

The effect of nursing consultation involving cancer survivors on newly diagnosed cancer patients' quality of life

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ABSTRACT

Introduction: Cancer and its treatments have a significant effect on the Quality of Life (QoL) of people who suffer from cancer. Nursing consultation involving cancer survivors might be beneficial for other patients as they successfully managed and lived with cancer. But controversies still exist in the research findings as how nursing consultation involving cancer survivors might influence other cancer patients' QoL. Therefore, a research study was done to determine the effect of nursing consultation with the presence of cancer survivors on cancer patients' QoL.

Materials and Methods: The study was a quasi-experimental research using a pre–post test design, which was conducted in Sayyed- AL-Shohada Hospital affiliated to Isfahan University of Medical Sciences, Iran, in 2010. Twenty-two adult patients who suffered from acute leukemia who were receiving chemotherapy were selected. They participated in a nursing consultation group in which cancer survivors were actively engaged. The patients' QoL was assessed before, 1 week, and 1 month after the nursing consultation using the European Organization for Research and Treatment of Cancer Quality of Life Core-30 Version 3 (EORTC QLQ-C30-V3) questionnaire.

Findings: Comparing QoL mean scores of patients in the symptom, performance, and the general health status scales showed that there was not any significant change in the QoL scores before, 1 week, and 1 month after the consultation.

Conclusion: It seems that the nursing consultation with the presence of cancer survivors couldn't enhance patients' QoL, although it might prevent worsening the patients' QoL. Cancer has deleterious impacts on patients' QoL and nursing consultation may not improve QoL in a short period of time. It is recommended that the study be conducted with a larger sample, in a longer time and with a case–control design.

Key words: Cancer, consultation, Iran, nursing, peer group, quality of life, survivor

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INTRODUCTION

Cancer is a major global health issue. World Health Organisation (WHO) anticipated that cancer death rate globally will rise up to around 9 and 11.4 million in 2015 and 2030, respectively. Other statistical information indicates that people at no stage of their life can get rid of the risk of cancer; however, it is most likely that individuals in the age group 65 years and older will be impacted by cancer.^[1]

In Iran, based on the WHO,^[2] cancer is the main cause of death (11.8%) after cardiovascular diseases and injuries. Other chronic diseases altogether constitute only 17.5% of deaths nationwide. The rate of cancer death is projected to undergo a slight increase from 11.8% to 13.4% by 2030. Based on the WHO report, in term of incidence and mortality rate, leukemia is amongst ten top important malignancies in Iran. This information indicates that leukemia is a significant issue in Iran.^[2] However, supportive care to this group is not optimal.

Many cancer patients already diagnosed with leukemia have been dealing with difficulties related to diagnosis of cancer and their life expectancy. Patients are also concerned about the symptoms of cancer, cancer treatment side effects, and the social and psychologic problems associated with cancer, particularly after undergoing chemotherapy. In order to support these patients, nurses need to use a holistic approach.^[3] Focusing on Quality of Life (QoL) is congruent with the philosophy of a holistic approach in nursing.^[4]

QoL has been measured as an outcome criterion to assess the effect of different type of interventions on several aspects of cancer patients in Iran. For example, the effect of individual and choral praying methods,^[5] rehabilitation intervention,^[6] and programmed aerobic exercises^[7] on different aspects of cancer patients' QoL were examined.

While newly diagnosed cancer patients are dealing with a number of problems, cancer survivors could successfully manage and live with cancer for a longer period of time even for years. Their resistance and resilience brought them to a point that can live almost at the same level as other healthy people do. They might be a valuable source of information and their experiences might be beneficial for other patients as how to manage, cope, and recover from cancer. Research findings indicate that cancer patients are interested to listen to and discuss their issues and concerns with a person from a similar diagnosed group.^[8] This might be very helpful to decrease patients' psychologic problems and improve patients' QoL.^[9]

However, a number of research studies were conducted around the world as how cancer survivors can work as counselors for newly diagnosed cancer patients.^[10-13] However, still inconsistencies exist in the literature about the effectiveness of peer counseling.^[14] Moreover, in Iran the literature related to using cancer survivors as counselors is sparse.^[9,15,16] One study was conducted with breast cancer patients in Fars province, southern Iran. Results indicated that peer-led education can improve breast cancer patients' QoL following mastectomy.^[9] Other 2 studies that were conducted with breast cancer patients in Isfahan province, led relatively to the same results.

However, still we were interested to introduce and extend peer counseling with patients suffering from acute leukemia as they refer to the public hospital. In fact, obstacles exist in the context of oncology wards that might make conducting research studies, such as peer consultation, difficult. Therefore, a study was conducted to show if nursing consultation involving cancer survivors can improve new cancer patients' QoL in a short period of time. The specific aims were (1) to compare patients' QoL mean scores before,

1 week, and 1 month after nursing consultations; and (2) to identify the relationship between patients' QoL mean scores with some patients' demographic and clinical variables.

MATERIAL AND METHODS

The present study was a quasi-experimental clinical trial of one group using a pre-post test administration. The research study was completed almost during a 3-month period from July to September 2010 in the Sayyed- AL-Shohada Hospital in Isfahan, Iran. A convenience sample of 22 new cancer patients were recruited and allocated into the administration group. The inclusion criteria for patients were medically diagnosed as having acute leukemia and undergoing chemotherapy, patients' awareness of their diagnosis, ability to understand and speak Farsi (Persian), willingness and physical ability to take part in the study, ability to communicate and understand questionnaire, and of age between 18 and 75 years. Cancer survivors were also selected according to the oncologist confirmation as being a cancer survivor. They were all living at least 5 years after the diagnosis of leukemia, completed successfully the treatment process, and interested to participate in the study. The exclusion criteria were lack of willingness or any other kinds of problems that preventing the patients' participation in the discussion group.

The sample size was calculated using power analysis with a significance level of 5% and power of 80%. The mean QoL differences before and after the administration to identify the significant results was considered to be 0.7 of standard deviation of QoL scores after the administration. On the basis of a previous research study, it was supposed that the administration has a large effect size. Initially, 26 patients selected and 2 of them died and another 2 discharged from the hospital before completion of the study. This way, 22 patients completed all steps of the research process. Owing to some practical issues mainly related to get access to patients with the research's inclusion criteria in the period of the study, it became impossible to have a control group.

Conducting the research was approved by the appropriate research committee of Isfahan University of Medical Sciences. Verbal information about the research study was provided for patients and written informed consent was given by patients. Patients also informed about their right to withdraw from the study at any time if they so desired.

The administration consisted of face-to-face group discussion in which the researcher as a nurse and the team leader, 1-2 cancer survivors (from a pool of 6 available cancer survivors), and at least 4 newly diagnosed patients

with acute leukemia participated. Each patient participated in 2 sessions every week that lasted from 35 to 90 min. In the first 10 min, the researcher introduced the aim of the session, described cancer and its related treatments, and initiated a conversation about the importance of supportive care, particularly peer consultation. In the second part, the discussion was started between newly diagnosed cancer patients and cancer survivors. The important issues discussed between 2 parties were about coping strategies, treatment options, treatment side effects and how to manage them. The researcher as the team leader was engaged in all parts of the session by encouraging, elaborating, and complement issues. The competency of the researcher for conducting such a group discussion and consultation was achieved by reading the appropriate materials and practicing in similar consultation sessions with his supervisor.

The research tool consisted of the European Organization for Research and Treatment of Cancer Quality of Life Core-30 Version 3 (EORTC QLQ-C30-V3) questionnaire. The EORTC QLQ-C30 includes 9 multi-item scales: 5 functional scales (physical, role, cognitive, emotional, and social functioning); 3 symptom scales (fatigue, pain, and nausea/vomiting); and a global health status/QoL scale. Six single-item scales were also included (dyspnea, insomnia, appetite loss, constipation, diarrhea, and financial difficulties).^[17] The score of each item is based on a scale of 0–100. In functional and general health status scales of QoL a higher score shows a better functional condition or a better QoL, whereas in the symptoms aspect, a high score is a sign of problem.^[17]

Validity and reliability of its Persian (Farsi) translation was assessed in Iran and it was introduced as a valid and reliable tool.^[18] The demographic and clinical record form including information, such as age, gender, marital status, treatment setting, educational level, and type of cancer, was also completed by interviewing patients and using the patient clinical record.

Patients' QoL were assessed before, 1 week, and 1 month following the nursing consultation using EORTC-QLQ-C30 questionnaire. Data were analyzed by SPSS version 17 software using one-way analysis of variance. $P \leq 0.05$ was considered significant.

Findings

The patients' mean \pm SD age was 34.6 ± 11.5 . The highest percentage of patients (59.1%) were treated in the outpatient clinic. The patients received approximately 6 chemotherapy sessions before the study period started.

The QoL mean scores of patients are reported in Table 1. Findings revealed that there were no significant differences between QoL mean scores of patients before, 1 week, and 1 month after the study in functional ($F = 0.006$, $P = 0.99$), symptom ($F = 0.28$, $P = 0.75$), and global health status/QoL ($F = 1.30$, $P = 0.29$).

Also the relationship between patients' demographic and clinical variables (treatment setting, gender, age, educational level, chemotherapy sessions, marital status, type of cancer) and QoL mean scores was measured. Significant relationships were found between some study variables and QoL mean scores which are presented in Table 2.

Table 2 shows that significant relationships exist between chemotherapy sessions with global health status/QoL ($r=0.50$); age with functional ($r=-0.55$) and global health status/QoL ($r= -0.37$); and gender with symptom ($t=2.30$) mean scores.

DISCUSSION

In Iranian context, cancer patients' followup to measure qualitative measures, such as QoL, particularly for a long period of time is usually a difficult matter. The aim of the study was therefore to see if newly diagnosed cancer patients can have an improvement in their QoL following nursing consultation with the presence of cancer survivors in a short period of time. A longitudinal QoL assessment was conducted across 1 month and research findings statistically were not promising. However, results (not reported here) still indicated that in some areas particularly

Table 2: The significant relationships between some study variables and QoL mean scores

Variable Test Scale	Chemo therapy sessions	Age	Gender
	<i>r</i>	<i>r</i>	<i>t</i>
Functional	0.29	-0.55*	0.05
Symptom	0.39	-0.50	2.30*
Global health status/QoL	0.50*	-0.37*	0.64

r, Pearson correlation; *t*, *t* test.; *Statistically significant.

Table 1: QoL mean scores of patients before, 1 week, and 1 month after the study

Scale Test Time	Functional			Symptoms			Global health status/QoL		
	Mean	SD	ANOVA	Mean	SD	ANOVA	Mean	SD	ANOVA
Before study	72.82	16.72	$F = 0.006$	72.42	14.07	$F = 0.28$	75.00	16.60	$F = 1.30$
One week after study	72.62	15.14		74.12	12.87		70.45	20.11	
One month after study	72.42	23.13		73.77	19.62		70.12	19.79	

in relation to the patients' symptoms (such as dyspnea, constipation, diarrhea, and fatigue) minor improvements happened that might be clinically important and need further consideration. Moreover, as reported,^[4] QoL is a complex concept. After years and years of study and investigation around this concept, still there is no universally agreed definition of QoL and no general consensus on those aspects that constitute it. This may not be acceptable that we wholeheartedly accept that nursing consultation using cancer survivors does not have any impact on patients' QoL. QoL tools, such as EORTC, may not be able to appropriately measure QoL. Rather nurses need to improve the breadth and depth of their relationship with patients so that they can better assess QoL.^[19]

Several variables that may have relationships with patients' QoL mean scores were also investigated. Generally, female patients had lower scores than males in the symptom QoL scales. Why a female patient has a better symptom management needs to be explored further. However, it appears from studies in the same research setting that often female cancer patients are more interested and in tune to participate in such sessions and try to follow the practitioners' comments.^[5]

Some relatively moderate and negative correlations are also found between patients' age and functional and global health status/QoL scales. It appears that increasing patients' age will be coincided with the lower functional ability and lower global health status/QoL. This might be reasonable and could indicate that more attention and care is needed to be provided for the older individual who suffers from leukemia.

Finally, when the relationship between chemotherapy sessions and QoL mean scores were assessed, it was interesting to observe that chemotherapy led to an improvement in global health status/QoL. Such findings could be hopeful and encouraging for people who suffer from acute leukemia and are under chemotherapy to complete the course of their treatment.

To conclude, this research study found that nursing consultation involving cancer survivors may not improve newly diagnosed cancer patients' QoL in a short period of time, but it might prevent worsening the patients' QoL. However, this research study did not have enough time and resources available to get access to a bigger sample size. So, it is recommended that a similar study be conducted with a larger sample. The study also found significant correlations between some study variables and QoL mean scores using bivariate statistical tests, including Pearson correlation and t test. But, it is strongly recommended that

a future study be conducted that assesses such relationships using multivariate tests, such as multiple regression, with a larger sample size. The focus of the study was on the QoL as an outcome variable. It could be useful to see if nursing consultation using cancer survivors can improve more imminent outcomes, such as patient satisfaction or decrease their stress and anxiety. Ultimately, cancer survivors are introduced to newly diagnosed cancer patients as successful patterns. However, cancer survivors themselves might be prone to some problems. For example, when they participate in consultation groups, this might bother them and refresh bad memories. So it is recommended that in future studies, cancer survivors' issues, concerns, and QoL will be also measured.

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