

Correlates and Predictors of Spiritual, Existential, and Religious Well-being among Malaysian Muslim College Students

Ahmad S. Musa, PhD, RN

Associate professor, Princess Salma Faculty of Nursing, Al al-Bayt University, PO Box: 130040, Mafrqa 25113, Jordan

Abstract

This cross-sectional study aimed to (a) describe mean scores of spiritual involvement and beliefs, religiosity, spiritual well-being, existential well-being, and religious well-being among Malaysian Muslim college students; and (b) explore associations among these variables for this Malaysian group. A sample size of 183 Malaysian Muslim college students were recruited from government universities located in the north-eastern region of Jordan and were a self-selected convenience sample. A descriptive and correlational design was used. Results showed that participants had high average levels of spiritual involvement and beliefs, religiosity, spiritual well-being, existential well-being, and religious well-being. Moreover, spiritual involvement and beliefs, and religiosity were positively associated with spiritual well-being and its dimensions (existential well-being and religious well-being), but in the final regression model only spiritual involvement and beliefs retained a significant association after controlling for the religiosity. It was found that higher income levels and being female were associated with higher mean scores of spiritual well-being and its dimensions. In conclusion, the findings demonstrated that levels of spiritual involvement and beliefs, and religiosity have a positive impact on levels of spiritual well-being, existential well-being, and religious well-being. Furthermore, the high mean levels of spirituality and religiosity variables in this study confirm that spirituality and religiosity are important to the lives of Malaysian Muslim college students and the implications for well-being and education are explored. This study supported the multidimensional nature of spirituality and the notion that spirituality and religiosity are two distinct, but related, concepts.

Keywords: spiritual well-being, religious well-being, existential well-being, spiritual involvement and beliefs, religiosity

1. Introduction

Over the last two decades the increasing popularity of the holistic view of the individual and health has resulted in more attention being paid to the importance of spirituality and religiosity in the lives of individuals, their health, and well-being (Aldwin, Park, Jeong, & Nath, 2014; Imam, Nurullah, Makol-Abdul, Rahman, & Noon, 2009; Rovers & Kocum, 2010). It has been reported in the literature that among college students better spiritual well-being was associated with better college adjustment (Kneipp, Kelly, & Cyphers, 2009); lower levels of hopelessness and depression, and higher levels of social support (Taliaferro, Rienzo, Pigg, Miller, & Dodd, 2009); a higher level of satisfaction with life (Patel, Ramgoon, & Paruk, 2009); a weaker tendency to depression and a stronger tendency to engage in health-promoting behaviours (Hsiao, Chien, Wu, Chiang, & Huang, 2010); and lower rates of smoking and alcohol-risk behaviours (Turner-Musa & Lipscomb, 2007). Moreover, Shores (2010) has argued that the spiritual views and practices of nursing students can lead to increased confidence levels, less stress, and are sources of well-being, comfort, and strength. Similarly, it was found that greater religiosity among college students was associated with better college adjustment (Kneipp et al., 2009); lower rates of alcohol use and higher levels of physical activity (Fife et al., 2011); lower rates of suicidal intention (Taliaferro et al., 2009); better quality of life and higher levels of happiness and satisfaction with life (Abdel-Khalek, 2010); and higher levels of personal well-being (Tiliouine & Belgoumidi 2009).

In the Malaysian Muslim context, spiritual well-being, spirituality and religiosity are significant influences on life and well-being (Imam et al., 2009; Swami et al., 2009). Some research studies have found that among college students, levels of spiritual well-being significantly predicted levels of self-efficacy, self-esteem, and life satisfaction (Imam et al., 2009), while higher levels of religiosity were associated with lower rates of unethical business practices (Muhamad, 2009). Religiosity was found to be among the strongest predictors of an individual's beliefs about their current and future health, the causes of illness, and the nature of recovery from illness (Swami et al., 2009). Similarly, using patient samples, it was found that Malay Muslim cancer patients used religion and humour (one aspect of spiritual resources) as coping strategies in facing their disease (Priscilla et al., 2011). Likewise, a study by Shamsudin (2002) revealed that Malay Muslim cardiac patients found religion, religious practices, family and hope as helpful spiritual resources to cope with their illness. Abdul Kadir and Bifulco (2010) reported that depressive patients relied on God's will in facing their illness and considered spirituality as the best medicine. While a growing body of research has reported the benefits of spiritual well-being, spiritual beliefs and practices, and religiosity to the individual's life and well-being, there is a paucity of research on the associations between spiritual well-being, spiritual beliefs and practices, and religiosity, in

particular with regard to certain cultural and religious groups, such as the Malaysian Muslim college students in the current study.

2. Background

The concept of spirituality is subjective, elusive, and lacks a common definition (Pike, 2011; Ellis & Narayanasamy 2009). McSherry and Ross (2002, p. 481) proposed that “the word is not bound by a common set of defining characteristics; it can mean different things to different people”. In a recent study by Aldwin et al. (2014, p. 14), spirituality was described as something that “addresses one’s relationship with and search for the sacred that involves self-transcendence”. The concept of spiritual well-being, the focus of this study, has been described by Ellison (1983) in terms of religious well-being (vertical dimension), which refers to a person’s sense of well-being in relation to God; and existential well-being (horizontal dimension), which refers to a person’s sense of purpose and satisfaction in life, meaning in life, the future, and life direction. Similarly, Ross (1997, p. 14) defined spiritual well-being as “the overall state of spiritual health which is evidenced by the presence of: meaning, purpose, and fulfillment in life; the will to live; belief and faith in self, others, and God”. Spirituality is not the same as religion, and a recent consensus in the literature has emerged that they are two distinct, but related concepts (Joshnloo, 2012; Sessanna, Finnell, Underhill, Chang & Peng, 2011). The North American Nursing Diagnosis Association, International (2009, p. 299) defined religiosity as “the ability to increase reliance on religious beliefs and/or participate in rituals of a particular faith tradition”. In the present study, separate measures were used to measure spiritual involvement and beliefs, spiritual well-being, and religiosity.

Several research studies have found associations among spiritual well-being, religiosity, and spiritual involvement and beliefs (Rubin, Dodd, Desai, Pollock, & Graham-Pole, 2009; Williamson & Sandage, 2009). Religiosity is related positively to spiritual well-being among college students (Patel et al., 2009; Williamson & Sandage, 2009), nurses (Dunn, Handley, & Dunkin, 2009), and adult Arab Muslims (Aly, 2010; Musa & Pevalin, 2012). Spiritual involvement and beliefs have been found to be positively associated with spiritual well-being using samples of family practice patients and educators (Hatch, Burg, Naberhous, & Hellmich, 1998), chronically ill and healthy adolescents and their parents (Rubin et al., 2009), kidney transplant recipients (Martin & Sachse, 2002), and nurses (Dunn et al., 2009). Moreover, it was reported that there were significant positive correlations between religiosity, and spiritual involvement and beliefs among samples of university students (Berkel, Armstrong, & Cokley, 2004; Shores, 2010) and healthcare providers (Boero et al., 2004). Cavendish et al. (2003) proposed that individuals use spiritual and religious beliefs and practices as coping mechanisms and inner motivator resources to enhance their spiritual growth and to achieve a higher than usual state of wellness when confronting stressful situations.

Religion and spirituality are shaped by and embedded within cultural norms (Campesino, Belyea, & Schwartz, 2009) and vary even within the ethnic backgrounds of the same culture (Patel et al., 2009; Staton, Webster, Hiller, Rostosky, & Leukefeld, 2003; Taliaferro et al., 2009). For example, Taliaferro et al. (2009) found significant differences in mean values of spiritual well-being between African-American college students in the USA and other students from different races/ethnicities, and Patel et al. (2009) found that white students had lower levels of religiosity than their black and Indian counterparts. It is noteworthy that the vast majority of published research studies of spiritual well-being, spirituality, and religiosity have been carried out with individuals from the Judaeo-Christian tradition in Western cultures, mainly in the USA. Given this limited focus in today’s society that has so many cultural variations, it is important to explore how people from different ethnic groups, cultures, and religions perceive and respond to their spiritual life (Staton et al., 2003; Shores, 2010). Research on spirituality and religiosity among Malaysian Muslims is scarce. No previous study investigating the associations between spiritual well-being, spiritual involvement and beliefs, and religiosity using this population has been found. Furthermore, little research, until recently, has empirically examined the relationships of these concepts among young people in Muslim countries (Imam et al., 2009). Thus, it is unique for the current study to investigate these concepts among Malaysian Muslim college students.

The purpose of this study is twofold: 1) to describe mean scores of spiritual involvement and beliefs, religiosity, and spiritual well-being and its dimensions (existential well-being and religious well-being) for Malaysian Muslim college students studying in Jordan; and 2) to explore associations of spiritual involvement and beliefs, religiosity, and key demographic variables with spiritual well-being and its dimensions in this group of Malaysian population.

Malaysia is a multi-racial community in South-East Asia, embracing primarily three main ethnic groups: Malays (60% of the population), Chinese (25%) and Indians (7%) (Haque, 2005; Imam et al., 2009; Muhamad, 2009). Malays are considered to be the indigenous population, and almost all of them follow the Islam (Haque, 2005; Imam et al., 2009). A large number of Chinese people follow Christianity and Buddhism, and the majority of Indians are Hindus (Haque, 2005). The religious identity of Malays is considered as an important source of solidarity among members of the community with various religious affairs and as a form of ethnic differentiation

from other Malaysians of different ethnicities (Gjelsvik, 2001, as cited in Muhamad, 2009).

3. Methods

3.1 Sample and Setting

A convenience sample of 183 Malaysian Muslim undergraduate students were recruited from two large government universities in northern Jordan. Inclusion criteria required participants who: self-identified as Malays; were 18 years of age or older; and could read, write and clearly understand Arabic and/or English. The age of participants ranged from 18 to 45 years ($M=20.25$, $SD=3.35$). Less than half of the participants (48.1%, $n=88$) identified themselves as female and 36% ($n=65$) reported a level of income of less than JD 400 per month.

3.2 Procedure

The participants were recruited through classes (35%, $n=64$), annual Malaysian students' celebrations (25.1%, $n=46$), and off-campus Malaysian students' clubs and meetings (39.9%, $n=73$). The Arabic and modified English versions of the questionnaire were pre-tested on a convenience sample of 10 Malaysian students to ensure clarity and familiarity with the words and phrases used. The vast majority of participants (85%) selected the English version of the questionnaire rather than the Arabic version. Participants who selected the Arabic version were third- or fourth-year undergraduate students of specialties taught only in Arabic, and therefore confident in the language. Similarly, Malaysian participants who were confident with the selected English version were third- or fourth-year undergraduate students of medical specialties taught in English (mathematics and sciences are widely taught in English in Malaysia). All participants were informed both orally and in a hardcopy letter about the purpose and nature of the study, the maintenance of anonymity and confidentiality, and their rights. All interested participants were invited to give their verbal consent before completing the questionnaire and then completion and return of the questionnaire was taken as further consent to participation in the study. The response rate was high (83%, $n=196$ from 236 distributed questionnaires). The questionnaires distributed through participants' classes were returned in the same class session, and the other questionnaires were returned by the Malaysian students' leaders who assisted the researcher in data collection. Thirteen questionnaires were discarded as they lacked basic information, leaving a final sample of 183. Permission was obtained to use Hatch et al.'s (1998) SBIS and Ellison's (1983) SWBS in this study. This study was approved by the Institutional Review Board at Al al-Bayt University. Data were collected during a three-month period in the academic year 2013.

3.3 Measures

The socio-demographic data included information on age, gender, income and work status.

3.3.1 Religiosity. Religiosity was measured by items covering both dimensions of religious behaviours and religious attitudes (Koenig, George, Titus, & Meador, 2003; Makros & McCabe, 2003). The religious behaviours dimension consisted of four Likert scale items and asked the participants about the frequency of their praying, attending the mosque to pray, reading from the Qur'an, and meditating (dhikr). For males, religiosity was measured by an additional item, referring to the frequency of mosque attendance (it is not suitable for women to attend the mosque for collective prayer). The religious attitudes dimension consisted of a single item, asking the participants to judge the importance of their faith on a scale from Unimportant to Very important. This scale was developed by one of the authors (AM) based on an extensive literature review, and the judgement of the expert panel, which consisted of two PhD members specializing in Islamic religious studies. The wording of the questions were revised and modified to be suitable for Muslim participants. For instance, the emic concepts of "church" and "scripture" that are suitable for Christians were modified into the derived etic concepts "mosque" and "Qur'an" suitable for Muslims.

3.3.2 Spiritual Well-being Scale. The Spiritual Well-being Scale (SWBS) was originally developed over 30 years ago (Ellison, 1983) and has become a widely used and researched. It is a 20-item self-reported instrument (Tanyi, 2002). Each item is rated on a six-point Likert scale ranging from 1=strongly agree to 6=strongly disagree. The scale consists of two subscales, Religious Well-Being (RWB) and Existential Well-Being (EWB). The ten even-numbered items assess existential well-being and the ten odd-numbered items assess religious well-being. The overall spiritual well-being (SWB) score is computed by summing responses to all 20 items. The total scores of the SWBS range from 20 to 120, with higher scores representing greater well-being after reversing any negatively worded items. Face validity and construct validity have been demonstrated for this scale (Ellison, 1983). The test-retest reliability coefficients with 100 university students for the SWBS, RWB and EWB subscales were 0.93, 0.96, and 0.86 respectively (Ellison, 1983). The internal consistency reliability of the SWBS has been shown to be high in several studies with alpha coefficients ranging from 0.88 to 0.95 (Ellison, 1983; Imam et al., 2009; Rovers & Kocum, 2010; Taliaferro et al., 2009). In a study by Musa and Pevalin (2012), asymmetrical back-translation methods with an expert panel were used to translate the English version of the SWBS into Arabic. It was piloted with Arab Jordanian Muslim university students and evidence was reported

showing the construct validity and reliability of the final Arabic version of the SWBS using a sample of Arab Muslim adult patients. The internal consistency by Cronbach's alpha of the Arabic version of the SWBS was also high (0.83) (Musa & Pevalin, 2012).

3.3.3 Spiritual Involvement and Beliefs Scale. The Spiritual Involvement and Beliefs Scale (SIBS) was designed by Hatch et al. (1998) to measure levels of participants' spiritual beliefs and practices. The scale developers attempted to make it a comprehensive and widely applicable tool to be used by people from various religious and spiritual traditions and cultures. It used generic wording to avoid religious and cultural biases. It is a 26-item self-reported instrument. The total scores of SIBS range from 26 to 130 with higher scores representing greater spiritual involvement and beliefs. Items were rated on a 5-point scale. The first 19 items asked participants about their perception concerning the measured aspects of spiritual beliefs with options ranging from 'strongly disagree' (coded 1), to 'strongly agree' (5). An example is "I believe there is a power greater than myself". The remaining seven items measure the extent to which participants engage in various spiritual activities with five categorical response options: always, usually, sometimes, rarely, and never. An example is "I solve my problems without using spiritual resources". This instrument has been used with various samples, including university students (Winterowd, Harrist, Thomason, Worth, & Carlozzi, 2005) and it has exhibited good reliability and validity, high internal consistency (Cronbach's alpha=0.92), and strong test-retest reliability ($r=0.92$) (Hatch et al., 1998).

The Arabic version of the SIBS was developed by Musa (2015). Asymmetrical back-translation methods with an expert panel were used to translate the English version into Arabic. Construct validity using exploratory factor analysis and convergent-related validity has been demonstrated for the Arabic SIBS using a sample of Jordanian nursing college students. The internal consistency of the Arabic version of the SIBS was acceptable, with an alpha coefficient of 0.76 (Musa, 2015).

3.4 Analysis

Descriptive statistics, bivariate analysis, and multivariate analysis were used to analyze the data using SPSS Version 17. Descriptive statistics include frequency distributions and percentiles, mean, standard deviation, and range of scores. Pearson's r and independent-samples t -test, were used as bivariate analyses. Pearson's r was used to examine associations between the total SWB score, the subscales (EWB and RWB), SIBS, and religiosity. Independent-samples t -tests were used to test for significant differences in SWB, EWB and RWB mean scores between groups. To determine the significant predictors of the dependent variables in this study (SWB and the subscales EWB and RWB), linear multivariate regressions were performed. Three linear regression models were constructed, one for each of SWB, EWB, and RWB as dependent variables. In all the regression models, all of the independent variables were entered into a regression equation simultaneously to evaluate how well this set of variables are able to predict the dependent variable, and also to identify how much unique variance each of independent variables explains in the dependent variable. The results of regression analyses were presented with the reporting of R^2 , standardized beta (β), and p values. The level of significance for all bivariate and multivariate tests was set at $p < 0.05$. Cronbach's alpha was used to determine the internal consistency of the scales and subscales used in this study.

4. Results

The internal consistency for all scales and subscales were acceptable to high, with alpha coefficients ranging from 0.76 to 0.85. The Malaysian college students reported relatively high mean levels of SWBS ($M=102.5$, $SD=10.9$), SIBS ($M=105.6$, $SD=9.9$) and religiosity (for males, $M=21.4$, $SD=2.3$; for females, $M=18.9$, $SD=1.6$). Mean, standard deviation, range and Cronbach's alpha (where applicable) of the SWBS, its subscales, and religiosity are shown in Table 1.

Table 1: Descriptive statistics of the Arabic SWBS, its subscales (EWB and RWB), SIBS, and Religiosity. Malaysian Muslim College Students, $N=183$.

Scale	No. of items	Range of scale scores	Mean	SD	Min	Max	Cronbach's alpha
SWBS	20	20 - 120	102.5	10.9	77	120	0.85
EWB subscale	10	10 - 60	48.7	6.4	34	60	0.77
RWB subscale	10	10 - 60	53.8	5.7	36	60	0.76
SIBS	26	26 - 130	105.6	9.9	75	124	0.77
Religiosity for Male	5	5 - 25	21.4	2.3	15	25	-
Religiosity for Female	4	4 - 20	18.9	1.6	11	20	-

Notes: SD, standard deviation SWBS, Spiritual Well-Being Scale total score; EWB, Existential Well-Being Subscale; RWB, Religious Well-Being Subscale; SIBS, Spiritual Involvement and Beliefs Scale.

The distribution of the SWBS total score and its subscales by socio-demographic variables is presented in Table 2. Among all socio-demographic variables, categories of income and gender had significant differences for the SWB, EWB, and RWB. Results revealed that participants with a total income of less than JD 400 per month reported statistically significantly lower mean scores on the SWB, EWB and RWB than those with a total income of JD 400 or more. Moreover, being female was associated significantly with higher mean scores on SWB, EWB, and RWB.

Table 2: Distribution of the Arabic SWBS and its Sub-scales (EWB and RWB) by Demographic Variables. Malaysian Muslim College Students, N=183.

Demographic variables	Categories	N	SWBS		EWB		RWB	
Gender	Men	95	99.3**	(11.3)	47.2**	6.1)(	52.1**	6.3)(
	Women	88	106.1**	(9.4)	50.4**	6.3)(	55.6**	4.2)(
Income	<400JD	65	100.0*	(11.6)	47.5*	6.1)(	52.5*	6.6)(
	>=400JD	115	104.3*	(10.3)	49.6*	6.4)(	54.7*	4.9)(
Employment Status	Working	9	100.1	(9.9)	47.6	6.4)(	52.6	5.3)(
	Not working	174	102.7	(11.0)	48.8	6.4)(	53.9	5.7)(

Note: JD, Jordanian Dinars (1US\$=0.71JD); *independent samples t-test $p < 0.05$, ** $p < 0.01$; standard deviations in brackets

There are significantly positive correlations among the SWBS, its subscales, SIBS, and religiosity measures. The SIBS had a statistically significant strong positive correlation with SWB ($r = 0.71$, $p < 0.001$) and significant moderate positive correlations with EWB ($r = 0.67$, $p < 0.001$) and RWB ($r = 0.62$, $p < 0.001$). Religiosity had statistically significant low positive correlations with SWB ($r = 0.31$, $p < 0.001$), EWB ($r = 0.30$, $p < 0.001$) and RWB ($r = 0.24$, $p < 0.001$). SIBS had a significant low correlation with religiosity ($r = 0.28$, $p < 0.001$). All correlation coefficients among SWB, EWB, RWB, SIBS, and religiosity are shown in Table 3.

Table 3: Correlations Between the Arabic SWBS, its subscales (EWB and RWB), Religiosity, and SIBS. Malaysian Muslim College Students, N=183.

Scales	SWBS	EWB	RWB	Religiosity
<i>Religiosity</i>	0.31**	0.30**	0.24**	
<i>SIBS</i>	0.71**	0.67**	0.62**	0.28**

** $p < 0.01$ (2-tailed); SWBS, Spiritual Well-Being Scale; EWB, Existential Well-Being Subscale; RWB, Religious Well-Being Subscale; SIBS, Spiritual Involvement and Beliefs Scale

Three regression models were used to evaluate the effect of the selected independent variables first on the SWBS, second on the EWB, and third on the RWB. In the three models, all independent variables explained 54.9%, 46.8% and 43.4% of the variance respectively. In Models 1 and 2, religiosity has small, positive, and statistically significant effects on the SWBS and EWB, while the SIBS has large, positive, and statistically significant effects on the SWBS and EWB. In Model 3, religiosity is non-significant while the SIBS has large, positive, and statistically significant effects on the RWB. From the socio-demographic controls, only gender has a significant effect. The gender coefficient is positive indicating that female respondents report higher RWB. Results of the multivariate regression models are presented in Table 4.

Table 4: Multiple Regression Analyses for the Arabic SWBS and its Subscales. Malaysian Muslim College Students, N=183, Standardized Regression Coefficients.

	Model 1 SWBS	Model 2 EWB	Model 3 RWB
Independent variables	β	β	β
Age	-0.01	0.03	-0.05
Female	0.13	0.07	0.16*
Income ^a	0.07	0.06	0.07
Work ^b	0.03	0.04	0.02
Religiosity	0.15*	0.16*	0.11
SIBS	0.63**	0.59**	0.54**
Model R ²	0.549**	0.468**	0.434**

Notes: * $p < 0.05$ (2-tailed); ** $p < 0.01$ (2-tailed); ^a dichotomous variable less than 400 JD (Jordanian Dinars (1US\$=0.71JD)), ref. cat. equal or more than 400 JD; ^b dichotomous variable working, ref. cat. not working; SWBS, Spiritual Well-Being Scale; EWB, Existential Well-Being Subscale; RWB, Religious Well-Being Subscale; SIBS, Spiritual Involvement and Beliefs Scale

5. Discussion

This study is the first to explore the associations of spiritual involvement and beliefs, and religiosity on spiritual, religious, and existential well-being among Malaysian Muslim college students. The main finding of this study is that spiritual involvement and beliefs, and religiosity are positively associated with spiritual well-being and its religious and existential dimensions, but in the final regression model only spiritual involvement and beliefs retain a significant strong association with spiritual well-being and its dimensions controlling for socio-demographic variables and religiosity. In addition, the socio-demographic distributions of the Arabic SWBS and its subscale (EWB and RWB) scores showed significant variation only by gender and income. The distributions of scores across the socio-demographic variables in this study are the first preliminary findings of population norms for the SWBS, RWB and EWB in Malaysian Muslim college students.

The scores obtained from the SWBS, SBIS and religiosity, revealed that Malaysian Muslim college students had high average levels of spiritual well-being, spiritual involvement and beliefs, and religiosity. The high average level of the SWBS with a mean of 102.5 in the current study is consistent with other studies using Christian college student samples (average scores from 99.0 to 103.0) (Bufford, Paloutzian, & Ellison, 1991; Kneipp et al., 2009; Rovers & Kocum, 2010). Other studies similar to the present one reported high levels of spiritual beliefs and practices (Shores, 2010; Wehmer, Quinn Griffin, White, & Fitzpatrick, 2010) and religiosity (Patel et al., 2009; Williamson & Sandage, 2009) among college students using various measures of spirituality and religiosity. However, the mean value of the SWBS in the current study was higher than in other studies using samples of Arab Muslim college students (average scores from 90.3 to 94.0) (Musa, 2015; Musa & Pevalin, 2012). A possible explanation is that the cultural context in Malaysia, with its ethnic and religious diversity, may contribute to higher levels of spirituality and religiosity among Malaysian Muslims due to the increased importance of ethnic and religious identity (Gjelsvik, 2001, cited in Muhamad, 2009). An alternative explanation is that Malaysian students who study in Jordanian universities are a minority group, and they possibly struggle to maintain their religious and ethnic identity within the Arabic culture. Ethnic and religious identification becomes crucial for the well-being of minority individuals (Abu-Rayya & Abu-Rayya, 2009; Yehya & Dutta, 2010). These findings are consistent with the limited existing literature, indicating that spiritual well-being (Staton et al., 2003; Taliaferro et al., 2009) and religiosity (Patel et al., 2009) may be expressed differently according to race/ethnicity, and that spirituality is shaped by and embedded within cultural norms (Bhui, King, Dein, & O'Connor, 2008; Campesino et al., 2009; Muhamad, 2009).

In the present study, the Malaysian Muslim college students with greater spiritual involvement and beliefs and religiosity were more likely to have a better spiritual, existential and religious well-being. These findings are consistent with previous studies, which found a significant positive correlation of spiritual well-being with spiritual involvement and beliefs (Hatch et al., 1998; Musa, 2015; Rubin et al., 2009) and religiosity (Patel et al., 2009; Musa, 2015; Musa & Pevalin, 2012; Williamson & Sandage, 2009) in various Arab Muslim and Western samples. From these findings, it would appear that Malaysian Muslim college students effectively use religious and spiritual beliefs and practices as coping strategies to achieve a state of peace, comfort, and a better spiritual well-being. Other studies have proposed that religious and spiritual beliefs and practices influence the individual's well-being by such means as promoting meaning, purpose, connectedness, and hope (Koenig, 2008), encouraging transcendental experiences (Nelson, 2009), and promoting religious meaning and forgiveness (Park, 2012). Through such experiences as prayer, meditation, and belief in a higher power, the individual can expand self-boundaries beyond real life to achieve a state of wellness (Reed, 1991). In addition, these findings support the notion that religiosity and spirituality are two distinct, but related, concepts (Joshnloo,

2012; Sessanna et al., 2011) and that religious beliefs and practices come together under the umbrella of spirituality (McSherry, Draper, & Kendrick, 2002; Greenfield, Vaillant, & Marks, 2009).

These findings of positive associations between religiosity, spiritual involvement and beliefs, and spiritual well-being have a basis in Islam. Having faith in God and accepting whatever happens as the Will of God contribute to a 'stable' state resulting in a state of spiritual well-being which in turn provides a feeling of peace and harmony (Shamsudin, 2002). In Islam, obedience to the Qur'an and faith are the basis for well-being and feeling of comfort (Johnson, 2001). Moreover, religious beliefs and practices for many Muslims provide the path for a satisfied spiritual life (Rassool, 2000). For example, the belief in qadr (divine preordainment of life outcomes), reading the Qur'an, praying, and remembrance of Allah (dhikr) were found to mediate stressful situations such as examination periods and to promote a sense of security and well-being for students. God has said in the Qur'an, "Oh you who believe, enter into peace, all of you" (Qur'an 2: 208). This stresses the notion that Muslims who follow the teachings and values prescribed by God will experience a feeling of peace and well-being. Similarly, the Qur'an mentions turning to God in times of despair: "...those who believe and whose hearts have rest in the remembrance of Allah. Verily in the remembrance of Allah do hearts find rest" (Qur'an 13: 28).

The findings of this study revealed that a higher income level (a total income of JD 400 or more) and being female were associated with higher mean scores of spiritual well-being and its dimensions (existential and religious well-being). This is consistent with other studies which have found that being female was associated with higher levels of existential well-being and religious well-being (Mickley, Soeken, & Belcher, 1992; Yampolsky, Wittich, Webb, & Overbury, 2008; Patel et al., 2009; Aly, 2010). It would appear that females' role in Muslim society may offer an explanation for this higher level of spiritual well-being. With limited opportunities to achieve financial security, women may find spirituality and religiosity as a way of achieving harmony, satisfaction, internal control, and support from the community. A further possible explanation is that the availability of money in developing countries may help people to overcome the pressures of everyday life which are basically a consequence of underdevelopment, and to cover more than their basic needs.

Several implications can be drawn from the findings of this study for Malaysian college students' well-being, education, and research. Findings indicated that spiritual involvement and beliefs, religiosity, and spiritual well-being are important to Malaysian Muslim college students, all of which have potential practical implications for their general health and well-being. Given the increasing importance of spirituality and religiosity in the health and well-being literature, the current study suggests incorporating these dimensions of spirituality and religiosity into university health and well-being promotion programmes designed to encourage and maintain healthy behaviours among students, to enhance their positive psychological well-being, with higher levels of happiness, satisfaction with life, hope and self confidence, and to provide them with a sense of security, peace and comfort. Future studies are warranted to investigate the impact of spiritual involvement and beliefs, religiosity, and spiritual well-being on various aspects of Malaysian Muslim college students' health and well-being, happiness and quality of life.

The findings of the current study can be incorporated into the university educational curricular programmes in Jordan. Some theoretical courses can be developed or modified to discuss such topics as spiritual and religious beliefs and practices, spiritual well-being, spirituality and well-being, the holistic view of health, well-being and the individual, and spirituality and cultural variations. These courses could be elective and available for all college students from various specialties. Moreover, certain curricular programmes in medical and other human sciences which consider the dimension of spirituality as a main part of health, well-being, and the individuals' lives may include more advanced courses incorporating spirituality. Such courses might help students to become aware of their own spiritual and religious beliefs and practices, encourage them to explore their spiritual resources and development, maintain their spiritual connections, and hence enhance their levels of spiritual well-being, for example in terms of the purpose and meaning of life, love, hope, forgiveness and faith. Furthermore, various faculties at the university might arrange seminars, workshops, scientific days, and/or conferences focusing on spirituality, religiosity, health and well-being. Future studies are needed to investigate to what extent the current university educational programmes in Jordan incorporate spirituality in their curriculum. Outside the classroom, student affairs departments can provide opportunities for students to voluntarily engage in various community services to promote a sense of compassion for others, peace and inner harmony. Moreover, other non-academic initiatives might include providing students with appropriate facilities for prayer and for other religious and spiritual practices. Examples of these facilities might be common prayer rooms distributed throughout the campus of the university, designed to be a quiet, religious, and private environment. Future research is recommended to determine to what extent university personnel in Jordan develop strategies to support and enhance international students' spiritual and religious development, including co-curricular programs and services.

Limitations of this study should be noted. One limitation was using a cross-sectional descriptive correlational design, so no assumptions can be made about the direction of the associations between spiritual

involvement and beliefs, religiosity, and spiritual well-being. Future studies using a longitudinal design are encouraged to help identifying potential causal relationships between these variables. Moreover, further studies using qualitative methodologies, such as personal interviews, may provide an in-depth understanding of the religious and spiritual experiences of Malaysian Muslims that is not usually obtained by conducting only quantitative methods. Another limitation was using homogeneous participants representing Malaysian Muslim college students studying at universities located in the northeastern region of Jordan, and a self-selected convenience sample; therefore, findings in the current study may not be generalizable to other international or Malaysian college students in Jordan. Future research investigating religiosity, spirituality and spiritual well-being is warranted using a more representative sample including all regions in Jordan, other ethnicities, and faiths outside the Islamic tradition. Such studies will investigate how participants of different cultures, religions and ethnicities respond to the religiosity, spiritual involvement and spiritual well-being.

In conclusion, the high mean levels of spiritual involvement and beliefs, religiosity, spiritual well-being, religious well-being, and existential well-being confirm that religiosity and spirituality are important in the lives of Malaysian Muslim college students, with potential implications for practice, education and research. Moreover, the findings of this study demonstrated that levels of spiritual involvement and beliefs, and religiosity have a positive impact on levels of spiritual well-being and its dimensions (existential well-being and religious well-being), although in the final model only spiritual involvement and beliefs retained a significant association controlling for religiosity. This study supported the multidimensional nature of spirituality and the notion that spirituality and religiosity are two distinct, but related, concepts. By and large, the similarity of the current study findings to those of Western research studies adds significantly to the trustworthiness and robustness of these findings and suggests that spiritual well-being has global characteristics.

References

- Abdel-Khalek, A.M. (2010). Quality of life, subjective well-being, and religiosity in Muslim college students. *Quality of Life Research*, 19, 1133-1143. doi:10.1007/s11136-010-9676-7
- Abdul Kadir, N.B., & Bifulco, A. (2010). Malaysian Moslem mothers' experience of depression and service use. *Culture, Medicine, and Psychiatry*, 34(3), 443-467. doi:10.1007/s11013-010-9183-x
- Abu-Rayya, M.H., & Abu-Rayya, H.M. (2009). Ethnic identification, religious identity, and psychological well-being among muslim and christian palestinians in israel. *Mental Health, Religion & Culture*, 12(2), 147-155. doi:10.1080/13674670802387330
- Aldwin, C.M., Park, C.L., Jeong, Y.J., & Nath, R. (2014). Differing pathways between religiousness, spirituality, and health: A self-regulation perspective. *Psychology of Religion and Spirituality*, 6(1), 9-21. doi:10.1037/a0034416
- Aly, H.A. (2010). *Spirituality and psychological well-being in the Muslim community: An exploratory study*. University of La Verne, La Verne, USA.
- Berkel, L. A., Armstrong, T.D., & Cokley, K.O. (2004). Similarities and differences between religiosity and spirituality in African American college students: A preliminary investigation. *Counseling and Values*, 49(1), 2-14. doi:10.1002/j.2161-007X.2004.tb00248.x
- Bhui, K., King, M., Dein, S., & O'Connor, W. (2008). Ethnicity and religious coping with mental distress. *Journal of Mental Health*, 17(2), 141-151. doi:10.1080/09638230701498408
- Boero, M.E., Caviglia, M.L., Monteverdi, R., Braidia, V., Fabello, M., & Zorzella, L.M. (2005). Spirituality of health workers: A descriptive study. *International Journal of Nursing Studies*, 42, 915-921. doi:10.1016/j.ijnurstu.2004.11.007
- Bufford, R.K., Paloutzian, R.F., & Ellison, C.W. (1991). Norms for the Spiritual Well-Being Scale. *Journal of Psychology and Theology*, 19(1), 56-70.
- Campeano, M., Belyea, M., & Schwartz, G. (2009). Spirituality and cultural identification among latino and non-latino college students. *Hispanic Health Care International*, 7(2), 72-79. doi:10.1891/1540-4153.7.2.72
- Cavendish, R., Luise, B.K, Horne, K., Bauer, M., Medefindt, J., Gallo, M.A., Calvino, C., & Kutza, T. (2003). Opportunities for enhanced spirituality relevant to well adults. *International Journal of Nursing Terminologies and Classifications*, 11(4), 151-163. doi:10.1111/j.1744-618X.2000.tb00422.x
- Dunn, L.L., Handley, M.C., & Dunkin, J.W. (2009). The provision of spiritual care by registered nurses on a maternal-infant unit. *Journal of holistic nursing : official journal of the American Holistic Nurses' Association*, 27(1), 19-28; quiz 31-13. doi:10.1177/0898010108323305
- Ellis, H., & Narayanasamy, A. (2009). An investigation into the role of spirituality in nursing. *British journal of nursing*, 18(14), 886-890. doi:10.12968/bjon.2009.18.14.43358
- Ellison, C.W. (1983). Spiritual well-being - conceptualization and measurement. *Journal of Psychology and Theology*, 11(4), 330-340.
- Fife, J. E., Sayles, H. R., Adegoke, A. A., McCoy, J., Stovall, M., & Verdant, C. (2011). Religious typologies

- and health risk behaviors of African American college students. *North American Journal of Psychology*, 13(2), 313.
- Greenfield, E.A., Vaillant, G.E., & Marks, N.F. (2009). Do formal religious participation and spiritual perceptions have independent linkages with diverse dimensions of psychological well-being? *Journal of Health and Social Behavior*, 50(2), 196-212. doi:10.1177/002214650905000206
- Haque, A. (2005). Mental health concepts and program development in Malaysia. *Journal of Mental Health*, 14(2), 183-195. doi:10.1080/09638230500059997
- Hatch, R.L., Burg, M.A., Naberhaus, D.S., & Helmich, L.K. (1998). Spiritual Involvement and Beliefs Scale: Development and testing of a new instrument. *Journal of Family Practice*, 46, 476-486.
- Hsiao, Y.-C. , Chien, L.-Y. , Wu, L.-Y. , Chiang, C.-M. & Huang, S.-Y. (2010). Spiritual health, clinical practice stress, depressive tendency and health-promoting behaviours among nursing students. *Journal of Advanced Nursing*, 66(7), 1612-1622. doi:10.1111/j.1365-2648.2010.05328.x
- Imam, S.S., Nurullah, A.S., Makol-Abdul, P.R., Rahman, S.A., & Noon, H.M. (2009). Spiritual and psychological health of Malaysian youths. *Research in the Social Scientific Study of religion*, 20, 85-101. doi:10.1163/ej.9789004175624.i-334.28
- Johnson, C.P. (2001). An Islamic understanding of health care: what can it teach us?. *Accident and Emergency Nursing*, 9, 38-45. doi:10.1054/aaen.2000.0186
- Joshanloo, M. (2012). Investigation of the factor structure of spirituality and religiosity in Iranian Shiite university students. *International Journal of Psychology*, 47(3), 211-221. doi:10.1080/00207594.2011.617372
- Kneipp, L.B., Kelly, K.E., & Cyphers, B. (2009). Feeling at peace with college: Religiosity, spiritual well-being, and college adjustment. *Individual Differences Research*, 7(3), 188 -196.
- Koenig, H. G. (2008). Concerns about measuring "spirituality" in research. *Journal of Nervous and Mental Disease*, 196, 349-355. doi:10.1097/NMD.0b013e31816ff796
- Koenig, H.G., George, L.K., Titus, P., & Meador, K.G. (2003). Religion, spirituality, and health service use by older hospitalized patients. *Journal of Religion and Health*, 42(4), 301-314. doi:10.1023/A:1025812726644
- Makros, J. & McCabe, M. (2003). The relationship between religion, spirituality, psychological adjustment, and quality of life among people with multiple sclerosis. *Journal of Religion and Health*, 42(2), 143-159. doi:10.1023/A:1023681830716
- Martin, J.C., & Sachse, D.S. (2002). Spirituality characteristics of women following renal transplantation. *Nephrology nursing journal : journal of the American Nephrology Nurses' Association*, 29(6), 577-581.
- McSherry, W. & Ross, L. (2002). Dilemmas of spiritual assessment: considerations for nursing practice. *Journal of Advanced Nursing*, 38(5), 479-488. doi:10.1046/j.1365-2648.2002.02209.x
- McSherry, W., Draper, P., & Kendrick, D. (2002). The construct validity of a rating scale designed to assess spirituality and spiritual care. *International Journal of Nursing Studies*, 39, 723-734. doi:10.1016/S0020-7489(02)00014-7
- Mickley, J.R., Soeken, K., & Belcher, A. (1992). Spiritual well-being, religiousness and hope among women with breast cancer. *Journal of Nursing Scholarship*, 24(4), 267-272. doi:10.1111/j.1547-5069.1992.tb00732.x
- Muhamad, R. (2009). Religiosity, ethical judgments and Malaysian Muslim students. *Journal of Business System, Governance and Ethics*, 4(1). doi:10.15209/jbsge.v4i1.154
- Musa, A.S. (2015). Psychometric evaluation of an Arabic version of the Spiritual Involvement and Beliefs Scale in Jordanian Muslim college nursing students. *Journal of Education and Practice*, 6(14), 64-73.
- Musa, A.S., & Pevalin, D. J. (2012). An Arabic version of the Spiritual Well-Being Scale. *The International Journal for the Psychology of Religion*, 22, 119-134. doi:10.1080/10508619.2011.638592
- Nelson, J. M. (2009). Psychology, religion, and spirituality. In J. M. Nelson (Ed.), *Psychology, religion, and spirituality* (pp. 311–345). New York, NY: Springer.
- Park, C.L. (2012). Meaning, spirituality, and growth: Protective and resilience factors in health and illness. In A. S. Baum, T. A. Revenson, & J. E. Singer (Eds.), *Handbook of health psychology*, (2nd ed., pp. 405–430). New York, NY: Taylor & Francis.
- Patel, C.J., Ramgoon, S., & Paruk, Z. (2009). Exploring religion, race and gender as factors in the life satisfaction and religiosity of young South African adults. *South African Journal of Psychology*, 39(3), 266-274. doi:10.1177/008124630903900302
- Pike, J. (2011). Spirituality in nursing: a systematic review of the literature from 2006–10. *British Journal of Nursing*, 20(12), 743-749. doi:10.12968/bjon.2011.20.12.743
- Priscilla, D., Hamidin, A., Azhar, M.Z., Noorjan, K.O.N., Salmiah, M.S., & Bahariah, K. (2011). Coping styles in patients with haematological cancer in a Malaysian hospital. *East Asian Arch Psychiatry*, 21, 44-51.
- Rassool, G.H., (2000). The crescent and Islam: healing, nursing and the spiritual dimension. Some

- considerations towards an understanding of the Islamic perspectives on caring. *Journal of Advanced Nursing*, 32(6), 1476-1484. doi:10.1046/j.1365-2648.2000.01614.x
- Reed, P. (1991). Preferences for spiritually related nursing interventions among terminally ill and nonterminally ill hospitalized adults and well adults. *Applied Nursing Research*, 4(3), 122-128. doi:10.1016/S0897-1897(05)80068-0
- Ross, L.A. (1997). *Nurses' perceptions of spiritual care*. Aldershot: Avebury.
- Rovers, M., & Kocum, L. (2010). Development of a holistic model of spirituality. *Journal of Spirituality in Mental Health*, 12, 2-24. doi:10.1080/19349630903495475
- Rubin, D., Dodd, M., Desai, N., Pollock, B., & Graham-Pole, J. (2009). Spirituality in well and ill adolescents and their parents: The use of two assessment scales. *Pediatric Nursing*, 35(1), 37-42.
- Sessanna, L., Finnell, D. S., Underhill, M., Chang, Y. P., & Peng, H. L. (2011). Measures assessing spirituality as more than religiosity: A methodological review of nursing and health - related literature. *Journal of advanced nursing*, 67(8), 1677-1694. doi:10.1111/j.1365-2648.2010.05596.x
- Shamsudin, N. (2002). Can the Neuman Systems Model be adapted to the Malaysian nursing context?. *International Journal of Nursing Practice*, 8, 99-105. doi:10.1046/j.1440-172x.2002.00339.x
- Shores, C.I. (2010). Spiritual perspectives of nursing students. *Nursing Education Perspectives*, 31(1), 8-11. doi:10.1043/1536-5026-31.1.8
- Staton, M., Webster, J.M., Hiller, M.L., Rostosky, S., & Leukefeld, C. (2003). An exploratory examination of spiritual well-being, religiosity, and drug use among incarcerated men. *Journal of Social Work Practice in the Addictions*, 3(3), 87-103. doi:10.1300/J160v03n03_06
- Swami, V., Arteche, A., Chamorro-Premuzic, T., Maakip, I., Stanistreet, D., & Furnham, A. (2009). Lay perceptions of current and future health, the causes of illness, and the nature of recovery: Explaining health and illness in Malaysia. *British Journal of Health Psychology*, 14, 519-540. doi:10.1348/135910708X370781
- Taliaferro, L.A., Rienzo, B.A., Pigg, R.M., Miller, M.D., & Dodd, V.J. (2009). Spiritual well-being and suicidal ideation among college students. *Journal of American College Health*, 58(1), 83-90. doi:10.3200/JACH.58.1.83-90
- Tanyi, R. (2002). Towards clarification of the meaning of spirituality. *Journal of Advanced Nursing*, 39(5), 500-509. doi:10.1046/j.1365-2648.2002.02315.x
- The North American Nursing Diagnosis Association, International (NANDA-I) (2009). *Readiness for Enhanced Religiosity*. UK: Wiley-Blackwell.
- Tiliouine, H. & Belgoumidi, A. (2009). An Exploratory study of religiosity, meaning in life and subjective wellbeing in Muslim students from Algeria. *Applied Research Quality Life*, 4, 109-127. doi:10.1007/s11482-009-9076-8
- Turner-Musa, J. & Lipscomb, L. (2007). Spirituality and social support on health behaviors of African American undergraduates. *American Journal of Health Behavior*, 31(5), 495-501. doi:10.5993/AJHB.31.5.5
- Wehmer, M.A., Quinn Griffin, M.T., White, A.H., & Fitzpatrick, J.J. (2010). An exploratory study of spiritual dimensions among nursing students. *International Journal of Nursing Education Scholarship*, 7(1), 1-10. doi:10.2202/1548-923X.1915
- Williamson, I.T., & Sandage, S.J. (2009). Longitudinal analyses of religious and spiritual development among seminary students. *Mental Health, Religion & Culture*, 12(8), 787-801. doi:10.1080/13674670902956604
- Winterowd, C., Harrist, S., Thomason, N., Worth, S., & Carlozzi, B. (2005). The relationship of spiritual beliefs and involvement with the experience of anger and stress in college students. *Journal of College Student Development*, 46(5), 515-529. doi:10.1353/csd.2005.0057
- Yampolsky, M.A., Wittich, W., Webb, G., & Overbury, O. (2008). The role of spirituality in coping with visual impairment. *Journal of Visual Impairment and Blindness*, 102(1), 28-39.
- Yehya, N.A. & Dutta, M.J. (2010). Health, religion, and meaning: A culture-centered study of Druze women. *Qualitative Health Research*, 20(6), 845-858. doi:10.1177/1049732310362400