

The Thoughts, Feelings and Behaviours of Young Women Who Familial Cancer History: A Qualitative Study

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ABSTRACT:

Purpose: This study purpose was to determine the thoughts, feelings and behaviours of young women who familial cancer history.

Material and Methods: This was a qualitative study. The criterion sampling method, which is one of the purposeful sampling methods, was used to determine the study group of the study. The study was conducted at a state university in Turkey. Between April and May 2019, 12 volunteer young women aged 17-24 were included in the study.

Results: The qualitative data were subjected to content analysis, and the main themes were determined. In the content analysis of the interviews, 7 main themes were determined: fear, coping methods, risk perception, carcinophobia, spirituality, healthy lifestyle behaviors, role change. It was observed that the participants frequently used statements that genetic predisposition and stress are risk factors for cancer, cancer negatively affects roles and responsibilities, and they believed the importance of early diagnosis. In this study, young women with a family history of breast and/or gynecological cancer were found to have higher cancer risk perceptions.

Conclusion: The familial cancer history, especially when managed well in high-risk populations, contributes to individuals to acquire healthy lifestyle behaviors and gain the ability to make conscious decisions. Healthcare professionals can play vital roles in presenting needed knowledge about breast / gynecological cancers and raising awareness in women.

Keywords: Young woman, familial cancer history, qualitative study

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INTRODUCTION

A family history of cancer is considered an important risk factor when evaluated for many types of cancer. Especially the presence of first degree (parent, sibling or child) or second-degree relatives (grandparents, aunts, uncles and nephews) being diagnosed with ovarian, uterine, cervical, breast or colorectal cancer before the age of 50 increases the risk of developing cancer. Epidemiological studies show that the risk of cancer is significantly increased when several different types of cancers are present in first-degree relatives of women with ovarian cancer. Clinical guidelines recommend earlier and/or more frequent screening for individuals with a family history of breast, ovarian, uterine, colorectal,

prostate and melanoma cancers (Orom et al., 2008). It is reported that 5-10% of breast, ovarian and colon cancers have hereditary cancer syndrome in their etiology. Compared to the perception of cancer risk in the general population, the presence of a relative with a family history of cancer significantly affects the risk perception of individuals (Mellon et al., 2008; Tilburt et al., 2011). Family members at risk, or people with known genetic mutations, may have to make important decisions about lifestyle behaviors, prophylactic surgery, genetic counseling and screening tests (ACOG, 2019; Tilburt et al., 2011). Health professionals use their field-specific expertise, professional experience and international objective standards to evaluate the cancer risk of

individuals based on their current and past family histories. On the other hand, individuals' thoughts, feelings and behaviours related cancer is subjective and is closely related to individual / familial / social experiences. Therefore, there are discrepancies between the objective evaluation made by health professionals and the subjective evaluation made by individuals. These discrepancies make it difficult to benefit from opportunities such as early diagnosis, screening, genetic counseling and health education. At this point, health professionals have important roles in the process of managing individuals' perceptions of risk correctly. First of all, besides evaluating the cancer risk with objective measurements, it is very important to determine the thoughts, feelings and behaviours of individuals related cancer. The purpose of this study is to determine the thoughts, feelings and behaviours of young women who familial cancer history. The results can be used in determining the interventions of health professionals for individuals at risk, and examining the effects of interventions.

MATERIAL and METHODS

Type of the Study

This study is a qualitative study.

Sampling and Participant

The criterion sampling method, one of the purposeful sampling methods, was used to determine the study group of the study. Criterion sampling is the constitution of the sample from people, events, objects, or situations that have the qualifications determined concerning the problem (Buyukozturk et al., 2009). The basic criterion determined in this study is the selection of participants with a diagnosis of breast and / or gynecological cancer in their family (mother, elder sister, younger sister, aunt and cousins). It was carried out at a state university in Turkey. A total of 12 young women aged 17–24 years and who agreed to participate in the study were included in the study between April-May 2019.

Data Collection Tools

The data were collected by using Personal Information Form and Semi-Structured Interview

Form developed by the researchers.

Personal Information Form: In the first part of the form, there are 4 questions to determine some sociodemographic characteristics of young women (age, class, income level and registered program); in the second part, 14 questions to evaluate behaviors related to breast/gynecological cancers and prevention; and 3 questions to examine the cancer history in the family. There is also a visual scale of 0-10 in the form. With the visual scale, the participants were asked to score their cancer-related risk perception with a score between 0 (not risky) and 10 (extremely risky).

Semi-Structured Interview Form: A semi-structured interview form consisting of five open-ended questions was created by the researchers. The prepared form was presented to the evaluation of two faculty members and after being evaluated by experts, it took its final form by making the necessary arrangements in line with the suggestions. The questions in the form are listed below:

1. How does having a family member diagnosed with breast and/ or gynecological cancer affect your perspective towards cancer?
2. How does having a family member diagnosed with breast and/ or gynecological cancer affect you?
3. How does having a family member diagnosed with breast and/ or gynecological cancer affect your plans?
4. Do you think an early diagnosis is important in cancer? Why?
5. Is there any other topic/issue that you would like to convey that was not covered in this interview?

Implementation of Research

The criteria taken into account to ensure the validity and reliability of the data collection tool was as follows: Volunteerism of the participants was important for the validity and reliability of the study (Yildirim and Simsek, 2006) therefore, only volunteers participated in the study. There was no prior relationship with the participants in the study.

Moreover, it was stated that the names of the participants would be kept secret to allow them to feel more comfortable and give sincere and realistic answers to the questions. Reporting the collected data in detail was another important criterion that ensures validity in qualitative research (Yildirim and Simsek, 2006). For this reason, the statements of the participants were quoted exactly and no changes were made in the statements. authors who is a academician with doctoral training in nursing used for the discussions a semi-structured interview guide. When needed, additional follow-up questions were asked. Each interview lasted approximately 45 minutes. At the beginning of the interview, it was stated that the interviews would be recorded and informed consent was obtained from the participants on this. All interview were conducted in Turkish; were audio-recorded, and professionally transcribed. Each participant was also asked to complete a brief demographic form. Questioning and summarizing techniques were used by the researchers to reveal the thoughts and experiences of the participants.

Statistical Analysis

The quantitative data were analyzed in the SPSS 22.0 software. Frequencies, mean and standart deviation were used for the descriptive variables. The interview data were analyzed using thematic analysis. Thematic analysis is described as, (1) a method for identifying, (2) analyzing and (3) reporting patterns (themes) within data” (Braun and Clarke, 2006). Before analysis began the audio files were reviewed and the transcripts checked for accuracy. The data were coded in chunks by two researchers who agreed on the themes identified and repeating ideas were grouped into themes. Peer review was used to improve the quality of the data analysis. The initial results were circulated to the coauthors for review and discussion. Before writing the current article consensus was reached on the themes and the analysis was finalized. Data analyses were guided by the research questions and all two investigators participated in the data analysis process. The findings will include illustrative quotes from the participants.

Ethical Approval

Before the study, written institutional permission (No: 30182376-600-E.379515) and written consent from the participants were obtained. The research was carried out in accordance with the principles of Helsinki.

RESULTS

The mean age of the participants was 20.33 ± 1.43 , while 91.7% were determined to have not visited any healthcare institution for cancer screening. 58.3% stated that they knew about symptoms of breast cancer, 50% said they knew how Breast Self-Examination (BSE) is made, but 42.7% made it. Only 1/3 of the participants stated that they knew about the symptoms of gynecological cancer, among those who knew, 8.3% knew how to make self-examination for gynecological cancer and did so. 75% of the participants stated that they knew about healthy lifestyle behaviors for protection against cancer. Accordingly, 75% of the participants did not smoke, none consumed alcohol, 58.3% tried to eat regularly, 17.7% took part in regular physical activity, 58.3% paid attention to weight control, and 33.3% paid attention to their sleep patterns. Among the participants, there were diagnoses of cancer in the mothers of 25%, aunts of 66.7% and cousins of 8.3%. Among the diagnoses of cancer, 58.3% were breast cancer, 33.3% were gynecological cancer, and 8.3% was breast and gynecological cancer. 33.3% of the participants perceived their chances of getting any cancer in the future to be high. When the risk perception levels of the participants regarding cancer were examined on a visual scale of 0-10, their mean risk perception level was found as 6.91 ± 2.84 . The views of the participants were transferred by coding based on confidentiality, without giving their names. Participants were coded as "P" and each participant was given a number in the form of "P1, P2, P3, P4, P5..." next to their code. In this part of the study, the questions in the interview form were grouped according to the main theme and sub-themes and the findings were presented. In the content analysis of the interviews, 7 main themes and sub-dimensions about these themes were determined. The themes that were determined were: fear (fear of death/losing, fear of getting

cancer, fear of deterioration of body image), coping methods, risk perception (genetic risk, early diagnosis), carcinophobia, spirituality (religious practices, hope/belief in treatment, moral support),

healthy lifestyle behaviors, role change (spouse/partner role, mother role, woman role, daughter role, professional role) (Chart 1).

Chart 1. Themes identified after content analysis

Themes	Sub-themes
1. Fear	1.1. Fear of Death / Losing 1.2. Fear of Getting Cancer 1.3. Fear of Deterioration of Body Image
2. Coping Methods	
3. Risk Perception	3.1. Genetic Risk 3.2. Early Diagnosis
4. Carcinophobia	
5. Spirituality	5.1. Religious Practices 5.2. Hope / Belief in Treatment 5.3. Moral Support
6. Healthy Lifestyle Behaviors	
7. Role Change	7.1. Spouse / Partner Role 7.2. Mother Role 7.3. Women Role 7.4. Daughter Role 7.5. Professional Role

Fear

As a result of the analysis of the responses given by the participants, the main theme of "Fear" and three sub-themes under this main theme emerged: "fear of death / losing", "fear of getting cancer", "fear of deterioration of body image". Some statements supporting these sub-themes were presented below.

Fear of death / losing

"Cancer always made our family feel complicated emotions. Like fear of death, desire to live... When my mother was diagnosed with cervical and ovarian cancer, I felt the fear of losing my mother again. It is like you are in a dark room, and you are looking for light in that room...." (P1).

Fear of getting cancer

"I think there will probably be more cases of cancer in the family. We are constantly vigilant" (P5). "It is a saddening situation. One does not expect it, but there is always a concern: will it get worse, can it appear somewhere else in the body?" (P10). "There is always a risk of getting cancer at some corner of my brain, and this keeps me anxious" (P11). "I see my risk as high. I cannot help thinking what if I get

cancer, too!" (P12).

Fear of degradation of body image

"There are also masses in my breast, too. Inevitably, one thinks what if my breast is removed" (P2). "Firstly, my cousin's, then my downstairs neighbor's breasts were removed. I also have masses in my breast. I am afraid if it could be removed if there is any growth (anxious facial expression). It is a great problem to get breast cancer and lose one's breast. Both psychologically and in terms of appearance, in both ways..." (P8). "In breast cancer, especially removal of the breast affects me. This is because losing one breast is a bad feeling for me" (P9).

Coping Methods

As a result of the analysis of the responses given by the participants found that the another main theme of "Coping Methods". Some statements supporting this theme was presented below. For example; "Facing fears disturbs more. We prefer to talk not much about this in the family" (P3). "My family has no behavior of going for a checkup for this risk. We are evading the hospital. Maybe, we do not want to face it" (P6). "We try to ignore our concerns, act like it is nothing" (P8).

Risk Perception

As a result of the analysis of the responses given by the participants, the main theme of "Risk perception". Some statements supporting these theme were presented below.

Genetic risk

"I am aware of the risk of genetic heritage. As we have this disease in our family, no one can ignore symptoms" (P2). "There is also cancer on my father's side of the family. ...more on my mother's die, I am concerned..." (P4). "After my mother, we all have anxiety about cancer. This is in our genetics. We have understood this..." (P6). "I used to say, "no, I will not get it," but now, I think "I also could get it" (P9).

Early diagnosis

"Treatment starts early when there is early diagnosis. You are exhausted less psychologically. The recovery process is faster. Ambiguities, the late diagnosis process, highly exhausting..." (P1). "The important thing is to notice the disease not at the latest stage of life but before it spreads in the body. When the diagnosis is late, you think "why was it not diagnosed early? If only I could notice it earlier." (P2). "Diagnosis at the early stage would increase the rate of recovery" (P3). "My aunt joined the training provided at the family health center at the village, and they took cultur from the cervix. However, my uncle was diagnosed at the last stage. Early diagnosis is very important. I used to be afraid of hospitals" (P4). "I think my mother would not have to use an ostomy bag if she had an early diagnosis" (P5). "The earlier, the better... We do not do anything without getting the disease, but we should" (P6). "When no early diagnosis is made, the disease has already progressed, and the breast is removed. This destroys a person" (P8). "I understood how important early diagnosis is when the doctor explained. Cancer was at the starting stage for my aunt. Both my aunt and us, we were relieved with the early diagnosis" (P9). "I find early diagnosis important for both morale and motivation and the course of the disease. I believe early diagnosis saves lives" (P10). "There is hope of survival in the case of early diagnosis. Considering in terms of the family, when the diagnosis is late, there is more regret, there is the thought that it could have

been diagnosed earlier. Even in the case of early death, one could say they have done what they could" (P11). "I believe cancer is close to all of us. I keep in mind getting a mammography and going for a screening in later ages. It could at least be treated, prevented before it progresses. If my aunt were diagnoses early, maybe, she would not lose her breast" (P12).

Carcinophobia

As a result of the analysis of the responses given by the participants found that the another main theme of "Carcinophobia". Some statements supporting this theme was presented below. For example; "It comes to mind when there is a change in my body. I go for an examination every 6 months. I show my results to multiple doctors. I try to compare my ultrasonography results. I am interested in herbal treatments. I try to perform my checks at the same times as there may be differences before and after menstruation" (P2). "In cases of hair loss, I immediately think of my possibility of getting cancer. I listen to my body constantly. I notice the smallest change. Perhaps, another person would not even dwell on it" (P5). "I am very afraid of facing one of cancer types someday. I believe my cancer risk is high. We came to this school, we talk about death, cancer... The topic is constantly in my agenda" (P6). "This disease keeps me and my family on edge. We feel the need to be constantly under check" (P8).

Spirituality

As a result of the analysis of the responses given by the participants, the main theme of "spirituality". Some statements supporting these theme were presented below.

Religious beliefs and practices

"I constantly motivate my mother, and I tell her this is a test. I think being a believer makes it easier to accept the situation" (P1).

Hope / Belief in treatment

"I used to think cancer has no cure, but I have come to believe treatment is effective after the case of my aunt" (P9).

Moral support

"My mother's aunt also had breast cancer. She beat cancer with the support and attention of her husband" (P4). "I send my mother to a travelling truck for early diagnosis of breast cancer (anxious expression). Thankfully, the outcome was not problematic" (P7). "Both my mother and I have masses. My older sister pressures especially my mother to go for a checkup, because she neglects it" (P8).

Healthy Lifestyle Behaviors

As a result of the analysis of the responses given by the participants found that the another main theme of "Healthy Lifestyle Behaviors". Some statements supporting this theme was presented below. For example; "We try to make some changes in our lives, for example, we try to eat healthy, never consume processed foods. I went to a gynecologist once, and I try to examine myself at home, too" (P1). "I believe stress triggers cancer. I stay aware from stress and smoking. I try to self-examine my breast" (P4). "My mother is a person who represses everything. So am I. I believe this disease is related to stress very much" (P5). "I do not think something will happen if you take good care of yourself and get examined regularly. I try to eat, live healthily. I examine myself. I try to increase my knowledge" (P10). "I regularly go for a checkup every six months, so that my future would not be like my aunt's. I make BSE at home and check whether or not I have any swelling, hardness under my armpit" (P11). "Stressed people around me usually get sick. I believe stress is highly effective on formation of cancer. I live in the moment, try not to think of stressful things, leave everything be. I examine my breasts after bathing. I know about vulva examination, but I do not do it" (P12).

Role Change

As a result of the analysis of the responses given by the participants, the main theme of "role change". Some statements supporting this theme were presented below.

Spouse / partner role

"If marriage is in question in the future... If there is an organ missing in front of the spouse... There is this

hesitation about the spouse" (P2). "If there is uterus-related or any other cancer in the future, I could be shy with my spouse. I feel guilty if he wants to have children" (P3). "My mother had both breast and gynecological cancers. I can experience problems in my marriage if I lose my breast or my uterus is removed in the future. This thought is always at a corner in my brain" (P5). "I do not know what I would do if I experienced it. If I encounter such a thing before marriage, I might not marry at all. I believe there is no such thing as preventing this disease. You are always living with this risk. I do not want to exhaust another person with such a situation" (P6). "My cousin does not have her left breast, she is single. She was also affected psychologically. After all, this is a risk. I am thinking of ignoring it until I am diagnosed. I will live my life in its normal course" (P8).

Mother role

"I am concerned with not being able to breastfeed if having a child is in question in the future and I get breast cancer" (P2). "I am afraid of not being able to have a child if I get uterine cancer or not being able to breastfeed my child if I get breast cancer" (P3).

Woman role

"Removal of my aunt's uterus affected us. This is because it is an important organ. The uterus is the very foundation of being a woman. I am concerned about my "womanhood" if there is uterus-related or other cancer in the future" (P3).

Daughter role

"If my mother dies, I am the mother of this home, how could I manage! How I would carry the role of a mother... I am afraid of my father marrying another woman if my mother dies" (P1). "My mother knows I have a boyfriend, and she wants me to get married while she can see it. I think I would feel guilty if I leave my mother and go away" (P5).

Professional role

"This disease affected my preference of school. I would like to choose the department of radiology, but could not" (P4).

DISCUSSION

Young women are key stakeholders in health education programs on breast and / or gynecological cancer because early diagnosis, elimination of risk factors, genetic counseling, behaviors / perceptions for cancer screening (pap-smear test, mammography, etc.) are acquired from the early stages of life. It is thought that the decisions taken and the behaviors displayed are closely related to the family histories of the individuals. The purpose of this study is to determine the thoughts, feelings and behaviours of young women who familial cancer history. In this study, seven main themes were determined in line with the interviews with young women: fear, carcinophobia, coping methods, risk perception, spirituality, healthy lifestyle behaviors, and role change.

Fear

Fear is an emotion closely associated with cancer, and accordingly in this study, fear is one of the main themes. In the content analysis, it was determined that there are three sub-themes under the main theme of fear: having a diagnosis of cancer, deterioration in body image, and fear of death. For example, "Cancer always made our family feel complicated emotions. Like fear of death, desire to live..." (P1), "There is always a risk of getting cancer at some corner of my mind, and this keeps me anxious" (P11), "I see my risk as high. I cannot help thinking what if I get cancer, too!" (P12), "There are also masses in my breast, too. Inevitably, one thinks what if my breast is removed" (P2)...There is no comprehensive overview of people's fears about cancer from past to present. At this point, it is very important to know how to measure cancer-related fears, how to cope with fears, or how to develop behaviors that will facilitate coping with fears (Vrinten et al., 2017). Although early diagnosis and treatment of many types of cancer is possible, it has been determined that one-third to half of the general population in the United States and the UK fear cancer more than other diseases. Population-based studies reveal that about a quarter of the population is constantly concerned about getting cancer, while 5-10% experience this anxiety at an extreme level (Vrinten et al., 2017). Although fear is

an unpleasant emotion, it also affects many behaviors. Research reveals that fear sometimes reduces the likelihood of seeking help in cancer and participating in cancer screening, and conversely sometimes has a motivating effect (Vrinten et al., 2017; Hay et al., 2005; Dubayova et al., 2010). In other words, while the fear of contracting cancer can facilitate participation in cancer screening, fear of cancer treatments can be a barrier to screening due to avoiding diagnosis (Balasooriya-Smeekens et al., 2015).

Carcinophobia

Carcinophobia can be considered as one of the most severe phobias of all existing phobias. For example, a person who has a fear of heights can avoid heights and spend his daily life avoiding this fear. However, a person suffering from carcinophobia cannot set aside their fears and he / she may have to continue living with these fears. The individual may associate a mild pain or any change in the body with cancer and experience intense anxiety. Concerns often arise before applying to a healthcare organization. Eventually, fear can become so "destructive" that the person may refuse to leave his / her safe environment and remove anything they consider carcinogenic from their life. Carcinophobia is a condition that often affects those who are diagnosed with cancer or those who know people diagnosed with the disease. In a study determined that 46% of healthy women with a family history of breast cancer worry about being being diagnosed with breast cancer in the future, and the worry of being diagnosed with cancer affect the daily lives of 28% of healthy women. In our study, another one of the main themes was determined as carcinophobia (Cao et al., 2011). It was determined that about a quarter of the participants experienced carcinophobia due to the "aggressive personality" of cancer, and that having a family history of cancer was the main source of anxiety and fear for the participants. Some of the expressions of the participants were "My family and I are on pins and needles" (P8), "I constantly listen to my body" (P5), "Cancer is always on my agenda" (P6). Like other phobias, carcinophobia can be treated. Cognitive-behavioral therapies and drug therapies can help a person become aware of irrational

thoughts and fears associated with cancer and provide a more realistic perspective.

Coping Methods

It has been determined in the present study that a family history of cancer is an important cause of perceived cancer risk for the participants. In different studies, it has been reported that cancer-specific distress and anxiety levels among healthy women with a family history of breast or gynecological cancer are higher than women without a family history of cancer (Haber et al., 2012; Wallace et al., 2004). Studies have shown that positive coping strategies are associated with psychological adjustment and negative coping strategies are associated with psychological maladjustment, which harm individual psychological health (Casellas-Grau et al., 2014; Chamie et al., 2011). In the study conducted by Liu & Cao (2014), it was determined that psychological distress (anxiety, depression and cancer-specific distress) was positively correlated with negative coping strategies and family disease history, and negative coping strategies mediated family disease history and psychological distress (Liu and Cao, 2014). It was determined in the qualitative study conducted that nearly half of the women think that stress affects the development of breast cancer and most of these women feel themselves at the medium-high risk group (Spector et al., 2009). In our study, it was determined that a quarter of the participants used ineffective coping methods and ignored their fears and anxieties. Coping methods are an important factor in maintaining individual or environmental adaptation and mental health. Effective coping methods contribute to bringing perceived stress under control (Liu and Cao, 2014; Gorin, 2010; Weinberger et al., 2011). Supporting individuals at risk to use effective coping methods may yield useful results. Help can be provided to women in gaining self-care and self-confidence, coping with stress, stress management, relaxation techniques for depression, rearrangement of lifestyle, and techniques and practices that increase independence. In this way, the creation of a support group between women and family / friends, an increase in sharing between family members, and strengthening of intra-family ties can be achieved.

Risk perception

Risk perception is affected by family history and disease burden in the family. The perceived risk increases if there is more than one family member diagnosed with cancer, the affected person is the mother, the diagnosis is made at a young age, there is a history of cancer-related death, or a relative is diagnosed with cancer in the last 4 years (Spector et al., 2009; Buxton et al., 2003; Silk et al., 2006; Caruso et al., 2009). One of the most obvious risk factors for breast cancer, in particular, is family history. Approximately 15% to 20% of breast cancer cases occur in women with a family history (Thull and Farengo-Clark, 2003). A meta-analysis of 52 epidemiological studies on familial breast cancer shows that as the number of first-degree relatives affected increases where the risk ratios are 1.8, 2.9 and 3.9 for one, two, and three or more affected relatives, respectively, the risk rates increase (Collaborative Group on Hormonal Factors in Breast Cancer, 2001). In a study done) found that the perceived risk is high among women with at least one sister in their family diagnosed with breast cancer and that only almost 20% of them perceive themselves as having a below-average risk (Spector et al., 2009). In the same study, the risk perception of the participants whose first-degree relatives were diagnosed with cancer within 4 years and who reported the death of a first-degree relative from breast cancer was found to be at a medium-high level. And it was determined that two sisters who felt they were at high risk due to their family history had a prophylactic mastectomy and had a low-risk perception thereafter (Spector et al., 2009). In this study, it was determined that having a family history of cancer increases the risk perception of the participants. Statements such as "I am aware of the risk of genetic heritage" (P2), "After my mother, we all have anxiety about cancer. This is in our genetics. We have understood this..." (P6) can be interpreted as increased risk perception.

Spirituality

Cancer risk is a phenomenon that changes individuals' life philosophies and redefines their roles and goals. Religion and spirituality is an important component in evaluating individuals' perceptions of

health. Religion or spirituality is also regarded as an effective coping mechanism, especially with diseases such as cancer. Spirituality plays an important role in the way an individual interprets the cancer threat and in his / her responses to cancer. Furthermore, it can draw a general framework for the individual to deal with the uncertainty and fear created by a cancer diagnosis (Quillin et al., 2006; Tellez, 2018). In the literature, it is stated that strong religious and spiritual beliefs are associated with positive health outcomes in various cases such as mental health, substance use, depression, and chronic disease (Quillin et al., 2006). Differences in spiritual beliefs and practices also affect women's risk perception of breast cancer or gynecological cancers. A study determined that women who have a family history of breast cancer and who have strong spiritual beliefs have lower risk perception (Quillin et al., 2006). The statements of the participants in our study reveal that spiritual beliefs, beliefs / hopes in treatment, or spiritual support provided have positive effects on risk perception and coping skills. Health professionals should integrate services that are compatible with the culture of sick and healthy individuals, and include religious and spiritual beliefs/practices into the care process.

Healthy Lifestyle Behaviors

The familial cancer history plays an important role in motivating behavioral change. In this context, the acquisition of many behaviors such as healthy eating, regular exercise, and participation in routine screening can closely related to familial cancer history (Ferrer & Klein, 2015). In a qualitative study it was found that only one-third of women adopted healthy lifestyle changes due to a family history of cancer. Among these changes, "diet change" was among the most frequently reported healthy lifestyle behaviors (Spector et al., 2009). In the same study, it was found that a significant portion of women think that various factors such as pesticide exposure, hormones in foods, contaminated water and air pollution cause cancer development, and that a healthy diet, exercise and weight management affects the reduction of the risk of cancer. It has been determined that women who believe that dietary fats play a role in the development of cancer are in

an effort to reduce red meat intake, consume low-fat milk, and avoid fried foods. Modifiable lifestyle factors such as excessive weight and obesity (among postmenopausal women) and physical inactivity are associated with an increased risk of cancer. The cancer risk perception of women who stated that they had a lack of exercise in their lives was found to be high (Spector et al., 2009). In the same study, none of the participants showed alcohol as a risk factor. It has been found that women accept that quitting smoking is a behavior that can be individually controlled to reduce the risk of breast cancer (Spector et al., 2009)). In this study, half of the participants believed that a healthy diet, regular breast or gynecological screening, avoiding stress, and quitting smoking would be effective in preventing cancer: "We try to make some changes in our lives, for example; we try to eat healthy" (P1), "I believe stress triggers cancer. I stay aware from stress and smoking" (P4), "I examine myself" (P10), "I believe stress is highly effective on formation of cancer" (P12). Thus, based on these data, it can be said that the family history of cancer clearly affects the healthy lifestyle behaviors of young women. It is very important to implement effective interventions that will enable women at high risk to acquire healthy lifestyle behaviors.

Role Change

Familial cancer history affects future expectations, roles and responsibilities in a person's current life. In this study was determined that the participants mostly made the most striking evaluations regarding their spouse or partner role. In this context, the participants predicted that the risk of cancer might prevent them from getting married in the future, that if there is a risk of infertility, they may experience a sense of guilt towards the spouse, and organ losses may disrupt marital adjustment: "If there is uterus-related or any other cancer in the future, I could be shy with my spouse. I feel guilty if he wants to have children" (P3), "I do not know what I would do if I experienced it. If I encounter such a thing before marriage, I might not marry at all" (P6), "I am afraid of not being able to have a child if I get uterine cancer or not being able to breastfeed my child if I get breast cancer" (P3). Physical, mental and

social changes that cancer risk perception may cause in women's life should be carefully evaluated by health professionals. Especially, healthy / sick individuals should be evaluated with a holistic approach. Individuals' future expectations and perspectives on roles and responsibilities should be addressed with structured emotional support-centered guidance and counseling services.

CONCLUSION

Familial cancer history, especially when managed well in high-risk populations, contributes to individuals to acquire healthy lifestyle behaviors and gain the ability to make conscious decisions. In line with these findings, it is recommended that healthcare professionals take active responsibilities in determining the current risk perceptions of women regarding cancer, managing the risk perception correctly, and meeting needs-specific counseling and care initiatives.

Limitations of Study

The sample size was relatively small, and restricting the statistical inference of the results, so that the findings are not generalizable to all women.

Conflict of Interest

No conflict of interest has been declared by the authors.

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REFERENCES

- Balasoorya-Smeekens, C., Walter, F.M., Scott, S. (2015). The role of emotions in time to presentation for symptoms suggestive of cancer: a systematic literature review of quantitative studies. *Psychooncology*, 24:1594–1604. <https://doi.org/10.1002/pon.3833>
- Braun, V., Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2): 77–101. <https://doi.org/10.1191/1478088706qp0630a>
- Buxton, J.A., Bottorff, J.L., Balneaves, L.G., Richardson, C., McCullum, M., Ratner, P.A. et al. (2003). Women's perceptions of breast cancer risk: are they accurate? *Can J Public Health*, 94(6): 422-426. <https://doi.org/10.1007/BF03405078>
- Buyukozturk, S., Cakmak, E.K., Akgun, O.E., Karadeniz, S., Demirel, F. (2009). Sampling Methods Scientific Research Methods Book Presentation
- Cao, A.Y., He, M., Di, G.H., Wu, J., Lu, J.S., Liu, G.Y., et al. (2011). Influence of a family history of breast and/or ovarian cancer on breast cancer outcomes. *Exp Ther Med*, 2: 917-923. <https://doi.org/10.3892/etm.2011.275>
- Caruso, A., Vigna, C., Marozzo, B., Sega, F.M., Sperduti, I., Cognetti, F., et al. (2009). Subjective versus objective risk in genetic counseling for hereditary breast and/or ovarian cancers. *J Exp Clin Cancer Res*, 28:157. <https://doi.org/10.1186/1756-9966-28-157>
- Casellas-Grau, A., Font, A., Vives, J. (2014). Positive psychology interventions in breast cancer. A systematic review. *Psychooncology*, 23: 9-19. <https://doi.org/10.1002/pon.3353>
- Chamie, K., Saigal, C.S. Litwin, M.S. (2011). Patients and solipsism: the psychology of decision making for prostate cancer treatment. *Urol Oncol*, 29: 233-234. <https://doi.org/10.1016/j.urolonc.2010.11.015>
- Collaborative Group on Hormonal Factors in Breast Cancer. (2001). Familial breast cancer: Collaborative reanalysis of individual data from 52 epidemiological studies including 58 209 women with breast cancer and 101 986 women without the disease. *The Lancet*, 358:1389–1399. [https://doi.org/10.1016/S0140-6736\(01\)06524-2](https://doi.org/10.1016/S0140-6736(01)06524-2)
- Dubayova, T., van Dijk, J.P., Nagyova, I., Rosenberger, J., Havlikova, E., Gdovinova, Z., et al. (2010). The impact of the intensity of fear on patient's delay regarding health care seeking behavior: a systematic review. *Int J Public Health*, 55: 459–468. <https://doi.org/10.1007/s00038-010-0149-0>
- Ferrer, R., Klein, W.M. (2015). Risk perceptions and health behavior. *Curr Opin Psychol*, 5: 85–89. <https://doi.org/10.1016/j.copsyc.2015.03.012>
- Gorin, S.S. (2010). Theory, measurement, and controversy in positive psychology, health psychology, and cancer: basics and next steps. *Ann Behav Med*, 39: 43-47. <https://doi.org/10.1007/s12160-010-9171-y>
- Haber, G., Ahmed, N.U., Pekovic, V. (2012). Family history of cancer and its association with breast cancer risk perception and repeat mammography. *Am J Public Health*, 102:2322-2329. <https://doi.org/10.2105/AJPH.2012.300786>
- Hay, J.L., Buckley, T.R., Ostroff, J.S. (2005). The role of cancer worry in cancer screening: a theoretical and empirical review of the literature. *Psychooncology*, 14: 517–534. <https://doi.org/10.1002/pon.864>
- Hereditary Cancer Syndromes and Risk Assessment, ACOG Committee Opinion. (2019). *The American College of Obstetricians and Gynecologist*, 134(6): e143-149. <https://doi.org/10.1097/AOG.0000000000003562>
- Liu, Y., Cao, C. (2014). The relationship between family history of cancer, coping style and psychological distress. *Pak J Med Sci*, 30(3): 507-10. <https://doi.org/10.12669/pjms.303.4634>
- Mellon, S., Gold, R., Janisse, J., Cichon, M., Tainsky, M.A., Simon, M.S., et al. (2008). Risk perception and cancer worries in families at increased risk of familial breast/ovarian cancer. *Psycho-Oncology*, 17(8): 756-

66. <https://doi.org/10.1002/pon.1370>

Orom, H., Coté, M.L., González, H.M., Underwood, W., Schwartz, A.G. (2008). Family history of cancer: is it an accurate indicator of cancer risk in the immigrant population? *Cancer*, 112(2): 399-406.

<https://doi.org/10.1002/cncr.23173>

Quillin, J.M., McClish, D.K., Jones, R.M., Burruss, K., Bodurtha, J.N. (2006). Spiritual coping, family history, and perceived risk for breast cancer--can we make sense of it?. *J Genet Couns*, 15(6): 449-460.

<https://doi.org/10.1007/s10897-006-9037-4>

Silk, K.J., Bigsby, E., Volkman, J., Kingsley, C., Atkin, C., Ferrara, M., et al. (2006). Formative research on adolescent and adult perceptions of risk factors for breast cancer. *Soc Sci Med*, 63(12): 3124-3136.

<https://doi.org/10.1016/j.socscimed.2006.08.010>

Spector, D., Mishel, M., Skinner, C.S., Deroo, L.A., Vanriper, M., Sandler, D.P. (2009). Breast cancer risk perception and lifestyle behaviors among White and Black women with a family history of the disease. *Cancer Nurs*, 32(4): 299-308.

<https://doi.org/10.1097/NCC.0b013e31819deab0>

Tellez, B.V. (2018). Religiosity / Spirituality and Cancer Risk Assessment for Hereditary Breast and Ovarian Cancer: Latina and non-Latina women in New Mexico. Available from:

https://digitalrepository.unm.edu/cgi/viewcontent.cgi?article=1266&context=psy_etds

Thull, D.L., Farengo-Clark, D. (2003). Genetics of breast cancer. In: Vogel VG, Bevers T, editors. *Handbook of breast cancer risk assessment: Evidence-based guidelines for evaluation, prevention, counseling, and treatment*. Boston: Jones and Bartlett, pp. 20-40.

Tilburt, J.C., James, K.M., Sinicrope, P.S., Eton, D.T., Costello, B.A., Carey, J., et al. (2011). Factors influencing cancer risk perception in high risk populations: a systematic review. *Hered Cancer Clin Pract*. 9(1): 2. <https://doi.org/10.1186/1897-4287-9-2>

Vrinten, C., McGregor, L.M., Heinrich, M., von Wagner, C., Waller, J., Wardle, J., Black, G.B. (2017). What do people fear about cancer? A systematic review and meta-synthesis of cancer fears in the general population. *Psychooncology*, 26(8): 1070-1079.

<https://doi.org/10.1002/pon.4287>

Wallace, E., Hinds, A., Campbell, H., Mackay, J., Cetnarskyj, R., Porteous, M.E. (2004). A cross-sectional survey to estimate the prevalence of family history of colorectal, breast and ovarian cancer in a Scottish general practice population. *Br J Cancer*, 91:1575-1579.

<https://doi.org/10.1038/sj.bjc.6602155>

Weinberger, M.I., Bruce, M.L., Roth, A.J., Breitbart, W., Nelson, C.J. (2011). Depression and barriers to mental health care in older cancer patients. *Int J Geriatr Psychiatry*, 26: 21-26.

<https://doi.org/10.1002/gps.2497>

Yildirim, A., Simsek, H. (2006). *Qualitative Research Methods in The Social Sciences*. Ankara: Seçkin Publishing.