

Islamic Religiosity, Depression and Anxiety among Muslim Cancer Patients

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Abstract

Active religious practice is central to Muslim livelihood. Among Muslims, this religious engagement is rarely studied with regards to its association in coping with critical illnesses. This study investigated the association between Islamic religiosity with depression and anxiety in Muslim cancer patients. Fifty-nine cancer patients recruited from a Malaysian public hospital and a cancer support group completed the Muslim Religiosity and Personality Inventory, Beck Depression Inventory and Beck Anxiety Inventory in July and August 2010. Islamic religiosity score, obtained from the sum of subscale scores of Islamic worldview and religious personality represents a greater understanding and practice of Islam in a comprehensive manner. Results yielded a significant negative correlation between Islamic religiosity score with both depression and anxiety. Depression was also found to be negatively associated with religious personality subscale. Older patients scored significantly higher on both Islamic worldview and religious personality whereas patients with higher education scored higher on Islamic worldview. Married patients scored significantly higher scores on religious personality than the single patients. Results provided an insight into the significant role of religious intervention which has huge potentials to improve the psychological health of cancer patients particularly Muslims in Malaysia. Research implication includes the call for professionals to meet the spiritual needs of Muslim cancer patients and incorporating religious components in their treatment, especially in palliative care.

Keywords: Religiosity, spirituality, depression, anxiety, Muslim cancer patients

Introduction and Literature Review

Cancer is among the most common of all critical illnesses leading to death. It has the most devastating economic impact of any cause of death in the world and represents the single largest drain on the global economy (John & Ross, 2010). Not only cancer is costly, it is also prevalent. The cost extends far beyond the number of lives lost and new diagnoses each year. Cancer patients, as well as their family members, friends, and caregivers too, face physical, emotional, financial, social, and spiritual challenges as a result of cancer diagnosis and treatment. Both physical and psychological health of the patients is affected, inducing stress and reducing the physical and psychological quality of life for cancer patients (Golden-Kreutz et al., 2005).

Many cancer patients also fall into depression. Researchers have found depression to be particularly high among cancer patients after receiving hospital treatment (Lue, Huang, & Chen, 2008). In patients with advanced stage of cancer, anxiety and panic attacks were common, and often were precipitated by fears about death (Alcorn et al., 2010). Given the prevalence of cancer and the psychological burden it creates for the patient and their families and friends, researchers have spent a great deal of effort trying to identify factors that may be useful for improving the psychological health of cancer patients.

A variable that has quite recently received attention in the chronic illness and mental health literature is religiosity. A meta-analysis covering 147 studies indicate an inverse association between religiosity and depressive symptoms, with a stronger association in studies involving people who were undergoing stress due to recent life events (Smith, McCullough, & Poll, 2003). Studies have also indicated the significance of religiosity and spirituality in positively influencing the psychological health of cancer patients (Alferi, Culver, Carver, Arena, & Antoni, 1999; Bowie, Curbow, Laveist, Fitzgerald, & Pargament, 2001; Koenig, 2008; McCoubrie & Davies, 2006; Lue, Huang, & Chan, 2008; Yanez et al., 2009). Among chronic pain patients too, organizational religiosity (e.g., attendances at religious services and other activities) was found to buffer depression (Strawbridge et al., 1998) and daily spiritual experiences and religious support were able to significantly predict mental health status (Rippentrop, Altmaier, Chen, Found, & Keffala, 2005; Rippentrop, Altmaier, & Burns, 2006). In general, there appears to be a positive relationship between spirituality, religion and mental health factors in the literature (George, Larsons, Koenig, & McCullough, 2000).

This may be explained by religiosity's protective effects against mental illness among individuals with chronic medical diseases. The first protective effect is through many religions' encouragement of healthy behaviours as well as through its prohibition of behaviours that place health at risk such as the use of tobacco, alcohol, risky sexual behaviour and drugs. Secondly, religion leads to active involvement in religious activities for many religious people, which broaden one's network of friends, leading to more frequent interactions, receiving more assistance, and attaining higher levels of satisfaction within the social network. Thirdly, religion benefits health by providing a sense of coherence and meaning to life (George, et al., 2000). Religion serves as a framework for making meaning out of experiences and events that individuals go through. Particularly in events which are deemed to be highly stressful, individuals tend to change the appraised meaning of events by understanding them in a different and less stressful way, or by changing the global beliefs and goals that were violated to bring them more in line with their understanding with what is currently happening. Thus religion is seen to be highly involved in the positive changes that individuals report following stressful experiences (Park, 2005).

Studies on religiosity and mental health among patients with chronic illness, particularly cancer, have been accumulating, especially in the US which is largely represented by Judeo-Christians. Moreover, research on spirituality and religiosity among cancer patients from diverse cultures and religions have been on the rise. For example, several studies have examined the role of religiosity and/or spirituality of women in dealing with breast cancer in samples representing several cultures and religions such as Taiwanese women (Chiu, 2000), African American women (Bowie et al., 2001), Catholic and Evangelical Hispanic women (Alferi et al., 1999), and Muslim women in Malaysia (Ahmad, Muhammad, & Abdullah, 2010). Overall, these investigations included both qualitative and epidemiological studies which provided deeper understanding and insights into the spiritual experiences and its influence on the psychological well-being of cancer patients. However, the results could not be simply generalized to people from other cultures and faiths, such as Islam. For example, in the literature, religious involvement are often measured in terms of affiliation or frequent attendance at religious services (Strawbridge, Shema, Cohen, Roberts, & Kaplan, 1998) whereas for the Muslims faith, religious involvement is not constrained only with worship acts, but also involves their daily interactions with other fellow human beings. The present study adds to the literature on Muslim cancer patients, aiming to investigate the relationship between Islamic religiosity with depression and anxiety among Muslim cancer patients.

Islamic religiosity

The Muslim faith taught that Islam is a way of life (*deen*), and it is defined by the following concepts: *Al-Islam*, (the five pillars, as the outward actions of the limbs), *Al-Iman* (associated with belief- the inner actions of the heart) and *Al-Ihsan*, (fearing and glorifying Allah and the best actions of the heart). Hence, a Muslim is taught to believe in the heart (*Al-Iman*), manifest their beliefs through worship and daily conducts (*Al-Islam*) and being sincere in everything they do with the consciousness that Allah is watching over them all the time (*Al-Ihsan*). If the *Al-Iman* (belief- the inner actions of the heart) is weak, it will affect *Al-Islam* (good deeds/actions) thus, *Al-Iman* necessitates the actions (“Hadith No: 2”, 2010, para. 3). A measure of these three aspects signifies a comprehensive understanding and practising of Islam. The religiosity scale used in the present study will measure these aspects that define Islamic religiosity.

Accordingly, the scales used in almost all of the studies on religiosity and spirituality in the literature are not valid to be used to measure religiosity from Islamic perspective having measured different aspects of religiosity or spirituality per se. Furthermore, researchers have been divided with the definitions of religiosity and spirituality. Some believe that terms religiosity and spirituality constitute the same meaning, whereas others define them as two separate concepts and measure them independently. For example, researchers who viewed both constructs as separate entities define religiosity as a shared system of organized beliefs and practises involving a higher power. However, spirituality was defined in a broader context; i.e., people’s understanding of their lives in terms of their ultimate meaning and value (Mystakidou, Tsilika, Parpa, Smyrnioti & Vlahos, 2007), and an aspect of the self which seeks to reconcile one’s experiences with personal beliefs (Boeving, 2000). Therefore, spirituality is seen as an outcome determined by something within an individual and not through an organized religion (Levine, 2007). Some other researchers (e.g., Meragvilia, 1999; Unterrainer, Ladenhauf, Moazedi, Wallner-Liebmann, & Fink, 2010) used the terms religiosity and spirituality as if they constitute the same meaning. Another researcher, (Strawbridge et al., 1998) defined religiosity into two dimensions namely organizational (e.g., attendance at religious services

and being active in religious organizations) and non-organizational (e.g., praying and believing in the importance of religious and spiritual beliefs).

It is of note that the dichotomy between spirituality and religiosity is not accepted in the Islamic way of life as Islam views spirituality as an inner dimension of religion. The Muslims believe that religion is the prescribed religious activities which provide the roadmap to one's ultimate purpose in life; that is to live continuously in relationship with God; the essence of spirituality. It is believed that to be spiritual but not religious may make a person spiritual but without religion or a road map to reach God, he or she may be misguided. Similarly, to be religious but not spiritual may make a person religious, but without self-understanding and consciousness, he or she is considered spiritually dead (Ahmad, et al., 2010).

Therefore, this study explores the unique comprehensive aspects of religiosity as defined by Islamic religiosity. This will be measured using an Islamic religiosity scale that will measure the understanding and practising aspects of Islam. It is hypothesized that among Muslim cancer patients, a high Islamic religiosity score will lower the tendency of depression and anxiety, and a low Islamic religiosity score will increase the tendency of depression and anxiety, i.e. an inverse association is expected.

Methods

Participants and Procedures

In this cross-sectional study, participants were approached while attending oncology daycare, warded in a public hospital in Kuala Lumpur and while attending cancer support group activity held in a public university. Patients were seen individually or with their family members.

The sample comprised of 59 Muslim cancer patients, 16 (27%) of whom were male and 43 (73%) were female. The mean age for the entire sample was 49 years with a range from 15 to 65. There were 57 Malays, an Italian and a Javanese. 50 patients were married, one widowed and seven single patients with a missing data. As for their education levels, 49% (n=29) did not continue education after school, 22% (n=13) had a certificate or diploma, 20% (n=12) had a bachelor degree while 8.5% (n=5) studied up to postgraduate level.

As for the cancer stages, for stage 1, 2 and 3, there were 12 patients for each of the stages while for stage 4, there were 21 patients. Two participants had missing data.

Inclusion criteria included being Muslims, having been diagnosed with cancer, aged between 15-65 years old, able to communicate effectively with interviewer and must be able to give a written informed consent. Respondents were excluded from the study if they showed any signs of psychiatric illness or if they were on any psychoactive medication. The study was conducted between July to August 2010.

An information sheet regarding objective of the study was given to the patient; then, the researcher explained the study's purpose and informed each subject about their rights and confidentiality issues. If patients agreed to participate, they were given an informed consent form to indicate their agreement. For patients who were under 18 of age, a separate consent form was given for their guardians or parents to indicate their agreement.

Three sets of questionnaires were then distributed to the patients along with information about their basic demography. Patients who were not able to fill in the questionnaires due to physical incapability or sight problems were assisted by the researcher by reading out the questions to them.

In the cancer support program, the researcher, who was also a participant, approached individual patients, after the program and explained about the study and gave the questionnaires with a self-addressed envelope for which patients were asked to return after they filled in the questionnaires.

The time taken to complete the questionnaires was about 15-30 minutes. All of the questionnaires were self-administered scales and were in Malay language.

Ethical consideration

This study was conducted under the permission of the Ethics Committee of the hospital in which the study was conducted. Each questionnaire was accompanied by an informed consent that described the nature and purpose of the study. Respondents had given written agreement to allow their questionnaire data to be used for research purpose, and their confidentiality was ensured.

Measures

The Muslim Religiosity and Personality Inventory. The Muslim Religiosity and Personality Inventory (MRPI) is an Islamic religiosity measurement developed for Muslims in Malaysia (Krauss et al., 2006). This study uses a validated short version of the questionnaire. It has two subscales, namely Islamic Worldview with 23-items and Religious Personality with 33-items.

Islamic Worldview is rated on a 5-point scale from 1 (strongly disagree) to 5 (strongly agree). Higher scores on this subscale represent greater knowledge and perceptions towards the pillars of Islam. Religious Personality is rated on a 5-point scale ranging from 1 (never) to 5 (always). Higher scores on this subscale represent greater practice of the Islamic obligations. A scoring table provides the norm score as a measure of high or low scores for the two subscales relative to the population.

A total Islamic religiosity score was obtained by summing the subscale scores. Higher score on this represent greater understanding and practice of Islam in a comprehensive manner. The MRPI has been found to have high validity and reliability among Muslims in Malaysia with item analysis at alpha value of .91 and Cronbach Alpha ranging from .74 to .89 (Hamzah et al., 2007).

Beck Depression Inventory (Malay). The Beck Depression Inventory (BDI) (Beck, Steer & Brown, 1996) is a 21-item scale to assess the severity of depression in diagnosed patients and for detecting possible depression in normal populations. It consists of questions on how the subject was feeling in the past week. Each set of 4 possible answer choices range in increasing intensity.

This study uses the BDI-Malay version which has been validated among Malays in Malaysia by Mukhtar and Oei (2007). It consists of 20-items, with item 21 omitted for the reason of being unfit for the culture and religion of the Malays. The validity and reliability of the BDI-Malay has been found to be satisfactory with Cronbach Alpha ranging from .71 to .91.

Beck Anxiety Inventory (Malay). The Beck Anxiety Inventory- Second Edition (BAI-II) (Beck & Steer, 1993) is a 21-item scale that measures the severity of self-reported anxiety in adults and adolescents for the past week. The score is rated on a 4-point scale ranging from 0 (not at all) to 3 (severely; I could barely stand it). The psychometric properties study of the Malay version of the BAI-II was conducted by Mukhtar and Zulkefly (2011). BAI-Malay was found to be a reliable and valid with Cronbach Alpha ranging from .66 to .89.

Statistical Analysis

Data were analyzed using the Statistical Package for Social Science (SPSS Version 15.0). Analyses were generated using Pearson correlation to identify the relationship between Islamic religiosity with depression and anxiety. Independent t-test and ANOVA were used to analyze the demographic information of the participants.

Results

Negative Relationship between Islamic Religiosity and Depression

Analysis using Pearson correlation indicated a significant negative correlation (<0.01) between depression and MRPI subscale of Religious Personality (-.347) and with the total score of MRPI (-.350). This is presented in Table 1.

Table 1

Correlation between Muslim Religiosity Personality Inventory (MRPI) subscale and total scores and Beck Depression Inventory (BDI). (n=59)

	Islamic Worldview	Religious Personality	MRPI Total
BDI			
Pearson correlation	$r = -.161$	$r = -.347$	$r = -.350$

* $p < 0.01$

Negative relationship between Islamic Religiosity and Anxiety

Analysis using Pearson correlation indicated a significant negative correlation (<0.05) between anxiety and the total score of the MRPI (-.287).

Table 2

Correlation between Muslim Religiosity Personality Inventory (MRPI) subscale and total scores and Beck Anxiety Inventory (BAI)

	Islamic Worldview	Religious Personality	MRPI Total
BAI			
Pearson correlation	$r = -.239$	$r = -.237$	$r = -.287^*$

* $p < 0.05$

Gender and religiosity. No significant relationship was found between gender and Islamic religiosity.

Education and religiosity. Significant relationship was found between education levels and religiosity scores ($F=2.553$, $p=.025$). Means plot indicate that the higher the patients' level of education, the higher they scored in the Islamic Worldview subscale.

Age and religiosity. Age groups were found to be significantly related ($p < 0.05$) with Religious Personality subscale ($F= 4.170$, $p= .005$), Islamic Worldview subscale ($F=3.019$, $p= .026$), and MRPI overall scores ($F=6.493$, $p= .000$). Means plot comparing the means of the scores with age groups revealed that the higher the age group, the higher they scored in both the subscales of the Muslim Religiosity Personality Inventory.

Marital status and religiosity. Results revealed a significant difference between groups of marital status ($p < 0.05$) in the Religious personality subscale ($F=4.627$, $p=.014$) and the overall MRPI scores ($F=5.201$, $p=.009$). Means plot comparing the means revealed higher scores were obtained by widowed and married patients, compared to single patients.

Cancer stage and survival time with religiosity. No significant relationships were found between Islamic religiosity, cancer stage, and length of time since diagnosis.

Discussion

The present study aims to investigate the association between Islamic religiosity with depression and anxiety. It utilizes a religious scale that was developed and validated particularly for Muslims in Malaysia. Results demonstrated a significant negative relationship between Islamic religiosity with depression and anxiety among the Muslim cancer patients, hence confirming the hypothesis of this study.

Consistent with previous studies, correlational results showed that spirituality and depression had a significant negative association (Mystakidou et al., 2007; McCoubrie & Davies, 2006) in cancer patients. But they did not find a significant association between private religious practices (Mystakidou et al., 2007) and religious faith (McCoubrie & Davies, 2006) to anxiety and depression. However, in the present study, Islamic religiosity which incorporates both spirituality and religiosity resulted in significant association with both depression and anxiety.

While the results demonstrated a significant negative relationship between Islamic religiosity with depression (.007) and anxiety (.027), anxiety was somewhat lower in significance. This finding is consistent with previous studies on psychopathology which revealed a smaller relationship between anxiety and religiosity than depression (Miller & Kelley, 2005), the reason of which is unclear.

Results of the present study also demonstrated a significant association in the religious personality subscale of the MRPI with depression. The religious personality subscale is the practicing aspect of the scale, the good morality that is portrayed through everyday conduct. The religious personality subscale measures the direct relationship with God (*Al-Islam*) and relations with other human beings and creations (resulting from God-consciousness; *Al-Ihsan*) whereas the Islamic worldview subscale measures the Islamic foundation or beliefs and understanding of the six articles of faith (*Al-Iman*). The results indicate that participants that scored high in the subscale that measured *Al-Islam* and *Al-Ihsan* shower lower tendency to be depressed. It could be that such persons were too distracted with improving their relationship with God and with other beings that they do not have the time to be emotionally down and depressed.

Park (2005) noted that religion can be highly involved in the positive changes that individuals report following stressful experiences such as the cancer experience. Consistent with this view, Koenig et al. (2001) reported that chronic illness provided the pathway to develop a personal relationship with God which motivates the patient to please and serve God. Hence whatever ability a disable person still has, he may offer the ability in God's service. This "ability" need not require any physical activity-sometimes the attempt to be kind, grateful or appreciative for services rendered by others can itself be considered a service to others. This is reflected in the religious personality subscale of the MRPI which measure items such as hiding someone else's weaknesses to themselves and feeling grateful when there arises a chance for them to donate to the poor such as when a beggar approaches them for some help.

The result that high levels of Islamic religiosity are associated with lower tendency of depression and anxiety signifies the importance of Islamic religiosity in the treatment of Muslim cancer patients. A review of the literature noted that the majority of studies found that the religious intervention was associated with a more rapid reduction in symptoms of depression and anxiety (Koenig et al., 2001). This was found to be particularly true for those with higher religiosity. Razali et al., (1998) had demonstrated that their psychotherapy treatment that incorporates a religious and sociocultural component rapidly improved anxiety and depressive symptoms in patients with strong religious and cultural backgrounds. It is of note that in the present study, most participants consider their religion as a significant part of their lives.

Meanwhile, Grant et al. (2004) demonstrated that unmet spiritual needs may give rise to spiritual distress in some individuals that may worsen physical and emotional symptoms and the ability to cope with them. They called for professionals to adopt a patient-centred approach; by supporting patients in their worldview, and providing openings for expression of fear, doubt, and anxiety which may help patients in their search for meaning and prevent spiritual need amounting to disabling spiritual distress. Inevitably, professionals who were able to develop positive relationships with patients inadvertently would reduce spiritual distress in them.

It is hence recommended that the palliative care team to be composed of health care practitioners who are trained to include a religious or spiritual component in their treatment.

These include talking about meaning of life, reflection about their lives and their relationship with the Creator. Religious scale such as the MRPI is also recommended to be used by health care professionals in integrating Islamic religiosity with medicine. Besides providing physicians with a quantitative, credible method of spiritual inquiry with their patients, it also provides an avenue for integrating spiritual assessment with traditional medicine (Mystakidou et al., 2007).

The observed association of older age in Islamic religiosity is consistent with findings by Strawbridge et al. (1998) in their two dimensions of religiosity, i.e. organizational (attending services and other activities) and non-organizational religiosity (private practices such as prayer). However they also found a significant association in gender, which was not demonstrated in the present study. In addition, the present study found association in education with Islamic worldview subscale and marriage in association with religious personality subscale.

The present study explored the unique measures of Islamic religiosity compared with other religiosity scales used in previous studies. It calls for the definition of religiosity to be extended beyond the measure of attendances in worship services and prayers. This study shows the significance of selecting a religiosity measure that was specifically constructed to measure the aspects of religiosity of a particular faith for such measures vary considerably from one faith to another.

Limitations

There are several limitations to the present study. As this study is a cross-sectional one, the results could not be used to determine causality. A longitudinal study may be beneficial in assessing the change of Islamic religiosity in a Muslim cancer patient from their early diagnosis to some months or years after their diagnosis.

Another limitation is social desirability. Since MRPI is a religiosity instrument, there are bound to be some issues related to social desirability whereby individuals often describe their own behaviour inaccurately by answering questions according to what they think they should be doing (Krauss & Hamzah, 2010). It is possible that the associations among constructs in this study are simply the results of consistency in individuals' tendencies to express positive views and feelings in relation to Islamic religiosity, depression and anxiety.

In addition, a religiosity measurement can never be perfect and complete due to the fact that religiosity resides in an individual's heart. Researchers are just limited to assessing the external or manifested elements of an individual's religious practice. Hence this study has a limit in that it can only measure the manifested elements of religiosity.

Conclusions

The present study indicated the significance of Islamic religiosity in lowering the tendency of depression and anxiety in Muslim cancer patients. It also provided an understanding of the Islamic religiosity which were defined by *Al-Islam*, *Al-Iman* and *Al-Ihsan*. This pointed towards the high potential of Islamic religious intervention in contributing towards increasing the quality of life of cancer patients particularly among Muslims in Malaysia. The authors call for the health professionals to adopt a patient-spiritual centered approach that meets the spiritual needs of Muslim cancer patients.

References

- Ahmad, F., Muhammad, M., & Abdullah, A.A. (2011). Religion and Spirituality in Coping with Advanced Breast Cancer: Perspectives from Malaysian Muslim Women. *Journal of Religion and Health*, 50(1), 36-45. doi: 10.1007/s10943-010-9401-4
- Alcorn, S.R., Balboni, M.J., Prigerson, H.G., Reynolds, A., Phelps, A.C., Wright, A.A., Block, S.D., Peteet, J.R., Kachnic, L.A., & Balboni, T.A. (2010). "If God Wanted Me Yesterday, I Wouldn't Be Here Today": Religious and Spiritual Themes in Patients' Experiences of Advanced Cancer. *Journal of Palliative Medicine*, 13(5), 581-588. doi: 10.1089/jpm.2009.0343
- Alferi, S.M., Culver, J. L., Carver, C. S., Arena, P. L., & Antoni, M. H. (1999). Religiosity, Religious Coping and Distress - A Prospective Study of Catholic and Evangelical Hispanic Women in Treatment for Early-Stage Breast Cancer. *Journal of Health Psychology*, 4(3), 343-356. doi: 10.1177/135910539900400304.
- Beck, A.T., & Steer, R.A. (1993). *Beck Anxiety Inventory Manual*. San Antonio: The Psychological Corporation.
- Beck, A.T., Steer, R.A., & Brown, G.K. (1996). *Beck Depression Inventory- Second Edition-Manual*. San Antonio: The Psychological Corporation.
- Boeving, C.A. (2000). *Adjustment to Childhood Chronic Illness: Prediction of Psychological Adjustment with an Investigation into Spiritual Coping*. Master Thesis. Virginia: Faculty of the Virginia Polytechnic Institute and State University. Retrieved from: http://scholar.lib.vt.edu/theses/available/etd-12182000174313/unrestricted/cboeving_thesis.PDF
- Bowie, J., Curbow, B., Laveist, T., Fitzgerald, S., & Pargament, K. (2001). The Relationship Between Religious Coping Style and Anxiety over Breast Cancer in African American Women. *Journal of Religion and Health*, 40 (4), 411-422. doi: 10.1023/A:1012873017657
- Chiu, L. (2000). Lived Experience of Spirituality in Taiwanese Women with Breast Cancer. *Western Journal of Nursing Research*, 22 (1), 29-53.
- George, L.K., Larsons, D.B., Koenig, H.G., & McCullough, M.E. (2000). Spirituality and Health: What We Know, What We Need to Know. *Journal of Social and Clinical Psychology*, 19(1), 102-116.
- Golden-Kreutz, D.M., Thornton, L.M., Di Gregorio, S.W., Frierson, G.M., Jim, H.S., Carpenter, K.M., ...Andersen, B.L. (2005). Traumatic Stress, Perceived Global Stress, and Life Events: Prospectively Predicting Quality of Life in Breast Cancer Patients. *Health Psychology*, 24(3), 288-296.
- Grant, E., Murray, S.A., Kendall, M., Boyd, K., Tilley, S., & Ryan, D. (2004). Spiritual Issues and Needs: Perspectives from Patients with Advanced Cancer and Non-Malignant Disease. A Qualitative Study. *Palliative and Supportive Care*, 2, 371-378. doi: 10.1017/S1478951504040490 Hadith No: 2 with Commentary in English. (2010). In An-Nawawi's 40 Hadith. Retrieved from <http://ahadith.co.uk/hadithwithcommentary.php?id=442&cid=11>
- Hamzah, A., Krauss, S.E., Noah, S.M., Suandi, T., Juhari, R., Manap, J., Mastor, K.A., Mahmoud, A., & Kassan, H. (2007). *Muslim Religiosity and Personality Assessment: Prototype for Nation Building*. Selangor: Institute for Social Studies, UPM.
- John, R. & Ross, H. (2010). *The Global Economic Cost of Cancer*. American Cancer Society and Livestrong. Retrieved from

<http://www.cancer.org/acs/groups/content/@internationalaffairs/documents/document/acspc-026203.pdf>

- Koenig, H.G., Larson, D.B., & Larson, S.S. (2001). Religion and Coping with Serious Medical Illness. *The Annals of Pharmacotherapy*, 35, 352-358.
- Koenig, H.G. (2008). Research on Religion, Spirituality and Mental Health: A Review. *Canadian Journal of Psychiatry*, 54(5), 283-291.
- Krauss, S.E., & Hamzah, A. (2010). *The Muslim Religiosity-Personality Inventory (MRPI) Scoring Manual*. Serdang: Universiti Putra Malaysia.
- Krauss, S.E., Hamzah, A.H., Suandi, T., Noah, S., Juhari, R., Manap, J.H., Mastor, K.A., Kassan, H., & Mahmood, A. (2006). Exploring Regional Differences in Religiosity among Muslim Youth in Malaysia. *Review of Religious Research*, 47 (3), 238-252.
- Levine, E. G., Yoo, G., Aviv, C., Ewing, C., & Au, A. (2007). Ethnicity and Spirituality in Breast Cancer Survivors. *Journal of Cancer Survivors*, 1, 212-225. doi: 10.1007/s11764-007-0024-z.
- Lue, B.H., Huang, T.S., & Chen, H.J. (2008). Physical Distress, Emotional Status, and Quality of Life in Patients with Nasopharyngeal Cancer Complicated by Post-radiotherapy Endocrinopathy. *International Journal of Radiation Oncology, Biology, Physics*, 70 (1), 28-34. doi: <http://dx.doi.org/10.1016/j.ijrobp.2007.06.053>
- Mc Coubric, R. C. & Davies, A. N. (2006). Is There a Correlation between Spirituality and Anxiety and Depression in Patients with Advanced Cancer? *Support Care Cancer*, 14, 379-385. doi: 10.1007/s00520-005-0892-6
- Meraviglia, M.G. (1999). Critical Analysis of Spirituality and Its Empirical Indicators: Prayer and Meaning in Life. *Journal of Holistic Nursing*, 17(1), 18-33. doi: 10.1177/089801019901700103
- Miller, L., & Kelley, B.S. (2005). Relationships of Religiosity and Spirituality with Mental Health and Psychopathology. In Paloutzian, R.F., & Park, C.L. (Eds.), *Handbook of the Psychology of Religion and Spirituality* (pp.460-479). New York: Guilford Press.
- Mukhtar, F., & Oei, T.P.S. (2007). Exploratory and Confirmatory Factor Validation and Psychometric Properties of the Beck Depression Inventory for Malays (BDI- Malay) in Malaysia. *Malaysian Journal of Psychiatry*, 16, 1.
- Mukhtar, F., & Zulkefly, N. (2011). The Beck Anxiety Inventory for Malays (BAI-Malay): A Preliminary Study on Psychomotor Properties. *Malaysian Journal of Medicine and Health Sciences*, 7(1), 75-81.
- Mystakidou, K., Tsilika, E., Parpa, E., Smyrnioti, M., & Vlahos, L. (2007). Assessing Spirituality and Religiousness in Advanced Cancer Patients. *American Journal of Hospice and Palliative Medicine*, 23 (6), 457- 463. doi: 10.1177/1049909106294880
- Park, C.L. (2005). Religion and Meaning. In Paloutzian, R.F., & Park, C.L. (Eds.), *Handbook of the Psychology of Religion and Spirituality* (pp.295-314). New York: Guilford Press.
- Razali, S.M., Hasanah, C.I., Aminah, K., & Subramaniam, M. (1998). Religious-Sociocultural Psychotherapy in Patients with Anxiety and Depression. *Australian and New Zealand Journal of Psychiatry*, 32(6), 867-872 doi: 10.3109/00048679809073877
- Rezaei, M., Adib- Hajbagheri, M., Seyedfatemi, N., & Hoseini, F. (2008). Prayer in Iranian Cancer Patients Undergoing Chemotherapy. *Complementary Therapies in Clinical Practice*, 14, 90-97.
- Rippentrop, A.E., Altmaier, E.M. & Burns, C.P. (2006). The Relationship of Religiosity and Spirituality to Quality of Life among Cancer Patients. *Journal of Clinical Psychology in Medical Settings*, 13 (1), 31-37. doi: 10.1007/s10880-005-9000-9

- Rippentrop, A. E., Altmaier, E.M., Chen, J.J., Found, E.M., & Keffala, V.J. (2005). The Relationship between Religion/Spirituality and Physical Health, Mental Health, and Pain in a Chronic Pain Population. *Pain*, 116, 311-321. doi: 10.1016/j.pain.2005.05.008
- Smith, T.B., McCullough, M.E., & Poll, J. (2003). Religiousness and Depression: Evidence for a Main Effect and the Moderating Influence of Stressful Life Events. *Psychological Bulletin*, 129(4), 614-636. doi: 10.1037/0033-2909.129.4.614
- Strawbridge, W.J., Shema, S.J., Cohen, R.D., Roberts, R.E., & Kaplan, G. A. (1998). Religiosity Buffers Effects of Some Stressors on Depression but Exacerbates Others. *Journal of Gerontology: SOCIAL SCIENCES*, 53B(3), S118-S126
- Unterrainer, H.-F., Ladenhauf, K.H., Moazedi, M.L., Wallner-Liebmann, S.J., & Fink, A. (2010). Dimensions of Religious/Spiritual Well-Being and Their Relation to Personality and Psychological Well-Being. *Personality and Individual Differences*, 49, 192-197. doi: 10.1016/j.paid.2010.03.032
- Yanez, B., Edmondson, D., Stanton, A.L., Park, C.L., Kwan, L., Ganz, P.A., & Blank, T.O. (2009). Facets of Spirituality as Predictors of Adjustment to Cancer: Relative Contributions of Having Faith and Finding Meaning. *Journal of Consulting and Clinical Psychology*, 77(4), 730-7. doi: 10.1037/a0015820

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