

Concept Analysis of Fear of Recurrence in Breast Cancer Survivors

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Abstract

Breast cancer incidence continues to increase, and survival rates are also increasing compared to the past. An increase in breast cancer survivors means an increase in the number of women who return to their life after treatment. These patients feared cancer recurrence, which makes it an important aspect to be studied among breast cancer survivors. Therefore, this study was aimed at analyzing the concept of breast cancer survivors' fear of recurrence. The procedure of concept analysis developed by Walker and Avant (2011) was used to clarify and describe the concept. Studies published from 2007 to 2017 were searched through domestic and foreign electronic databases. Finally, 15 studies were selected and included in analysis. Through concept analysis, the scope of use of the fear of recurrence among breast cancer survivors was confirmed, and concept analysis was performed to confirm the antecedent, consequences, attributes and empirical criteria. Based on the analysis, the attributes of the fear of recurrence among breast cancer survivors included 1) worry about health status, 2) ineffective coping, and 3) possibility of changes. The antecedents of the fear of recurrence among breast cancer survivors were 1) healthcare-related activity, 2) perception of cancer, and 3) perceived severity; the consequences were 1) increase in distress, 2) difficulty in role function, and 3) decrease in the quality of life. This study provides a clear definition of the fear of recurrence among breast cancer survivors, and the results can be applied to improve the understanding of breast cancer survivors who have finished treatment and to help them return to daily life.

Keywords: concept analysis; fear of recurrence; breast cancer survivors; cancer survivors

1. INTRODUCTION

Breast cancer is the most common cancer in women worldwide and has the second highest incidence rate among all cancers [1]. In Korea, breast cancer cases have continuously increased, and the number of women diagnosed with breast cancer in 2016 exceeded 20,000 [2]. While the incidence of breast cancer had increased, the survival rate of breast cancer has increased as well owing to early diagnosis and advancements in medical technology. The 10-year relative survival rate of breast cancer increased from 82.9% in the early 2000s to 87.7% in cases that occurred between 2008 and 2012 [3]. This means that the number of patients who have experienced breast cancer and have finished treatment continues to increase.

Breast cancer survivors experience various psychological problems, such as anxiety, depression, and uncertainty after the treatment process is over [4, 5]. One of their concerns is the fear of cancer recurrence, which is common among cancer survivors [6] and often persists for a long time after treatment completion [7]. Simard et al. [8] reported that 97% of cancer survivors experienced fear of recurrence, and in a study of only

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women with breast cancer, 64%–76% of women reported fear of recurrence that required psychological intervention [8, 9].

A study on concerns associated with the fear of recurrence of breast cancer was conducted in Korea [10]. In foreign countries, several qualitative and quantitative studies have been conducted; however, studies that have identified the concept focused on breast cancer survivors have been insufficient. However, since breast cancer cases are increasing worldwide and management after the treatment process is important, studies on the fear of recurrence in these survivors should be continuously conducted. Furthermore, basic data for conducting research to reduce the fear of recurrence in breast cancer patients are needed. For this, it is essential to understand the concept of fear of recurrence among breast cancer patients. Therefore, this study aims to analyze the attributes of fear of recurrence in breast cancer survivors according to the conceptual analysis procedure of Walker and Avant [11].

2. METHOD

2.1 Design

This study attempted concept analysis of the fear of recurrence of breast cancer by applying the method of Walker and Avant [11]. This method included eight steps: selection of a concept, identification of the purpose of analysis, determination of all uses of the concept, identification of the defining attributes, identification of a model case, identification of borderline, related, and contrary cases, identification of antecedents and consequences, and elucidating the definition of empirical referents. Therefore, in this study, first, the scope of use of the concept of the fear of recurrence of breast cancer was identified through a review of the literature; the preceding factors and attributes of the concept presented in each study were identified; and a conceptual analysis was conducted by confirming the results.

2.2 Data collection and analysis

The search of literature was based on studies published between January 2007 and December 2017. The following five databases were used: CINAHL, Web of Science, and PubMed and RISS and DBPIA in Korea. The keywords used in the search were “fear of recurrence,” “fear of cancer recurrence,” “breast cancer survivors,” and “breast cancer.” The criteria for selecting the studies included in the analysis were 1) studies that include the keyword “fear of recurrence,” 2) studies that target only for breast cancer survivors and not the included partner, 3) peer-reviewed research published in Korea and foreign journals, and 4) studies with full text available. Researcher excluded 1) studies identified as duplicates on reviewing title and abstract, 2) studies related to medical treatment and prognosis, 3) studies aimed at confirming only the effectiveness of interventions, and 4) studies aimed at developing tools. In addition, three papers manually searched through references were included. After excluding studies that did not meet the above criteria, researcher obtained data for a total of 346 cases from the included studies. Finally, a total of 15 papers with content related to the fear of recurrence of breast cancer, a concept that the researcher wants to confirm, were used for analysis. This study was analyzed according to the eight-step conceptual analysis procedure of Walker and Avant [11] described above.

3. RESULTS

3.1 Concept selection

As the incidence of breast cancer increases, the number of survivors after breast cancer treatment also increases, and interest in life after the treatment process is also growing. The fear of recurrence is experienced by breast cancer patients after the treatment process and is unavoidable in the majority of patients. Therefore, it is necessary to provide care by identifying concepts and attributes through conceptual analysis.

3.2 Determine the purpose of the analysis

The purpose of this study was to clarify and describe the concept through the analysis of breast cancer survivors' fear of recurrence, to identify the attributes, antecedents, and consequences to prepare primary data for establishing programs necessary for breast cancer survivors.

3.3 Definition of fear of recurrence among breast cancer survivors

3.3.1 Dictionary definitions

The dictionary definition of recurrence is “a repeated occurrence [12],” and for breast cancer survivors, this is associated with the recurrence of the cancer. Conversely, fear means a feeling of fear, best described as feeling afraid and uneasiness in one’s heart or reluctant or anxious in the heart [13]. Based on these definitions, fear of recurrence means that breast cancer survivors are anxious about the recurrence of cancer.

Meanwhile, in previous studies [14], fear of recurrence was defined as anxiety or fear that cancer recurs or spreads in the same organ or other parts of the body. A colloquium in Ottawa in 2015 [15] defined fear of recurrence as “fear, or anxiety about the likelihood that cancer will return or worsen.”

3.3.2 Literature definitions of patient outcomes

In a study of breast cancer survivors conducted in Korea, they used the expression “worry about recurrence” [10], and foreign studies have used “fear of breast cancer recurrence” and “fear of recurrence.” In previous studies, the fear of recurrence was expressed as “The Sword of Damocles” and as something that always followed in the lives of cancer survivors [16]. This means that for cancer survivors, recurrence after treatment is a potential problem.

In addition, a study [17] found that for breast cancer survivors, fear of recurrence is to recognize and worry about the risk of cancer recurrence and that it has both emotional and cognitive aspects. Conversely, Simard and Sarvard [18] expressed the fear of recurrence as fear or anxiety about the recurrence or worsening of cancer at any time in the same or different part of the body. Based on this, the fear of recurrence means that breast cancer survivors worry that the cancer treatment will have to be repeated or that they are concerned or worried about their health status due to cancer.

In addition, the fear of recurrence was increased by an event that acts as a trigger. For example, hearing about recurrence in another person, learning about the risk of recurrence, or follow-up examinations after the treatment [19]. As for the fear of recurrence, a greater perception of the risk of recurrence was associated with a higher degree of anxiety, which was associated with more intense fear of recurrence [19]. Conversely, the fear of recurrence was found to be lower with higher self-efficacy [19]. This characteristic means that the fear of recurrence of breast cancer survivors is not fixed and changes according to surrounding environment. Therefore, it is important to understand the concept and attributes of the fear of recurrence as it can be reduced with greater understanding of the concept and better preparation for a situation in which the fear of recurrence may increase.

Unlike other cancer survivors, as breast cancer survivors are mainly women, young women with breast cancer might have concerns of compromise with the maternal role they wish to play in the future, which makes them more fearful of recurrence [20]. In particular, in the presence of children, the fear of recurrence is affected by the child's age and duration since diagnosis [20]. Meanwhile, in a study of African-American breast cancer survivors [21], fear of recurrence was associated with a role as a woman and as a mother. Worries about the various roles of women — maternal and otherwise — due to the fear of recurrence negatively affect their psychosocial aspects and further reduce their quality of life [21]. As these are concerns associated with being a woman, breast cancer survivors differ from other cancer survivors in this aspect.

When breast cancer survivors appropriately cope with the fear of recurrence, their fear is alleviated; notably, they need assistance to use appropriate coping strategies [22, 23]. Initially, breast cancer survivors do not know how to cope, and thus, they need to be taught coping strategies, particularly on how to manage their daily life or deal with worries [24]. It can be seen that the fear of recurrence among breast cancer survivors has ineffective coping characteristics and needs help around them.

Breast cancer survivors of different ages show different levels of fear of recurrence. There have been studies of young breast cancer survivors [9, 20, 25-27], but the criteria for ‘young’ varied depending on the study. Younger aged individuals were found to have higher fear of recurrence, and age was found to be a factor affecting the fear of recurrence [19, 28].

Similar concepts with fear of recurrence include anxiety, distress, and post-traumatic disorder [29]. Depending on the study, variables similar to fear of recurrence measured together or sometimes mixed. Anxiety is indicative of emotional aspects associated with the fear of recurrence and is sometimes used to measure it.

However, anxiety covers only some emotional aspects of the fear of recurrence.

3.4 Defining attributes

Literature review indicates that the attributes of breast cancer survivors' fear of recurrence are as follows. 1) They worry about health status related to recurrence of cancer (worry about health status); 2) They use ineffective coping strategies and need help of other breast cancer survivors with resources available around them (ineffective coping & need for help); and 3) Their degree of the fear of recurrence changes depending on time and environment but does not disappear and persists (continuity & possibility of change).

3.5 Model Case

This is a model case that illustrates the attributes of (a) worry about health status, (b) ineffective coping, and (c) possibility of change. The following model case was constructed.

Kim is a 42-year-old woman. Six years ago, she was diagnosed as having breast cancer in her left breast. She had mastectomy and underwent chemotherapy. Currently, her treatment has ended, and she is undergoing regular check-ups. Since she heard that her friend, another breast cancer survivor, experienced cancer recurrence, she became anxious and worried about recurrence (c) and about her cancer-related health status (a). Thus, she began to check her right breasts several times a day (a) or look for food items that could help with preventing cancer. She was not doing well mentally because she was constantly worried about cancer recurrence and used to worry even more on seeing her 10-year-old daughter. She wishes to communicate with another breast cancer survivor to get accurate health information. However, she cannot do this as it feels difficult to visit a support group or a healthcare provider (b).

In this model case, Kim is concerned about her health status in relation to cancer and shows that her role as a mother and her social functioning are being compromised. She also needs help of others but is responding ineffectively. In addition, the news of recurrence in a friend frightened her. Therefore, this can be considered a model case with all attributes.

3.6 Additional cases (Borderline, contrary, and related cases)

3.6.1 Dictionary definitions

Borderline cases are those wherein most attributes of the concept are included but not all of them [11]. In the following cases, worry about cancer-related health status and changeability were included, but ineffective coping was not included.

Lee, who was treated for breast cancer 10 years ago, is now 55 years old, and all her treatments have ended. She is currently volunteering at the hospital and is active in support groups of breast cancer survivors. When she was diagnosed with cancer and was treated, she did not know what to do. Currently, she is enjoying life through volunteer activities and support groups. However, knowing that cancer can recur at any time, she always worries about her health status. She checks her health through annual health check-ups and tries to meditate and live positively to relieve stress.

3.6.2 Contrary case

The contrary case means a case that does not include any attributes of the concept (Walker & Avant, 2011). This is exemplified by the following case which does not contain any attributes of the fear of recurrence.

Choi, a 49-year-old woman, was diagnosed with breast cancer in the past and underwent chemotherapy. Currently, she works as a yoga instructor. Choi has tried to maintain a healthy physical state after breast cancer treatment. After treatment, she has been exercising and meditating every day. She prides herself on her own health status, physically and mentally. The cancer treatment served as a turning point in her life. She always thinks positively and actively socializes with people. She does not hesitate to ask for help when needed. She said she had never been worried about recurrence after cancer treatment as she lived in good health.

3.6.3 Related cases

A related case is related to the concept but not its included attributes. Therefore, it is an example that gives a different idea when reviewed closely. The following case is a concern about body image and not about health status related to cancer recurrence. Therefore, the following cases are difficult to be considered as exhibiting the fear of recurrence.

Two years ago, Jeong underwent a left total mastectomy for breast cancer. She had a hard time accepting that her breast had been removed during the surgery. She often worried about how others will see it. This made it difficult for her to socialize with people around her and focus on her work, so she quit her current job.

3.7 Antecedents and consequences

3.7.1 Antecedents

The antecedents of the fear of recurrence in breast cancer survivors identified through literature review are as follows. 1) Healthcare-related activity: Cancer diagnosis and treatment procedures or regular check-ups may be included, and health-related actions should be preceded. 2) Perception of cancer: To recognize the disease and recognize that cancer can recur. 3) Perceived severity: This involves recognition of the kind of risk associated with breast cancer recurrence; furthermore, if breast cancer survivors see a case of recurrence around them, they become aware of the risk.

3.7.2 Consequence

The consequences of the fear of recurrence among breast cancer survivors are as follows: 1) There is increased distress; 2) difficulty in properly performing their role functions, be it as a woman or a mother, and 3) degraded quality of life, particularly hindering psychosocial aspects.

3.8 Empirical referents

There are instruments to measure the fear of recurrence among breast cancer survivors, but to achieve this, several studies have used instruments other than those targeted at breast cancer survivors or related variables, such as anxiety, distress, and depression; therefore, their findings may not be an accurate representation of the fear of recurrence. To measure the concept clearly, researchers must use proper instruments. Concerns About Recurrence Scale (CARS) [14] was developed to measure the fear of cancer recurrence in breast cancer survivors. The instrument has four subscales: health worries, womanhood worries, role worries, and death worries. In summary, this instrument was targeted at breast cancer survivors, and because it has properties associated with the fear of recurrence, it is a superior alternative to other tools for measuring the fear of recurrence more clearly.

4. CONCLUSION

This study was a concept analysis of the fear of recurrence in breast cancer survivors using the method of Walker and Avant [11]. Based on the analysis, the attributes of the fear of recurrence in breast cancer survivors include 1) worry about health status, 2) ineffective coping, and 3) possibility of changes. The antecedents of the fear of recurrence in breast cancer survivors were 1) healthcare-related activity, 2) perception of cancer, and 3) perceived severity, and consequences were 1) increase in distress, 2) difficulty in role function, and 3) decrease in the quality of life. This study provides a clear definition of the fear of recurrence in breast cancer survivors. These results can be applied to improve understanding of patients who have finished treatment and to help them return to daily life.

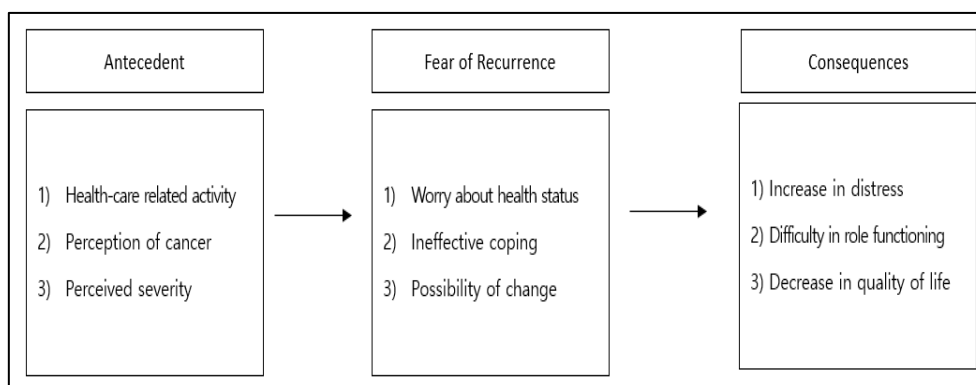


Figure 1 . Conceptual structure of fear of recurrence in breast cancer survivors

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Table 1. Antecedent, Attributes and Consequences of Fear of Recurrence in Breast Cancer survivors.

<i>First Author, year of publication</i>	<i>Design</i>	<i>Attributes</i>	<i>Antecedents</i>	<i>Consequences</i>	<i>Empirical indicators</i>
Cohee, 2017 [26]	Quantitative	Need for help Possibility of change	Perceived severity		CARS
Ellegaard, 2017 [30]	Quantitative	Continuity Need for help	Health-care related activity	Quality of life	CARS
McGinty, 2016 [31]	Quantitative	Worry about health status Ineffective coping Possibility of change	Perceived severity Health-care related activity	Distress	Cancer Worry scale
Thewes, 2016 [32]	Qualitative	Ineffective coping	Health-care related activity	Psychological wellbeing	Interview
De Vries, 2014 [23]	Qualitative	Worry about health status Ineffective coping Possibility of change	Perception of cancer Perceived severity	Psychological wellbeing	Interview
Ares, 2014 [20]	Quantitative	Worry about health status	Perceived severity	Wellbeing Role functioning (motherhood)	CARS
Koch, 2014 [6]	Qualitative	Possibility of change Need for help	Health-care related activity	Psychological wellbeing Quality of life	Fear of Progression Questionnaire
Park, 2013 [17]	Quantitative	Ineffective coping Possibility of change	Perception of cancer Perceived severity	Well-being	Perceived likelihood of cancer recurrence Recurrence worry
Lebel, 2013 [33]	Quantitative	Worry about health status	Perception of cancer	Psychological wellbeing Role functioning (motherhood)	CARS
Thewes, 2013 [27]	Quantitative	Worry about health status Possibility of change	Perceived severity	Quality of life	Fear of cancer recurrence
Thewes, 2013 [34]	Quantitative	Ineffective coping Possibility of change	Perception of cancer Perceived severity	Psychological wellbeing	Fear of cancer recurrence
Corter, 2013 [35]	Quantitative	Ineffective coping Need for help	Health-care related activity		Worry about Cancer Scale
Taylor, 2012 [21]	Quantitative	Worry about health status Possibility of change	Perception of cancer	Quality of life	CARS
Ziner, 2012 [19]	Quantitative	Worry about health status Perceived	Health-care related activity Perception of cancer	Quality of life	Knowledge of Recurrence Signs
Thewes, 2012 [9]	Quantitative	Continuity	Health-care related activity		FCRI

CARS: Concerns about recurrence scale; FCRI: Fear of cancer recurrence inventory