

Original Article

Depression and religious coping mechanisms among cancer patients in Ghana

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Abstract

Cancer is identified to be one of the leading causes of mortalities in most countries. However, some positive coping mechanisms have been discovered to help cancer patients cope with some psychological distress that accompany illness. The present study sought to examine the association between religious coping mechanisms and depression among cancer patients in Tema General Hospital. It was hypothesized that religious coping would relate negatively with depression and patients with self-directing coping strategy would be more depressed than patients with benevolent coping strategy. Data were collected from a purposively sampled 50 cancer patients at the Tema General Hospital. The findings of the study using Pearson r supported the hypotheses that the belief in religion is statistically and significantly associated with less depression among cancer patients. It is therefore recommended that physicians, clinicians and psychologists/counsellors adopt religious coping strategies with their patients in order to help manage and cope with their conditions.

Keywords:

Cancer; Depression; Ghana; Coping mechanism; Religion

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Introduction

In 2008, the International Agency for Research on Cancer (IARC) stated that cancer continues to be a leading and second cause of mortalities in developed and developing countries respectively (IARC, 2008). To some researchers, the cause of cancer-related mortalities may be attributed to the adaptation of “cancer-causing” lifestyle and behaviors such as smoking, physical inactivity and the uptake of junk and/or fast foods, which are high in fats, oils and salt (Calys-Tagoe, Yarney, Kenu, Amanhyia, Enchill & Obeng, 2014). Others also attribute the condition to an improvement in ways of diagnosing the illness as well as database that keeps records of the condition in most countries (Calys- Tagoe et. al., 2014). There are several types of cancer worldwide such as cancers of the lung, stomach, colon and rectum, liver, esophagus, breast, uterine cervix, prostate and non-Hodgkin lymphoma. However, in Ghana, the commonest forms of cancer among most males include, but not limited to, liver cancer, prostate cancer and non-Hodgkin lymphoma (GLOBOCAN, 2012). On the contrary, among females in Ghana, cervical cancer, breast cancer and liver cancer are identified as the commonest (GLOBOCAN, 2012). Similar findings have been disclosed in other African countries like the Gambia (Sighoko et al. 2011). Cancer often progresses very rapidly leading to complications and death of patients.

An associated consequence of cancer is depression which can increase the morbidity and mortality in non-treated cases (Karabulutlu Bilici, Cayir, Tekin, & Kantarci, 2010).

Cancer, regardless of the type or stage, is associated with stressful life, disruption of physical status and emotional and social well-being, and discomfort to patient and family (Burgess et al., 2005; Karabulutlu et. al., 2010; Caroline Victoria, Sharon, Jill, Michael & Amanda 2005; Ieraci, Bovero, Pennazio & Torta 2014). It has been reported by Brintzenhofe-Szoc Levin, Li, Kissane & Zabora (2009) that depression is one of the common psychiatric disorders among cancer patients. Untreated depression can result in physical disability and sometimes resistance to treatment as well as having an effect on the mental and physical performance of patient and family. In many ways, affected individuals often rely on external resource of support to enable them manage depres-

sion. This therefore requires cancer patients to adopt diverse strategies to help manage the depression and religious coping is one of such strategies that has been considered in recent years (Lavery & O’Hea, 2010).

Coping is a continuous improvement and life-preserving method for adjusting to incessant changes (Baqtayan, 2015). Coping performs two main functions: dealing with the problem that is causing the distress (problem-focused coping) and regulating stressful emotions (emotion-focused coping) (Baqtayan, 2015). Fetemah (2013) stated that coping strategies enable an individual to maintain health and avoid mental disorders; and its appropriate application leads to correct assessment of situations, to a feeling of safety, to have access to support, to grow and to achieve identity. Frequently, when individuals are faced with adversities, including serious and life-threatening conditions such as cancer, they turn towards a higher power or religion (belief in God) as a way of coping with associated stress (Oti-Boadi & Asante, 2017; Thune-Boyle et al., 2006). Religious coping is therefore the use of beliefs or practices to reduce distress and deal with problems in life. Thune-Boyle Stygall, Keshtgar & Newman, 2006) pointed out that religious coping is conceived as an emotion-focused way of coping (i.e., a way to deal with negative emotions). Recent evidence suggests that it has cognitive (e.g., appraising an illness as part of God’s plan) and behavioural (e.g., praying) components (Thune-Boyle et al., 2006). Studies have revealed a significant relationship between an individual’s religious belief system and measures of wellbeing (Zwingmann, Wirtz, Muller, Korber & Murken., 2006). Positive religious coping is thought to be associated with benefits in psychosocial adjustment whereas negative religious coping or spiritual struggle leads to poorer outcomes and is therefore considered maladaptive (Zwingmann et al., 2006).

Some religious coping strategies have been found to have negative consequences. For example, when an individual holds on to a religious belief, such that the individual continues to pray and hope for a miracle without adhering to medication, it tends to worsen the condition (Exline & Rose, 2013; Karekla, & Constantinou, 2010; Pargament Koenig & Perez, 1998). In line with this, Exline and Rose (2005) identified four main types of religious coping strategies that result

in negative psychological conditions including depression: (a) blaming evil forces for cause of illness (b) blaming God for cause of illness (c) blaming and not forgiving oneself for loss of virtue; and (d) feeling offended by religious community. These forms of religious coping strategies tend to worsen negative conditions of the individual (Exline & Rose, 2013; Karekla, & Constantinou, 2010).

Studies examining the relationship between coping strategies and common mental health conditions such as depression, stress and anxiety have yielded inconclusive results. While some studies are pointing to a positive relationship, others have revealed a negative or no relationship (Kaliampos & Roussi, 2015; Pearce & Singer, 2006). Within the context of Africa, and particularly Ghana, there is dearth of literature on depression and coping mechanisms among cancer patients. The literature has also done little to demonstrate how religion is used as a coping mechanism of depression among cancer patient cohorts. This study therefore seeks to examine the relationship between religious coping and depression among cancer patients in Ghana.

According to Wasteson et al. (2009) negative thoughts generated by dysfunctional beliefs are the primary causes of depressive symptoms. A direct relationship occurs between the amount and severity of someone's negative thoughts and the severity of their depressive symptoms. Beck (1967) asserted that there are three main dysfunctional belief themes that dominate the thinking of depressed people: I am defective or inadequate; all my experiences result in defeat or failures; and the future is hopeless. These themes are collectively called Negative Cognitive Triad. When these beliefs dominate the thoughts of a person, depression is most likely to occur. Beck (1967) further asserted that depressed people also exhibit faulty information processing, thus pay selective attention to aspects of their environment that confirm what they already know and their thoughts. Diagnosis of cancer can lead to feelings of panic, anxiety, depression, and hopelessness, and can challenge one's plans for the future as well as redefine one's sense of self (American Cancer Society, 2016). Mostly, cancer patients may be depressed because they may think they are defective and inadequate, they may see themselves as failures in terms of health and develop a sense of hopelessness be-

cause their disease is incurable (Abela & D'Allesandro, 2002; Prieto et al., 2005).

From sociological perspective, integration into a religious group is efficacious to reducing suicidal ideation and other perceived psychological crisis (Lester, 2000; Colucci & Martin, 2008). This is based on the assumption that religion lessens the burden of negative human experiences including death, unemployment, poor health and divorce among others (Colucci & Martin, 2008). Suffering can be more readily endured if eternal salvation and heavenly glory are offered as a future relief to those who suffer. Religion perpetuates the belief that the Supreme Being is aware and concerned about the suffering of humanity (Lester, 2000; Colucci & Martin, 2008). Therefore, a cancer patient who is more inclined to religion will likely hold onto the belief that God knows, cares and can shield him or her from depression.

The Ghanaian context is dominated by Christian religion which forms 73% of the population while Islam, Traditional religion and atheism constitute the remaining 27% (Ghana Statistical Service, 2014). Diverse research works demonstrate the role of religion in the lives of people in times of adverse circumstances (Constaine, Alleyne, Cadwell, McRae & Suzuki 2005). Religion permeates almost every aspect of the Ghanaian life and tends to be a major framework and interpretive grid for beliefs, perceptions and actions (Amoah, 2003; Faigin & Pargament, 2011). Too often, the individual Ghanaian turns to religion and the Supernatural in an attempt to finding solutions to ill-health (Amoah, 2003). Recourse to supernatural interventions is often much intense for patients with chronic and complicated conditions such as cancer (Constaine et. al., 2005).

Extant literatures have shown the association between religious coping and depression among cancer patients (Arndt & Götz, 2012; Fatemeh, 2013; Nematollah & Shahram, 2013; Tarakeshwar, et. al. 2006). These empirical studies all point to the direction that religious coping strategies lead to a significant reduction in depression levels among cancer patients. For example, Fatemeh (2013) examined the correlation between religious coping and depression and indicated that religious coping (relationship with God) had a high efficacy in reducing depression. A longitudinal study by Tarakeshwar, et al., (2006) which ex-

amined the association between religious coping and quality of life among advanced cancer patients indicated that religious coping was effective in dealing with depressive situations thereby resulting in better overall quality of life. Randy et al. (2009) also discovered that religious coping predicated general mental health and reduced depression.

Specific dimensions of religious coping have been identified to be more helpful in reducing depression than others. Individuals who resort to a supernatural being as a form of coping with cancer experience significant reduction in depression levels compared to individuals who do not (Arndt & Götz, 2012; Bussing, Fischer, Ostermann & Matthiessen 2008; Christopher John & Liz, 2005; Ramirez et al. 2012; Saevarsdottir, Fridriksdottir & Gunnarsdottir. 2010). A study by Thomas, Carpenter, Tyler Laney, and Mezulis, (2011) examined the association between religious coping, stress and depression symptoms and found that negative religious coping strategies are associated with more depression and stress whilst positive religious coping strategies are associated with reduced depressive symptoms and stress. Similarly, Tarakeshwar and others, (2006) and Randy Bozena, Richard, and Michael, (2009) discovered that the use of positive religious coping contributes to less depression than the use of negative religious coping.

On account of the theoretical and empirical literature this study set out to test the following hypothesis:

- *Religious-focus coping will negatively relate with depression.*
- *Benevolent coping will relate more with depression than self-directing coping.*

Design and Methods 3.1 Research design

The research design was a cross-sectional one in which questionnaires were administered to respondents at a point in time. The study also examined the relationship between the independent and dependent variables.

Population

The study involved 50 cancer patients above 18 years who had been diagnosed with cancer from the Tema General Hospital.

Sample and sampling technique

Purposive sampling technique was used to draw a sample of 50 respondents for the study. Since there is no specific department or unit for cancer patients at the Hospital, it was difficult to obtain records of cancer patients at the hospital. Cancer patients were seen at the out patients' department (OPD) before recommendations to referrals were made to higher hospitals. Because cancer is dehumanizing and highly stigmatized, it was difficult to find patients who were willing to participate in the study. Some patients did not want their illness status to be known. These reasons among others contributed to the small sample size.

Measures

The Pargament Religious Coping Questionnaire (RCOPE)

The RCOPE 20 items on a 5-point Likert scale was used to evaluate religious belief and practices including relationship with God (collaborative), avoidant relationship with God (self-directing), and an alternately fearful and hopeful relationship (benevolent). The final score for each category was obtained by summing the score of related items. Cronbach alpha reliability test of the RCOPE items was 0.98. Some items on the scale included "I saw my situation as part of Gods plan", "I prayed to get my mind off my problems" among others (Paragament, Koenig & Perez, 2000; Paragament, 2002a).

The Beck Depression Inventory (BDI)

The 21-item BDI questionnaire was administered to the respondents. The questionnaire was initiated in 1961 and revised in 1974 with a 4-point Likert scale rating (0 to 3) and the total scores can range from 0 to 63. The standard cut-offs for severity of the BDI questionnaire were as follows: 0–13 no depression, 14–19 mild depression, 20–28 moderate depression, and 29–63 severe depression (Beck, 1996). The questionnaire was a self-reporting one that reflected different symptoms of depression such as sadness, hopelessness, self-blame, guilt, fatigue, and loss of appetite. The time used to complete the BDI was approximately 10 minutes and subjects with at least a primary school educational level were eligible to fill the questionnaire.

Procedure of data collection

Questionnaires were administered to respondents

after their consents were sought. The purpose of the study was explained to all respondents and a verbal consent was obtained. Participation in the study was voluntary and the right to withdraw at any point in time of the study was assured. Respondents were provided the necessary assistance required to fill the questionnaire. They were also duly informed that all information provided would be treated with utmost confidentiality.

Demographic characteristics of respondents

Table 1 shows the summary of the descriptive statistics (frequencies and percentages) of the demographic characteristics of the respondents.

Table 1: A summary of the descriptive statistics of the demographic variables

Variables	Frequency	Percentage
Gender:		
Male	27	54
Female	23	46
Age:		
29-39 years	6	12
40-50 years	14	28
51 years and above	30	60
Religion:		
Christian	42	84
Muslims	8	16
Marital Status:		
Single	7	14
Married	33	66
Divorced	10	20

Hypotheses Testing

The major statistical tests used to analyse the hypotheses was the Pearson r test. The Pearson r test was used to test the relationship between the dimensions of religious coping and depression. A summary of the finding is presented in the Table 2.

Table 2: Inter-correlation matrix between the study variables

	1	2	3	4	5	6	7	8	9
1. Gender	1								
2. Age	-	1							
3. Religion	.52**		1						
4. Marital status	-.07	.01		1					
5. Collective coping	-.23*	.23*	-.14		1				
6. Self-directing coping	.56**	-	.17	-.13		1			
7. Benevolent coping	.36**	-.20	.14	-.18	.85**		1		
8. Religious-focus coping	.27*	-.05	.23*	-.08	.82**	.71*		1	
9. Depression	.38**	-.06	.26*	-	.83**	.82**	.80**		1
	.24*	.13	.07	.13	-.18	.09	-.26*	-.23*	

**=p<0.01, *=p<0.05

The correlation presented above indicated that benevolent coping and religious-focus coping (dimensions of religious coping) were the dimensions of religious coping that showed negative significant association with depression [$r=-.26$, $p<0.05$; $r=-.23$, $p<0.05$ respectively]; the other dimensions of religious coping including self-directing coping and collective coping reported no significant association with depression. The findings from the data analysis imply that hypotheses one and two which stated that “Religious-focus coping will negatively relate with depression” and “Benevolent coping will relate more with depression than self-directing coping” respectively were both supported.

Discussion

Chronic diseases including cancer come along with some psychological stress and depression experiences (Burgess et al., 2005; Karabulutlu et al., 2010). Ghanaians and Africans in general are noted to be religious and believe in God who is perceived to be all-powerful (Amoah, 2003; Faigin & Pargament, 2011). Individuals with chronic conditions such as cancer are reported to experience less depression because of the belief in God and religious coping (Oti-Boadi & Asante, 2017; Thune-Boyle et al., 2006). The current study examined the relationship between religious coping strategies and the experience of depression among cancer patients in a Ghanaian hospital.

In the first hypothesis, it was proposed that religious coping would negatively relate with depression among cancer patients and this hypothesis was supported by the study data.

The finding from the study suggests that religious coping makes patients think and feel they have a higher being who is able to manage their medical and life conditions better than they can imagine. Similarly, the use of religious coping makes patients to have support from religious groups who will join and pray with the individual to make him or her feel integrated and well cared for (Paragament, 2002a). The indulgent in religious activities as a form of religious coping takes the individual cancer patient’s mind off the challenges of living with cancer (Fatemeh, 2013; Tarakeshwar et al., 2006). This finding corroborates other related studies. For instance, a study conducted by Fatemeh (2013) to examine the correlation between religious coping and depression also indi-

cated that religious coping (relationship with God) had a high efficacy in reducing depression. Also, a longitudinal study conducted by Tarakeshwar et al., (2006) to examine association between religious coping and quality of life among advanced cancer patients indicated that religious coping was effective in dealing with depressive situations thereby resulting in better overall quality of life. Randy et al., (2009) also discovered that religious coping predicated general mental health and reduced depression. The current study finding also confirms Beck’s Cognitive Theory of Depression which emphasises that the interpretation and perception of situations confirm whether or not an individual’s experience is depression. According to the theory, if the individual perceives a challenging situation to be controllable, the experience of depression will be less. On the contrary, there is much experience of depression if the individual perceives the challenging situation to be out of his or her reach or ability to resolve the situation. Similarly, in line with the Religious Commitment Theory, high level of commitment to a few life-preserving religious beliefs, values and practices will lower depression and suicide levels. Ghanaians are noted to have a belief in a higher being (God) who is perceived to be in control and changes the impossible (Amoah, 2003; Oti-Boadi & Asante, 2017). The case is not different from cancer living patients. The finding of the current study suggests that cancer patients resort to more of religious coping in order to help them suppress the psychological crises that comes along with living with the condition. They may offer prayers, get actively involved in religious activities, read the Holy Book(s) often, join religious groups and among others with the aim of possibly turning their condition around. This in turn enables them experience less depression and other psychological crises that living with cancer may bring (Oti-Boadi & Asante, 2017; Thune-Boyle et al., 2006).

The second hypothesis postulated that patients with self-directing coping strategy would be more depressed than patients with benevolent coping strategy and this was supported in the study. Patients who use self-directing coping depend on their own strength without support from God (Paragament, Koenig & Perez, 2000; Paragament, 2002a). However, because cancer is incurable, depending on one’s strength is mostly unsuccessful (Arndt & Götz, 2012; Bussing, Fischer, Ostermann & Matthiessen

2008). The individual who relies on his or her own decisions at the neglect of a higher being encounters higher levels of psychological crises because the illness is degenerative (Arndt & Götz, 2012; Bussing, Fischer, Ostermann & Matthiessen 2008). On the contrary, patients who rely on benevolent religious coping tries to see how their situations could be beneficial. They, therefore, shift their thought and feeling to a higher being, believing things could turn around for the better. This makes them to experience less depression as compared to their counterparts who rely on self-directing coping (Oti-Boadi & Asante, 2017; Thune-Boyle et al., 2006). The current study finding is not out of the reach of empirical evidence. This finding is consistent with Thomas et al., (2011) who examined association between religious coping, stress and depression symptoms and identified that negative religious coping strategies results in more depressive and stress, whilst positive religious coping strategies are associated with reduced depressive symptoms and stress. Similarly, Randy et al., (2009) discovered that the use of positive religious coping (belief in God) contributes to less depression than the use of negative religious coping (less belief in God). In line with the Religious Commitment theory, individuals who have a relationship with God have a high efficacy in reducing depression.

The study had some limitations that must be acknowledged. Because a cross-sectional design was applied, findings should be viewed in correlates but not causality due to the presence of potential extraneous variables in correlational studies. Adopting a longitudinal research design might have provided a better indication of depression and coping among cancer patients and might have also highlighted strong causalities. The study was also limited by the small sample size.

Implication and Recommendations

The findings of the current study also have some theoretical and practical implications for improving the lives of cancer patients. As indicated earlier, the current study found a negative relationship between religious coping and depression of cancer patients. This suggests that religious coping results in less experience of depression. The current study also provided evidence to suggest that when patients direct their feelings and situation to themselves, other than a higher being and others, they experience higher

levels of depression. This again confirms the Religious Commitment Theory, implying that directing one's feelings and experience to a higher being lessens the individual's experience of depression. Similarly, patients with chronic conditions encounter psychological challenges which however, can be managed. The current study established that religious coping is an effective means of coping among cancer patients. Physicians, clinicians and psychologists or counsellors can adopt religious coping strategies with their patients in order to help manage and cope with their conditions. Similarly, caregivers of chronic patients can also use religious coping strategies to help manage the conditions of their patient better. Integration into a religious group can also help a patient cope with the psychological crisis of living with cancer.

A few recommendations based on this study can be made for future studies. First, future studies should consider expanding the sample size to observe possible changes of the findings. Second, since religious coping strategy is an important variable that strongly predicts depression, it is recommended that future research examines its association with other forms of psychological crises. Furthermore, for the purpose of gaining deeper understanding of the phenomena, it is recommended that future studies adopt both qualitative and quantitative methods. In addition, longitudinal studies can be conducted to provide better understanding of the variables.

Conclusion

This study examined the relationship between religious coping strategy and depression among cancer patients in Tema General Hospital. The research provided much evidence to support earlier researches that religious coping predicts depression among cancer patients. Similarly, the current study discovered that self-directing religious coping contributed to higher depression experience than benevolent coping, collective coping and religious-focus coping. Findings of the study explain the Religious Commitment Theory by Stack and the Cognitive Theory of Depression.

Conflict of Interest: None

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References

- Abela, J. R. Z., & D'Allesandro, D. U. (2002). Beck's cognitive theory of depression: The diathesis-stress and causal mediation components. *British Journal of Clinical Psychology, 41*, 111-128.
- American Cancer Society (2016). *Cancer Facts & Figures 2016*. Atlanta
- Amoah, A.G. (2003). Hypertension in Ghana: A cross-sectional community prevalence study in Greater Accra. *Ethn Dis, 13*, 310-315
- Arndt B., Götz M. (2012). Reliance on God's help in patients with depressive and addictive disorders is not associated with their depressive symptoms. *Religions (3)*, 455-466; doi: 10.3390/rel3020455
- Baqutayan, S., M., S., (2015). Stress and coping mechanisms: A historical overview. *Mediterranean Journal of Social Sciences, 6(2)*, 81-91
- Beck, A. T. (1967). *Depression: Causes and treatment*. Philadelphia: University of Pennsylvania Press.
- Beck, A.T., Steer, R.A. & Brown, G.K. (1996). Manual for the Beck Depression Inventory-II. San Antonio, TX: Psychological Corporation
- Brintzenhofe-Szoc K.M., Levin T.T., Li Y., Kissane D.W., Zabora J.R (2009). Mixed anxiety/depression symptoms in a large cancer cohort: prevalence by cancer type. *Psychosomatics, 50*, 383-391.
- Burgess C., Cornelius V., Love S, Graham J., Richards M., Ramirez A. (2005). Depression and anxiety in women with early breast cancer: five-year observational cohort study. *BMJ, 330(7493)*,702.
- Bussing A., Fischer J., Ostermann T., Matthiessen P. F. (2008). Reliance on God's help, depression and fatigue in female cancer patients. *International Journal Psychiatry Medicine, 38*,357-372.
- Calys-Tagoe, B. N.L., Yarney, J., Kenu, E., Amanhyia, N.A.K.O., Enchill, E. & Obeng, I. (2014). Profile of cancer patients' seen at Korle Bu teaching hospital in Ghana (A cancer registry review). *BMC Research Notes, 7*, 577.
- Caroline B., Victoria C., Sharon L., Jill G., Michael R., Amanda R. (2005). Depression and anxiety in women with early breast cancer: five year observational cohort study. *BMJ, 330 (7943)*, 698-702
- Christopher A. L., John M., Liz D. (2005) Religious orientation, religious coping and happiness among UK adults. *Personality and Individual Differences, 38*, 1193-1202 doi:10.1016/j.paid.2004.08.002
- Colucci, E. & Martin, G. (2008). Religion and Spirituality along the suicidal path. *Suicide Life Threat Behaviour, 38(2)*, 229-244
- Constaine, M. G., Alleyne, V. L., Cadwell, L.D., McRae, M.B. & Suzuki, L.A. (2005). Coping responses of Asian, Black and Latino/Latina New York City residents following the September 11, 2001 terrorist attacks against the United States. *Cultural Diversity and Ethnic Minority Psychology, 11(4)*, 293-308
- Exline, J. J., & Rose, E. (2005). *Religious and spiritual struggles. In Handbook of the Psychology of Religion and Spirituality*. Edited by Raymond F. Paloutzian and Crystal L. Park. New York: Guilford Press, 315-30.
- Exline J. J., Rose E. D. (2013). *Religious and spiritual struggles*. In Paloutzian R. F., Park C. L. (Eds.), *Handbook of the psychology of religion and spirituality (2nd ed., pp. 380-398)*. New York, NY: Guilford.
- Faigin, C. A. & Pargament, K. I. (2011). Strengthened by the spirit: Religion, spirituality and resilience through adulthood and aging. *Resilience in Aging: Concepts, Research and Outcomes, 163-180*
- Fatemeh H. (2013). Correlation between religious coping and depression in cancer patients. *Psychiatra Danubina; 25(3)*, 236-240.
- GLOBOCAN. (2012), http://globocan.iarc.fr/Pages/fact_sheets_cancer.aspx.
- Ieraci V., Bovero A., Pennazio F., Torta R. (2014). Pain, depression and coping styles: Assessment and evaluation in cancer pain population *Pain Relief S2: 004*. doi:10.4172/2167-0846.S2-00
- Kaliampou, A. & Roussi, P. (2015). Religious beliefs, coping and psychological well-being among Greek cancer patients. *Journal of Health Psychology, 1-11*
- Karabulutlu, E.Y., Bilici, M., Cayir, K., Tekin, S. B & Kantarci (2010) Coping, anxiety and depression in Turkish Patients with cancer. *European Journal of General Medicine, 7(3)*, 296-302
- Karekla, M. & Consantinou, M. (2010). Religious coping and cancer: Proposing an acceptance and commitment therapy approach. *Cognitive and Behavioral Practice, 17*, 371-381.
- Lavery, M.A. & O'Hea, E.L. (2010). Religious/spiritual coping and adjustment in individuals with cancer: Unanswered questions, important trends and future directions. *Mental Health, Religion & Culture, 13*, 55-65
- Lester D. 2000. a. Islam and suicide. *Psychological Reports, 87(2)*: 692.

- Nematolah. , J. & Shahram. , E. (2013). The relationship between religiosity and general health of the Alghadir students in ZanjanIran. *International Journal of Academic Research in Business and Social Science* 3 (10), 289-294, DOI: 10.6007/IJARBS/v3-i10/302
- Oti-Boadi, M. & Asante, K. O. (2017). *Psychological health and religious coping of Ghanaian women with infertility. Biopsychosocial Medicine*, 11, 20-27
- Paragament, K.I. (2002a). The bitter and the sweet: An evaluation of the costs and benefits of religiousness. *Psychological Injury*, 13, 168-181.
- Pargament K.I., Koenig H.G, Perez L.M. (2000). The many methods of religious coping: Development and initial validation of the RCOPE. *Journal of Clinical Psychology*, 56,519-43.
- Pearce, M. J. & Singer, J. L. (2006). Religious coping among caregivers of terminally ill cancer patients: Main effects and psychological mediators. *Journal of Health Psychology*. 11(5), 743-759.
- Prieto, J.M., Atala, J., Blanch, J., Carreras, E., Rovira, M., Cirera, E., Espinal, A. & Gasto C. (2005). Role of depression as a predictor of mortality among cancer patients after stem- cell transplantation. *Journal of Clinical Oncology*, 23, 6063–6071
- Ramirez S.P., Macedo D.S., Sales P.M., Figueiredo S.M., Daher E.F., Araujo S.M.(2012). The relationship between religious coping, psychological distress and quality of life in hemodialysis patients. *Journal of Psychosomatic*, 72,129-35.
- Randy H., Bozena Z., Richard S., & Michael S. (2009). Positive and negative religious coping and well-being in women with breast cancer. *Palliative Medicine*, 12(6): 537–545.doi: 10.1089/jpm.2008.0250
- Saevarsdottir T., Fridriksdottir N., Gunnarsdottir S. (2010). Quality of life and symptoms of anxiety and depression of patients receiving cancer chemotherapy: Longitudinal study. *Cancer Nursing*, 33,110.
- Sighoko, D., Curado, M.P., Bourgeois, D., Mendy, M., Hainaut, P., & Bah, E (2011). Increase in female liver cancer in the Gambia, West Africa: evidence from 19 years of population- based cancer registration (1988–2006). *Journal Pone*, 6 (4), e18415-10.1371/journal.pone.0018415. doi:10.1371/journal.pone.0018415
- Tarakeshwar, N., Vanderwerker, L.C., Paulk, E., Pearce, M.J., Kasl, S.V. and Prigerson, H.G. (2006). Religious coping is associated with the quality of life of patients with advanced cancer. *J Palliat Med*, 9(3): 646–657, doi: 10.1089/jpm.2006.9.646
- Thomas P. Carpenter, Tyler Laney, & Mezulis, A. (2011). Religious coping, stress, and depressive symptoms among adolescents: A prospective study. *Psychology of Religion and Spirituality*. 000–000 1941-1022/11/\$12.00 DOI: 10.1037/a0023155
- Thune-Boyle, I.C.; Stygall, J.A., Keshtgar, M.R., Newman, S.P. (2006). Do religious/spiritual coping strategies affect illness adjustment in patients with cancer? A systematic review of the literature. *Soc. Sci. Med.* 63, 151–164.
- Wasteson E., Brenne E., Higginson I.J., Hotopf M., Lloyd-Williams M., Kaasa S.(2009). Depression assessment and classification in palliative cancer patients: a systematic literature review. *Palliat Med*. 23:739-53.
- Zwingmann C., Wirtz M., Muller C., Korber J., Murken S. (2006). Positive and negative religious coping in German breast cancer patients. *Journal of Behavioural Medicine* 29, 533-47.