. G. Koeing, B. Larson and D. Matthews, D, "Religion and spiritual beliefs", in *Psycho-oncology*, J. Holland, Ed. New York: Oxford University Press, 1998, pp. 780–789.
[9] B. Spilka, R. W. Jr. Hood, and R. L. Gorsuch, *The psychology of religion: An empirical approach*. Upper Saddle River, NJ: Prentice Hall, 1985.

[10] D. N. McIntosh, R. C. Silver and C. B. Wortman, "Religion's role in adjustment to a negative life event: Coping with the loss of a child," *Journal of Personality and Social Psychology*, vol. 65, no. 4, pp. 812-821, 1993.
[11] A. L. Ai, *et al*., "Prayers, spiritual support, and positive attitudes in coping with the September 11 national crisis," *Journal of Personality*, vol.73, no. 3, pp. 763-791, 2005.
[12] P. Fischer, *et al.*, "Coping with terrorism: The impact of increased salience of terrorism on mood and self-efficacy of intrinsically religious and non- religious people," *Personality and Social Psychology Bulletin*, vol. 32, no. 3, pp. 365- 377, 2006.
[13] T. M. Greer and P. Brown, "Minority status stress and coping processes among African American college students," *Journal of Diversity in Higher Education*, vol. 4, no. 1, pp. 26-38, 2011.
[14] K. Ross, *et al*., "The relationship between religion and religious coping: Religious coping as a moderator between religion and adjustment," *Journal of Religion and Health*, vol. 48, no. 4, pp.454-467, 2009.
[15] K. I. Pargament, H. G. Koenig and L. M Perez, "The many methods of religious coping: Development and initial validation of the RCOPE," *Journal of Clinical Psychology*, vol. 56, no. 4, pp. 519-543, 2000.
[16] M. P. Thompson and P. J. Vardaman, "The role of religion in coping with the loss of a family member to homicide," *Journal for the Scientific Study of Religion*, vol. 36, no. 1, pp. 44-51, 1997.
[17] K. I. Pargament, *et al*., "Red flags and religious coping: Identifying some religious warning signs among people in crisis," *Journal of Clinical Psychology*, vol. 54, no. 1, pp. 77-78, 1998.
[18] E. Kavas, "Stress coping attitudes based on perceived religiousness and received religious education," *Psychology*, vol. 7, no. 3, pp. 382-398, 2016.
[19] Francis, B., Gill, J. S., Yit Han, N., Petrus, C. F., Azhar, F. L., Ahmad Sabki, Z., *et al.*, "Religious coping, religiosity, depression and anxiety among medical students in a multi-religious setting," *International journal of environmental research and public health*, vol. 16, no. 2, p. 259, 2019.
[20] H. Abu-Raiya and K. I. Pargament, "Religious coping among diverse religions: Commonalities and divergences," *Psychology of Religion and Spirituality*, vol. 7, no. 1, pp. 24-33, 2015.
[21] N. Yusoff, W. Y. Low and C. H. Yip, "Reliability and validity of the Malay version of Brief COPE scale: A study on Malaysian women treated with adjuvant chemotherapy for breast cancer," *Malaysian Journal of Psychiatry EJournal*, vol. 18, no. 1, pp. 27-35, 2009.
[22] H. Salleh and M. Hatta, "Hatta Islamic Religiosity Scale 1996 (HIRS96)-A Reliability and Validity Study," *Malaysian Journal of Psychiatry*, vol. 8, no. 1, pp. 14-15, 2000.
[23] S. H. Lovibond and P. F. Lovibond, *Manual for the depression anxiety stress scales*. Sydney: Psychology Foundation, 1995.
[24] R. Musa, M. A Fadzil and Z. Zain, "Translation, validation and psychometric properties of Bahasa Malaysia version of the Depression Anxiety and Stress Scales (DASS)," *ASEAN Journal of Psychiatry*, vol. 8, no. 2, pp. 82-89, 2007.
[25] A. Bener, *et al.*, "Comparison of Reliability and Validity of the Breast Cancer depression anxiety stress scales (DASS-21) with the Beck Depression Inventory-(BDI-II) and Hospital Anxiety and Depression Scale (HADS)," *International Journal of Psychology and Behavioral Research*, vol. 4, no. 4, pp. 197-203, 2016.
[26] G. Hawthorne and P. Elliott, "Imputing cross-sectional missing data: a comparison of common techniques," *The Australian and New Zealand Journal of Psychiatry*, vol. 39, no. 7, pp. 583-590, 2005.
[27] B. G. Tabachnick and L. S. Fidell, *Using Multivariate Statistics*. New York: Harper Collins, 2001.
[28] L. Ismail, "Gender Gap in Higher Education: Perspective on Factors Influencing Enrolment in Malaysian Universities: A University of Malaya Sample," *The Online Journal of Quality in Higher Education*, vol. 2, no. 4, pp. 35-45, 2015.
[29] M. R. M. Nor, "Sejarah dan Perkembangan Pendidikan Islam di Malaysia," *Jurnal At-Ta'dib*, vol. 6, no. 1, pp. 59-78, 2011.
[30] H. Abu-Raiya, "The psychology of Islam: Current empirically based knowledge, potential challenges, and directions for future research" in *Handbook of Psychology, religion, and spirituality: Context, theory, and research*, vol. 1, K. I. Pargament, J. J. Exline, & J. W. Jones, Eds. American Psychological Association, 2013, pp. 681–695.
[31] O. Stavrova, D. Fetchenhauer, and T. Schlösser, "Why are religious people happy? The effect of the social norm of religiosity across countries," *Social Science Researc*h, vol. 42, no. 1, pp. 90-105, 2013.
[32] G. G. Ano and E. B. Vasconcelles, "Religious coping and psychological adjustment to stress: A meta-analysis," *Journal of Clinical Psychology*, vol. 61, no. 4, pp. 461-480, 2005.
[33] H. Abu-Raiya, *et al.*, "On the links between positive religious coping, satisfaction with life and depressive symptoms among a multinational sample of Muslims: Positive Religious Coping among Muslims," *International Journal of Psychology*, vol. 54, no. 5, pp. 678-686, 2019.
[34] E. Areba, *et al.*, "Religious Coping, Symptoms of Depression and Anxiety, and Well-Being among Somali College Students," *Journal of Religion and Health*, vol. 57, no. 1, pp. 94-109, 2018.
[35] N. Bayram and N. Bilgel, "The prevalence and socio-demographic correlations of depression, anxiety and stress among a group of university students," *Social Psychiatry and Psychiatric Epidemiology*, vol. 43, no. 8, pp. 667-672, 2008.
[36] P. F. Lovibond and S. H. Lovibond, "The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories," *Behaviour Research and Therapy*, vol. 33, no. 3, pp. 335-343, 1995.
[37] J. J. Ahles, A. H. Mezulis and M. R. Hudson, "Religious coping as a moderator of the relationship between stress and depressive symptoms," *Psychology of Religion and Spirituality*, vol. 8, no. 3, pp. 228-234, 2016.

[38] M. Miner, B. Ghobary-Bonab and M. Dowson, "Development of a Measure of Attachment to God for Muslims," *Review of Religious Research*, vol. 59, no. 2, pp. 183-206, 2017.
[39] U. Purwono and D. C. French, "Depression and its relation to loneliness and religiosity in Indonesian Muslim adolescents," *Mental Health, Religion & Culture*, vol. 19, no. 3, pp. 218-228, 2016.
[40] K. K. C. Chan, K. K. M. Ma and S. W. Tang, "Web-based survey of depression, anxiety and stress in first-year tertiary education students in Hong Kong," *Australian and New Zealand Journal of Psychiatry*, vol. 40, no. 9, pp. 777-782, 2006.
[41] S. E. Cross, E. E. Hardin, and B. Gercek-Swing, "The What, How, Why, and Where of Self-Construal," *Personality and Social Psychology Review*, vol. 15, no. 2, pp. 142-179, 2011.
[42] M. Baker and R. Gorsuch, "Trait Anxiety and Intrinsic-Extrinsic Religiousness," *Journal for the Scientific Study of Religion*, vol. 21, no. 2, pp. 119-122, 1982.
[43] R. Beiter, *et al.*, "The prevalence and correlates of depression, anxiety, and stress in a sample of college students," *Journal of Affective Disorders*, vol. 173, pp. 90-96, 2015.
[44] M. Nadeem, A. Ali and M. A. Buzdar, "The Association Between Muslim Religiosity and Young Adult College Students' Depression, Anxiety, and Stress," *Journal of Religion and Health*, vol. 56, no. 4, pp. 1170-1179, 2017.