

Religion and Quality of Life in College Age Students

By

Katie Barefoot

A thesis submitted to the faculty of The University of Mississippi in partial fulfillment of the requirements of the Sally McDonnell Barksdale Honors College.

Oxford

May 2015

Approved by:

Advisor: Dr. Matthew Reysen

Reader: Dr. Michael Allen

Reader: Dr. Stefan Schulenberg

©2015

Katie Barefoot

ALL RIGHTS RESERVED

ABSTRACT

The aim of this study is to assess the relationship between religion and quality of life in healthy participants, specifically young adults in college. Participants (N=241) completed an abridged 62 item survey by the World Health Organization, the WHOQOL-SRPB, which assess quality of life and religiosity. This experiment found that there is a positive correlation between religion and quality of life in college age students. Due to the strong relationship between spirituality and quality of life, it is determined by the researcher and study design that religiosity and quality of life affect not only elderly or terminally ill patients, but also those participants who lack immediate health threat.

Key words: religion, quality of life

Table of Contents

Literature Review.....	1
Methods.....	12
Results.....	14
References.....	19
Appendix 1.....	22
Tables.....	36

Religion and Quality of Life in College Age Students

Many psychologists have asked questions regarding religion and daily living. In fact, the interaction between religiosity and psychological wellbeing is an ever growing subject. Religious affiliation has, in many cases, been demonstrated to offset the effects of anxiety and stress, as well as promote well-being (Huang, Hsu, M., & Chen, T., 2010; Chai P., Krägeloh, C., Shepherd, D., & Billington, R., 2012). In one study conducted by Wachholtz and colleagues, (2007) religious involvement even improves tolerance of physical pain. Researchers have concluded through numerous studies (e.g., Huang, et al, 2010; Abdel-Khalek, 2010; Kang, et al, 2012) that religion or religious involvement has a positive effect on many aspects of life, ranging from depression to quality of life.

However, much of the research regarding the theory that religion affects quality of life is largely focused on patients with cancer or another severe illness (Kang, et al, 2012; Winkelman, et al, 2011; Lazenby, M., & Khatib, J., 2012). Often in these situations, religion is seen to increase overall quality of life. Cohen, et al (2001) conducted a study via questionnaire following patients in a palliative care facility in Canada over several months, and found that after admission, patient quality of life increased, as well as spirituality and relationships. However, as Strang and Strang (2001) conjecture in their small study in Sweden, this increase in spirituality and religiosity

could be a form of coping for terminal patients or a direct result of existential questions that arrive late in life.

Very few studies have used healthy participants in an average setting, despite the assumption that such a study design, if successful, would provide evidence in favor of the idea that religious affiliation affects quality of life even in the absence of the threat of death. This begs the question, how does religion promote quality of life? Does religion promote quality of life in only a specific stratum of people? Is this promotion of quality of life statistically significant in the lives of elderly patients? Finding the answer to the latter question is the goal of the intriguing study conducted by Huang, et al (2010).

To begin exploring this idea, the researchers analyzed how much religion affects day to day living and thought processes. They cited several studies that conjecture that religious involvement reduces depression, increases mindfulness if focused on in a meditative way, and establish the little known fact that religion is used in multiple forms of therapy worldwide. Having established the actuality that religion aids in situations such as those seen above, the researchers began their study. Huang, et al gathered a total of 115 elderly participants from an outpatient clinic in Taiwan and asked them preliminary questions such as age: nationality, living conditions, level of anxiety, and frequency of attendance of religious services. For these questions, a variety of tools were used, such as the Beck Anxiety Inventory, the Center for Epidemiological Studies-Depression Scale, and the Quality of Life Index. These surveys and scales attempted to quantify the level of anxiety, depression, and even the quality of life of the patients being studied. Patients were free to ask questions if a survey or prompt confused them, and rest periods were granted to reduce physical duress.

An analysis of the results revealed that 56.5% of the participants claimed to associate with a particular religion, but only half revealed that they had ever attended a religious ceremony. Also, 74.8% of the participants suffered from mild to severe anxiety, and anxiety was often comorbid with depression. The average rate of psychological problems lasted 22.57 months. The statistics showed that the further the patient went in school, the less likely they were to become depressed and more likely to have better quality of life. The same was found for religion. Religious involvement reduced symptoms of anxiety and depression, as well as promoted an overall high quality of life. The meaning of this finding cannot be fully realized without mentioning that the patients studied that had no religious affiliation scored significantly lower on the quality of life scale.

Based on their findings, the authors concluded that religion has a moderating effect on anxiety, depression, and quality of life in older patients, possibly due to a reduced level of worry and stress. They conjecture that perhaps this phenomenon occurs because older people are more involved in religious services, or even religion itself, than young people, or perhaps religious involvement provides a stable social group for patients to turn to. It is even possible that a certain branch of religion, such as Buddhism, is responsible for such a phenomenon, for the study was conducted in a part of the world that is predominantly Buddhist. Even further, it is unclear exactly *how* religion acts as a moderator. Despite the lack of clarity surrounding the study, the researchers consider their findings so profound that they suggest promoting religious involvement in the treatment of elderly patients in order to glean more positive results in the fields of psychology and medicine. In most hospitals worldwide, a chapel or place for prayer is

often offered, but the researchers imply that active religious involvement promoted by hospital staff is the next step after their study. A possible worry is that this is one study, and a study with a relatively small sample size. Before this method is commonly put in to practice, perhaps it would be prudent for further research to be conducted.

Just as religion has been demonstrated to work as a moderator for elderly adults in Taiwan, it has also been shown to be effective in the fight against cancer. In fact, most research regarding religion and quality of life centers around terminally ill or cancer patients. The physical and mental toll of the disease leaves cancer patients with a feeling of loss, hopelessness, and, many times, anger. For many, the goal of a terminal cancer patient is not to recover from a disease with no cure, but to find a way to cope. According to the authors of one study, many cancer patients find hope and peace by using religion as a coping mechanism. However, so little is known about the relationship between religion, spiritual concerns, and quality of life within the context of a terminal illness, but this is precisely what Winkelman, et al (2011) have tried to study.

For their study, Winkelman and colleagues recruited 69 patients from four Boston hospitals who had been diagnosed with terminally ill cancer, who were receiving palliative radiation therapy, were over 21, and were able to complete a 45 minute questionnaire session. The participants filled out a portion of the Fetzer Multidimensional Measure of Religiousness/Spirituality which indicated their religious affiliation. Testing metrics included having no religious affiliation, and recorded the frequency of attendance of religious services. In addition, patients were asked a multiple answer question that inquired into the spiritual difficulties the patient had experienced since the discovery of his/her illness. The responses were not open ended, but patients

could choose multiple answers from a list that included options such as, “I wonder why God let this happen” and “I am doubting belief in God or my faith.” Later, an open ended question regarding spiritual difficulties was asked, and responses recorded. Finally, the patients were asked to fill out the McGill Quality of Life Questionnaire, which poses questions related to physical, existential, psychological, social support quality of life. Upon completing these questionnaires, additional information regarding age, marital status, years of education, and other related information was gathered.

To analyze the data they collected, Winkelman and his colleagues used univariate linear regression to measure the relationship between spiritual struggle and quality of life. To measure between other possible contributions to quality of life such as patient demographics, degree of religiousness, and type of cancer, a multivariable regression model was employed.

In the results of the study, the researchers found that spiritual matters were in the forefront of the minds of most terminally ill cancer patients. 93% of patients reported that they were at least slightly spiritual, and 49% reported being very spiritual. 58% of the participants reported that they were dealing with a spiritual struggle, and 86% struggled with a spiritual concern; this finding is consistent with other related studies. During the multiple answer portion of the survey, the most frequently checked response in regard to spiritual difficulties was, “why did God let this happen?” The more spiritual concerns or spiritual struggles a patient had, the lower their score of psychological well-being. Unfortunately, this was the majority of patients studied. Also, doubting the existence of God resulted in poor psychological quality of life, and patients who reported feeling abandoned by God consistently scored lower in the quality of life scale. The

majority of patients in the study disclosed that spirituality was an important part of cancer care and medical professionals should include more religious programs in their practice, although more research should be conducted before this becomes common practice.

Religion affecting quality of life appears to be a phenomenon that occurs worldwide and throughout religions. In a study conducted in 1995 by Blaine and Crocker, the theory that religion improves quality of life was assessed between racial groups in State University of New York at Buffalo. Students were required to complete several questionnaires that evaluated religious attributes, participation in religious activities, self-esteem, and well-being. The study found that although African Americans accredit religion to be a greater contribution to their overall well-being more than White Americans, a higher degree of religiousness is predictive of higher scores in well-being, regardless of race. Indeed, religion as a promoter for quality of life and well-being seem to transcend all cultural, racial, and religious boundaries.

As seen above, quality of life is moderated by both Buddhism and Christianity, and the previous cancer study conducted by Winkelman, et al (2011) involved predominantly Christian patients. However, similar studies involving cancer and other religions have been conducted. Islam is the world's second largest religion (BBC, 2009), behind Christianity, with followers all over the world, despite language and geographical boundaries. However, the effects of Islam in regard to quality of life in cancer patients, or even the effects of Islam in regard to quality of life are not well known. Lazenby and Khatib (2012) clearly outline at the beginning of their study that while they are interested in religion as an influence for quality of life, there are other related potential influencers to spirituality, as well, such as age, sex, stage of disease, marital status, etc. The

researchers are equally concerned with these factors in relation to spirituality, for they believe it is possible for spirituality to influence quality of life.

In their short study set in Amman, Jordan, the researchers used the Functional Assessment of Chronic Illness Therapy-Spiritual Well-being scale, the FACT-G scale, and a brief questionnaire that asked the patients pertinent information, including site of disease. Together, these scales questioned spiritual well-being and quality of life, and attempted to quantify this by using a scale method. All 159 patients were cancer patients, over age 18, had no other comorbid diseases, were Muslim, and spoke Arabic. The average age of participants was 46.22

The study showed that older patients tended to have higher spiritual well-being, and patients between the ages of 18 and 34 ranked lower on the spiritual well-being scale. Site of the disease also seemed to have an effect on spirituality—peacefulness and meaningfulness of religion scored higher in patients with lung cancer. Also, patients with stages III or IV cancer consistently reported poorer emotional and spiritual well-being. In short, spirituality did affect the quality of life in Muslim cancer patients, along with the other factors Lazenby and Khatib were concerned with. Above all else, age seemed to be the greatest determinant for level of spirituality, and site and severity of disease determined quality of life.

The idea that religion acts as a buffer for stress, anxiety, and depression is a theory that has been examined in numerous other studies, such as Hsu, et al (2009). Given that most experiments involving religion and quality of life are centered around elderly patients or those suffering from illness, perhaps an investigation into a broader

spectrum of people is needed. One such study, conducted by Chai, et al (2012) analyzed stress and quality of life in international and domestic university students studying in New Zealand. There have been numerous studies that have shown that international students typically have reduced psychological well-being, and stress often ensues. Everyone has certain ways of dealing with stress, whether it is over eating, procrastinating, or talking it out with a friend. Many people choose to turn to religion as a way to cope when dealing with stress, and this may appear in the form of increased attendance of religious services, increase in personal prayer, or an increase in the reading of religious texts. What Chai, et al were seeking to study in their experiment is the role of religion as a coping mechanism for stress in international versus domestic university students in New Zealand.

In this study, the researchers modeled their experiment to closely resemble the similar experiment conducted by Hsu, et al (2009). The authors began by administering the World Health Organization Quality of Life inventory (the Australian version) to active participants. This inventory measured aspects of psychological health, environment, and physical health. In addition, participants were asked to rate their quality of life and take an additional survey concerning religion. This survey questioned the participants in regards to degree of faith, strength of spirituality, the participants' belief of the meaning of life, and other related queries. Also, participants were asked to complete questionnaires dealing with tools participants used for coping and level of stress in the lives of the participants. At the end of the questionnaire and survey portion of the study, more information regarding the participants was gathered, such as ethnicity, age, religious affiliation, and other pertinent information.

As one could imagine, because of the diversity of domestic and international students in New Zealand, religious affiliations were varied, as were ethnicities. Interestingly, levels of stress among international and domestic students in New Zealand were not drastically different; however international students reported a lower overall quality of life than domestic students. In addition, there were differences of stress and religiosity in various ethnicities. For example, Asian students reported that they turned to religion to deal with stress more often than those of European descent reported turning to religion under stressful situations. Asian students were also more likely to engage in other stress relieving activities, however, such as self-distraction.

Despite the prediction of the authors, international students did not report an increased reliance on religion or increased internal religiosity. This could be due to the skewed sample size. While there were over 500 participating domestic students, only 150 international students participated in the study. Perhaps this could cause the uneven and unexpected results the researchers gathered, or it is simply possible that international students in New Zealand are very well adjusted. Forbes recently released an article addressing the world's happiest and saddest countries, as decided by the 2011 Legatum Prosperity Index. This index ranked New Zealand as the fourth happiest country in the world, number two in education, and by far the most tolerant of immigrants. However, the study conducted by Chai and colleagues is in direct contrast with a previous study the authors cited. Hsu et al. (2009) found that international students relied more heavily on religion as a coping mechanism than domestic students, and thus found religion a useful tool for coping, in general were more religious, and were more active in religious communities than domestic students .

Given this information and the contradictory nature of previous experiments, it is safe to say that more research regarding quality of life in college age students and religion should be conducted. However, as stated before, studies addressing religion and quality of life in college age students are few and far between. In fact, the only other study regarding college age students is one in which Abdel-Khalek (2010) sought to study the effects of religion on quality of life and well-being, not only in college age students, but in Muslim college students in Kuwait.

Because quality of life and well-being are subjective from person to person, Abdel-Khalek supposed that self-reported surveys would be the best method of measurement. The author sourced his sample from Kuwait University, only assessed undergraduates, and confirmed that all members of his sample were Muslim. The result was a healthy sample size of 224 students. After ensuring that the students qualified for his study, Abdel-Khalek administered the Arabic version of the World Health Organization Quality of Life-Brief scale to all participants. This scale uses a Likert format to assess and quantify quality of life over several aspects of life, including physical health, environment, social relationships, and psychological health. In addition, another self-report scale in Likert format was used to assess religiosity, happiness, mental health, and other related factors. The participants were also tested again one week later to ensure mental stability and unbiased results.

Although it was not the main focus of Abdel-Khalek's study, results showed that male students in Kuwait reported a higher quality of life, as well as increased satisfaction with life and religiosity than the female students interviewed. It is possible that this could be due to Kuwaiti culture. Women in typically dominant Muslim societies are forced to

adhere to strict cultural norms such as submission, and women in places of higher learning tend to be discounted. Despite this difference, the overall result of the study indicated that religiosity and religious belief did correspond with a higher quality of life in all four areas previously listed.

While the research conducted by Abdel-Khalek (2010) suggests that most research regarding religion and quality of life is conducted in predominantly Christian regions and in elderly patients or patients with a terminal illness, religion has an effect on quality of life and wellbeing in Muslim participants, and those of all ages. Combined with other related findings, this research suggests that perhaps religion and quality of life maintain an influential relationship in those from all walks of life, regardless of specific religious belief.

Taking the previous studies into consideration, it is clear that more research needs to be conducted regarding college age students, religion, and quality of life. In the following study, inspired by the study mentioned above, participants in a southeastern United States university took a survey in order to assess level of spirituality and the degree to which it affects quality of life.

METHODS

Participants

A sample size of 241 undergraduate students from the University of Mississippi participated in this survey for partial course credit. Such a large sample size was employed to eschew a skewed result and control for any students who may be terminally ill. This was preferable due to the purpose of the current study.

Design

Participants completed an abridged survey online using both SONA and Qualtrics, school sponsored websites. This survey was abridged to eliminate extraneous questions or questions contrary to the purpose of this study. The purpose of this study was to assess if quality of life is enhanced by religious affiliation in a sample size free of terminal illness, thus questions regarding fatigue, mobility, work capacity, etc., were excluded. The WHOQOL-SRPB was scored according to the user manual published by the World Health Organization, and additional averages were found to further simplify results. Bivariate correlations were run to address a participant's total score on the abridged WHOQOL-SRPB.

Materials

The material used for this study was an abridged version of the World Health Organization Quality of Life Spirituality, Religiousness, and Personal Beliefs Field Instrument Test to assess level of spirituality and overall quality of life. The survey was abridged to avoid inapplicable questions and may be viewed complete with instructions at

the end of this paper (See Appendix 1). The abridged version totaled 62 items. This survey was used with the permission of the World Health Organization, and is proven to be cross culturally valid (WHOQOL, 1998) The WHOQOL-SRPB has been translated into many languages and used across the world, making it a choice instrument of measure. The survey questions participants on many facets such as environment, social relationships and support, psychological wellbeing, and self-esteem in order to compute a more representative and complete quantification of quality of life. The survey also presents questions such as faith, purpose in life, and spiritual connection to create an accurate value for spirituality. Participants answered all questions using a 5 point Likert scale. Students completed this survey using the SONA and Qualtrics program online accessed through their personal computers. Because the content of the questions asked were personal in nature, the researcher sought to preserve anonymity and comfort in setting for the benefit of the study and participants.

Procedure

Participants at the University of Mississippi participated in this study for partial course credit for an Introduction to Psychology course. Upon signing up for the current study, participants logged onto the University sponsored website in order to complete the study entirely online and free from instructor influence. The logic behind conducting an online experiment was to improve honesty from participants, remove any pressure a researcher might impose on a participant, and increase level of comfort for the participants.

Participants were informed as to the purpose of this experiment as well as the potentially personal questions asked, and given the opportunity to withdraw from the study.

Following this information, each participant was asked to virtually sign a consent form

and implicit instructions regarding the survey questions were immediately given. Upon reading these instructions, each participant anonymously completed the WHOQOL-SRPB, read a debriefing screen, and was free to close their internet browser. Credit for completing the survey was automatically assigned to each participant via the University sponsored SONA system. This research study design was approved by the University of Mississippi's IRB board.

RESULTS

For this experiment, each participant (N=241) took the same abridged version of WHOQOL-SRPB. This survey specifically analyzed dependent measures such as Environment, Social Relationships, and Psychological Wellbeing. Questions regarding Environment focused on both home environment and daily life, asking questions such as “To what degree does the quality of your home meet your needs?” and “How much are you able to relax and enjoy yourself?” Questions focusing on personal relationships and social support included questions such as “Do you get the kind of support from others that you need?” while questions analyzing psychological wellbeing measured self-esteem and positive or negative feelings. Questions regarding the independent variable addressed religiosity and were broad in order to accommodate all religious associations. These questions sought to analyze aspects of spirituality such as faith and spiritual strength. Questions included “To what extent do you feel your inner spiritual strength?” and “To what extent does faith contribute to your wellbeing?” A complete version of the abridged WHOQOL-SRPB may be viewed in Appendix 1.

General scores of the WHOQOL-SRPB were calculated according to World Health Organizations protocol and then results were analyzed using IBM SPSS (Statistical Package for the Social Sciences). Using a bivariate correlation, a strong correlation was found between spirituality and overall quality of life of participants ($r=.531$, $n=241$, $p<.001$). Responses regarding overall quality of life ranged from 2.10—5.00 on a 5 point Likert scale, while responses regarding overall spirituality ranged from 1.33—5.00 (See Table 1).

Table 1

		QOL	Spirituality
QOL	Pearson Correlation	1	.531**
	Sig. (2-tailed)		.000
	N	241	241
Spirituality	Pearson Correlation	.531**	1
	Sig. (2-tailed)	.000	
	N	241	241

Among the contributing factors to quality of life, several specific facets were highly positively correlated. The strongest relationship was between environment (home environment, participation in leisure activities, etc.) and social relationships (e.g., social support), with a value $r=.96$, $p<.001$. This was closely followed by a correlation between psychological wellbeing (positive feelings, negative feelings, etc.) and social relationships, $r=.91$, $p<.001$, supporting the survey's structure and validating that environment, social relationships, and psychological wellbeing are closely related and causal factors to quality of life (See Table 2).

Table2

		Psychological	Relationships	Environment	QOL
Psychological	Pearson Correlation	1	.906**	.857**	.887**
	Sig. (2-tailed)		.000	.000	.000
	N	241	241	241	241
Relationships	Pearson Correlation	.906**	1	.964**	.819**
	Sig. (2-tailed)	.000		.000	.000
	N	241	241	241	241
Environment	Pearson Correlation	.857**	.964**	1	.829**
	Sig. (2-tailed)	.000	.000		.000
	N	241	241	241	241
QOL	Pearson Correlation	.887**	.819**	.829**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	241	241	241	241

Of the separate facets contributing to spirituality, general spirituality was most strongly associated with quality of life ($r = .56, p < .01$), closely followed by inner peace ($r = .54, p < .01$). Interestingly, the lowest correlation between a facet of spirituality and quality of life was spiritual connection ($r = .32, p < .01$). This score was only slightly less significant than the relationship between meaning and purpose in one's life and quality of life ($r = .39, p < .01$).

The results of this study conclude that those students with high levels of religiosity and religious involvement scored higher on the quality of life scale. Previous experiments have demonstrated that religion, with the imminent threat of death, acts as a significant moderator for stress and anxiety, thus improving quality of life. The success of this experiment bolsters this theory by providing evidence in favor of the idea that

religion improves quality of life in the majority of the population, not just those participants under duress from illness.

DISCUSSION

Researchers have demonstrated repeatedly that religion positively affects quality of life, and in many cases helps those with terminal cancer and other illnesses cope with their disease progression and future. However, very few studies address this connection with the absence of any physical threat. The purpose of this study was to establish the relationship between religion and quality of life in college age students.

The current study observed a positive correlation between religion/religiosity among healthy, young students, indicating that religion does correlate with quality of life. Although such a conclusion is beyond the scope of this study, these results are consistent with the hypothesis that religiosity could contribute to quality of life. The potential limitation of this study is that most participants were freshman psychology students, thus it is possible that this is not an accurate representation of the majority of students at this university. Another potential limitation of this study was the location at which it was conducted. The University of Mississippi, despite being a liberal arts university, is located in the “Bible Belt” portion of the United States, making the equal representation among religious affiliations unlikely. Also, an overwhelming number of students may have been skewed towards religion, most likely Christianity, and more specifically, the Baptist denomination.

The positive correlation between religion and quality of life found in this experiment is consistent with other similar studies regarding quality of life, including the

study with Muslim college students in Kuwait by Abdel-Khalek (2010) and those studies involving elderly participants and cancer patients, despite the difference in stages of life (Huang, et al, 2012)(Lazenby & Khatib, 2012)(Winkelman, et al, 2012). While causality cannot be stated, a strong correlation appears between religion and overall quality of life in ailing participants, but also in healthy, young participants. This may prompt university counseling centers to consider including religious based treatment options to students open to such methods who are suffering from depression or poor adjustment to a university setting. In addition, it is possible for college students to become involved in religious activities with the hope of increasing their general well-being, of course with the caveat that no causal connection has yet been determined.

Further research should be conducted to address the relationship between quality of life and religion among patients from all walks of life. Strategies and theories on the integration of treatment options involving religion should be considered for psychology clinics.

References

- Abdel-Khalek, A. M. (2010). Quality of life, subjective well-being, and religiosity in Muslim college students. *Quality Of Life Research: An International Journal Of Quality Of Life Aspects Of Treatment, Care & Rehabilitation*, 19(8), 1133-1143. doi:10.1007/s11136-010-9676-7
- BBC (2009). "Islam at a Glance".
<http://www.bbc.co.uk/religion/religions/islam/ataglance/glance.shtml>
- Blaine, B., & Crocker, J. (1995). Religiousness, race, and psychological well-being: Exploring social psychological mediators. *Personality And Social Psychology Bulletin*, 21(10), 1031-1041. doi:10.1177/01461672952110004
- Chai, P., Krägeloh, C., Shepherd, D., & Billington, R. (2012). Stress and quality of life in international and domestic university students: Cultural differences in the use of religious coping. *Mental Health, Religion & Culture*, 15(3), 265-277. doi:10.1080/13674676.2011.571665
- Cohen, R. R., Boston, P., Mount, B. M., & Porterfield, P. (2001). Changes in quality of life following admission to palliative care units. *Palliative Medicine*, 15(5), 363-371. doi:10.1191/026921601680419401
- Huang, C., Hsu, M., & Chen, T. (2012). An exploratory study of religious involvement as a moderator between anxiety, depressive symptoms and quality of life outcomes

of older adults. *Journal Of Clinical Nursing*, 21(5-6), 609-619. doi:10.1111/j.1365-2702.2010.03412.x

Hsien-Chuan Hsu, P., Krägeloh, C. U., Shepherd, D., & Billington, R. (2009). Religion/spirituality and quality of life of international tertiary students in New Zealand: An exploratory study. *Mental Health, Religion & Culture*, 12(4), 385-399. doi:10.1080/13674670902752920

Kang, J., Shin, D. W., Choi, J. Y., Park, C. H., Baek, Y. J., Mo, H. N., & ... Son, K. Y. (2012). Addressing the religious and spiritual needs of dying patients by healthcare staff in Korea: Patient perspectives in a multi-religious Asian country. *Psycho-Oncology*, 21(4), 374-381. doi:10.1002/pon.1901

Lazenby, M., & Khatib, J. (2012). Associations among patient characteristics, health-related quality of life, and spiritual well-being among Arab Muslim cancer patients. *Journal Of Palliative Medicine*, 15(12), 1321-1324. doi:10.1089/jpm.2012.0208

Strang, S., & Strang, P. (2001). Spiritual thoughts, coping and 'sense of coherence' in brain tumour patients and their spouses. *Palliative Medicine*, 15(2), 127-134. doi:10.1191/026921601670322085

Wachholtz, A. B., Pearce, M. J., & Koenig, H. (2007). Exploring the relationship between spirituality, coping, and pain. *Journal Of Behavioral Medicine*, 30(4), 311-318. doi:10.1007/s10865-007-9114-7

Winkelman, W. D., Lauderdale, K., Balboni, M. J., Phelps, A. C., Peteet, J. R., Block, S. D., & ... Balboni, T. A. (2011). The relationship of spiritual concerns to the quality of life of advanced cancer patients: Preliminary findings. *Journal Of Palliative Medicine*, 14(9), 1022-1028. doi:10.1089/jpm.2010.0536

“The World’s Happiest (and Saddest) Countries”.

<http://www.forbes.com/pictures/mef45ejmi/the-worlds-happiest-and-saddest-countries-2/>

WHOQOL Group. (1998). Development of the World Health Organization WHOQOL-BREF quality of life assessment. *Psychological Medicine*, 28, 551–558.

APPENDIX 1

WHOQOL - SRPB

The following questions ask about how much you have experienced certain things in the last two weeks, for example, positive feelings such as happiness or contentment. If you have experienced these things an extreme amount click the option beside "An extreme amount". If you have not experienced these things at all, click the option beside "Not at all". Questions refer to the last two weeks.

Q1 How much do you experience positive feelings in your life?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q2 How much do you enjoy life?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q3 How positive do you feel about the future?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q4 How much do you value yourself?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q5 How much confidence do you have in yourself?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q6 Do you feel inhibited by your looks?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q7 Is there any part of your appearance which makes you feel uncomfortable?

- Not At All (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q8 How worried do you feel?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q9 How much do any feelings of sadness or depression interfere with your everyday functioning?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q10 How much do feelings of depression bother you?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q11 How much do you need any medication to function in your daily life?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q12 To what extent does your quality of life depend on the use of medical substances or medical aids?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q 13 How alone do you feel in your life?

- Not at all (1)
- Slightly (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q14 Do you have financial difficulties?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q15 How much do you worry about money?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q16 How much do you enjoy your free time?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

The following questions ask about how completely you experience or were able to do certain things in the last two weeks, for example activities of daily living such as washing, dressing or eating. If you have been able to do these things completely, click the option beside "Completely". If you have not been able to do these things at all, click the option beside "Not at all". You should click the options in between if you wish to indicate your answer lies somewhere between "Not at all" and "Completely". Questions refer to the last two weeks.

Q19 Do you get the kind of support from others that you need?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q20 To what extent can you count on your friends when you need them?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q21 To what degree does the quality of your home meet your needs?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q22 How much are you able to relax and enjoy yourself?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

The following questions ask you to say how satisfied, happy or good you have felt about various aspects of your life over the last two weeks . For example, about your family life or the energy that you have. Decide how satisfied or dissatisfied you are with each aspect of your life and choose the option that best fits how you feel about this. Questions refer to the last two weeks.

Q23 How satisfied are you with the quality of your life?

- Very Dissatisfied (1)
- Dissatisfied (2)
- Neither satisfied nor dissatisfied (3)
- Satisfied (4)
- Very satisfied (5)

Q24 In general, how satisfied are you with your life?

- Very Dissatisfied (1)
- Dissatisfied (2)
- Neither satisfied nor dissatisfied (3)
- Satisfied (4)
- Very Satisfied (5)

Q25 How satisfied are you with yourself?

- Very Dissatisfied (1)
- Dissatisfied (2)
- Neither satisfied nor dissatisfied (3)
- Satisfied (4)
- Very Satisfied (5)

Q26 How satisfied are you with your personal relationships?

- Very Dissatisfied (1)
- Dissatisfied (2)
- Neither satisfied nor dissatisfied (3)
- Satisfied (4)
- Very Satisfied (5)

Q27 How satisfied are you with the support you get from your family?

- Very Dissatisfied (1)
- Dissatisfied (2)
- Neither satisfied nor dissatisfied (3)
- Satisfied (4)
- Very Satisfied (5)

Q28 How satisfied are you with the support you get from your friends?

- Very Dissatisfied (1)
- Dissatisfied (2)
- Neither satisfied nor dissatisfied (3)
- Satisfied (4)
- Very Satisfied (5)

Q29 How satisfied are you with the way you spend your spare time?

- Very Dissatisfied (1)
- Dissatisfied (2)
- Neither satisfied nor dissatisfied (3)
- Satisfied (4)
- Very Satisfied (5)

Q30 Do you feel happy about your relationship with your family members?

- Very Dissatisfied (1)
- Dissatisfied (2)
- Neither satisfied nor dissatisfied (3)
- Satisfied (4)
- Very Satisfied (5)

Q31 How would you rate your quality of life?

- Very poor (1)
- Poor (2)
- Neither poor nor good (3)
- Good (4)
- Very Good (5)

The following questions refer to how often you have felt or experienced certain things, for example the support of your family or friends or negative experiences such as feeling unsafe. If you have not experienced these things at all in the last two weeks, choose the option below to the response "never". If you have experienced these things, decide how often and choose the appropriate option. So for example if you have experienced pain all the time in the last two weeks choose the option "Always". Questions refer to the last two weeks.

Q32 Do you generally feel content?

- Never (1)
- Seldom (2)
- Quite often (3)
- Very often (4)
- Always (5)

Q33 How often do you have negative feelings, such as blue mood, despair, anxiety, depression?

- Never (1)
- Seldom (2)
- Quite often (3)
- Very often (4)
- Always (5)

The following few questions are concerned with your personal beliefs, and how these affect your quality of life. These questions refer to religion, spirituality and any other beliefs you may hold. Once again these questions refer to the last two weeks.

Q34 Do your personal beliefs give meaning to your life?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q35 To what extent do you feel your life to be meaningful?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q36 To what extent do your personal beliefs give you strength to face difficulties?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q37 To what extent do your personal beliefs help you to understand difficulties in life?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

The following questions ask about your spiritual, religious or personal beliefs and how these beliefs have affected your quality of life. These questions are designed to be applicable to people coming from many different cultures and holding a variety of spiritual, religious or personal beliefs. If you follow a particular religion, such as Judaism, Christianity, Islam or Buddhism, you will probably answer the following questions with your religious beliefs in mind. If you do not follow a particular religion, but still believe that something higher and more powerful exists beyond the physical and material world, you may answer the following questions from that perspective. For example, you might believe in a higher spiritual force or the healing power of Nature. Alternatively, you may have no belief in a higher, spiritual entity, but you may have strong personal beliefs or followings, such as beliefs in a scientific theory, a personal way of life, a particular philosophy or a moral and ethical code. While some of these questions will use words such as spirituality please answer them in terms of your own personal belief system, whether it be religious, spiritual or personal. The following questions ask how your beliefs have affected different aspects of your quality of life in the past two weeks. For example, one question asks "To what extent do you feel connected with your mind body and soul?" If you have experienced this very much, choose the option beside "very much". If you have not experienced this at all, choose the option beside "Not at all". You should choose one of the options in between if you wish to indicate your answer lies somewhere between "Not at all" and "very much". Questions refer to the last two weeks.

Q38 To what extent does any connection to a spiritual being help you to get through hard times?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q39 To what extent does any connection to a spiritual being help you to tolerate stress?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q40 To what extent does any connection to a spiritual being help you to understand others?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q41 To what extent does any connection to a spiritual being provide you with comfort/reassurance?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q42 To what extent do you find meaning in life?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q43 Do what extent do you feel your life has purpose?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q44 To what extent do you feel you are here for a reason?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q45 To what extent do you feel your inner spiritual strength?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q46 To what extent can you find spiritual strength in difficult times?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q47 To what extent does faith contribute to your well being?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q48 To what extent does faith give you comfort in daily life?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q49 To what extent does faith give you strength in daily life?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q50 How hopeful do you feel?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q51 To what extent are you hopeful about your life?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q52 To what extent do you feel the way you live is consistent with what you feel and think?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q53 How much does spiritual strength help you live better?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q54 To what extent does your spiritual strength help you to feel happy in life?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q55 To what extent do you feel peaceful within yourself?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q56 To extent do you feel a sense of harmony in your life?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q57 To what extent does being optimistic improve your quality of life?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q58 How able are you to remain optimistic in times of uncertainty?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q59 To what extent does faith help you to enjoy life?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- Very much (4)
- An extreme amount (5)

Q60 To what extent do you consider yourself to be a religious person?

- Not at all (1)
- Slightly (2)
- Moderately (3)
- Very (4)
- Extremely (5)

Q61 To what extent do you consider yourself to be part of a religious community?

- Not at all (1)
- A little (2)
- Moderately (3)
- Mostly (4)
- Completely (5)

Q62 To what extent do you have spiritual beliefs?

- Not at all (1)
- Slightly (2)
- Moderately (3)
- Very (4)
- Extremely (5)

Thank you for participating in this study. This study's main purpose was to explore the link between religion and quality of life. The information you have provided is confidential and in no way can be linked to your name. You will be assigned the appropriate credit and are now free to exit your browser. If you have any questions about the study, you may contact the principal investigator at kekelly@go.olemiss.edu. Thank you for your time.

Tables

Table 1

		QOL	Spirituality
QOL	Pearson Correlation	1	.531**
	Sig. (2-tailed)		.000
	N	241	241
Spirituality	Pearson Correlation	.531**	1
	Sig. (2-tailed)	.000	
	N	241	241

** . Correlation is significant at the 0.01 level (2-tailed).

Table 2

		Psychological	Relationships	Environment	QOL
Psychological	Pearson Correlation	1	.906**	.857**	.887**
	Sig. (2-tailed)		.000	.000	.000
	N	241	241	241	241
Relationships	Pearson Correlation	.906**	1	.964**	.819**
	Sig. (2-tailed)	.000		.000	.000
	N	241	241	241	241
Environment	Pearson Correlation	.857**	.964**	1	.829**
	Sig. (2-tailed)	.000	.000		.000
	N	241	241	241	241
QOL	Pearson Correlation	.887**	.819**	.829**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	241	241	241	241