

# A qualitative exploration of fear of cancer recurrence in Turkish cancer survivors who were referred for colposcopy

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## Abstract

We aimed to qualitatively explore factors related to fear of cancer recurrence in women who had a risk of cervical cancer relapse/metastasis and to identify the psychological effect of gynaecological examination and colposcopy in cancer survivors. We conducted the present descriptive study with a qualitative design based on the thematic analysis approach on ten women who under suspicion of new cancer and were admitted to the Gynaecological Oncology Polyclinic of Akdeniz University for colposcopy between July and October 2017 via in-depth interviews. As a result of the interviews, we identified three main themes: colposcopy-related fear, emotions associated with fear of cancer recurrence, and fear of being diagnosed with cancer. Moreover it was determined that women experienced a fear of death, fear of family being affected, fear of stigmatisation by society, and fear of not coping with the treatment process. We found that women with cancer history and undergoing colposcopy because of abnormal cervical cytology in routine oncology controls experienced a significant fear of cancer recurrence. We found that gynaecological examination and colposcopy caused anxiety in patients. Healthcare professions should be aware and help women to cope with the fear of cancer recurrence in the colposcopy process and should determine the social care needs of these patients.

## KEYWORDS

abnormal Pap test, colposcopy, fear of cancer recurrence, qualitative

## 1 | INTRODUCTION

Fear of cancer recurrence (FCR), a distressing, sometimes life-long posttreatment difficulty in cancer survivors, is defined as the 'fear, worry, or concern relating to the possibility that cancer will come back or progress' (Lebel et al., 2013, 2016) and has been identified by cancer survivors as one of their major problems (Simard et al., 2013). FCR is a natural response to a cancer diagnosis and experienced on a continuum from none to severe (Cruikshank et al., 2020; Waldrop et al., 2011). The current literature suggests that FCR is associated with female gender, younger age, a higher educational background, not having a partner, having at least one child or being socially isolated, psychological distress and lower quality

of life, as well as having more (and more severe) physical symptoms and less emotional well-being (Byrom et al., 2002; Lebel et al., 2013; Simard & Savard, 2009). Having recurrent and long-lasting images or thoughts about cancer or death and believing cancer will return can lead to feelings of anxiety about the future (Handelzalts et al., 2015).

Population- and hospital-based studies suggest that the risk of a second cancer among women with a history of breast and cervical cancer is higher than the cancer risk in the general population (Chaturvedi et al., 2007; Donin et al., 2016; Rubino et al., 2000, 2003). Cervical cancer, which is one of the most important public health concerns, is responsible for more than 7% of cancer-related deaths in all women around the world and it is the second most common cancer in women worldwide (Caitlyn et al., 2018; Saei

et al., 2018). Incidence of cervical cancer and cancer-related death have decreased substantially in the past 50 years because of widespread use of the Papanicolaou (Pap) smear test; however, it cannot be completely eradicated (American College of Obstetricians and Gynaecologists, 2017).

In Turkey, public-based cervical cancer screening is conducted by applying the Papanicolaou (Pap) smear test and human papillomavirus (HPV) DNA test at 5-year intervals from the age of 35 years onwards, and the screening should be stopped in women over 65 whose last two test results were negative (Alan et al., 2019; Çiçek et al., 2004). Women who have a positive HPV DNA test or have high-grade abnormal results or atypical squamous cells of undetermined significance, are referred for colposcopy (Solomon et al., 2001). Abnormal results of the smear test and a positive human papillomavirus (HPV) DNA test are usually followed by a colposcopy test that allows a detailed examination of the cervix in situ (Çiçek et al., 2004). There are criticisms about the fact that colposcopy, an important procedure for a woman's life, is perceived as a technical procedure by health personnel and that the psychosocial status of the individual is ignored before and after the procedure (Cotton et al., 2015; O'Connor et al., 2017).

The activation of perceived risk of recurrence tends to lead to even more focus on physical sensations, noticing previously benign symptoms and interpreting them as further evidence of recurrence (Humphris & Ozakinci, 2008; Lebel et al., 2014). Survivors engage in personal checking behaviours, avoidance and excessive seeking of reassurance (Lebel et al., 2014). The FCR that may develop in every cancer survivor after cancer screening tests can also affect women who undergo colposcopy following an abnormal Pap smear test in a routine oncologic follow-up (Uner & Korukcu, 2020). Lebel et al. (2013) reported that women exhibit a mixed affective state including sadness, anger, and anxiety due to FCR. Understandably, all patients with cancer have some concerns about recurrence or progression and these illness- or death-related concerns lead individuals to return to their inner selves and make them lonely (Curran et al., 2020; Thewes et al., 2012). When severe, women may experience severe anxiety due to the possibility of separation from their husbands, children, and loved ones (Cruickshank et al., 2020; Weare, 2015). In particular, another source of concern for women at a high risk of cancer recurrence in patriarchal families in Turkey is that it is unclear who would take care of the survivors when something happens to them (Körükçü, 2018).

The fact that health personnel must be allowed to see the most private and intimate organs during examination and maintenance therapy is the most decisive feature that distinguishes the gynaecological cancer screening process from other cancers (Jin, 2017; Manne et al., 2017). In women at risk of cancer recurrence that can have fatal consequences in an unanticipated period of their life, it is necessary to elucidate what they experience in the process of diagnostic tests and to facilitate the transition.

In many countries, health care personnel are key providers of emotional and psychological support in clinical and public health practice for FCR in women with cancer history (Cruickshank et al., 2020; Simard et al., 2013), yet FCR is still stated as one of the

### What is known about this topic

- The fear of cancer that may develop in every person after cancer screening tests can also affect women who undergo colposcopy following an abnormal Pap smear test.
- Women at a high risk of cancer experience severe anxiety due to the possibility of separation from their husbands, children and loved ones.
- The fear of cancer recurrence can psychologically affect women who have undergone colposcopy following an abnormal Pap smear test.

### What this paper adds

- Researchers found that women who had a history of cancer and underwent colposcopy experienced intense fear of cancer recurrence.
- It was found that women who experienced fear of cancer recurrence had a negative perception of cancer.
- We determined that women experienced a fear of death, a fear of family being affected, a fear of stigmatisation by society and a fear of not coping with the treatment process.

most frequent unmet needs reported in the immediate posttreatment phase (Cruickshank et al., 2020). The determinants and consequences of FCR have been preliminarily addressed by several studies (Almeida et al., 2019; Hinz et al., 2015; Luo et al., 2020; Simard et al., 2013). However, to the best of our knowledge, this study is the first qualitative research that evaluates the fear of cancer recurrence in women cancer survivors who are at a high risk of cervical cancer, have abnormal cervical cytology, and are referred for colposcopy. In this research, we present the results of a qualitative study of this difficult human experience. We would like to explore the question, 'What are the experiences of fear of cancer recurrence in women with cancer history who are at a risk of cervical cancer after a colposcopy test?'. For this reason, firstly, we aimed to qualitatively explore factors related to fear of cancer recurrence in women who had abnormal cervical cytology and are at a risk of cervical cancer relapse/metastasis, and secondly, to identify the psychological effects of gynaecological examination and colposcopy in cancer survivors.

## 2 | METHODS

### 2.1 | Design of the study

A descriptive qualitative design using thematic analysis (Vaismoradiet al., 2013) was chosen to guide this study. In this qualitative study, which was planned due to the fact that there are not enough studies to clarify the foci of fear of cervical cancer risk in

women undergoing colposcopy, a thematic analysis approach and descriptive qualitative study design were used. A descriptive case study is a recommended method for researchers who want to examine in more detail the specific factors and how the participants are affected by these factors. It provides the opportunity to obtain and analyse complex textual descriptions of how an experience is understood from the perspectives of the individual participants (Creswell & Poth, 2017).

## 2.2 | Characteristics of the participants

Women who had a history of cancer, had abnormal Pap smear results and volunteered to participate in the study were included in the study. All women were under suspicion of a new cancer. Eight women had a breast cancer history, one woman had a cervical cancer history, and one woman had an endometrium cancer history (Table 1). The study was conducted on women who were admitted to the Gynaecological Oncology Polyclinic of Akdeniz University for colposcopy between July and October 2017. Colposcopy is performed only on Thursdays in the Gynaecological Oncology Polyclinic of Akdeniz University and on average on 4–6 patients per day. The data of the study were collected after the procedure because there might be tension and unease related to the procedure in women before colposcopy. The patients were taken to the rest room. If they felt good, they were interviewed. Each interview lasted about 30 min. In qualitative studies, the saturation point is a guide to decide the size of the sample (Morse, 2015). The study was terminated when the data started to repeat each other. The characteristics of the participants are shown in Table 1.

## 2.3 | Data collection

The study data were collected using the personal information form and the semi-structured interview form prepared by the researchers.

**TABLE 1** Demographic characteristics of participants

Participant number	Age	Education level	Employment status	Marriage	Children number	Cancer history	Family history of cancer
Participant 1	38	Primary school	No	Married	3	Breast ca	Yes (Mother-breast ca)
Participant 2	32	University	No	Single	0	Breast ca	No
Participant 3	26	High school	Yes	Divorced	1	Breast ca	No
Participant 4	45	Primary school	No	Married	3	Serviks ca	No
Participant 5	40	Primary school	No	Married	3	Breast ca	No
Participant 6	35	University	Yes	Single	0	Breast ca	No
Participant 7	51	Primary school	No	Divorced	3	Breast ca	No
Participant 8	37	Primary school	No	Divorced	2	Endometrium ca	No
Participant 9	26	High school	No	Single	0	Breast ca	No
Participant 10	41	High school	No	Married	2	Breast ca	Yes (Mother-cervix ca)

The personal information form consisted of questions about the patients' age, educational status, marital status, working status, previous cancer history, family history of cancer and number of living children. The question 'Do you share what you feel when you learn that you need to undergo colposcopy?' was asked to start the interview. Some of the other interview questions were as below.

- What was the greatest concern and fear related to colposcopy that you experienced?
- Could you please tell us your emotions associated with fear of cancer recurrence?
- How does fear of cancer recurrence affect your daily life?
- What would change in your life if you learned that you had cervical cancer?
- What do you think of society's attitude towards cancer patients?
- Do you have fears about your family being affected if you have cervical cancer?

## 2.4 | Data analysis

Thematic analysis is one of the types of qualitative data analysis that allow the dataset to be organised and explained in more detail (Vaismoradi et al., 2013). The analysis of the data in this study was based on the six steps of thematic analysis described by Clarke and Braun (Clarke & Braun, 2014). This approach to thematic analysis consists of these six steps: (a) becoming familiar with data, (b) generating initial codes, (c) searching for themes, (d) reviewing themes, (v) defining and naming themes and (vi) producing the report.

## 2.5 | Rigour and trustworthiness

Dependability, credibility, transferability and confirmability of the data are essential for qualitative research (Borhani et al., 2014).

Rigour and trustworthiness were achieved through individual interviews using a semi-structured interview form. Data were used as direct quotations from the interviews without making any comments. A purposive sampling method based on voluntarism was used to obtain the opinions and experiences of patients. Data were coded by two independent researchers, and the records of interviews, documents and participant observations were kept for external reliability.

## 2.6 | Ethical dimension

The Clinical Research Ethics Committee of Akdeniz University Faculty of Medicine approved the study. Before starting the study, health care personnel working in the Gynaecological Oncology Polyclinic of Akdeniz University were informed about the study. Women who agreed to participate in the study were informed about the aim of the study, how the study would be conducted and the interviews that would be recorded on the voice recorder. Then, oral or written consent was obtained.

## 3 | RESULTS

The fears that women undergoing colposcopy experienced in this process have been gathered under three main themes.

### 3.1 | Colposcopy-related fear

#### 3.1.1 | Fear of pain

We observed that colposcopy as a cancer diagnostic test has a profound implication for women at risk of gynaecological cancer. Most of those who experienced fear due to colposcopy expressed that they were afraid of pain. *'I did not know how colposcopy is performed. I must confess that I was so afraid of pain.'* (Participant 3) Another participant stated: *'My fear increased a bit after my physician explained to me how to obtain tissue samples from the cervix. I thought it would be extremely painful. It is ultimately a sensitive area.'* (Participant 2).

#### 3.1.2 | Fear of not knowing the procedure

It was seen that procedure-related fears that women undergoing colposcopy experienced occurred mostly due to not knowing the procedure. One of the participants has expressed her feelings by the following sentences: *'Since I did not know how the procedure is performed, I was so afraid until it would begin. I even thought it would be like surgery. Man does not want that any intervention is performed in his sensitive areas. Man wants to know the details even if a procedure is performed. You're scared when you do not know what's going to happen. Fortunately, it didn't happen like I was afraid.'* (Participant 2).

Another participant expressed the fear that she experienced during the procedure. This participant has expressed her feelings by the following sentences: *'I didn't know what to do or why it was performed... I was so frightened during colposcopy. My physician injected an anesthetic drug and I did not feel anything. My mother held my hands through the procedure. When I remember it, I'm still very scared.'* (Participant 9).

A patient stated that a detailed explanation about colposcopy was done before the procedure. This patient expressed that she experienced relief rather than fear: *'It is very important to know what you will encounter. Therefore, the fact that the physician made an explanation before lying down on the table relieved me.'* (Participant 6).

### 3.2 | Emotions associated with experience of fear of cancer recurrence

Participants in the present sample identified a range of emotions associated with experience of FCR including sadness, feeling alone and panic.

#### 3.2.1 | Sadness

Some women stated that they felt sadness when they learnt they might have cancer recurrence and they were at a high risk of cervical cancer. These feelings were expressed in the following sentences: *'When I learned that there is a risk of cancer and that colposcopy should be done, I was very upset. I cried so much.'* (Participant 3) Another woman expressed her sadness with these words: *'I do not want to face death again.'* (Participant 4).

#### 3.2.2 | Feeling alone

Despite being supported by family and friends, four of the ten women with cancer history stated that they experienced feeling alone. One of the participants said: *'No one can understand exactly what you are feeling. This process makes you feel so lonely.'* (Participant 1).

#### 3.2.3 | Panic

When speaking about the possibility of cancer recurrence, one woman with FCR said: *'I was in such a panic when I learned I was at a risk of cervical cancer. According to me, chemo was worse than cancer itself. I was in a panic because of the thought that I would return to those days.'* (Participants 6).

Another woman stated her panic with the following sentences: *'I was in such a panic and I can't believe what happened. I had already been treated for cervical cancer, and I thought it wouldn't start again.'* (Participant 4).

### 3.3 | Fear of being diagnosed with cervical cancer

#### 3.3.1 | Fear of death

The cancer survivors who faced a risk of cervical cancer were found to experience a fear of death. *'Do I get cancer again? Does everything start again? There are so many dreams I have not realised yet... There are places where I did not go, activities I did not do, and relatives I did not have enough time to see. It's too soon to die.'* (Participant 4).

We determined that the thought of leaving their loved ones and leaving them alone laid the basis for the participants' fear of death. *'I kept withholding it from my children that my results did not go well. But I know I need to tell them. They will be devastated when they learn it. I'm afraid they cannot get over this news. I'm afraid to leave them alone in this life. I am very afraid of dying.'* (Participant 7).

#### 3.3.2 | Fear of family being affected

The participants in the diagnostic process stated that being diagnosed with cancer would severely affect their families. They also felt worried about their families. *'I felt very bad when I learned that the cancer remained at risk of recurrence. My mother is always praying. My children cried for 3 days. If I am diagnosed with cancer, my whole family will suffer an emotional collapse. I'm afraid of the possibility of those days coming.'* (Participant 4).

Another participant who tested positive for HPV, and who indicated that her husband had cheated on her, stated: *'If I have cancer, I'm afraid about what will happen to my children. I have three little boys. I want to tell them about this disease. I must explain the reason for this situation I experienced so that they do not do to others what their father did to me. But it is very difficult...'* (Participant 5).

One of the participants who tested positive for HPV indicated that she was afraid her family's health would be affected. These feelings were expressed in the following sentences: *'I was overly affected by HPV. I felt like I had AIDS. I used a disinfectant agent every time I entered the toilet. I wanted them not to use the toilet I used to avoid contamination. I have a small nephew. I could not sit him on my lap and I even loved him remotely. I'm afraid I will put my family at risk.'* (Participant 6).

Another participant explained her feelings about fear of death and stated her concern about her family if she would die: *'The nightmare is back. I do not want to die in pain. What happens to my family if I die? My children are very small. My husband cannot recover and will collapse. I am very afraid of dying.'* (Participant 10).

#### 3.3.3 | Fear of stigmatisation by society

Most of the participants with previous cancer history stated that individuals who were diagnosed with cancer were socially stigmatised. The participants indicated that society perceived that cancer

patients were going to die at any moment. One woman was abandoned by her husband since she was diagnosed with breast cancer in the past. This woman's feelings were expressed in the following sentences: *'I think society stigmatises cancer patients. I overcame breast cancer 13 years ago. Believe me, I remember those days painfully. It's a very sad thing that everybody looks at you like you are going to die at any moment. My husband left me when I was diagnosed with cancer. I had not even started treatment. He said that he could not stand seeing me die in front of his eyes. He left me. Now I'm afraid that my children will look at me like I am going to die at any moment.'* (Participant 7).

Another participant with a history of breast cancer stated that cancer is perceived by humans as an infectious disease. This participant's feelings were expressed in the following sentences: *'I think society excludes cancer patients. I overcame breast cancer. Believe me, some of my relatives have not even visited me. Some people hesitated to shake my hand because they thought I would transmit the disease.'* (Participant 6).

Another participant stated: *'After cancer occurs, people start looking at sufferers differently. They look at them as if everything is ending and that they are going to die. Everyone treats us warmly at first and then they don't call. Having cancer again means living through the same things again...'* (Participant 8).

It was indicated by another participant that she was infected with HPV because her husband had cheated on her and that she had a risk of cancer. This participant's feelings were expressed in the following sentences: *'Do you know what scares me more than being diagnosed with cancer? Everyone learns the cause of my illness. All of this occurred due to my husband. How do I tell them my husband cheated on me?'* (Participant 10).

It was stated by another participant with previous breast cancer history that society does not exclude cancer patients, but that people were overprotective with a sense of pity. *'I do not think people in our country exclude cancer patients. A great majority of our people are compassionate... But sometimes our people can behave excessively. They make us feel insufficient and useless. It hurts me when those who learn I am at risk of cancer recurrence approach me with a sense of pity.'* (Participant 3).

#### 3.3.4 | Negative perception of cancer/Effect of previous experiences

When the cancer perception of the women included in the study was examined, it was seen that cancer recalled negative feelings such as pain, suffering and death in patients. *'In the past, when cancer was mentioned, pain and death came to my mind. I now do not know what to think. One day I never thought that I would have cancer'* (Participant 1). Another patient said: *'The word "cancer" recalls the misery for me. Not only for me, but also for my family ...'* (Participant 3) One patient said: *'I cannot even say its name. You think about how bad it is for me.'* (Participant 9).

Fear of being diagnosed with cancer again by remembering her past experiences was expressed by one patient with previous breast

cancer history. These feelings were expressed in the following sentences: *'What the result would be rather than colposcopy scares me. I've already overcome breast cancer. Did the cancer recur? I received chemotherapy for three years. I do not want to live through that time again'* (Her eyes filled with tears. She took a deep breath and continued). *'I had a painful and difficult time. I'm so scared of having reoperation, chemotherapy and radiotherapy again'*. (Participant 1).

### 3.3.5 | Fear of not coping with the disease and treatment process

One participant stated that the cancer treatment process is challenging. This participant's feelings were expressed in the following sentences: *'Facing the risk of cancer recurrence saddens me very much. I now feel like my dreams were half-finished. The process of fighting cancer is very challenging and long. I'm afraid I cannot cope with it'*. (Participant 5).

Feelings of another participant who had recently had breast cancer were expressed in the following sentences: *'I've already overcome breast cancer. I received breast cancer treatment. I underwent the surgery and received chemotherapy. I do not have the power to experience the same things again. I cannot bear it'*. (Participant 7).

It was stated by one participant that she was very tired even during the diagnostic process and that she felt weak. *'If I have cancer, I think a lot about what I am. I was very tired during this diagnostic process. I do not feel strong enough for treatment. I cannot cope with the fact that all things might start again'*. (Participant 10).

## 4 | DISCUSSION

Fear of cancer is a common psychological problem and is not related to a specific type of cancer (Almeida et al., 2019). For most patients, surviving cancer means living with FCR (Simard et al., 2013). It has been shown that the fear of cancer is associated with medical, demographic and psychological variables such as age, female gender, stage of cancer, anxiety, low quality of life and other accompanying diseases (Hinz et al., 2015; Simard et al., 2013). Health promotion, health interventions and woman-centred care are crucial for health systems in many countries (Matejić et al., 2008; Uner & Korukcu, 2020). Because of the high incidence and being one of the most common cancer types, cervical cancer is one of the important public health concerns among developing countries (Zeng et al., 2011).

It was stated that knowing someone with a recurrence, doctors' periodic examinations, waiting for test results, physical symptoms, having a breast operated on, and future-oriented activities are triggers for FCR (Şengün İnan & Üstün, 2019; Vickberg, 2003). For a woman with cancer history, the colposcopy test means the transition from cancer survivor status to patient status (Garofalo et al., 2009). Determining the effect of FCR on women's psychology may be a particularly important point in recovery, and the quality of psychosocial

adjustment at this point appears to affect the future well-being of cancer survivors (Abdelhakim et al., 2019; Garofalo et al., 2009; Şengün İnan & Üstün, 2019). The focus of this study was to explore the fear of cancer recurrence among cancer survivors who had abnormal cervical cytology and applied for colposcopy.

Cancer diagnostic tests have a profound implication for women at risk of gynaecological cancer (Manne et al., 2017). A colposcopy examination is one of the main follow-up options in cervical cancer screening for women who have abnormal results of the smear test and a positive human papillomavirus (HPV) DNA test (Alan et al., 2019; Uner & Korukcu, 2020). Tests to diagnose cervical precancerous cell changes might lead to anxiety (Kola & Dhingra, 2020; Uner & Korukcu, 2020). It has been reported that the main reason for this concern is that the colposcopy result is uncertain and that patients feel pain during the procedure (Byrom et al., 2002; Manne et al., 2017). Many women report that colposcopy is a stressful procedure due to the pain and burning effect of the acetic acid preparation during biopsy (Abdelhakim et al., 2019). In this study, we determined that women were not only afraid of cancer recurrence, but also experienced fear due to colposcopy, expressing that they were afraid of pain.

In our study, we found that women with cancer history had a negative perception of cancer and had an extreme FCR. In a meta-synthesis study of 87 qualitative research studies, Almeida et al. (2019) stated that for some participants, fear of cancer recurrence was described in trauma-like terms, including forms of re-experiencing, avoidance, negative thoughts and feelings, and arousal or reactivity related to cancer-related triggers or memories. Berman (2013) found that the intense FCR emotional experience might also be associated with feelings of sadness, as expressed by this participant in the study: *'The sadness of thinking that I might not be there is horrifying; it really is'*. In the meta-synthesis study, emotions accompanying FCR were labelled as depression, in which they included feelings of 'sadness', 'loss', 'grief', 'loneliness' and feeling 'set apart' or 'abandoned' (Almeida et al., 2019). In the present study, women's emotions associated with experience of fear of cancer recurrence were sadness, feeling alone, and panic.

Patients with higher levels of fear of cancer recurrence can be affected in terms of their wellbeing, quality of life, and emotional and social functioning (Almeida et al., 2019; Hinz et al., 2015). Simonelli et al. (2008) found that survivors with a high number of physical symptoms reported lower levels of meaning in life, which was associated with higher levels of depressive symptoms. Berman (2013) found that women were faced with guilt and fear of death if they had FCR, as expressed by this participant in her study: *'I am working way too much and what if I had a recurrence? I should be spending this weekend with [my children]. And then that just kind of unfolds because you feel guilty and you start thinking about death'*. Vickberg (2003) stated that FCR is a multidimensional experience and involves fear of death, fear about cancer progression and further treatment (particularly chemotherapy), emotional difficulties, and concerns about loss of health and physical symptoms. In our study, we found that the cancer survivors

who faced a risk of cervical cancer were found to experience a fear of death, fear of family being affected, fear of stigmatisation, negative perception of cancer and fear of not coping with disease. According to the results of our study, the thought of leaving their loved ones and leaving them alone laid the basis for the participants' fear of death.

Women with a risk of cervical cancer may have severe anxiety due to the possibility of separation from their spouse, children and loved ones (Cotton et al., 2015; Uner & Korukcu, 2020). Because the woman has a vital role in the family, facing the risk of cancer recurrence negatively affects not only the patient but members of the whole family (Weare, 2015). In our country, especially in families with a patriarchal structure, many women do not work for income and alone undertake the maintenance tasks of the family members at home (Uner & Korukcu, 2020). After cancer is diagnosed, the woman has to switch from caregiver to care recipient in the family (Alan et al., 2019; Smith, 2017; Weare, 2015). The other concern of these women is that if something happens, it is unclear who is going to take care of the children (Cotton et al., 2015; Uner & Korukcu, 2020). In accordance with the literature, we determined in our study that the majority of women facing the risk of cancer recurrence did not work for income and worried about the future of their families and children.

Due to its relevance for the quality of life and clinical implications for cancer patients, there is a growing body of research on FCR, predominantly quantitative (Crist & Grunfeld, 2013). The results of the current study provide what to the best of our knowledge was the first evidence that women with cancer history, and referred for colposcopy because of high risk of cervical cancer, experienced fear of cancer recurrence. Moreover it was determined that women experienced a fear of death, a fear of family being affected, a fear of stigmatisation by society, and had a negative perception of cancer and a fear of not coping with the treatment process. Even though FCR is a natural response, when severe, it can lead to distress, difficulty in coping and poorer physical health, leading many to seek help from clinicians (Cruikshank et al., 2020; Humphris & Rogers, 2012). Given the large number of women diagnosed with cervical cancer and experiencing moderate to severe FCR, nurses, clinical psychologists and psychiatrists need to find ways to utilise their different skills to address this increasing concern (Chaturvedi et al., 2007; Cruikshank et al., 2020; Simard et al., 2013). Future research is needed to more clearly differentiate FCR from other psychosocial problems, such as anxiety disorders, with its own profile and mechanisms (Simard et al., 2013), and to examine the effect of FCR on quality of life and coping mechanisms in women with cancer history and at a risk of cancer recurrence.

#### 4.1 | Limitations

Our study has several important limitations. The main limitation of the study was the relatively low number of women included in the study. Furthermore, we collected data from only one hospital because

of the limited number of oncology clinics in the city where the study was conducted. Therefore, the results from this sample do not represent all women with abnormal Pap results and applying for colposcopy. Further research is needed to confirm this finding and explore whether cultural differences exist between other cultural groups.

## 5 | CONCLUSION

In conclusion, we identified three main themes: colposcopy-related fear, emotions associated with fear of cancer recurrence and fear of being diagnosed with cancer. At the end of the study, we explored whether women who had a history of cancer in the past, and who had colposcopy because their routine smear screening was abnormal, experienced an intense fear of cancer recurrence. Despite the fact that fear of cancer recurrence is a real-life experience, it is stated that patients are not directed to psychosocial or psychotherapeutic interventions because the fear of cancer recurrence is not sufficiently recognised by health professionals (Thewes et al., 2014). The study results may help to raise awareness among oncology professionals of the fear of cancer recurrence in cancer survivors under their care who apply for colposcopy. In addition, it may contribute to the provision of more effective individual and community health-centred care and information to patients.

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### CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

### DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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### REFERENCES

- Abdelhakim, A. M., Samy, A., & Abbas, A. M. (2019). Effect of music in reducing patient anxiety during colposcopy: A systematic review and meta-analysis of randomized controlled trials. *Journal of Gynecology Obstetrics and Human Reproduction*, 48(10), 855–861. <https://doi.org/10.1016/j.jogoh.2019.07.007>
- Alan, M., Oruc, M. A., Kurt, M., Alan, Y., & Sancı, M. (2019). Evaluation of colposcopy results for patients who are HPV DNA positive in KETEM. *Journal of Experimental Clinical Medicine*, 36(2), 35–42. <https://doi.org/10.5835/jecm.omu.36.02.001>
- Almeida, S. N., Elliott, R., Silva, E. R., & Sales, C. M. (2019). Fear of cancer recurrence: A qualitative systematic review and meta-synthesis of patients' experiences. *Clinical Psychology Review*, 68, 13–24. <https://doi.org/10.1016/j.cpr.2018.12.001>

- American Cancer Society (2017). The pap (papanicolaou) test. Retrieved From <https://www.cancer.org/cancer/cervical-cancer/prevention-and-early-detection/pap-test.html>
- Berman, M. B. (2013). *The experience of fear of cancer recurrence among early-stage breast cancer survivors (doctoral dissertation)*. Wright Institute Graduate School of Psychology.
- Borhani, F., Hosseini, S. H., & Abbaszadeh, A. (2014). Commitment to care: A qualitative study of intensive care nurses' perspectives of end-of-life care in an Islamic context. *International Nursing Review*, 61(1), 140–147. <https://doi.org/10.1111/inr.12079>
- Byrom, J., Clarke, T., Neale, J., Dunn, P. D. J., Hughes, G. M., Redman, C. W. E., & Pitts, M. (2002). Can pre-colposcopy sessions reduce anxiety at the time of colposcopy? A prospective randomised study. *Journal of Obstetrics and Gynaecology*, 22(4), 415–420. <https://doi.org/10.1080/01443610220141407>
- Caitlyn, R. M., Caro, R. J., & Wheeler, V. L. (2018). Cervical cancer screening. *American Family Physician*, 97(7), 441–448.
- Chaturvedi, A. K., Engels, E. A., Gilbert, E. S., Chen, B. E., Storm, H., Lynch, C. F., Hall, P., Langmark, F., Pukkala, E., Kajiser, M., Andersson, M., Fossa, S. D., Joensuu, H., Boice, J. D., Kleinerman, R. A., & Travis, L. B. (2007). Second cancers among 104760 survivors of cervical cancer: Evaluation of long-term risk. *Journal of the National Cancer Institute*, 99(21), 1634–1643. <https://doi.org/10.1093/jnci/djm201>
- Çiçek, N., Akyürek, C., Çelik, Ç., & Haberal, A. (2004). *Gynecology and obstetrics information (In Turkish: Kadın Hastalıkları ve Doğum Bilgisi)* (pp. 1145–1163). Güneş Kitabevi.
- Clarke, V., & Braun, V. (2014). Thematic analysis. In C. M. Alex (Ed.), *Encyclopedia of Quality of Life and Well-Being Research*, (pp. 6626–6628). New York: Springer Science+Business Media. <https://doi.org/10.3402/qhw.v9.26152>
- Cotton, S. C., Sharp, L., Little, J., Gray, N. M., Walker, L. G., Whyne, D. K., Cruickshank, M. E. & TOMBOLA Group (2015). A normal colposcopy examination fails to provide psychological reassurance for women who have had low-grade abnormal cervical cytology. *Cytopathology*, 26(3), 178–187. <https://doi.org/10.1111/cyt.12173>
- Creswell, J. W., & Poth, C. N. (2017). *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications.
- Crist, J. V., & Grunfeld, E. A. (2013). Factors reported to influence fear of recurrence in cancer patients: A systematic review. *Psycho-Oncology*, 22(5), 978–986. <https://doi.org/10.1002/pon.3114>
- Cruickshank, S., Steel, E., Fenlon, D., Armes, J., Banks, E., & Humphris, G. (2020). Specialist breast cancer nurses' views on implementing a fear of cancer recurrence intervention in practice: A mixed methods study. *Supportive Care in Cancer*, 28(1), 201–210. <https://doi.org/10.1007/s00520-019-04762-9>
- Curran, L., Sharpe, L., MacCann, C., & Butow, P. (2020). Testing a model of fear of cancer recurrence or progression: The central role of intrusions, death anxiety and threat appraisal. *Journal of Behavioral Medicine*, 43(2), 225–236. <https://doi.org/10.1007/s10865-019-00129-x>
- Donin, N., Filson, C., Drakaki, A., Tan, H.-J., Castillo, A., Kwan, L., Litwin, M., & Chamie, K. (2016). Risk of second primary malignancies among cancer survivors in the United States, 1992 through 2008. *Cancer*, 122(19), 3075–3086. <https://doi.org/10.1002/cncr.30164>
- Garofalo, J. P., Choppala, S., Hamann, H. A., & Gjerde, J. (2009). Uncertainty during the transition from cancer patient to survivor. *Cancer Nursing*, 32(4), E8–E14. <https://doi.org/10.1097/NCC.0b013e31819f1a1b>
- Handelzalts, J. E., Krissi, H., Levy, S., Broitman, M., Binyamin, L., & Peled, Y. (2015). Multidimensional associations of pain and anxiety before and after colposcopy. *International Journal of Gynecology & Obstetrics*, 131(3), 297–300. <https://doi.org/10.1016/j.ijgo.2015.05.0380020-7292>
- Hinz, A., Mehnert, A., Ernst, J., Herschbach, P., & Schulte, T. (2015). Fear of progression in patients 6 months after cancer rehabilitation—a validation study of the fear of progression questionnaire FoP-Q-12. *Supportive Care in Cancer*, 23(6), 1579–1587. <https://doi.org/10.1007/s00520-014-2516-5>
- Humphris, G., & Ozakinci, G. (2008). The AFTER intervention: A structured psychological approach to reduce fears of recurrence in patients with head and neck cancer. *British Journal of Health Psychology*, 13(2), 223–230. <https://doi.org/10.1348/135910708X283751>
- Humphris, G., & Rogers, S. N. (2012). AFTER and beyond: Cancer recurrence fears and a test of an intervention in oral and oropharyngeal patients. *Social Science and Dentistry*, 2(1), 29–38.
- Jin, J. (2017). Pelvic examinations in nonpregnant women. *JAMA*, 317(9), 984. <https://doi.org/10.1001/jama.2017.0556>
- Kola-Palmer S., & Dhingra K. (2020). Awareness and knowledge of human papilloma virus in UK women aged 25 years and over: Results from a cross-sectional internet-based survey. *European Journal of Cancer Care*, 29(1), e13181. <https://doi.org/10.1111/ecc.13181>
- Körükücü, Ö. (2018). Some life transitions are difficult. It's like getting a gynecological cancer diagnosis. *Acıbadem Üniversitesi Sağlık Bilimleri Dergisi*, 9(3), 248–254.
- Lebel, S., Maheu, C., Lefebvre, M., Secord, S., Courbasson, C., Singh, M., Jolicoeur, L., Benea, A., Harris, C., Fung, M. F. K., Rosberger, Z., & Catton, P. (2014). Addressing fear of cancer recurrence among women with cancer: A feasibility and preliminary outcome study. *Journal of Cancer Survivorship*, 8(3), 485–496. <https://doi.org/10.1007/s11764-014-0357-3>
- Lebel, S., Ozakinci, G., Humphris, G., Mutsaers, B., Thewes, B., Prins, J., Dinkel, A., & Butow, P. (2016). From normal response to clinical problem: Definition and clinical features of fear of cancer recurrence. *Supportive Care in Cancer*, 24(8), 3265–3268. <https://doi.org/10.1007/s00520-016-3272-5>
- Lebel, S., Tomei, C., Feldstain, A., Beattie, S., & McCallum, M. (2013). Does fear of cancer recurrence predict cancer survivors' health care use? *Supportive Care in Cancer*, 21(3), 901–906. <https://doi.org/10.1007/s00520-012-1685-3>
- Luo, X., Li, W., Yang, Y., Humphris, G., Zeng, L., Zhang, Z., Garg, S., Zhang, B., & Sun, H. (2020). High fear of cancer recurrence in Chinese newly diagnosed cancer patients. *Frontiers in Psychology*, 11, 1–9. <https://doi.org/10.3389/fpsyg.2020.01287>
- Manne, S. L., Virtue, S. M., Ozga, M., Kashy, D., Heckman, C., Kissane, D., Rosenblum, N., Morgan, M., & Rodriguez, L. (2017). A comparison of two psychological interventions for newly diagnosed gynecological cancer patients. *Gynecological Oncology*, 144(2), 354–362. <https://doi.org/10.1016/j.ygyno.2016.11.025>
- Matejić, B., Kesić, V., Marković, M., & Topić, L. (2008). Communications about cervical cancer between women and gynecologists in Serbia. *International Journal of Public Health*, 53(5), 245–251. <https://doi.org/10.1007/s00038-008-7102-5>
- Morse, J. (2015). Data were saturated. *Qualitative Health Research*, 25(5), 587–588. <https://doi.org/10.1177/1049732315576699>
- O'Connor, M., O'Brien, K., Waller, J., Gallagher, P., D'Arcy, T., Flannelly, G., & White, C. (2017). Physical after-effects of colposcopy and related procedures, and their inter-relationship with psychological distress: A longitudinal survey. *BJOG: An International Journal of Obstetrics & Gynaecology*, 124(9), 1402–1410.
- Rubino, C., de Vathaire, F., Diallo, I., Shamsaldin, A., & Le, M. G. (2000). Increased risk of second cancers following breast cancer: Role of the initial treatment. *Breast Cancer Research and Treatment*, 61, 183–195. <https://doi.org/10.1023/A:1006489918700>
- Rubino, C., De Vathaire, F., Shamsaldin, A., Labbe, M., & Le, M. G. (2003). Radiation dose, chemotherapy, hormonal treatment and risk of second cancer after breast cancer treatment. *British Journal of Cancer*, 89(5), 840–846. <https://doi.org/10.1038/sj.bjc.6601138>
- Saei, M. S. G., Kariman, N., Ebad, A., Ozgoli, G., Ghasemi, V., & Fakari, F. R. (2018). Educational interventions for cervical cancer screening behavior of women: A systematic review. *Asian Pacific Journal of Cancer Prevention: APJCP*, 19(4), 875.



- Şengün İnan, F., & Üstün, B. (2019). Fear of recurrence in Turkish breast cancer survivors: A qualitative study. *Journal of Transcultural Nursing*, 30(2), 146–153. <https://doi.org/10.1177/1043659618771142>
- Simard, S., & Savard, J. (2009). Fear of cancer recurrence inventory: Development and initial validation of a multidimensional measure of fear of cancer recurrence. *Supportive Care in Cancer*, 17(3), 241–251. <https://doi.org/10.1007/s00520-008-0444-y>
- Simard, S., Thewes, B., Humphris, G., Dixon, M., Hayden, C., Mireskandari, S., & Ozakinci, G. (2013). Fear of cancer recurrence in adult cancer survivors: A systematic review of quantitative studies. *Journal of Cancer Survivorship*, 7(3), 300–322. <https://doi.org/10.1007/s11764-013-0272-z>
- Simonelli, E. L., Fowler, J., Maxwell, G., & Andersen, B. L. (2008). Physical sequelae and depressive symptoms in gynecologic cancer survivors: Meaning in life as a mediator. *Annual Behavioral Medicine*, 35, 275–284. <https://doi.org/10.1007/s12160-008-9029-8>
- Smith, C. (2017). A resident's perspective of ovarian cancer. *Diagnostics*, 7(2), 24. <https://doi.org/10.3390/diagnostics7020024>
- Solomon, D., Schiffman, M., & Tarone, R. (2001). Comparison of three management strategies for patients with atypical squamous cells of undetermined significance: Baseline results from a randomized trial. *Journal of the National Cancer Institute*, 93(4), 293–299. <https://doi.org/10.1093/jnci/93.4.293>
- Thewes, B., Brebach, R., Dzdowska, M., Rhodes, P., Sharpe, L., & Butow, P. (2014). Current approaches to managing fear of cancer recurrence; a descriptive survey of psychosocial and clinical health professionals. *Psycho-Oncology*, 23(4), 390–396. <https://doi.org/10.1002/pon.3423>
- Thewes, B., Butow, P., Zachariae, R., Christensen, S., Simard, S., & Gotay, C. (2012). Fear of cancer recurrence: A systematic literature review of self-report measures. *Psycho-Oncology*, 21(6), 571–587. <https://doi.org/10.1002/pon.2070>
- Uner, F. O., & Korukcu, O. (2020). A prevalence and psychometric study on fear of cancer in women with abnormal cervical cytology undergoing colposcopy. *Psycho-Oncology*, <https://doi.org/10.1002/pon.5504>
- Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & Health Sciences*, 15(3), 398–405. <https://doi.org/10.1111/nhs.12048>
- Vickberg, S. M. J. (2003). The Concerns About Recurrence Scale (CARS): A systematic measure of women's fears about the possibility of breast cancer recurrence. *Annals of Behavioral Medicine*, 25(1), 16–24. [https://doi.org/10.1207/S15324796ABM2501\\_03](https://doi.org/10.1207/S15324796ABM2501_03)
- Waldrop, D. P., O'Connor, T. L., & Trabold, N. (2011). "Waiting for the other shoe to drop:" distress and coping during and after treatment for breast cancer. *Journal of Psychosocial Oncology*, 29(4), 450–473. <https://doi.org/10.1080/07347332.2011.582638>
- Weare, K. (2015). Rehabilitation after gynecological cancer treatment. *International Journal of Gynecology & Obstetrics*, 131(S2), <https://doi.org/10.1016/j.ijgo.2015.06.015>
- Zeng, Y. C., Li, D., & Loke, A. Y. (2011). Life after cervical cancer: Quality of life among Chinese women. *Nursing & Health Sciences*, 13(3), 296–302. <https://doi.org/10.1111/j.1442-2018.2011.00616.x>

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