Original Article

The effects of peer support group on promoting quality of life in patients with breast cancer

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Abstract

Background: The tragedy of having breast cancer can cause many challenges for women. Patients seek for someone to compare their emotional and physical reactions with. This study was conducted to evaluate the impact of implementation of peer support group on the quality of life of breast cancer patients.

Materials and Methods: This clinical trial was conducted on patients who underwent modified radical mastectomy and/or lumpectomy in surgical wards of Isfahan and Tehran (2 cities in Iran). The members of the peer group were trained after they volunteered to enter the study and their capacity was evaluated. They started contacting the patients after the surgery and continued it during treatments and several months after completion of the treatments. Patients were placed in 2 groups of case and control by simple random sampling. The quality of life of patients in both groups was measured during and after the completion of treatment using standard instruments of National Medical Center and Beckman Research Institute.

Findings: The mean score of the physical dimension of life quality in the case and control groups in Tehran had a significant difference during 2 stages. There was no significant difference between the mean scores of physical dimension of life quality between the 2 groups during the 2 stages in Isfahan. Moreover, the mean scores of mental dimension of the quality of life showed a significant difference between the 2 groups in Tehran during the 2 stages. The mean scores were also significantly different during the second stage in Isfahan. There was a significant difference between the social dimension of quality of life between the 2 groups in Isfahan ($p = 0.001$). The mean scores of the social dimension of quality of life had significant differences between the 2 groups in Tehran during the 2 stages ($p < 0.001$). There was a significant difference between the 2 groups regarding the mean score of spiritual dimension of quality of life in Tehran ($p < 0.001$).

Conclusions: The results showed that patients supported by a peer group enjoyed a higher quality of life compared to others. Although significant differences were observed in scores of both case and control groups in Tehran, similar findings were not obtained in Isfahan. This may be due to incomplete matching of the peer group members and incapability of the volunteers to maintain an effective and constructive communication with the patients.

Key words: Peer support group, quality of life, breast cancer

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Introduction

Breast cancer is the most common cancer among women after skin cancer and the second cause of women's mortality after lung cancer.[1] Its prevalence across the world is increasing for some unclear reasons. According to the World Health Organization, 1.2 million women are annually affected by breast cancer. Moreover, the incidence of the disease increases by 1-2% each year. Previous studies have predicted about half of breast cancer cases to belong to developing countries within next years.[2,3]

In 2004, Disease Management Center in the Iranian Ministry of Health and Medical Education announced 23.42% of Iranian women to have breast cancer. It reported the disease to have the highest incidence among 45 to 49 year-old women.[4] In a more recent study however, the highest incidence was detected in 40-49 year-old women (mean age: 47.1 years old)[5] which

shows Iranian women to develop breast cancer almost 10 years sooner than their western counterparts. Moreover, the same study indicted the most common treatment modality to be modified radical mastectomy.[5]

Breast cancer is one of the most devastating events in a woman's life. Tragedy of developing breast cancer brings about so many challenges including adaptation with the early news of having breast cancer, planning for surgical operations and combination therapies, overcoming the side effects of treatment, expecting improvement or complete recovery on the one hand and relapse of the disease on the other, and awaiting for death in cases of disease progression.[6]

Studies have indicated emotional support to enhance women's adaptation. People having less emotional problems are those who successfully cope with life events and have plenty of family contacts and multiple supporting resources.[7]

In a study by Dunn et al. on evaluation of peer support group in patients with breast cancer, patients stated that visiting volunteers with experiences of breast cancer made them feel less lonely and be more hopeful for their future. They thus felt more reassured about their own personal and feminine reactions.[8] Breast cancer patients are more sympathetic to similar patients and do not feel uncomfortable or different at their presence. In fact, seeing similar patients with complete remission gives current patients a pleasant feeling. On the contrary, patients avoid being with individuals whose conditions are not improving.[9]

There are different models to use peer support groups to help patients adapt with the disease. These models include the social support model and the social comparison model. In the social support model, using the resources required for reinforcing active coping, problem-solving strategies, and adaptation with cancer is facilitated in patients. In the social comparison model, patients seek for individuals with whom they may compare all the emotional and physical reactions caused by the disease. This self-evaluation and continuous comparing of oneself with others may result in reduced uncertainty about the future and hence soothe anxiety in patients.[10]

Weiss identified having contacts with patients with similar experiences as one of the major and special opportunities for personal growth of cancerous patients. In other words, while the patients consider individuals with an experience of the trauma of breast cancer are considered as a reliable resource, they may find the ideas rendered by other resources as trivial and useless.[11]

In a qualitative study, Taleghani et al. assessed the process of adaptation with breast cancer in Iranian women. They suggested that meeting fully-treated breast cancer patients makes women more confident since they realize that they are not alone and that there are many people who are still alive and lead a normal life despite having cancer.[12]

Peer support groups play a crucial role in making patients adapted with their disease. Although peer support groups for breast cancer patients have been forming in developed countries for over 30 years, no such programs have been designed in our country (Iran). Furthermore, qualitative studies conducted in Iran have shown that breast cancer patients are more hopeful after communicating with similar patients. Therefore, considering Iranian values and culture, this study aimed to evaluate the effects of implementing a peer support group program on the quality of life in patients with breast cancer.

Materials And Methods

The present clinical trial was conducted on patients with breast cancer hospitalized in surgical wards of both private and governmental hospitals of Tehran and Isfahan (2 cities in Iran).

The inclusion criteria were undergoing modified radical mastectomy and/or lumpectomy for the first time, clinical stages 1-3, residing in Tehran or Isfahan, and being under 60 years old. The inclusion criteria for the peer support group were all the above-mentioned criteria in addition to having been diagnosed with breast cancer at least one year before the study, a letter from their physician stating that their treatment had been completed, and being literate. To implement the study, a workshop was held in the cancer department of the Iranian Ministry of Health and Medical Education at the presence of project executors, a number of physicians and nursing instructors as volunteers, nurses and social workers of some educational hospitals, a number of breast cancer patients, and a member of the American Breast Cancer Awareness Foundation who volunteered to take part in the project to share her experiences. This study aimed to design and implement the project by considering the values and culture governing the Iranian society. Therefore, considering the fact that geographical features, social status, or economic class could influence the results, the study began in 4 provinces of Tehran, Isfahan, Gilan, and Mazandaran. The participants were selected from different hospitals in cities of Isfahan, Tehran, Rasht, and Babol. It was agreed to select 50

patients in cities of Tehran and Isfahan as the case, and 50 patients as the controls. In addition, 25 cases and 25 controls were also selected from cities of Rasht and Babol.

During the first stage of the project, female volunteers with breast cancer were identified through medical staff (physicians and nurses,) and their friends. Then, after declaring their readiness, the volunteers filled out a questionnaire for assessing their practical capacity and their preparedness to implement the project. In case they were found qualified, the volunteers were entered into the study.

During the next stage, the necessary trainings were given to volunteers about their participation in the project. The presented training program included educational classes about breast cancer and its treatments, how to support and visit patients, the type and level of information conveyed to the patients, manner of having contacts with social workers and nurses of hospitals for referring the patients to them, how to submit reports after visiting the patient. The volunteers only rendered some practical solutions or information to patients and they talked to them about their own experiences and by no means did they render medical advice. In case of having any medical questions, the patients were referred to relevant specialists.

In the second stage of the project, the patients who had undergone surgery and met the inclusion criteria were identified and the needed information was given by the supervisors regarding the probability of visiting individuals who had cancer (peer group) and inclined to share their experiences with the patients. If the patients desired to visit the volunteers of the peer support group, they contacted with the volunteers through a head nurse/or the supervisors of the hospital who had passed the necessary trainings. Their visit was then arranged in the hospital. The volunteers (peer group) met the patients during the first days after surgery in the hospital. Afterwards, at patient's convenience, contacts with the volunteer continued by telephone and home visits. Depending on the view and tendency of both parties, the visits were made at the hospital and healthcare centers and/or at homes. In case the patients did not have a tendency for face-to-face contacts, telephone contacts with the peer group were arranged. The volunteer group contacted the patients after the surgery and continued throughout the treatment (chemotherapy and radiotherapy) and within several months after completion of treatment. Volunteers had several meetings with the researchers during the study to share their problems and experiences about the accomplished activities. An effort was made to match the volunteers and cases in terms of marital status, age, and treatments. The number of volunteers was high at first, but it decreased over time.

All the eligible individuals and volunteers were selected by convenient sampling. No program was given to the patients in the control group and they were merely asked to fill out a quality of life questionnaire during treatment and after completion of treatments.

The quality of life of participants was assessed using the standard valid and reliable instrument of National Medical Center and Beckman Research Institute. This tool evaluates the quality of life of breast cancer patients in terms of 4 physical, mental, social and spiritual dimensions.

During the project, despite the preliminary inclination of the volunteers to cooperate, a number of them gradually withdrew due to reasons such as the need to spend a lot of time, low spirit, and recalling some unpleasant memories. They were thus excluded from the study. The implementation of the project was not successful in 2 cities of Babol and Rasht. Despite all the follow-ups, visiting volunteers and studying their problems, the collected data was not sufficient for statistical analysis. The most important reason for this problem was lack of tendency to be recognized as a breast cancer patient. They believed that living in small towns and being easily identified to have breast cancer results in separating them from other people which is not good for them and their daughters. Finally, only the data of Isfahan and Tehran was analyzed.

Findings

There was no significant difference in the mean score of physical aspect of the quality of life of the 2 groups in Isfahan during the first (during treatment) and the second stages (after completing treatment). However, the mean values were significantly different in both first and second stages between both groups in Tehran.

Significant differences were noticed in mean scores of mental aspect of the quality of life between the 2 groups in both stages in Tehran. Although such a difference was not observed in the first stage in Isfahan, it was detected in the second stage.

While there was no significant difference in the mean score of social aspect of the quality of life between the 2 groups during the first stage in Isfahan, a significant difference was detected during the second stage ($p = 0.001$). There was a significant difference between the 2 groups in social aspect of quality of life during both the first and the second stages in Tehran ($p < 0.001$).

There was also a significant difference in the mean scores of spiritual aspect of the quality of life between the 2 groups in Isfahan during the first stage ($p < 0.001$). However, the difference was not significant during the second stage ($p = 0.1$). There was a significant difference between the mean scores of spiritual aspect of quality of life in the case group during the first stage in Tehran ($p < 0.001$). This difference was not significant during the second stage ($p = 0.5$).

There was not a significant difference between total mean scores of quality of life between the 2 groups during the first stage in Isfahan. However, the mean scores were significantly different during the second stage ($p = 0.003$).

In addition, the statistical tests showed that the differences in mean of total scores of quality of life between the 2 groups were significant during the first and second stages in Tehran ($p < 0.001$).

Discussion

Breast cancer patients are involved in many problems which can be summarized in 2 categories. The first category includes new problems which have never been experienced before such as loss of a body part, undergoing a treatment at certain intervals, having various controlling lab tests and/or radiotherapy with specific and strange equipment, and with specific treatment methods. The second category comprises challenges and impacts caused by cancer treatment on different personal, family, and social dimensions of the patient's life.

Not having a breast anymore is one of the most important effects of the disease with a tremendous impact on mental images of patients which decreases their power in reaching a sense of health as they previously had. The patients grieve over losing a part of their body and constantly feel threatened by the disease. However, the extent and severity of such experiences vary in different women.[13] The results of the present study showed that while the physical dimension of quality of life did not improve during and after treatments among women in Isfahan, it improved after treatment in women residing in Tehran.

Previous studies have shown that peer support groups will result in a sense of hope, altruism, and being normal in patients. Visiting individuals in similar conditions creates a sense of belonging and sympathy in patients and provides information about how to cope with the disease.[14] Dunn et al. reported that being visited by peer groups reduced levels of anxiety among cancerous women. The key aspect of this type of support was similar experiences, which is in line with our findings.[8]

In UK, Docherty concluded that the presence of peer support groups paves the way of patients for coping with cancer through increasing the understanding about the normal process of the disease and providing emotional support and a sense of belonging.[15]

In the present study however, during the first stage (treatment period), no changes were observed in scores of mental aspect of quality of life in women from Isfahan. This may show the insufficient number of visits during treatment period. In addition, patients might have been discharged too early which decreased the probability of having access and face-to-face contacts with them and forced the volunteers to make more phone calls.

In a study by Helgeson et al., peer support groups did not influence patients' quality of life. In fact, their mental health and performance decreased 6 months after the intervention and some relatively strong negative impacts were created in the peer support group. The researchers stated that the results can be due to the negative interactions of family and friends, negative comparison and the presence of some inhibitory thoughts in patients.[16]

In the present study, significant differences existed between the mean scores of social aspect of quality of life in the case and control groups in Tehran during the first and the second stages. In Hong Kong, a qualitative study on 12 people with breast cancer who took part in the peer support group showed that participation in such programs generated a sense of power, hope, confidence, cooperation and intimacy with others, an involvements in social activities.[17] A study about participation in peer support groups in Denmark revealed an increased level of confidence and a role change from a victim to an offender. This change resulted from determination of personal identity as a product of having contacts with sympathizing individuals and also creation of new ne2rks and friendships through peer support groups.[18] Similar results about breast cancer support groups were reported by Coreil et al. in Florida.[19]

Religious beliefs of patients, as the cornerstone of the approaches for coping with the disease, play a pivotal role in struggling with the disease. Cancer increases people's awareness of religious aspects and moves them towards exploration of spiritual implications of life. Religious beliefs are considered as an important source of support for facing and coping with the disease particularly in patients with breast cancer.[20]

In this study, the spiritual needs of patients could have also been increased due to various problems and complications. These needs can be satisfied by sympathy and participation in peer groups. Therefore, scores of patients in mental aspect of quality of life increased in both case groups in Tehran and Isfahan as compared to the control groups. However, over time, and while the treatment was completed for both groups, the scores of the mental aspect of the case and control groups became similar. The reason might be better conditions resulted from alleviation of physical problems and complications of the control group as the treatment continued. Therefore, the difference between the 2 groups disappeared in the second stage.

Nairn and Merluzzi showed that patients who believed that God helps them to cope with the disease were better able to adapt themselves with the disease. They suggested that feeling alone while facing with the disease and having reliance upon one's own energy cause anxiety and feeling of loneliness under extreme states. Believing in a more powerful and supreme power which assists them in coping with the disease gives the patient the opportunity to convey a part and/or all responsibility to cope with the disease to that supreme power. Thus, all the mental pressures exerted on the patient will be lowered and their feeling of loneliness for coping with the disease will be decreased.[21]

Similarly, Gall and Cornblat found that cancer patients who feel the presence of God in their lives have more positive attitude toward life. Moreover, in subjects who survived cancer for a longer time, this positive attitude was accompanied by a sense of emotional health.[22]

The Reach to Recovery plan which is a person-to-person peer support group throughout Canada for women with breast cancer covers thousands of women. A study to assess this program demonstrated that the participants enjoy better quality of life in comparison with those who did not participate. The participants gained higher scores for social support and made better and higher communications with their physicians. However, there was no statistically significant difference between the participants and others in terms of other aspects of quality of life including emotional health, psychological coping, social health, family health, and tendency to see and be with other family members and friends. In addition, this study showed that 2-thirds of the participants were satisfied with implementing the program.[23] The findings of the current study also indicated that the peer support group in Tehran was able to influence on the quality of life in the case group. Thus, the mean scores of all the aspects of quality of life were higher than that of the control group.

Likewise, Weiss identified having contact with patients who have had similar experiences as one of the specific and major opportunities for personal growth of cancer patients. In fact, individuals who experienced the trauma of breast cancer are deemed as a trustable resource and their ideas are more respected by patients while the ideas rendered by other resources may be regarded as trivial and fruitless beliefs.[11]

Although we observed significant differences in both control and case groups in Tehran, it was not similar to the findings achieved in Isfahan. In other words, mean scores of total quality of life in the first stage (during treatment) in the case group in Isfahan were not significantly different with the scores in the control group. Therefore, the peer group in Isfahan might have not been fully matched with the patients despite the efforts to find volunteers similar to the patients in terms of types of treatment received. Another reason for similarity of the mean total scores of the quality of life between the 2 groups in Isfahan is that the peer group did not pass training on communication skills. Therefore, they may have not been able to fully satisfy the requirements of the patients. However, over time and due to having contacts with different patients, this skill was experimentally increased. In Tehran on the other hand, the presence of these individuals promoted the mean of scores of quality of life in the case group which can be due to the capability of volunteers to establish an effective and constructive relationship with patients. All in all, the members of peer support group certainly need to have all the required communicational skills in order to effectively interact with patients, understand the specific and unique demands of the individuals for support, and to become a really effective sympathetic friend. The success of a support program also depends on short intervals between the visits with patients. This opportunity may have not been provided for the patients in Isfahan where the volunteers were not able to maintain sufficient and necessary communication with them although the researcher rendered necessary training to volunteers to follow-up by telephone calls and visits to the patients. The other factor can be lack of communication maintained between patients in Isfahan and the volunteers. Here, the cultural factors may be effective.

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