Original Article

Impact of a Spiritual Care Program on Spiritual Wellbeing of Oncology Nurses: A Randomized Clinical Trial

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Abstract

Background: Spiritual wellbeing (SWB) of nurses working in oncology wards is directly related to quality of care they provide. An increase in their SWB might lead to decrease in their spiritual distress and increase in their coping strategies. The aim of this study was to investigate the impact of a spiritual care program on SWB of nurses. **Materials and Methods:** This study is a clinical trial with before and after intervention groups, which was carried out on 65 nurses in Omid Hospital in Isfahan in 2017. Nurses were randomly assigned into control (n = 34) and intervention groups (n = 31). The data were collected through demographic and SWB scales. Spiritual care program consisting of eight sessions of four relationship-based domains, including relationships with God, self, others, and the environment, were carried out in the intervention group. Two care training sessions in oncology departments were conducted for the control group. **Results:** The results indicated that the differences in SWB mean scores between the intervention and control group after treatment were statistically significant (t = 2.58, p = 0.012). Also, SWB mean scores in the intervention group before and after treatment showed a statistically significant difference (t = 2.86, p = 0.008). **Conclusions:** The results showed that the spiritual care program might have a positive impact on the SWB of nurses working in oncology wards. Therefore, it is indispensable to promote and prioritize the SWB of nurses so that patients and their families will receive better health services.

Keywords: *Iran, nurses, oncology, spiritual care, spiritual wellbeing*

Introduction

Evidence suggests that spirituality is an important aspect of cancer patients' quality of life.[1-3] A number of studies have been done to assess cancer patients' spirituality or quality of life.[2,4,5] However, the spirituality of nurses working in oncology wards has often been overlooked.[3] Experts believe that health professionals, especially nurses, are constantly exposed to critical and stressful situations.[6] The complexity of nursing practice can affect their spiritual health and the quality of their performance.[7,8] An increase in spiritual wellbeing (SWB) in oncology nurses might lead to decrease in their spiritual stress and increase in their coping.[9]

Spirituality of nurses can also affect nursing care of cancer patients. In a study conducted in three European countries, it was found that oncology nurses who had lower levels of spirituality were rarely enabled to provide spiritual care to patients with cancer.[10] Chiang *et al*. believed that if the SWB of nurses is higher, they can take care of their patients with more love and compassion as well as pay more attention to the SWB of their patients.[11] In a qualitative research carried out by Khorrami-Markani *et al*., results indicated that the spirituality of oncology nurses should be taken into the consideration to solve and identify the spiritual needs of cancer patients.[9]

Despite the importance of improving the spirituality of nurses working in oncology wards using spiritual programs, no interventional study found in an Iranian context aims to promote the spiritual health of nurses. We could only identify one cross-sectional study to assess nurses' spirituality. In this study, results showed that the psychological–spiritual dimension score of quality of life of oncology nurses had a considerable distance from the ideal situation.[3] In another study conducted by Ozbasaran *et al*. in Turkey in 2011, it was found that nurses' spirituality had a

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Access this article online

Website: www.ijnmrjournal.net

DOI: 10.4103/ijnmr.IJNMR_33_18

Quick Response Code:

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How to cite this article: Mehdipoorkorani L, Bahrami M, Mosavizade R. Impact of a spiritual care program on spiritual wellbeing of oncology nurses: A randomized clinical trial. Iranian J Nursing Midwifery Res 2018;XX:XX-XX.

Received: February, 2018. **Accepted:** August, 2018.

considerable distance from the ideal situation.[12] Because of differences in spirituality situation in other countries, compared to Muslim countries, research results cannot be generalized to Iran.[13,14] Therefore, this study was aimed to investigate the impact of a spiritual care program on SWB of nurses working in oncology wards.

Materials and Methods

This study is a clinical trial (No. IRCT2017022532770N1) with control and intervention groups, which was carried out for a period of 2 months from February 5 to March 25, 2017 in Omid Hospital in Isfahan, Iran. The study population included all working nurses with the following inclusion criteria: A minimum of 1 year working experience in oncology wards, being Muslim and speaking Persian, having at least an associate degree in nursing and signing a consent form to participate in the research. Exclusion criteria were absence for more than one session in caring program, lack of interest to continue sessions, and coming to intervention sessions late.

The sample size was calculated as 70 subjects by power analysis with a power of 80%, $d = 0.70$ s, and $z = 1.96$. Nurses were selected by convenient sampling and randomly assigned into intervention ($n = 35$) and control ($n = 35$) groups (using the web-based application on https://www.random.org). Four participants from the intervention group and one participant from the control group were excluded from the study due to lack of interest. At the end of the intervention, the intervention and control groups consisted of 31 and 34 participants, respectively [Figure 1].

Data were collected through a two-part questionnaire. The first part was related to demographic information of nurses (age, sex, education level, marital status, work experience, and wards). The second part was SWB scale questionnaire developed by Paloutzian and Ellison in 1982. The scale contains two subscales: (a) Religious wellbeing (RWB) and (b) Existential wellbeing (EWB). RWB refers to the feeling of having a relationship with a superior power, whereas the EWB is interpreted as trying to understand the meaning and purpose of life. Each subscale includes 10 items, which result in a score between 10 and 60. The total spiritual health score is the sum of these two subscales that have a range between 20 and 120. The questionnaire contains 20 items with six-point Likert scales (from strongly agree to strongly disagree). The scores of items 1, 2, 5, 6, 9, 12, 13, 16, and 18 were reversed. Higher scores represented higher levels of spiritual health.[15] The face and content validities of this scale were approved in a study to identify the relationship between nurses' spiritual health and their caring behaviors by Atashzadeh-Shoorideh *et al*. The reliability of the questionnaire was also 0.87% using Cronbach's alpha.[16]

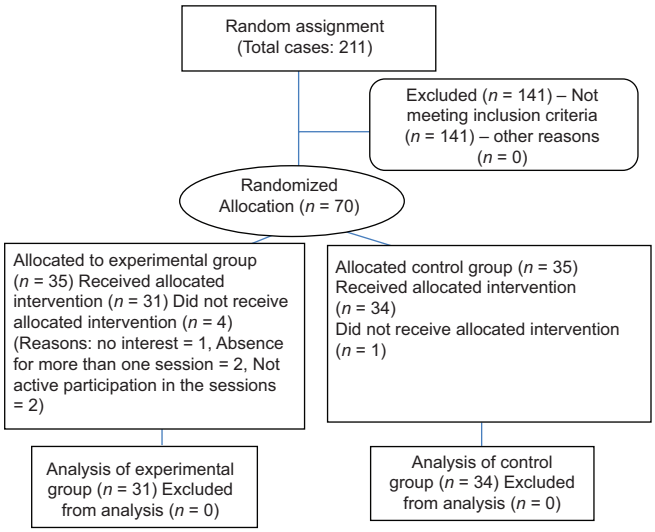


Figure 1: Consort statement

The content of spiritual care program was extracted from the books of spiritual care, palliative care, and the results of previous research.[17-19] The mentioned spiritual care program consisted of needs and domains. Four domains of the program included human relationship with God, self, others, and connection with the environment.[18] Its spiritual needs included goal-meaning and faith-belief. Sessions took place with the aim to meet the spiritual needs with a focus on four domains of human communications and by applying some spiritual strategies[17] [Table 1].

Teaching methods that were used in this study included formal slides and lecture, along with a short description and the image that depicted spiritual themes (the relationship with God, self, others, and the environment), such as meaning, purpose, faith, and belief in life. Group discussion was also incorporated at the end of the session. Other strategies consisted of spiritual readings (derived from the Quran) [Table 2],[20] focus groups debates, spirituality labels (for reminding and recalling the content at intervals between sessions), films and video clips (containing the main purpose of creation and the life, forgiveness to others, thinking of beings and the environment), short stories (documenting the life of a teenager who lives with cancer and documenting the life of a nurse student suffering from leukemia and spiritual compatibility), role modeling and simulation (to show the effect of spiritual care), and practice and activities in class.[21]

The SWB questionnaire was completed on an individual basis in the first session by all participants in the intervention and control groups. The intervention group received eight sessions of intervention for 8 weeks. The spiritual intervention sessions were held for eight consecutive weeks, once a week, in groups (groups of four to five subjects) in morning or evening shifts and in accordance with the care plan. Each session lasted for 45–60 min depending on the content. The sessions were conducted by the researcher with the supervision of an expert in the spirituality field in the hospital. Before the

Table 1: Spiritual care program sessions and strategies

Spiritual care program	Spiritual strategies
First session: Meaning and purpose in relationship with god	Facilitating finding meaning or purpose
Second session: Faith and belief in relationship with god	Enabling existential empowerment
Third session: Meaning and purpose in relationship with self	Supporting spiritual inquiry
Fourth session: Faith and belief in relationship with self	Suggesting spiritual resources
Fifth session: Meaning and purpose in relationship with others	Providing spiritual guidance
Sixth session: Faith and belief in relationship with others	Promoting spiritual fellowship
Seventh session: Meaning and purpose in relationship with environment	Providing inspirational books
Eighth session: Faith and belief in relationship with environment	

Table 2: Spiritual readings derived from the Quran in each session

Session	Spiritual reading
One	Say, He is Allah, the One. Allah is the All-embracing. He neither begat, nor was begotten. nor has He any equal (Touhid 1-4)
	Verily, to thy Lord is the return (of all) (Alagh 8)
Two	Indeed, He is all-clement (Nasr 3)
	Except to those who believe and work righteous deeds: for them is a reward that will never fail (Ensheghagh 25)
Three	We have indeed created man in the best of moulds (Teen 4)
	Verily We created Man from a drop of mingled sperm, in order to try him: So We gave him (the gifts), of hearing and sight (Ensan 2)
Four	The man can have nothing but what he strives for (Najm 39)
	To the righteous soul will be said: o (thou) soul, in (complete) rest and satisfaction! Come back thou to thy Lord, well pleased (thyself), and well- pleasing unto Him! Enter thou, then, among My devotees! Yea, enter thou My heaven! (Valfajer 27-30)
Five	The parable of those who spend their wealth in the way of Allah is that of grain which grows seven ears, in every ear a hundred grains. Allah enhances several fold whomever He wishes, and Allah is all bounteous all-knowing (Al Bagareh 261)
	For the poor who are straitened in the way of Allah, not capable of moving about in the land (for trade). The unaware suppose them to be well-off because of their reserve. You recognize them by their mark; they do not ask the people importunately. And whatever wealth you may spend, Allah indeed knows it (Al Bagareh 273)
Six	Hold fast, all together, to Allah's cord, and do not be divided (into sects). Remember Allah's blessing upon you when you were enemies, then he brought your hearts together, so you became brothers with his blessing. And you were on the brink of a pit of fire, whereat He saved you from it. Thus does Allah clarify His signs for you so that you may be guided (Al Emran 103)
	Then shall anyone who done an atom's weight of good, see it. And anyone who has done an atoms weight of evil, shall see it (Zelzal 7-8)
Seven	Indeed in the creation of the heavens and the earth and the alternation of night and day, there are signs for those who possess intellect (Al Emran 190)
Eight	And (moreover) We have guarded them from every cursed devil: but any that gains a hearing by stealth, is pursued by a flaming fire, bright (to see). And the earth We have spread out (like a carpet), set thereon mountains firm and immovable; and produced there in all kinds of things in due balance (Hajer 17-19)

study, the researcher attended 16 sessions in a 2-month training program (60 h) on spiritual and palliative care in Ala Palliative Centre in Isfahan, Iran. Currently, Ala's Palliative Care Centre is the largest and most professional healthcare partner in the field of palliative care in Iran, and is contracted to provide services through a memorandum of understanding with the Ministry of Health and Medical Education.

Based on the previous studies,[22] each session consisted of five parts, including greeting and recalling the content of previous session (5–10 min), introducing a spiritual strategy and discussing its effects on everyday life, mental health, and life satisfaction (about 20 min), a short break (5–10 min), assigning a class practice to allow each subject to immerse in the learned spiritual strategy, find its instances in their past experiences, and apply it to his/her present life (5–10 min), summarizing the session content and giving the participants a training manual on the introduced spiritual strategy (5–10 min).[22] In the second and sixth weeks of the study, the control group received two sessions of training program on principles of cancer care. Immediately after the completion of the intervention, SWB questionnaire was completed by all of the participants on an individual base and in the workplace.

Statistical analysis was performed through SPSS software version 19 (SPSS Inc., Chicago, IL, USA) by descriptive and inferential tests (paired *t*-test, independent *t*-test, Chi-square test, Fisher's exact test, and Mann–Whitney test). In cases that data had no normal distribution, nonparametric statistical tests were used to analyze the data. p value <0.05 was considered significant.

Ethical considerations

The participants were informed of the goals of the study and their rights to withdraw the study anytime they desired and signed a written informed consent. The anonymity of the nurses was ensured, as the questionnaires did not require any identifying details. The research project was approved by the Ethics Committee of Isfahan University of Medical Sciences (Ethics code no.: IR.MUI.REC.1390.309048), Isfahan, Iran.

Results

The findings of this study showed that 90.30% in the intervention groups and 82.40% in the control group were female. In addition, 80.60% of the intervention group and 73.50% of the control group had a bachelor's degree in nursing. Also, 45.50% of the intervention group and 73.50% of the control group were married. The majority of nurses in the intervention group were from surgical (25.80%), pediatric (19.40%), and operating room (19.40%) wards. In the control group, the majority of nurses were from the surgery (17.60%) and pediatric (17.60%) wards. The mean (SD) of age in intervention and control groups were 8.61 (7.19) and 9.97 (8.90), respectively. The mean (SD) of overall work experience in the intervention and control groups were 8.61 (7.19) and 9.97 (8.90), respectively. Mean (SD) of overall work experience in the oncology unit in the intervention and control groups were 4.51 (3.17) and 6.91 (8.17), respectively. The results of Fisher's exact test, Chi-square test, independent *t*-test, and Mann–Whitney showed that there were no significant differences between two groups before the intervention regarding their demographic characteristics ($p > 0.05$).

The results of independent *t*-test in the intervention and control group before the study showed that they had no significant difference in terms of mean scores of existence dimension of SWB ($t = 0.60$; $p = 0.55$), religious dimension of SWB ($t = 0.50$; $p = 0.668$), and total score of SWB ($t = 0.54$; $p = 0.957$). The results indicated that the differences in SWB mean scores between the intervention and control group after intervention were statistically significant [Table 3]. The findings related to the total mean score (SD) of SWB in intervention group before and after the intervention were 80.64 (16.26) and 90.70 (16.35), respectively ($t = 2.86$; $p = 0.008$). Comparison of the mean scores of the existence and religious dimensions in the intervention group before and after the intervention has been presented in Table 4.

Discussion

This was the first interventional study in an Iranian context aiming to improve SWB of nurses working in oncology wards. The RWB mean score of the oncology nurses after the intervention was significantly higher than the relevant scores before the intervention. This confirms the promotion of oncology nurses in the RWB. The EWB mean score of the oncology nurses after the intervention also significantly increased, compared to the pre-intervention confirming the promotion of oncology nurses in EWB.

The most important effects of this spiritual care program were due to the impact of using clips and films on health and wellbeing, loving one, hopes, pleasures, and happiness. The use of stories had a profound effect on understanding of the meaning and purpose of life, loving, hoping for goals, purity of purpose, and patience. On the contrary, the use of spiritual labels that could be installed on the doorway, behind the cell phone or on the desk had a significant impact on reminding and better understanding of the spiritual care program among the subjects in the intervention group. They were effective in the context of the growth of individuals in the field of dignity, inner calmness, and gratitude. Classroom discussions,

Table 3: Spiritual wellbeing and its dimensions between the intervention and control groups

Group	Before intervention		Statistical test			After intervention		Statistical test		
	Intervention Mean (SD)	Control Mean (SD)	*t*	df	*p*	Intervention Mean (SD)	Control Mean (SD)	*t*	df	*p*
RWB	38.02 (9.74)	37.03 (8.79)	0.50	63	0.668	37.41 (9.39)	42.83 (8.33)	2.50	63	0.017
EWB	42.26 (9.27)	43.61 (8.74)	0.60	63	0.550	42.08 (8.95)	47.64 (9.86)	2.38	63	0.020
SWB	80.41 (18.42)	80.64 (16.26)	0.54	63	0.957	79.90 (17.61)	90.70 (16.35)	2.58	63	0.012

RWB: Religious wellbeing; EWB: Existential wellbeing; SWB: Spiritual wellbeing (total score); df: Degrees of freedom; SD: Standard deviation

Table 4: SWB score and its dimensions before and after intervention

Group	Control		Statistical test			Intervention		Statistical test		
	Before Mean (SD)	After Mean (SD)	*t*	df	*p*	Before Mean (SD)	After Mean (SD)	*t*	df	*p*
RWB	38.02 (9.74)	37.55 (9.47)	1.11	63	0.271	37.03 (8.79)	47.22 (3.37)	9.11	63	<0.001
EWB	42.26 (9.27)	42.08 (8.95)	0.46	63	0.646	43.61 (8.74)	53.32 (5.34)	6.96	63	<0.001
SWB	80.41 (18.42)	79.79 (17.61)	0.99	63	0.327	80.64 (16.26)	90.70 (16.35)	2.86	63	0.008

RWB: Religious wellbeing; EWB: Existential wellbeing; SWB: Spiritual wellbeing (total score); df: Degrees of freedom; SD: Standard deviation

lectures, and classroom assignments all contributed to the internalization of all the values of this spiritual care program and the growth of oncology nurses as well as their SWB.

The results are consistent with similar studies regarding the impact of spirituality programs among oncology and non-oncology nurses. For example, the results obtained in this study are consistent with the results of the study by Petersen *et al.*, which were carried out to evaluate the impact of an online training program on spiritual care in pediatric oncology nurses.[21] The findings of this study showed that the use of a spiritual care training program significantly promotes spirituality and the merit of oncology nurses in providing spiritual care to cancer patients. In addition, Highfield *et al.*[23] conducted a study with the aim of the impact of spiritual care training on oncology nurses and nurses of hospice palliative care. The results showed that the quality of spiritual care provided by nurses in the intervention group significantly increased. Meanwhile, Seo *et al.*[22] conducted a study to evaluate the impact of spirituality program on SWB promotion and spirituality in young clinical nurses working in stressful wards of the hospital. Results of their study showed that levels of spirituality in nurses significantly increased after intervention.

According to the findings of the present study, it can be said that spiritual program, to a significant extent, was able to increase nurses' spirituality wellbeing. Therefore, it would be economical for organizations to provide oncology nurses with the right tools, resources, and training to provide spiritual care at the bedside. Adequate tools and training may enhance a nurse's confidence in providing holistic care that includes spiritual care. The findings, applied from this project, will enhance future research by expanding nursing knowledge related to the spiritual scope of practice of nurses.

The study had some limitations that might have affected the validity of the results. First, the small sample size and lack of follow-up might be considered as a limitation to generalize the findings of this study. Therefore, replication of similar studies with larger sample sizes and longer periods of follow-up is recommended. Secondly, the possibility of social desirability response bias by participants could not be discounted, especially with the use of a self-reported questionnaire.

Conclusion

The findings of this study indicate that the SWB program might have a significant impact on SWB of oncology nurses. With a focus on SWB (existential–religious), the current care program can be one of the effective, safe, affordable, and applicable solutions for increasing SWB and its dimensions among oncology nurses. It is recommended that further longitudinal studies be carried out to consolidate the findings and overcome their limitations.

Acknowledgments

The authors would like to appreciate the nurses who participated in this study. We also thank the authorities of Omid Hospital and Ala Palliative Centre in Isfahan who facilitated the study.

Financial support and sponsorship

Isfahan University of Medical Sciences and Alla Palliative Care Center in Isfahan and Vice-chancellor of Research and Technology of Isfahan University of Medical Sciences (395948)

Conflicts of interest

Nothing to declare.

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