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Implementation of Watson's Theory in a Patient with Breast Cancer: A Case Study

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Abstract

Introduction: Patients who are suffering from breast cancer have numerous problems. Watson's Theory of Human Caring seems to be proper in caring for these patients. This theory stresses the humanistic aspects of nursing as they interfere with scientific knowledge and nursing practice. This study implemented Watson's theory in preparing a Persian woman with breast cancer to accept the treatment process.

Methods: In this case study, the patient was selected from the patients referring to a hospital in a city in Iran. Open-ended interview and observation were used to collect the required data. The process of the study was done in five stages.

Results: After implementation of Watson's theory in a five-step interview, the patient's disappointment and despair were reduced and the patient agreed to continue the treatment process.

Conclusions: Watson's theory of caring is likely to bring love and hope back to patients with breast cancer in bad physical and mental conditions. By applying 10 caring factors of this theory, a humanitarian relationship is established with the patient; this relationship is based upon love and hope. The patient is able to express her feelings and continue the treatment process by trusting God, applying her spirituality, and gaining supports from family and friends.

INTRODUCTION

Breast cancer is the most worrying factor in women's health. This cancer is the second most common malignancy after lung cancer in women [1] According to some research, about 252700 new cases of breast cancer were estimated in the US in 2017 [2]. The global incidence trend of breast cancer is increasing, especially in countries with a low rate of incidence, and Iran is not an exception. Breast cancer in Iran ranks first among cancers diagnosed in women, accounting for 24.4% of all malignancies [3]. According to statistics of the Ministry of Health and Medical Education, breast cancer ranks first in women In Iran [4], and about 1 in 10 - 15 women have breast cancer [5].

Patients with breast cancer have numerous problems. These problems affect various aspects of their lives and reduce their quality of life [6]. Breast cancer patients often report psychological distress at the time of diagnosis and treatment. Patients' distress is highly correlated with the frequency of side-effects induced by chemotherapy and radiotherapy [7]. To improve their quality of life, these patients require a wide range of supportive and educational care [6] Hope therapy can enhance the life expectancy and resilience of cancer patients and their quality of life [8]. Due to long-term and direct contact with the patients, nurses have an active role in promoting the quality of life in these patients and helping them to return to their healthy growth and society [9].

Watson's theory seems to be proper in caring for these patients since it emphasizes social and human care. [10]. Watson has defined human as a valuable person to be cared for, respected, understood, and helped. According to Watson's theory, a person is a complete functional integrated self that is more than its different constituting parts [11]. According to Watson, caring is an ethical ideal that is created through the interaction of spirit, mind, and body. Watson maintains that nursing is a humanitarian profession whose aim is to establish a balance between the disease and health experiences in individuals. Therefore, in holistic care, all spiritual, mental, and physical aspects of the person are considered [12].

Watson's Theory of Caring seems to be proper in caring for patients with breast cancer. Because of the following advantages: 1. we look at all aspects of the individual without damaging other elements (a holistic view). 2. Love and hope will be the primary healing sources in our nursing care 3. Nursing will be a process of human-to-human caring, which consists of four basic concepts: our interpersonal relationship, our caring moment, nurse, patient and patient's family awareness of healing, and healing processes; 4. Ten creative factors and the Caritas process provides a proper guideline for us [13] (Table 1).

Table 1. Creative factors and Caritas process

Creative factors	Caritas process
Establishing a system of humanistic - altruistic values	Practicing love - kindness, and patience through caring awareness
Instilling faith and hope	Being authentically present for enabling and sustaining deep belief system and subjective world of self and the one - being – cared - for
Cultivation of sensitivity to one's self and the others	Cultivating the spiritual practices of self and transpersonal self, going beyond "ego - self," accepting the others with sensitivity and kindness
Developing of helping-trusting, human caring relationship	Developing and sustaining a helping-trusting authentic caring relationship
Promotion and acceptance of expressing positive and negative feelings	Acceptance and promotion of expressing positive and negative feelings as the connection with the more profound spirit of self and the one – being – cared - for (listening to the story of the other genuinely)
The systematic use of creative problem - solving the caring process	Creatively using the presence of self and all ways of knowing as part of the caring process; engaging in the artistry of healing - caring process (searching creative solutions is the central role of Caritas coach)
Promotion of transpersonal teaching-learning	Engaging in genuine teaching-learning experiences that attend to the whole person and their meaning; attempting to stay within other's frame of reference
Provision a mental, physical, social, and spiritual environment that is supportive, protective, and/or corrective	Creating a healing environment at all levels (physical, non-physical, subtle environment of energy and consciousness whereby wholeness, beauty, comfort, dignity, and peace are potentiated)
Assistance with the gratification of human needs	Assistance with basic needs with a purposeful caring consciousness and managing "human care requirements" that strengthen wholeness and unity of being in all aspects of caring, holy practices of primary cares, touching of the embodied spirit of the individual, and the developing spiritual emergence
Allowance for existential - phenomenological-spiritual dimensions	Accepting and giving due attention to spiritual - mysterious existential dimensions of life-death, attending to soul care for self and the one – being – cared - for, "allowing for the power of miracle

As the patient with cancer is exceptionally hopeless, especially at the beginning of diagnosis, and has no hope for healing and a new life [8], Watson's theory of caring seems to be quite proper for these patients. The primary purpose of this case study was to apply Watson's approach to prepare a patient with breast cancer to adhere to the treatment process. We want to enhance the patient's adoption and, through establishing a humanitarian relationship, provide conditions for the patient to enable her to express her feelings, to improve her life expectancy, and as a result, begin the treatment process. To do this, we analyzed and described the breast cancer patient individually, her activity, special needs, life situation, and life history. Then, we examined the impact of nursing care derived from Watson's theory in this particular case to accept the treatment. Because of the purpose of the study, the case study method seemed to be appropriate. As a result of the survey, we can provide a holistic view of the phenomenon under investigation and thereby take a small step towards producing knowledge in nursing.

METHODS

The present study is a case study that is one of the standard research methods attempting to conduct an in-depth survey of a specific case, issue, or phenomenon [14]. The case can be a unit or system with a particular boundary and consists of many elements and factors that are related to each other. Therefore, the case study is conducted more qualitatively and with emphasis on processes and their understanding and interpretation. The case is chosen to indicate the state or general condition under investigation or provide an example of the phenomenon that the researcher wants to grasp [15]. Therefore, in this study, to deeply understand the woman with breast cancer, a case study method was used to provide holistic and humanistic care of Watson's theory.

The patient was selected from among those who referred to a hospital in Yazd in Iran. Open-ended interviews and observation were used to collect the required data. For this purpose, voice recording and

note-taking were done with the patient's prior knowledge and informed written consent. For conducting the study, the nursing department was notified, and the required permission was obtained. The patient and her family were thoroughly informed about the project process and the confidentiality of the information. The patient was reminded that she could withdraw from the study at any time she wishes and that her withdrawal would have no effect on her caring and treatment process. As for the voice recording, the patient's written consent was acquired, provided that the researcher would keep it confidential and delete it as soon as possible. The patient was ensured that the interview files and the related documents will be held in a safe place and that they will be deleted at the end of the project.

The Participant

Ms. Z is a 54 years old lady. She is married and a housewife. She holds a high school diploma. She is the second child of her family; she has one elder and two younger brothers who are all married. Her parents passed away several years ago. Her father died of aging and her mother of a brain tumor when she was 65. The patient had no history of a specific disease, except for palpitation. Her husband is 60 years old. He has a high school diploma and works at a private-sector company. They have been married for 30 years and have five children (three daughters and two sons that are all married). The patient has a little connection with her relatives and does not record any social activity.

The patient was admitted to the CCU one month ago for her palpitation. While providing the cardiologist with her medical history, the patient said that she was feeling a mass in her left breast. The patient was asked to receive obstetric-gynecologist's counseling. Moreover, she required a surgeon consultation plus to ultrasonography and mammography. All of them confirmed the presence of a mass in her left breast. Eventually, the patient became a candidate for a breast surgery biopsy. The result of the biopsy had a significant effect on the patient's life and her family and was considered a critical moment. The patient was doubtful about the biopsy and diagnosis. However, with the persistence of the medical staff and her family, the patient referred for the biopsy.

The physician was asked to inform if she had a patient suspected of cancer to select the patient. The purpose of this study was stated and explained that we are going to help her to approach the patient and gain her trust. Then, with the prior planning and coordination with the physician, the patient, and her family at the predetermined time, the researcher (second author) went to the physician's office. It was essential to establish a close relationship to implement Watson's theory on the patient. However, the number of interviews, as well as their time and place, were not planned because it varied depending on the patient's condition and her participation in the study. The essential studies were conducted on Watson's theory, breast cancer, treatment, treatment complications, and success and failure rate of the treatment to conduct the interview. The interview questions were written. Questions like, "What do you know about this disease?" "How can this disease affect your own life and her family's life?" and "How were your relationships with your family and relatives before the diagnosis of this disease?" However, all the questions could not be predicted and preceded according to the interview process.

Interview Process

The first interview included interaction to establish a brief relationship based on mutual trust before the patient's transfer to the operating room in the surgery ward. The second interview was conducted approximately 4 hours after the patient's return to the surgery ward (after biopsy). The third interview was done, ten days after the biopsy. The fourth interview was conducted as a telephone interview one week after the third interview. The fifth interview was conducted as a telephone interview, four days before the patient's hospitalization for mastectomy (Figure 1).

The First Interview

I met Mrs. Z. Kh. when she had been introduced for a biopsy after breast ultrasonography, counseling, and mammography with the likely diagnosis of malignancy. She had been already hospitalized at the CCU for her palpitation several times. This time, in the medical history she provided to the cardiologist, she referred to a mass in her left breast. The patient received ultrasonography, gynecological counseling, and mammography. She was also asked to refer to the hospital for a biopsy one month later.

The patient was unwilling to follow her disease. However, the doctor and I explained that biopsy is a diagnostic operation and does not require extended hospitalization, and she will be discharged on the biopsy day. Moreover, we demonstrated that a biopsy is essential. We also explained to the patient that sampling is necessary and can help diagnosis and timely treatment and prevent disease progression.

On the biopsy day, the patient referred to the hospital with her husband. She was extremely worried about the biopsy result. Before conducting the interviews, I introduced myself once more and explained the purpose of the study. The relationship started at this point. For increasing the patient's peace and comfort, the interview was conducted in a peaceful quiet room, lacking the disturbance of other patients and medical staff with the presence of her husband (factor 8). The patient was reminded that the primary purpose of the study was helping her. The patient declared her consent, providing that her identity remains anonymous. The patient's trust was acquired at this stage (factor 4). The first interview

was conducted right before the biopsy and lasted about an hour. However, there were short breaks during the interview. These breaks were due to the calls made on her phone or the presence of the medical staff for providing the required care. The patient's participation was excellent and she was willing to talk about her illness as well as her concerns. For acquiring more confidence and certainty, I decided to accompany her to the door of the operating room. Samples of interview follow questions:

Nurse: Would you like to talk?

Patient: I am worried. What will happen if I have cancer?

Nurse: This stage is merely for diagnosis, and nothing is guaranteed. However, your worry is natural and understandable. We are worried too, but we had better be optimistic and hopeful (factors 2 and 7).

Patient: If I have cancer, I will die.

Nurse: You should be hopeful. Many people with this disease have a healthy life, and this is not the end of life, and if treatment is timely taken, you will be treated (factors 2 and 7).

Patient: I believe in God and His kindness. I hope that nothing terrible will happen.

While the patient was in the operating room, I talked to the patient's husband and an older daughter. They were willing to know more about breast cancer as well as its mortality rate and treatment process. Moreover, I reminded them of the significance of family and friends in disease follow up and treatment.

Second Interview

After the biopsy, the patient was transferred to the surgical ward. The second interview was conducted approximately 4 hours after the patient's return to the surgical department. During this time, the patient was left alone with her husband and children. The patient was complaining about a minor pain in the biopsy area. Given the complications of the patient's anesthesia, the interview did not last long; it lasted only 30 minutes.

Nurse: How do you feel now? (Factor 5)

Patient: I feel relaxed. I think I did what I should have done, and I do not regret it. Now, I'm waiting for the biopsy results.

Nurse: God willing, it will be ok. We are waiting for the results, too. (Factors 1 and 2).

Patient: I do have hope in God. There will be a miracle, and the results will be excellent.

Nurse: Do you think that if the results are Ok, it will be a miracle? (Factor 10).

Patient: My feelings are telling me I have this disease, so if the results are ok, God will give me a new life.

Two hours after the second interview, the patient was discharged on the evening of the biopsy day. I gave her my phone number and told her that she could call me and let me know about her problems and needs. Two days later and before releasing the biopsy results, I called the patient to understand how she was (factors 1, 3, and 5). She told me about her worries and concerns. Moreover, she said to me that her family members had been trying to hearten her, and that was increasing her confidence (factors 2, 4, 5, and 8).

Third Interview

Ten days after the biopsy, after receiving the biopsy result from the laboratory, the patient and her husband referred to the specialist to observe the biopsy result. Having acquired the consent of the patient and her husband, I attended this meeting (factor 3). Having followed the biopsy result and confirmation of malignancy, the patient began to tear. Then, the specialist talked to the patient about the surgery for continuing the treatment process and mastectomy, followed by chemotherapy. The patient was crying throughout the entire meeting, and their husbands were initially shocked. I encouraged him to hearten the patient. Everybody was trying to calm and soothe the patient (factor 9). The patient was unwilling to talk to us and wanted to leave the hospital as soon as possible. I asked the patient to call me. I asked for her permission for my calling as well (factor 3). The problem was how we could help the patient, return hope to her life, and create equilibrium in her spiritual, physical, and mental aspects (factors 2 and 9). I called the patient the next day. The patient said she felt uncomfortable and did not like to talk. This stage was essential for adapting to the disease. Thus, besides expressing my sympathy, I asked her to call me at any time she wished (factor 3). This interview lasted for 30 minutes.

Fourth Interview (phone call)

The patient called after one week and said that she was willing to talk about her disease. She burst to cry. Then, she started talking to me. She asked about her condition and spoke about her concerns about her children. She felt guilty and assumed cancer to be a punishment from God (factor 5). To remove her feeling of being guilty, I provided her with numerous examples of individuals with diseases like her that could manage it. The patient also asked about mastectomy and chemotherapy. Moreover, she asked some questions about losing her physical appearance. I gave her information on the possibility of the use of different kinds of breast prostheses and wigs to maintain her physical appearance (factors 7 and 9).

Patient: I am distraught. What will happen to me and my life?

Nurse: That is why I insisted on talking to you. You need to know that you are not alone, and you can **talk about your concerns**. Does anyone support you in your family?

Patient: Fortunately, yes. My husband and the other family members try to hearten me. My husband has been with me throughout the entire time. My children have not left me alone, and they support me.

Nurse: Do you have a financial problem for the surgery and treatment costs?
Patient: Hopefully, no. The insurance is paying all the costs.
Nurse: Can you quickly talk about your concerns and disease? (Factor 4)
Patient: I have talked a lot about my disease with my family. They are very hopeful, or at least they seem to be (factors 2 and 9).
Nurse: Is there anyone to do your responsibilities?
Patient: Yes, my husband and children. However, they also have their responsibilities (The patient seemed disappointing about this).
Nurse: This situation is temporary, and you need the support and help of family and friends. **Patient**: my family said that there was no reason for worry, and they could manage everything. They are great children, and I know they will do their best (factors 1 and 8).
Nurse: It's great. Doesn't this support and help affect you in any way? (Factor 8)
Patient: I am less worried now because I feel I have the right family that does their best to support me (factor 8).
Nurse: This is a great gift; not everyone has it. Many people fight against cancer alone, yet they succeed, and this is an incredible advantage for you (factors 1, 2, 3, 4, and 8), but have you done anything to reduce your worry? (Factor 6)
Patient: I continuously pray and speak to God (factors 2 and 10).
Nurse: Family support, praying, and hope are much helpful for you (factors 1 and 2).
Patient: This has been my destiny. Sometimes, I wonder if I have done something wrong to be punished by God (factor 5).
Nurse: This can happen to everyone. Diseases are for all people in different ways and degrees (factors 6 and 7). Many people suffer from this disease and other diseases. Can we accept that it is God's punishment for all of them? (Factors 2, 3, and 7) If you meet someone suffering from this disease, it will be good (factor 6)—[At this point, the patient remained silent and did not respond].
The patient was asked if she was willing to be met face to face. She said that she would prefer phone calls. The patient's request was respected (factors 1, 3, and 4). This interview lasted for 45 minutes.

Fifth Interview (through telephone interview)
Five days after conducting the fourth interview, I called the patient, and she expressed her willingness and preparation for continuing the treatment process. Also, she said that she had met a person who had previously suffered from this disease and had a healthy life these days (factor 6), and this had increased the patient's spirit and confidence (factors 1 and 8). Moreover, the patient said that she felt better and had less stress by taking my recommendation about establishing a closer relationship with the family, studying about the disease, meeting other breast cancer patients, and trusting God's mercy and kindness (factors 6 and 7). The patient said that she was pleased that her family cared for her. "I am not alone. My family is with me, and the others care for me. Besides, God has not forgotten me. God will help get through this," she said (factor 10). Once more, I asked for a face-to-face interview. However, she declined and said that she preferred a phone. It was much more comfortable for her. This interview lasted for 40 minutes.
Three days later, the patient called and said that she was supposed to undergo mastectomy the following day. The patient referred to the hospital to undergo mastectomy and chemotherapy on the next morning. Chemotherapy was started after mastectomy. Although it had unpleasant complications, the patient managed to go through this stage of the treatment with the support provided by her family and friends. The following tests indicated the lack of metastasis to other organs. The researcher was in touch with the patient both via telephone and in person. The patient was pleased about participating in the present study. Fieger 1 shows the stages of implementing this model.

DISCUSSION

Breast cancer is a common disease among women. For patients with breast cancer, it is essential to maintain their morale and not to lose hope (factor 2). Thus, patients are required to receive the necessary awareness and be supported (factor 7). In the present case study, it was attempted to establish a proper relationship with the patient and help her to overcome her feelings, admit the disease, and take action toward her treatment.
As we observed, the nurse's role was highly significant. Establishing a robust humanitarian relationship (factor 4) will help the patient accept her disease and the treatment process. The nurse's care persuaded the patient to call the nurse and talk about whatever she wanted to, and this reduced the patient's suffering to a great deal and helped her to spend the treatment process more easily (factor 9). The nurse attempted to use all her power and creativity to help the patient. For this purpose, the nurse continued her interaction and relationship with the patient, and given the patient's unique conditions, face-to-face interviews were shifted to phone interviews. Besides, encouraging the patient's family to support the patient and the patient's contact with similar cases were two primary sources of support in the patient's treatment process (factor 6). Through establishing a close relationship and providing the required awareness (factor 7), the nurse was able to instill the feeling that the medical staff would willingly help the patient, and that they are not merely attempting to fulfill their responsibilities (factors 1 and 3). All these

factors contributed the patient to proceed in the interview process.

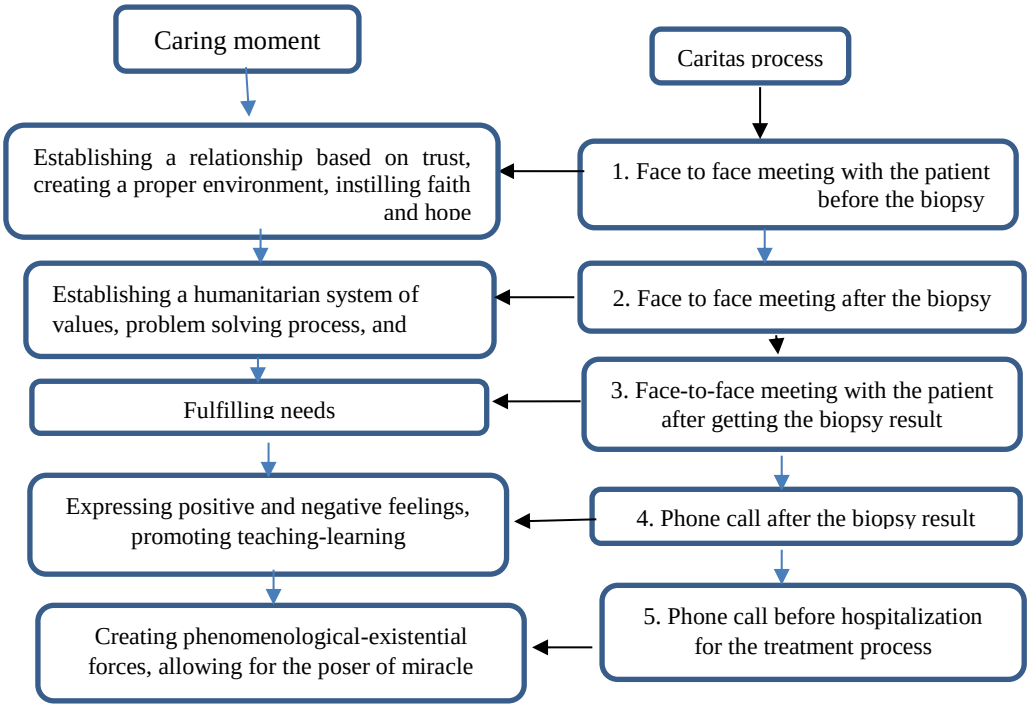

Figure 1. Stages of model implementation

As for this patient, the major problem was the invasion of contradictory feelings, including the sense of imminent death, losing physical appearance, etc. The nursed attempted to create conditions in which the patient could easily express her positive and negative feelings (factor 5). In this regard, creating a peaceful environment as well as gaining the supports of family, friends, and the nurse (financially and spiritually) are of high significance in the treatment process (factor 8). Furthermore, promoting spirituality and hope in the patient, her family, and the nurse and giving due attention to the unknown side of the world could help the patient, her family, and the nurse deal with this disease (factor 10). By applying these factors, the patient managed to overcome her despair and fear and take action to continue the treatment process.

In a similar study entitled "Survey of social adjustment of women with breast cancer under chemotherapy in Boukan in 1394" Moghaddam Tabrizi and et al. found that given the low level of social adjustment in breast cancer women, medical managers, and nurses should pay attention to social change in patients with breast cancer and provide essential facilities in this field [16]. In this regard, Suliman in a study entitled: "Applying Watson's Nursing Theory to Assess Patient Perceptions of Being Cared for in a Multicultural Environment" showed that the causative factors in Jean Watson's theory were also applicable to patients in Saudi Arabia and that nursing professionals should base their care on such theory to meet patient needs [17]. In another study, Yeter Applied Watson's approach to an infertile woman receiving in vitro fertilization treatment. The result showed the value of a theory-based nursing practice that can enhance human health and healing in stressful life events, such as "the moment" when the patient realized her inability to have conceived a much-desired child, even with promising medical treatments, and turned to her nurse for healing (13).

CONCLUSIONS

Watson's theory of caring is likely to bring love and hope back to patients with breast cancer in adverse physical and mental conditions. By applying ten caring factors of this theory, a humanitarian relationship is established with the patient; this relationship is based upon love and hope. The patient is able to express her feelings and continue the treatment process by trusting God, applying her spirituality, and gaining supports from family and friends. The present study revealed the effect of Watson's theory on caring for the patients. Thus, it can be concluded that through highlighting human features, Watson's Theory of Human Caring will bring love and hope back to a human in bad condition and that it is greatly helpful for nurses in caring for patients.

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Ethical Issues

This article was derived from the PhD dissertation in nursing. The protocol for the research was registered and approved by the ethical committee of Kashan University of Medical Sciences, Iran (IR.KAUMS.NUHEPM.REC. 1398 .058).

Conflict of Interest

The authors declare no conflict of interest in this study.

Author's Contributions

SHBB developed the original idea and design and study supervision with MAH. ZNGH had role in writing the manuscript. All authors involved in data analysis and interpretation of results. Also authors have read and approved the final manuscript

Competing Interests

None of the authors have any conflicts of interest to declare.

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REFERENCES

1. Taques pessoa da silveira J, Sanches maziero E, Loewen wall M, Rossi kissula souza S, Forlin D, de morais chaves A. Application of theories in studies on breast cancer: Integrative review. J Nurs UFPE line. 2014;8(5):1357-63.
2. American Cancer Society. Breast Cancer Facts and Figures 2013–2014. usa: American Cancer Society; 2013.
3. Sharifian A, Pourhoseingholi MA, Emadedin M, Rostami Nejad M, Ashtari S, Hajizadeh N, et al. Burden of Breast Cancer in Iranian Women is Increasing. Asian Pac J Cancer Prev. 2015;16(12):5049-52. **doi:** 10.7314/apjcp.2015.16.12.5049 **pmid:** 26163639
4. Roohparvarzade N. Prevalence of risk factors for breast cancer in women (20 to 69 Years old) in Isfahan 2012-2013. Iran Q J Breast Dis. 2014;7(1):52-61.
5. Noori Daloii M, Tabarestani S. Molecular genetics, diagnosis and treatment of breast cancer: Review article. J Sabzevar Univ Med Sci. 2010;17(2):74-87.
6. Andreoli T, Cecil R. Blood diseases and cancer. M JMEbAF-A, editor. Tehran: Andisheh Rafi; 2007.
7. Shields CG, Rousseau SJ. A pilot study of an intervention for breast cancer survivors and their spouses. Fam Process. 2004;43(1):95-107. **doi:** 10.1111/j.1545-5300.2004.04301008.x **pmid:** 15359717
8. Bagheri Zanjani Asl Monfared L, Entesar Foumany G. The effectiveness of group based hope-therapy on increasing resilience and hope in life expectancy in patients with breast cancer. J Health Promot Manage. 2016;5(4):58-64.
9. Moursy AME-S, Ead AYS. Self care practices of chemotherapy patients. Life Sci J. 2014;11(4):212-22.
10. Fawcett J, Desanto-Madeya S. Contemporary nursing knowledge: Analysis and evaluation of nursing models and theories. Philadelphia: FA Davis; 2012.
11. Watson J. The philosophy and science of caring, revised edition. Colorado: University of Colorado; 2008.
12. Jesse E. Watson's philosophy of nursing practice' 2006. 103-29 p.
13. Yeter Durgun Ozan PhD B. Implementation of Watson's theory of human caring: a case study. Int J Caring Sci. 2015;8(1):25.
14. Abolhassani S, Taleghani F, Yazdannik A. The Use of Qualitative Case Study in Nursing. J Q Res Health Sci. 2017;6(1):103-11.
15. Bayuo J. Case Study in Caring Application of Watson's Theory of Human Caring to End of Life Care in the Burns Intensive Care Unit: A Case Report. International Journal of Human Caring. 2017;21(3):142-4. **doi:** 10.20467/1091-5710.21.3.142
16. Moghaddam TF, Jasemi M, Soltani H, Esmaeili R. Survey of social adjustment of women with breast cancer Under chemotherapy in Boukan in 1394. RJMS. 2017;24(161):13-20.
17. Suliman WA, Welmann E, Omer T, Thomas L. Applying Watson's nursing theory to assess patient perceptions of being cared for in a multicultural environment. J Nurs Res. 2009;17(4):293-7. **doi:** 10.1097/JNR.0b013e3181c122a3 **pmid:** 19955886