Jurnal Keperawatan Indonesia, 2021, 24 (2), 99–109
DOI: 10.7454/jki.v24i2.990
Received June 2019; Accepted February 2021

pISSN 1410-4490; eISSN 2354-9203

THE EFFECTIVENESS OF SPIRITUAL INTERVENTION IN OVERCOMING ANXIETY AND DEPRESSION PROBLEMS IN GYNECOLOGICAL CANCER PATIENTS

Lina Anisa Nasution[1]*, Yati Afiyanti[2], Wiwit Kurniawati[2]

1. Program Study of Nursing, Faculty of Sports and Health Education, Universitas Pendidikan Indonesia, Bandung 40154, Indonesia
2. Faculty of Nursing Universitas Indonesia, Depok 16424, Indonesia

*E-mail: linaanisa@upi.edu

Abstract

Anxiety and depression are psychological distress that often occurs in gynecological cancer patients. However, there are few studies related to interventions to overcome these problems. The purpose of this study was to determine the effect of a spiritual intervention on anxiety and depression in such cancer patients. The research design was quasi-experimental, employing pretest and posttest on the intervention and the control groups. The total number of respondents was 108 patients, consisting of 54 in each group. The instrument used in the study was the Hospital Anxiety and Depression Scale (HADS). The spiritual intervention consisted of four sessions, namely an introduction and relaxation session, a control session, an identity session, and a relationship and prayer therapy session, held over two weeks. The data analysis showed a change in the mean score of anxiety and depression in the intervention group after the spiritual intervention (p = 0.001). Also, there were differences in the mean scores of anxiety and depression between the intervention and control groups (p = 0.001). The result implies that spiritual intervention can be applied as part of holistic nursing care for cancer patients, especially gynecological ones.

Keywords: anxiety, cancer, depression, spiritual intervention

Abstrak

Efektifitas Intervensi Spiritual dalam Mengatasi Masalah Kecemasan dan Depresi pada Pasien Kanker Ginekologi. *Kecemasan dan depresi merupakan gangguan psikologis yang sering terjadi pada pasien kanker ginekologi. Namun, penelitian terkait intervensi dalam mengatasi masalah tersebut belum banyak dilakukan. Tujuan dari penelitian ini adalah untuk mengetahui pengaruh intervensi spiritual terhadap kecemasan dan depresi pada pasien kanker ginekologi. Desain penelitian ini adalah quasi eksperimen menggunakan kelompok intervensi dan kontrol dengan pre-test dan post-test. Jumlah responden sebanyak 108 pasien yang terdiri dari 54 orang di setiap kelompok. Instrumen yang digunakan dalam penelitian ini adalah Hospital Anxiety and Depression Scale (HADS). Intervensi spiritual terdiri dari empat sesi: sesi pengenalan dan relaksasi, sesi kontrol, sesi identitas, dan sesi terapi hubungan dan doa, yang diberikan selama dua minggu. Analisis data menunjukkan adanya perubahan rerata skor kecemasan dan depresi pada kelompok intervensi setelah diberikan intervensi spiritual (p = 0,001). Selain itu, terdapat perbedaan rerata skor kecemasan dan depresi antara kelompok intervensi dan kontrol (p = 0,001). Penelitian ini mengimplikasikan bahwa intervensi spiritual dapat diterapkan sebagai bagian dari asuhan keperawatan holistik pada pasien kanker, terutama yang ginekologi.*

Kata Kunci*: depresi, intervensi spiritual, kanker, kecemasan*

Introduction

Gynecological cancer is one of the main causes of morbidity and mortality in women in developing or low-middle countries (Hailemariam et al., 2017). Gynecological cancer patients experience various physical and psychological impacts during the disease process (Afiyanti & Milanti, 2013; Akalin & Pinar, 2016; Hansen et al., 2013; Heckel et al., 2015). Anxiety and depresssion are two of the most common psychological problems in gynecological cancer pati-

ents (Afiyanti et al., 2018; Watts et al., 2015). The prevalence of such events reaches a level of 14–56% in these patients (Kaban & Tekin, 2017). Patients experiencing anxiety and depression have a higher risk of increased hospitalization periods, sub-optimal treatment outcomes, and poor coping mechanism, even leading to death (Martin et al., 2017; Watts et al., 2015).

Intervention to support psychosocial problems is still one of the unmet needs of such patients (Afiyanti et al., 2018; Heckel et al., 2015). Spiritual intervention is one intervention that has been developed to overcome anxiety (Moeini et al., 2014; Oh & Kim, 2014). It is based on strengthening individual coping through interventions related to aspects of spirituality. Previous studies have shown that such intervention can reduce anxiety and sadness, and even feelings of trauma (Kamali et al., 2018). It has also been demonstrated that spiritual intervention positively affects cancer patients (Memaryan et al., 2017; Musarezaie et al.,2015).

Spiritual intervention assists the patients use strategies based on their spirituality; build good relationships with themselves, family, and friends; improve self-care practices; perform religious practices; increase positive thoughts and attitudes; listen actively; and build patient self-confidence (Kamali et al., 2018; Moeini et al., 2014). These are all beneficial for cancer patients, who are often unwilling to face their current condition, are victims of negative stigma from society, or face other negative conditions related to their feelings in dealing with the disease (Memaryan et al., 2017). The effectiveness of the spiritual intervention on reducing anxiety in cancer patients has been reported by previous studies (Carvalho et al., 2014; Ghahari et al., 2017; Moeini et al., 2014; Weaver, 2018). Indonesia has Pancasila (Five Principles) as a state of philosophy, which the number one is Belief in the Almighty God. Therefore, providing spiritual support for gynecological cancer patients in Indonesia has become a common practice. This practice, however, needs to prove its effectiveness in overcoming problems. Such support may play a major role in overcoming anxiety and depression in these patients. Therefore, this study aims to determine the effect of the spiritual intervention on anxiety and depression in gynecological cancer patients.

Methods

This quasi-experimental study employed pre-test and post-test on intervention and control groups. There were 54 respondents in each group, selected using the consecutive sampling technique. The inclusion criteria of the respondents including more than 18 years old, inpatients at a gynecological cancer care unit at a public hospital in a city of West Java with cancer stages I, II, III, or IV with experiencing a recurrence. The exclusion criteria were patients with speech disorders, having a mental disorder, and those with unstable clinical conditions. The nurse who provided the intervention was a nurse with certification training in spiritual guidance and effective communication. Each nurse had a manual book to do the intervention.

We applied the Indonesian version of the Hospital Anxiety and Depression Scale (HADS) that was valid and reliable from the previous study ($r = 0.361$, and Cronbach's alpha = 0.843) (Pasaribu, 2012). This tool was used to collect the data in pre and post-test. This study had been approved by the Research Ethics Committee of the Faculty of Nursing, Universitas Indonesia (No. 299/UN2.F12.D/HKP.02.04/2018).

The respondent individually in the intervention group was provided a spiritual intervention for two weeks. The first session consisted of an introduction and relaxation techniques. The introduction included a discussion about the concept of spiritual intervention and was asked about any conflicts she felt within herself, her current feelings related to the illness, and opinions related to spirituality. This session facilitated positive feelings and thoughts of the cancer experience. The respondent has also explained relaxation techniques to increase comfort, especially deep and abdominal breathing. She was

taught how, when, and how often to do it. The respondent was trained to lie down in or supine position with both eyes closed and with her hands on the abdomen or chest. She was then guided to inhale air through the nose without moving their chest or abdomen up, then exhaling it with minimal chest movements. The duration of one breath was 15 seconds or six times breath per minute.

The second session was named a control session. In this time, the respondent has explained the existence of two focus controls, namely factors that are within individual self-control, and ones that are outside it; that is, cannot be controlled by humans, such as God's decree. This session also focused on the role of God Almighty in conflict resolution in the respondents' lives.

The third and fourth sessions were conducted in the second week. The third session concerning identity, in which the respondent was asked to express her feelings of loss due to cancer. Some aspects were explored, such as the respondent's positive and negative feelings, affirmation of self-strength, and her enthusiasm and optimism in attending treatment. In the fourth session, namely relationship and prayer therapy. The respondent was invited to discuss three types of relationship, namely a relationship with herself, with others in various environments, and with God. Furthermore, she was invited to tell the efforts to increase her closeness to God through religious practices. Two weeks after the intervention, the respondent was asked to do the post-test. The intervention was provided during the respondent's stay at the hospital.

The respondent in the control group was provided treatment as appropriate as a standard of care of the hospital. After completing the posttest, the respondent provided a spiritual intervention leaflet. All processes of data collecting and intervention were finished in two months.

Results

The characteristics of the respondents are shown in Table 1, which indicates that the mean age of those in the control group was lower than that in the intervention group. Furthermore, the average length of time diagnosed with cancer in the control group was three months longer than the mean length of diagnosis in the intervention group. The average number of children in both groups was the same, at three.

Furthermore, concerning education levels, the control group was dominated by respondents with a high school education (74%), while most of those in the intervention group had a lower secondary education level (44.4%). About job characteristics, most respondents in the control group worked in the private sector (42.6%), while in the intervention group, most worked as laborers (72.2%). Furthermore, regarding the cancer stage, in the control group, this stood at the highest stage I for 37.0% of the respondents, while in the intervention group the highest stage was stage III (44.4%). The homogeneity test results show that the control and intervention groups were homogeneous ($p > 0.05$).

The study found a change in the mean scores of anxiety and depression in the intervention and control groups before and after receiving the spiritual intervention. These are shown in Table 2. In the control group, the results of the statistical analysis of the anxiety and depression scores show that from the anxiety aspect, there was an increase in average anxiety by 0.03 points during the post-test. In this regard, there was also no significant difference between the pretest and posttest scores ($p > 0.05$). The depression aspect showed a decrease in its mean score of 0.03 points during the posttest. There was no significant difference between the mean depression scores pre-test and post-test ($p > 0.05$).

The results of the analysis of the intervention group show that there was a decrease in the mean score of anxiety by 1.76 points after the posttest and that there was also a significant difference between pre-test and post-test ($p < 0.05$). A decrease was also shown in the depression aspect of 0.91 points and there was a statistical-

ly significant difference ($p < 0.05$).

Subsequent statistical analysis showed that there were differences in the anxiety and depression scores in the intervention and control groups as shown in Table 3. Before giving spiritual intervention, the difference in the anxiety scores between the control and intervention groups was 0.37, with the 95% confidence interval in the two groups ranging from 0.65 to 1.02. The difference in anxiety scores in the two groups was not significant ($p > 0.05$). Furthermore, regarding the depression aspect between the two groups, there was a score difference of 1.81, with the 95% confidence interval for the difference in depression scores in the two groups ranging

Table 1. The Characteristics of The Respondent (n = 108)

	Control Group		Intervention Group		
Variable	Mean (SD)	Min–max	Mean (SD)	Min–max	Homogeneity Test (p)
Age	44.35 (12.05)	21–69	47.17 (13.29)	21–73	0.314
Duration of cancer diagnosis (months)	17.02 (11.52)	2–48	13.94 (13.67)	1–96	0.106
Number of children	2.48 (1.37)	0–5	2.13 (1.40)	0–5	0.081
	F	%	F	%	
Education					0.416
Elementary school-Junior highschool	9	16.7	24	44.4	
Highschool	40	74.1	21	38.9	
Higher education	5	9.3	9	16.7	
Occupation					
Unemployed	0	0	1	1.9	1.89
Laborer	17	31.5	39	72.2	
Private Sector	23	42.6	2	3.7	
Entrepreneur	1	1.9	6	11.1	
Government employee	7	13.0	5	9.3	
Other	6	11.1	1	1.9	
Cancer stage					
Stage I	20	37	12	22.2	1.03
Stage II	12	22.2	16	29.6	
Stage III	18	33.3	24	44.4	
Stage IV	4	7.4	2	3.7	

Table 2. The Difference in Anxiety and Depression Scores in the Intervention and Control Groups (n = 108)

Variable	Mean (SD) Pre-test	Mean (SD) Post-test	p
Control Group			
Anxiety	10.54 (1.33)	10.57 (1.41)	0.221
Depression	9.56 (1.67)	9.52 (1.78)	0.113
Intervention Group			
Anxiety	10.35 (2.77)	8.59 (2.69)	0.001*
Depression	7.17 (2.90)	6.26 (2.32)	0.001*

Table 3. The Difference in the Anxiety and Depression Scores in the Intervention Group and Control Group Before Spiritual Intervention (n = 108)

Variable	Mean (SD)	p	95% CI
Anxiety			
Control	10.54 (1.33)	0.66	0.65;1.02
Intervention	10.35 (2.77)		
Depression			
Control	9.52 (1.78)	0.001*	1.48;3.29
Intervention	6.26 (2.32)		

Table 4. The Difference in the Anxiety and Depression Scores in the Intervention Group and Control Group After Spiritual Intervention (n = 108)

Variable	Mean (SD)	p	95% CI
Anxiety			
Control	10.57 (1.41)	0.001*	1.16;2.80
Intervention	8.59 (2.69)		
Depression			
Control	9.52 (1.78)	0.001*	2.47;4.05
Intervention	6.26 (2.32)		

from 1.48 to 3.29. The difference in depression scores in the two groups was significant ($p < 0.05$).

After giving spiritual intervention, the difference in the anxiety scores of the control and intervention groups was 1.64, with the 95% confidence interval of the difference in anxiety scores in the two groups ranging from 1.16 to 2.80. The difference in anxiety scores in the two groups was significant ($p < 0.05$). The difference in depression scores in the control and intervention groups was 1.58, with the 95% confidence interval of the difference in depression scores in the two groups ranging from 2.47 to 4.05. The difference in depression scores in the two groups was significant ($p < 0.05$). Several confounding factors were multivariate tested to determine the effect of the spiritual intervention on anxiety and depression, including age, education, occupation, stage of cancer, length of diagnosis, and the number of children. The multivariate test was conducted to determine whether the effect of the spiritual intervention on anxiety and depression was due to the intervention alone and not influenced by the confounding factors. The results of the test show that there were differences in the anxiety scores before and after the intervention after being controlled by the variables of age, education, occupation, stage, length of diagnosis, and the number of children ($p < 0.05$). This means that statistically, the difference in the mean scores of anxiety and depression was only a result of the intervention made.

Discussion

It was found that the average levels of anxiety in the control and intervention group of gynecological cancer patients indicated a need for increased awareness regarding this problem and related complications that might arise. Prioritization of the allocation of resources that could help patients, and of decision making related to efforts that could be made to prevent the effects of anxiety are also vital (Lin & Pakpour, 2017; Silverberg et al., 2019). These findings are following the previous study by Cassedy et al. (2018) and Yemen (2016), which reported that

anxiety was a frequent occurrence in cancer patients, with varying levels of severity (Yaman & Ayaz, 2016; Cassedy et al., 2018).

The study also obtained a mean depression score in the control and intervention groups at a level that indicates that depression in gynecological cancer patients requires relatively special attention so that conditions do not worsen. Depression in such patients is mainly associated with frustration and constant thoughts of death, altered self-image, the effects of the illness, the prognosis of treatment, and feelings of loss (Yaman & Ayaz, 2016). Their depression is biologically related to levels of the hormone interleukin-6 and the effects of radiation therapy (Macmillan et al., 2018). This condition can occur as a reaction to the diagnosis, treatment, and recurrence of the illness up to the end of patients' lives (Macmillan et al., 2018; Watts et al., 2015).

It was shown that after the intervention, the average anxiety score in the intervention group decreased. This finding is following the study of Jafari et al. (2013), who showed that the mean score of their intervention group fell after they provided spiritual intervention. Rafsanjani et al. (2017) also showed that mental and psychological health in the intervention group was higher than in the control group. Zamaniyan et al., (2016) also found that the anxiety score in the intervention group was lower than in the control group.

Furthermore, these results indicate that there was a significant difference between the pretest and post-test anxiety scores in the intervention group. This is following Rafsanjani et al.'s (2017), which also showed a significant difference between pre-test and post-test anxiety scores in the intervention group. However, in the control group, there was no significant difference between the scores. In addition, Zamaniyan et al., (2016) reported that the psychological aspect of the post-test scores in the intervention group was significantly different from the pretest scores.

The findings of this study are consistent with the research of Jafari et al. (2013), who found that there were significant differences in the anxiety scores and emotional function between intervention and control groups. Likewise, Zamaniyan et al. (2016) found that there were significant differences between the two groups. This shows the positive effect of the spiritual intervention on emotional functioning, including anxiety in cancer patients (Jafari et al., 2013; Jafari et al.,2012; Rafsanjani et al., 2017; Zamaniyan et al., 2016).

The intervention of this study consisted of four series of sessions interventions that were provided in two weeks. Previously, this intervention was developed by Jafari et al. (2013), which it was also reported that the respondent in the intervention group experienced a decrease in anxiety after receiving the spiritual intervention.

The breathing techniques have an effect on calming emotional states and reducing anxiety (Jafari et al., 2013). Another relaxation technique in this study was abdominal breathing. Abdominal breathing reduces anxiety in cancer patients and even can be implemented during chemotherapy, the patient should perform it as often as possible (Abbasi et al., 2018; Kashani et al., 2012; Song et al., 2013).

The reduction in anxiety in this study was strengthened by the intervention of control, identity, and especially prayer therapy, in which the respondent was encouraged to improve her relationship with God through religious practices, such as praying and remembering God (*dzikr*) for Muslims and reading the holy book for Christian. The previous studies found that ritual worship (prayer) could reduce anxiety, as indicated by decreasing cortisol levels in the saliva and vital signs of cancer patients (Carvalho et al., 2014; Oh & Kim, 2014; Xing et al., 2018). Cancer patients who undertake prayer therapy experience a decrease in anxiety after performing religious rituals (Carvalho et al., 2014). Prayer therapy can reduce anxiety because it can be a means of communication with God and of

expressing gratitude, asking for help or asking for directions, and expressing hopes and fears (Carvalho et al., 2014; Levine et al., 2012).

Other similar studies that have obtained similar results related to the reduction of anxiety applied several interventions, varying from four to 12 (Jafari et al., 2013; Rafsanjani et al., 2017; Zamaniyan et al., 2016). These variations were developed based on the patients' condition and the resources involved (Oh & Kim, 2014). By running four intervention sessions, this study achieved a decrease in the anxiety of up to 1.76 points, while the research of Zamaniyan et al. (2016), who employed 12 intervention sessions, showed a decrease in the anxiety of 0.248 points. Spiritual intervention in the research of Zamaniyan et al. (2016) included an introduction to the intervention, and sessions on self-consciousness, self-concept, the word of God, altruism, the relationship with holy sites, resentment, forgiveness, death, and fear of death, faith and trust in God, gratitude and a closing session. The characteristics of the respondents in this study and that of Zamaniyan et al. (2016) were relatively similar. The difference in the results of the two studies may have been influenced by other factors, such as differences in the measuring instruments used, resulting in different interpretations of the scores.

This research showed that after the intervention, the mean depression score in the intervention group decreased. Findings by Hosseini et al. (2016) also showed a reduction in depression after the spiritual intervention. Depression alters the immune system through an increase in catecholamines and cortisol and a decrease in T cell activity, which causes depression to worsen. Spiritual intervention can reduce depresssion, as evidenced by the hormonal balance (Hosseini et al., 2016; Musarezaie et al., 2014).

This study also showed that in the control group there was no change in the depression scores from pretest to posttest, while in the intervention group there was a significant change. This is following Jafari et al. (2013), who found changes between pre-test and post-test scores in the intervention group. Such intervention improves emotional health and reduces depression in the intervention group (Jafari et al., 2012; Rafsanjani et al., 2017; Zamaniyan et al., 2016). Furthermore, the intervention group experienced a decrease in depression are also following the study of Musarezaie et al. (2018), which showed that there was a decrease in depression, as evidenced by a decrease in the depression score after the posttest in the intervention group after they were given spiritual intervention.

This research indicates that before and after spiritual intervention there were significant differences between the intervention and control groups. This is following the research of Sankhe et al. (2017), who showed that after intervention there were significant differences between the intervention and control group and that spiritual intervention could reduce depression and improve emotional well-being, even after monitoring 1, 2, and 6 months (Sankhe et al., 2017). Different results were found by Ghahari et al. (2017), namely that there was no decrease in depressive symptoms or an increase in emotional well-being, a component of the quality of life, after receiving the spiritual intervention. Ghahari et al.'s (2017) research focused on spiritual intervention in the form of increasing the frequency of religious rituals, whereas in this study, apart from facilitating religious practices, the spiritual intervention also included strengthening spiritual coping, facilitating self-acceptance, and increasing positive thinking.

This study shows that there was a reduction in anxiety and depression in the intervention group after receiving the spiritual intervention. This is following a meta-analysis study by Oh and Kim (2014), which showed a significant reduction in anxiety and depression after the spiritual intervention. This was conducted on 14 previous studies representing 889 cancer patients. Another meta-analysis study also showed that spiritual intervention could reduce anxiety and depression in 1239 cancer patients, based on 10

previous randomized controlled trial studies (Xing et al., 2018).

Spiritual intervention can inhibit the production of the hormones norepinephrine and cortisol, which can consequently reduce depression, especially during relaxation and when performing religious rituals (Cornah, 2018; Hosseini et al., 2016). Relaxation in this study resulted in the reaction of focusing on the mind and good cooperation, meaning that concentration and self-control to calmness and reduced the emergence of negative thoughts. This is reinforced by findings from previous studies which suggest that relaxation can help overcome the sleep disorders that can exacerbate depression (Kashani et al., 2012).

Prayer therapy was one of the interventions made in this study, including the effort to ask God for help and guidance and increase the belief that God is the highest healer. These interventions also improved the patients' ability to accept illness, chronic conditions, as well as any lack of social support and family problems (Carvalho et al., 2014; Levine et al., 2009; Tuck, 2012). These conditions can certainly prevent psychological problems, including depression (Levine et al., 2009; Tuck, 2012).

Nursing implications. The complexity of caring for cancer patients is one of the particular concerns for nurses in improving patient welfare. This study shows that spiritual intervention can reduce anxiety and depression and improve the coping and well-being of gynecological cancer patients. The results indicate that spiritual intervention can be relied on as an intervention in holistic nursing services. Understanding related interventions; developing intervention sessions according to patient needs and the availability of resources, and solid health team collaboration in implementing them need to be considered to increase the effectiveness of interventions in achieving optimal results in the reduction of anxiety and depression and improvement in the quality of life of gynecological cancer patients.

Conclusion

Anxiety and depression are forms of psychological distress that often occur in gynecological cancer patients. Spiritual intervention can reduce these. The intervention consisted of four sessions: an introduction and relaxation session, a control intervention session, an identity intervention session, and a relationship and prayer therapy session. The study demonstrated that the series of intervention sessions were effective in reducing anxiety and depression in gynecological cancer patients, as indicated by the decrease in scores after the intervention.

References

Abbasi, B., Mirzakhany, N., Oshnari, L.A., Irani, A., Hosseinzadeh, S., Tabatabaei, S.M., & Haghighat, S. (2018). The effect of relaxation techniques on edema, anxiety and depression in post-mastectomy lymphedema patients undergoing comprehensive decongestive thera-py: A clinical trial. *Plos One*, *13* (1), e0190231. doi: 10.1371/journal.pone.0190231.

Afiyanti, Y., & Milanti, A. (2013). Physical sexual and intimate relationship concerns among Indonesian cervical cancer survivors: A phenomenological study. *Nursing and Health Sciences*, *15* (2), 151–156. doi: 10.1111/nhs.12006.

Afiyanti, Y., Milanti, A., & Putri, R.H. (2018). Supportive care needs in predicting the quality of life among gynaecological patients. *Winter Canadian Oncology Nursing Journal*, *28* (1), 22–29. doi: 10.5737/2368807628122 29.

Akalin, A., & Pinar, G. (2016). Unmet needs of women diagnosed with gynecologic cancer: An overview of literature. *Journal of Palliative Care & Medicine*, *6* (2), 1–6. doi: 10.4172/2165-7386.1000249.

Carvalho, C.C., Chaves, E., Iunes, D., Simao, T., Grasselli, C., & Braga, C. (2014). Effectiveness of prayer in reducing anxiety in cancer patients. *Rev Esc Enferm USP*, *48* (4), 684–

690. doi: 10.1590/S0080-623420140000400 016.

Cassedy, H.F., Tucker, C., Hynan, L.S., Phillips, R., Adams, C., Zimmerman, M.R., Pitts, S., Miltenberger, P., & Stringer, C.A. (2018, April). Frequency of psychological distress in gynecologic cancer patients seen in a large urban medical center. In *Baylor University Medical Center Proceedings, 31* (2), 161–164. Taylor & Francis. doi: 10.1080/08998 280.2018.144 0857.

Cornah, D. (2018). The impact of spirituality on mental health: A review of the literature. *Mental Health Foundation*. Retrieved from https://www.mentalhealth.org.uk/sites/defaul t/files/impact-spirituality.pdf

Ghahari, S., Fallah, R., Rad, M.M., Farrokhi, N., Bolhari, J., Mousavi, M., Razzaghi, Z., & Akbari, M.E. (2017). Effect of cognitive-behavioral therapy and spiritual-religious intervention on improving coping responses and quality of life among women survivors of breast cancer in Tehran. *Bali Medical Journal*, *6* (2), 409–414. doi: 10.15562/bmj. v6i2.581.

Hailemariam, T., Yohannes, B., Aschenaki, H., Mamaye, E., Orkaido, G., & Seta, M. (2017). Cancer science & therapy prevalence of cervical cancer and associated risk factors among women attending cervical cancer screening and diagnosis center at Yirgalem, *9* (11), 730–735. doi: 10.4172/1948-5956.1000 500.

Hansen, D.G., Larsen, P.V., Holm, L.V., Rottmann, N., Bergholdt, S.H., & Søndergaard, J. (2013). Association between unmet needs and quality of life of cancer patients: A population-based study. *Acta Oncologica*, *52* (2), 391–399. doi: 10.3109/0284186X.2012. 742204.

Heckel, L., Fennell, K. M., Reynolds, J., Osborne, R. H., & Chirgwin, J. (2015). Unmet needs and depression among carers of people newly diagnosed with cancer. *European Journal of Cancer*, *51* (14), 2049–2057. doi: 10.1016/j. ejca.2015.06.129.

Hosseini, L., Kashani, F.L., Akbari, S., Akbari, M. E., & Mehr, S. (2016). The Islamic perspective of spiritual intervention effectiveness on bio-psychological health displayed by gene expression in breast cancer patients. *Iran J Cancer Prev*, *9* (2), 4–9. doi: 10. 17795/ijcp-6360.Research.

Jafari, N., Farajzadegan, Z., Zamani, A., Bahrami, F., Emami, H., Loghmani, A., & Jafari, N. (2013). Spiritual therapy to improve the spiritual well-being of Iranian women with breast cancer: A randomized controlled trial. *Evidence-Based Complementary and Alternative Medicine, 2013*, 353262. doi: 10. 1155/2013/ 353262.

Jafari, N., Zamani, A., Farajzadegan, Z., & Bahrami, F. (2012). The effect of spiritual therapy for improving the quality of life of women with breast cancer: A randomized controlled trial. *Psychology, Health & Medicine*, *18* (1), 56–69. doi: 10.1080/13548 506.2012.679738.

Kaban, A., & Tekin, B. (2017). Depression and Anxiety in Ovarian Cancer. *Journal of Gynecology and Women's Health*, *4* (4), 6–8. doi: 10.19080/JGWH.2017.04.555647.

Kamali, Z., Tafazoli, M., Ebrahimi, M., & Hosseini, M. (2018). Effect of spiritual care education on postpartum stress disorder in women with preeclampsia. *Journal of Education and Health Promotion*, *7* (73), 1–8. doi: 10. 4103/jehp.jehp.

Kashani, F., Babaee, S., Bahrami, M., & Valiani, M. (2012). The effects of relaxation on reducing depression, anxiety and stress in women who underwent mastectomy for breast cancer. *Iranian Journal of Nursing and Midwifery Research*, *17* (1), 30–33.

Levine, E.G., Aviv, C., Yoo, G., Ewing, C., & Au, A. (2009). The benefits of prayer on mood and well being of breast cancer survivors. *Support Care Cancer*, *17* (3), 295–306. doi: 10.1007/s00520-008-0482-5.

Lin, C., & Pakpour, A.H. (2017). Using Hospital Anxiety and Depression Scale (HADS) on

patients with epilepsy: Confirmatory factor analysis and Rasch models. *Seizure: European Journal of Epilepsy*, *45*, 42–46. doi: 10.1016/j.seizure.2016.11.019.

Macmillan, A., Macmillan, S., Hyde, N., & Hodgkiss, A. (2018). Depression and anxiety in patients with cancer. *BMJ, 361*, k1415. doi: 10. 1136/bmj.k1415.

Martin, H., Brähler, E., Härter, M., Keller, M., Schulz, H., Wegscheider, K., Boehncke, A., Reuter, K., Richard, M., Sehner, S., Koch, U., & Mehnert, A. (2017). Unmet needs for information and psychosocial support in relation to quality of life and emotional distress: A comparison between gynecological and breast cancer patients. *Patient Education and Counseling*, *100* (10), 1934–1942. doi: 10. 1016/j.pec.2017.05.031.

Memaryan, N., Ghaempanah, Z., & Saeedi, M.M. (2017). Content of spiritual counselling for cancer patients undergoing chemotherapy in Iran: A qualitative content analysis. *Asian Pacific Journal of Cancer Prevention*, *18* (7), 1791–1797. doi: 10.22034/APJCP.2017.18. 7.1791.

Moeini, M., Taleghani, F., Mehrabi, T., & Musarezaie, A. (2014). Effect of a spiritual care program on levels of anxiety in patients with leukemia. *Iranian Journal of Nursing and Midwifery Research*, *19* (1), 88–93.

Musarezaie, A., Ghasemipoor, M., Ghaleghasemi, T., Khodaee, M., & Taleghani, F. (2015). A study on the efficacy of spirituality-based intervention on spiritual well-being of patients with leukemia: A randomized clinical trial. *Middle East Journal of Cancer*, *6* (2), 97–105.

Musarezaie, A., Moeini, M., Taleghani, F., & Mehrabi, T. (2014). Does spiritual care program affect levels of depression in patients with Leukemia? A randomized clinical trial. *Journal of Education and Health Promotion*, *3*, 96. doi: 10.4103/2277-9531.139678.

Nanjaiah, R., Khan, M.A., & Rao, V.N. (2017). Psychological impact of cancer diagnosis among gynaecological cancer subjects in a tertiary care centre. *International Journal of Community Medicine and Public Health*, *4* (2), 433–439. doi: 10.18203/2394-6040.ijcm ph2017 0268.

Oh, P., & Kim, S.H. (2014). The effects of spiritual interventions in patients with cancer: A meta-analysis. *Oncology Nursing Forum*, *41* (5), E290–301. doi: 10.1188/14.ONF.E290.

Rafsanjani, T.H., Arab, M., Ravari, A., Miri, S., & Safarpour, H. (2017). A study on the effects of spiritual group therapy on hope and the mental and spiritual health of patients with colorectal cancer. *Progress in Palliative Care*, *25* (4), 171–176. doi: 10.1080/096992 60.2017.1339518.

Sankhe, A., Dalal, K., Agarwal, V., & Sarve, P. (2017). Spiritual care therapy on quality of life in cancer patients and their caregivers: A prospective non-randomized single cohort study. *Journal of Religion and Health*, *56* (2), 725–731. doi: 10.1007/s10943-016-0324-6.

Silverberg, J.I.D., Gelfand, J.M., Margolis, D.J., Boguniewicz, M., Fonacier, L., Grayson, M.H., Ong, P.Y., Chiesa Fuxench, Z.C., & Simpson, E.L. (2019). Symptoms and diagnosis of anxiety and depression in atopic dermatitis in U.S. adults. *British Journal of Dermatology*, *181* (3), 554–565. doi: 10. 1111/ jd.17683.

Song, Q., Xu, R., Zhang, Q., Ma, M., & Zhao, X. (2013). Relaxation training during chemotherapy for breast cancer improves mental health and lessens adverse events. *International Journal Clin Exp Med*, *6* (10), 979–984.

Tuck, I. (2012). A critical review of a spirituality intervention. *Western Journal of Nursing Research*, *34* (6), 712–735. doi: 10.1177/01939 45911433891.

Watts, S., Prescott, P., Mason, J., Mcleod, N., & Lewith, G. (2015). Depression and anxiety in ovarian cancer: A systematic review and meta-analysis of prevalence rates. *BMJ Open*, *5* (11), e007618. doi: 10.1136/bmjopen-2015-007618.

Weaver, A.J. (2018). The role of religion/ spirituality for cancer patients and their caregivers. *Southern Medical Journal*, *97* (12), 1210–1214. doi: 10.1097/01.SMJ.0000 146492.276 50.1C.

Xing, L., Guo, X., Bai, L., Qian, J., & Chen, J. (2018). Are spiritual interventions beneficial to patients with cancer? A meta-analysis of randomized controlled trials following PRISMA. *Medicine*, *97* (35), 1–11. doi: 10. 18203/2394-6040.ijcmph20170268.

Yaman, S., & Ayaz, S. (2016). Psychological problems experienced by women with gynecological cancer and how they cope with it: A phenomenological study in turkey. *National Association of Social Workers*, *41* (3), 173–181. doi: 10.1093/hsw/hlw030.

Zamaniyan, S., Bolhari, J., Naziri, G., Akrami, M., & Hosseini, S. (2016). Effectiveness of spiritual group therapy on quality of life and spiritual well-being among patients with breast cancer. *Iran Journal Med Sci*, *41* (2), 140–144.