

RESEARCH ARTICLE

EXPLORING WOMEN'S EXPERIENCES AFTER BREAST CANCER DIAGNOSIS. A QUALITATIVE STUDY

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Abstract

Introduction: Breast cancer diagnosis brings to women's life massive change that lead to a plethora of emotions such as uncertainty, fear of disease progression and inability to adjust to the new situation. These appear to play a pivotal role in life and reintegration for women who are diagnosed with breast cancer. **Aim:** To explore the experience of women who were diagnosed with breast cancer. **Methods:** A qualitative research design was applied using a purposive sampling technique. Data collection was conducted through semi-structured face to face interviews. Content analysis was used to analyze qualitative data and establish main themes and subthemes. Ten women who were diagnosed with breast cancer participated in the study. **Findings:** Content analysis revealed three main themes namely, "uncertainty", "coping strategies" and "adaptation mechanisms". Women's experiences were conceptualized into sub-themes within each main theme. Findings revealed a continuum from uncertainty to coping strategies and adaptation that women reflected through exploration of their experiences. Uncertainty was managed through various coping approaches that helped women to adjust. Coping strategies that involve conscious self-isolation, support and motivation may gradually lead to adaptation and positive outcomes such as empowerment, self-development, meaningful living and "rebirth". **Conclusion:** Findings may enhance nurses' knowledge regarding adaptation and coping strategies after breast cancer diagnosis. They further contribute to the implementation of efficient and quality interventions and help women with breast cancer to cope, adapt and remediate effectively.

Keywords: breast cancer, uncertainty, coping strategies, adaptation, quality nursing interventions, qualitative study

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ΕΡΕΥΝΗΤΙΚΟ ΑΡΘΡΟ

ΔΙΕΡΕΥΝΗΣΗ ΤΗΣ ΕΜΠΕΙΡΙΑΣ ΓΥΝΑΙΚΩΝ ΜΕΤΑ ΑΠΟ ΔΙΑΓΝΩΣΗ ΚΑΡΚΙΝΟΥ ΤΟΥ ΜΑΣΤΟΥ. ΠΟΙΟΤΙΚΗ ΕΡΕΥΝΑ.

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Περίληψη

Εισαγωγή: Η διάγνωση του καρκίνου του μαστού φέρνει στη ζωή των γυναικών σημαντικές αλλαγές που οδηγούν σε πληθώρα συναισθημάτων όπως η αβεβαιότητα, ο φόβος της εξέλιξης της νόσου και η αδυναμία προσαρμογής στη νέα κατάσταση. Αυτά φαίνεται να διαδραματίζουν καθοριστικό ρόλο στη ζωή των γυναικών που έχουν διαγνωστεί με καρκίνο του μαστού. **Σκοπός:** Να διερευνηθεί την εμπειρία των γυναικών που είχαν διαγνωστεί με καρκίνο του μαστού. **Μεθοδολογία:** Χρησιμοποιήθηκε μια ποιοτικού τύπου ερευνητική μεθοδολογία με την εφαρμογή σκόπιμης δειγματοληψίας. Η συλλογή δεδομένων πραγματοποιήθηκε μέσω ημι-δομημένων προσωπικών συνεντεύξεων. Τα δεδομένα αναλύθηκαν με την μέθοδο της ανάλυσης περιεχομένου. Δέκα γυναίκες που είχαν διαγνωστεί με καρκίνο του μαστού συμμετείχαν στη μελέτη. **Αποτελέσματα:** Η ανάλυση περιεχομένου οδήγησε σε τρία πρωταρχικά θέματα, «αβεβαιότητα», «στρατηγικές αντιμετώπισης» και «μηχανισμοί προσαρμογής», και έξι υπο-θέματα. Οι γυναίκες περιέγραψαν την εμπειρία τους ως μια πορεία από την αβεβαιότητα προς την προσαρμογή με την υιοθέτηση διαφόρων στρατηγικών αντιμετώπισης που περιλάμβαναν συνειδητή αυτο-απομόνωση, υποστήριξη και κινητοποίηση που έφεραν θετικά αποτελέσματα, όπως ενδυνάμωση, ανάπτυξη, και «αναγέννηση». **Συμπέρασμα:** Τα ευρήματα παρέχουν γνώση σχετικά με τις στρατηγικές αντιμετώπισης και προσαρμογής των γυναικών μετά τη διάγνωση του καρκίνου του μαστού και συμβάλλουν στην εφαρμογή ποιοτικών νοσηλευτικών παρεμβάσεων.

Λέξεις κλειδιά: καρκίνος του μαστού, αβεβαιότητα, στρατηγικές αντιμετώπισης, προσαρμογή, ποιοτικές νοσηλευτικές παρεμβάσεις, ποιοτική μελέτη

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INTRODUCTION

Breast cancer is a strenuous condition, affecting women's physical and psychological health to a great extent.¹ During the complex management of the disease, from diagnosis to treatment and recovery, women experience various and mainly negative emotions.² Fear, uncertainty, grief and multiple losses, dominate the women's life, having a serious impact on their skills, daily activities and quality of life.³ The process of coping and adaptation for women suffering from breast cancer have been described in the literature as a stressful journey towards survival, while the exploration of their experience remains a challenging issue.⁴

BACKGROUND

Breast cancer is the most frequently diagnosed cancer worldwide among women. It is referred to as the second most common disease, after cardiovascular disease, in the age group of 40-50 years, as well as the most common cause of death^{1,5}. In 2018, it is estimated that 627,000 women died from breast cancer – that is approximately 15% of all cancer deaths among women.

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A marginal increase of breast cancer incidence rate of 0.3% per annum, was witnessed during the previous years (2012-2016). In fact, mortality rates dropped by 40% from 1989 to 2017 meaning less 375,900 breast cancer deaths. Moreover, during the last years incidence rates diminished mainly due to the rising rates of local stage and hormone receptor-positive disease.⁶

In Greece, breast cancer appears to be the most common neoplasm of the female population as the incidence rate of breast cancer for 2018 was estimated to be 69.3 / 100,000 women, deaths 2,207 and the probability that a woman will develop the disease during her life time is 11.1%.¹

Although the mortality rate has been reduced since 1990, due to early detection and better treatment options, the fact remains that the diagnosis of breast cancer leads to a variety of negative emotions including stress, depression, anxiety and uncertainty.^{2,7,8,9} In addition, the diagnosis and the subsequent treatment of the disease brings a series of changes that can be identified throughout the stages of a woman's life. Such changes have an impact on the quality of life and can lead to the development of various needs relating to self-esteem, sexuality, family, interpersonal relationships, information, economic insecurity as well as professional and social constraints.^{3,4,10,11,12,13}

Furthermore, the massive changes that the breast cancer brings to women's life lead to uncertainty, fear of disease progression and the inability to adjust to the new situation^{8,14}. Relevant literature focus on the uncertainty that women experienced living with breast cancer, on emotional distress, and on how fear of disease progression affects psychosocial adjustment, quality of life and decision making for treatment.^{8,14,15}

Although the importance of exploring women's experience with breast cancer is evident, this issue has not been thoroughly studied in Greece. Relevant literature review has shown that research on breast cancer in Greece focused mostly on clinical studies, as well as on issues such as real-life management patterns and outcomes in metastatic breast cancer, stress management in women treated for breast cancer, and stress management interventions on mental health and biological indices for cancer patients undergoing adjuvant therapy.^{16,17,18} Other studies investigated the physical activity as well as the quality of life and the related parameters of breast cancer patients.^{1,19} Issues of depression and anxiety, social constraints, and psychosocial adjustment among breast cancer survivors and caregivers' burden of mastectomized women were also explored in recent

literature.^{20, 21} Qualitative data on how women experienced breast cancer will support quality nursing interventions on care and treatment. This kind of information will additionally contribute to gain a broader view on issues of coping and adaptation for women with breast cancer.

AIM

The aim of the present study was to explore women's experience after breast cancer diagnosis.

METHODS

Design

A qualitative research design, using a content analysis approach was applied in the present study. Qualitative designs in research seek to understand the observed phenomena and extract meanings from the participants' perceptions and experiences. Thus, such designs are considered suitable when the researcher aims to investigate human experiences and feelings.²²

Participants and Setting

Women who were diagnosed with breast cancer consisted the study population. A non-random purposive sampling strategy was used, as the researchers aimed at involving women whose experience of breast cancer diagnosis might produce rich information. The main inclusion criterion for women to participate in the study was to agree on an in-depth analysis of their experiences and the changes that the disease has brought about in their lives. It was also required by the potential participants to have undergone the phase of chemotherapy-radiation or any other form of therapy (e.g. mastectomy) and be fully recovered, being able to discuss their experience from the disease.

The participants' recruitment was carried out in a private non-profit association for women with breast cancer in Greece as well as via social media. The researchers contacted the private association and advertised the

study to the potential participants. This association provides psychosocial and peer support, information and counselling to women with breast cancer and their families. In parallel, the researchers advertised the study in the social media (Facebook) to enhance the recruitment of potential participants. Social media recruitment has recently become a popular method that allows the researcher to reach potential study participants who are less accessible due to different reasons such as low prevalence or sensitive populations like breast cancer survivors.^{23, 24} To preserve anonymity and confidentiality, Facebook was used only as a recruitment tool and not as a data source. Women who were eligible to participate in the study, were invited to contact the researchers in order to be informed about the nature and the aim of the research, the researchers' identity and personal goals as well as the significance of the research topic. When their consent was reached, an appointment was made to conduct a face to face interview.

Data collection and Analysis

Semi-structured, face to face interviews were used to gather the data. This type of interviews is considered to be the most appropriate in qualitative research designs because it provides in-depth information and a wealth of data. Furthermore it allows a degree of flexibility for both the researcher and the participant and facilitates a spontaneous reaction on complex and emotional matters.²²

An open-ended question was used at the beginning of the interview asking each participant to describe "*her experience after breast cancer diagnosis*". Ten interviews were conducted by two members of the research team in a location chosen by the participants. Both interviewers were female nurses who had been trained in conducting interviews before the data collection phase. One researcher interviewed the women recruited by the private association, while the second researcher interviewed the women enrolled via the social media. A tape recorder was used during each interview. Before data

collection, privacy and confidentiality were assured and a permission was granted before each interview for using the tape recorder. Average time of interviewing was 25 minutes. Recordings were transcribed directly after each interview was completed.

An inductive content analysis was used to analyze the interview data. In qualitative studies, content analysis is the most common method of analyzing written, verbal, or visual communication messages. Content analysis includes active reading, evaluation, codification and organization of data and it is referred to as a flexible, systematic and objective method of analysing text data.²⁵ Qualitative data analysis is generally concerned with words rather than numbers as it attempts to interpret the social phenomenon under investigation through the data that emerge from the study.²⁶

Data analysis was conducted by two members of the research team. The basic steps of inductive content analysis were followed as reported by Elo and Kyngäs²⁷, i.e. the breaking down of data into smaller units, codifying and naming the units according to the content they present, and grouping the coded material based on shared concepts. To gain in-depth understanding of the participants' views and experiences the data was repeatedly read line by line. Words and phrases consisted the units of analysis. Through the process of successive reading an overall meaning of the text was captured and key concepts were identified. Common concepts that reflected the women's experiences after diagnosed with breast cancer, were coded and grouped into sub-themes. Further analysis led to the formulation of three main themes, each of which encompassed relevant sub-themes.

Trustworthiness of research

Trustworthiness in the present research was ensured mainly by using mainly triangulation techniques. Specifically, the technique of investigator triangulation was used. Two researchers of the authoring team were engaged to make coding, analysis and interpretation of the

collected data. By using this technique, the effect of investigator bias was eliminated and differences in interpretation were discussed until consensus on the most suitable interpretation was reached.²⁸ Furthermore, the emerging themes and subthemes were finalized following cautious reading of the data by the research team in order to assure that the data was represented in a meaningful and credible way.²⁹ Finally, reflexivity was used as a technique to ensure the transparency and the quality of the work, as the researchers kept reflective notes throughout the data collection, analysis and interpretation.²⁸ To ensure that relevant issues for reporting qualitative research were addressed, the COREQ guidelines were taken into account³⁰.

ETHICAL CONSIDERATIONS

Before the commencement of the study ethical approval was granted. Issues of anonymity and confidentiality were preserved throughout the research process. Participants were asked to sign an informed consent form prior to each interview which included all relevant information about the purpose and the context of the study. They were also informed about the voluntary nature of the research and their right to withdraw from the study at any time without any consequence. Specific attention was paid by the interviewers to protect the participants from any psychological harm that may occur due to the sensitive issues discussed throughout the interviews. Code names were given to participants to preserve anonymity and excerpts from the interviews were used in order to illustrate the presentation of the findings without revealing any identifiable information.

FINDINGS

Ten women -aged between 49 and 71 years old- agreed to participate in the study. Two of them were enlisted from the private association, while the other eight women joined the research through the social media. Demographic data are presented in Table 1. Content

analysis revealed three main themes namely, “uncertainty”, “coping strategies” and “adaptation mechanisms”. Women’s experiences were conceptualized into sub-themes within each main theme (Table2).

Theme 1. Uncertainty

At the beginning of the interview the participants were asked to describe their experience upon initial diagnosis. Feelings of fear and panic persisted throughout their descriptions, followed by denial, distress and efforts to cope and adapt. From the responses of the participants the *concepts of "loss", and "instability" were documented.*

Subtheme 1.a. Fear of the unknown

Being diagnosed with breast cancer was described as a traumatic event for the women, giving rise to emotions such as fear and loss, panic, shock and anxiety as highlighted through Artemis’s and Aphrodite’s words. These feelings experienced by the women in front of the upcoming loss of their life as known by then, or even in front of an imminent death as Dora said.

I was crying..., I felt terror and panic. I lost the ground under my feet... (Aphrodite).

At that moment I felt lost ... I cried, he (the doctor) told me that I have to be admitted to hospital immediately. Those days were dramatic for me... (Artemis)

When I heard the diagnosis I lost the ground beneath my feet ... the word cancer for me was associated with death, I felt the end was near... (Dora)

Subtheme 1.b. Life changes

The diagnosis and the treatment affected the lives of women who faced a series of changes at different levels. The participants appeared to experience uncertainty for the future as they felt that they were losing the control of their lives. They also mentioned issues of alteration of body image, difficulties in personal life and stigmatization. Life changes were reported in terms of finance and professional life.

My life was fine. And suddenly everything changed, we travelled back and forth to hospital. The whole family was affected...Everything was upside down... (Rosa)

When I lost my hair ...it was a shock. I was crying, shouting, hitting... And when I was in hospital listening to other women talk about the disease, I was terrified... Psychologically they felt terrible, either because they could not accept it, or because their family could not accept it... many women told me that their husbands had left them, they didn't want to see them at all. (Rea)

This whole thing is difficult and painful, breasts are a symbol of femininity, mastectomy is an amputation...At that time I didn't know what bothered me more, when I was dressed I was devastated because I didn't have hair, when I was naked I was devastated because I had no breast. (Eve)

Only a few people are close to you in these difficult times. I let my husband go ... I realized he had no strength to support me, I had to support him... (Artemis)

Some people distanced themselves at the sound of cancer; "they feared they would get infected"... (Daphne)

My professional life, is over for me. I had to give up my business... I could not worry about work anymore... (Lina)

Theme 2. Coping strategies

As the women continued by describing the changes they went through after the diagnosis, the transition from fear to positive thinking was stressed. The concepts of “withholding” and “encouragement” were documented.

Subtheme 2.a. Denial

To cope with the feelings of panic and fear of the diagnosis and the upcoming changes in their life, women have adopted various strategies involving conscious isolation, and efforts to ignore the situation which led to feelings of depression and melancholy. These tactics were accentuated by several participants.

He (the doctor) said that I had cancer, I said that I had to go home and take care of my children...I didn't realize... I didn't want to realize what was going on... (Daphne)

I didn't say anything to anyone. I was anxious not to say anything. I was in a bad situation. My life changed completely, I was overwhelmed... (Rea)

...I needed to stay quite... alone with myself to think. I tried to push all the worries aside. And let me tell you something... this helped me. (Eve)

Of course it was a great deal of trouble (the breast cancer diagnosis). At that time I lost my husband, I was very upset...I didn't want to speak to anybody... melancholy and depression set in. I cried all day. (Themis)

Subtheme 2.b. Support and motivation

Most of the women mentioned the support they had by family members and close friends and the significant role it played in their lives. Most of the participants, experienced intensely their family support. Colleagues and self-help groups were additional sources of support. Participants referred to them as an inner strength that motivated them to live, to keep on and cope with the new situation; as a continuum they moved dynamically with courage, hope and optimism.

My children helped me a lot. They would give me strength... I wanted to live for them...(Lina)

My daughters and my friends were my strength. My daughter came with me for the first chemotherapy... I could see the pain and fear in her eyes. And yet she had the power to laugh. I told myself that I shall live and that's what happened. (Aphrodite)

A year after I had my surgery, my colleagues at work threw a party for me...they said I was an example of strength to them...(Rea)

The other women with cancer gave me courage. One told me "look at me, I'm fine...don't be sad, don't cry". My morale rose... and when the doctor gives you a glimpse of hope, you need to double it and move on; and say I can deal with it. (Athena)

Theme 3. Adaptation mechanisms

The process of being able to manage their emotions in order to adapt to the new situation was highlighted throughout the interviews. At the beginning, the participants experienced a plethora of emotions. This followed by an emotional awakening involving self-control, and feelings of empowerment, courage, relief, and redemption raised. In a similar way, uncertainty prevailed in the first stage after diagnosis, while it seemed to decrease along the way as the women took control of the situation and felt more empowered. The women described how the ongoing development of 'self' and receiving external support, led to a healing process and an improvement of quality of life. Concepts of "rebirth" and "improvement" were discussed by the participants in this section.

Subtheme 3.a. Discovering a new self

Throughout the adaptation process to the new painful situation women searched for solutions through exploring their inner strength. This process led them to discover and adopt new potentials and dimensions of their own self. These new dimensions were reported by some of the participants.

The reality was so harsh to deal with that I became another person entirely... (Artemis)

I was not a person I wanted to be, but now I have become the person I want to be... (Eve)

I am different now, I have become tougher and sharper, I am not the person I used to be... I faced a harsh reality that I almost became another human being. (Lina)

I realized that I was a fighter... I thought..." I'll fight back I'll manage to defeat it"... now I am fighting for my life. (Rosa)

Subtheme 3.b. Towards a better life

Participants reported that they started living again normally after experiencing and dealing with cancer. It is crucial to note however, that after this experience they redefined their priorities and shifted their focus on living

enjoyably, being optimistic and seeking a sense of accomplishment. This shift towards a better life was clearly defined by Daphne's statement who considered her new life to be a *rebirth*.

Having lived through this experience and achieving the best possible result, I spent my daily life differently... you learn to live differently...better...I pursue and do things that please me and make me happy, I express my emotions more openly and intensively. I enjoy my favorite hobbies ... I enjoy life...it's like a rebirth. (Daphne)

I am more sociable now... expressing my emotions and looking forward to the future. (Eve)

I got over it. I like to go out, I like to do things, I like to dance and have fun, and I do everything. (Rosa)

DISCUSSION

From the analysis of the data it is suggested that women perceived the full length of loss of control in their lives, facing fears, worries about the future, while at the same time trying to find solutions to the problem. This process helped them towards changing behavioral patterns like dedicating time to themselves, provided an opportunity for reflection and personal growth and exploring the inner self. Women experienced a difficult situation, while new unexpected and unknown situations affected their life negatively. The process of rehabilitation helped them to transform their lives for the better. As a result, a new person came forward with a new attitude about life. These findings revealed a continuum from uncertainty to coping strategies and a positive outcome that women in the present study reflected through the exploration of their experiences.

Uncertainty

According to the results of the study, women with breast cancer dealt with a diagnosis that created feelings of uncertainty regarding their future. Some patients

were affected greatly by the disease and experienced high levels of uncertainty which led up to despair.

Fear of the unknown was documented by the participants as a major cause of uncertainty. Women referred to issues such as, generation of negative feelings including terror and panic, fear of admission to the hospital, inability to care for their children and fear of death. Similar results are well documented in relevant literature over the years as research showed that uncertainty in women with breast cancer was associated with the fear of multiple losses, the fear of losing the existing normality and their future life and the fear of recurrence which is increased after the end of treatment.^{15,31,32,33} Regarding the fear of cancer recurrence, Maheu et al³⁴, demonstrated that this fear is always present for the women whether in the back of their minds or the foreground because of specific triggers. However, in the present study, this kind of fear was not reported by the women as they focused more intensively on emotions experienced upon diagnosis mainly concerning problem solving and decision making of the immediate future.

A series of life changes were mentioned by the participants that appeared to lead to uncertainty such as alteration of body image and personal lifestyle, social constraints and professional and economic barriers. Women faced distressing changes to their physical appearance as a consequence of their treatment. Mastectomy and altered body image appeared to create uncertainty regarding women's personal life and negative emotions resulting in negative self-esteem. Williams and Jeanetta supported that coping with the diagnosis and treatment is a stressful journey for breast cancer survivors that requires lots of adjustment and changes⁴. Alterations of body image and social constraints – that appeared in the present study in the form of stigmatization – were also reported throughout the years as loss of control, leading to uncertainty and impeding adjustment to the chronicity of illness.^{21, 35,36}

Another issue that is documented in the present study was the employment loss and the subsequent

economic detriments that women faced as some of them had to leave their jobs at least temporarily, while the costs accumulate due to illness increase. The considerable financial burden that cancer can bring in a person's life as documented in early literature appears to lead to the uncertainty associated with insurance coverage and employment.³⁵ In the same vein, Savvakis et al., who investigated the economic and socio-psychological effects of women with breast cancer in contemporary Greece, stressed that women with breast cancer go through radical individual changes in all areas of life such as financial, occupational, familial and social relationships experiencing a loss of previous certainties that lead to a severe renegotiation of concepts and everyday practices.³⁷

Although, women in our study expressed high levels of uncertainty due to fear and the upcoming life changes, as the discussion progressed, participants revealed a set of coping strategies used to confront with anxiety and alterability. A similar pattern is reported in the study of Drageset et al., on women's coping experiences and reflections after primary breast cancer surgery³⁸. The authors demonstrated that although uncertainty and anxiety about a potential future cancer relapse was a major concern for women with breast cancer, the abundance of women's coping and adaptive strategies appeared to be exemplary.³⁸

Coping strategies

After the initial uncertainty experienced by the participants due to the fear of the upcoming changes in their lives, they moved forward to deal with all the aforementioned effects that the breast cancer diagnosis brought about in their daily lives. As such, they discussed the coping strategies employed which made them move on.

Denial was a strong element characterized by the participants and used as a mechanism not only to suppress their negative feelings or falsify the situation, but also to maintain that this situation could not possibly be

happening to them. Denial as a defense mechanism for cancer patients is reported by Zimmerman et al.,³⁹ This mechanism can reduce their anxiety of external and internal stressors although, at the same time this seems irrational for the patients' family especially when a critical condition exists. In the present study denial and conscious isolation referred by several participants as a coping mechanism, while relevant research evidence indicates that denial and self-distraction were the least cited coping strategies by breast cancer patients⁴⁰. On the contrary, strategies such as religion, benefit finding, fatalism, and optimism, fighting spirit and seeking information were the most frequently reported.⁴⁰ Denial /avoidance is referred to as a pathological coping mechanism which is associated with increased depression and physical distress for cancer patients,³⁹ and that was evident in the present study as most of the participants' efforts to ignore the situation followed by feelings of depression and melancholy. However, self-isolation as a coping mechanism appeared to have a positive effect on women's transition from uncertainty to positive thinking, as one of the participants indicated.

Support from family members was regarded by the participants as a vital component for adjusting to the new situation and moving on with optimism. Eminent literature suggests that women with breast cancer experience emotional trauma and often need psychosocial support from close relatives and health professionals to address the new challenges they face in their daily lives and help them to adapt.^{35, 41, 42, 43} This is also evident in recent research that underscores the importance of family and social support to women's life and empowerment.^{38, 44}

In the study of Drageset et al., family and social support appeared to be beneficial for women with breast cancer as it provides a sense of security and strength. In the present study, family appeared to play a fundamental role for the women as they gained strength, motivation and willingness to live.⁴⁴ At the same time the participants' comments revealed the necessity at a first

stage to put in order their own needs and at a second stage to ask for the family's support.

Along the same lines as the findings from relevant research,⁴⁵ participants' reflection in the present study, underscored the significance of continuing to work, as some of them appeared to get strength and support from their colleagues, which was experienced as a rewarding result after a time period of struggle.

As a result of family and social support, feelings of optimism and determination to move on and get their lives back, evolved for most of the participants. These new insights led towards further development of self and life.

Adaptation mechanisms

As a result of the uncertainties, the unexpected changes in life and the consequent efforts to cope and adapt to the new situation, several healing outcomes were revealed by the women who were diagnosed with breast cancer in the present study.

Women who have experienced breast cancer appear to discover new potentials and new dimensions in themselves as they appeared to prioritize their lives differently after the diagnosis, than they did in the past. In addition, they appeared to be more focused on what really mattered to them. Participants in this study acknowledged that cancer was presented as an opportunity to discover new potentials for themselves. Similar results found in the early literature demonstrate that, although women with breast cancer face the unknown and experience uncertainty and loss at the same time, this new situation leads to their personal growth, enlightenment and improvement and provides them with unexpected and new opportunities.^{41, 35, 46} Pelusi³⁵, who studied women's perspectives of the experience of surviving breast cancer, asserts that *searching for the meaning of the journey (which changes over time), one grows and finds comfort and challenge in the midst of uncertainty*. The above findings are supported by more

recent research evidence indicating that the breast cancer experience and managing the resulting uncertainty may provide new insights and life meaning, self-development and increased self-confidence as well as positive life changes.^{38, 47}

Finally, participants appeared to experience a better quality of life after dealing with breast cancer. Being more compassionate, expressive and eager to live, are some of the new characteristics that participants described through their experiences. As one of the women indicated a kind of a "rebirth" was experienced after a painful process of massive changes, uncertainties and efforts of adaptation. They also reported their voluntary actions to help newly diagnosed women with breast cancer. Having more knowledge provided a sense of control and comfort, therefore they felt able to inform and guide about breast cancer and its treatment. Although there is some evidence in the literature that women felt abandoned and uncertain of their future survival after their diagnosis and treatment⁴, other studies highlighted similar results to the present one. For example, research findings on coping and adjustment of breast cancer survivors assert that women re-evaluated their life priorities, experienced a positive self-development and appreciated life in a more meaningful, caring and joyful way.^{35, 38}

Despite the positive outcomes of this journey, experiencing and dealing with complications appeared to be a part of the women's everyday life. The consequent pain, fatigue, lymphedema, menopause, impaired physical functioning and the psychological effects such as fear of recurrence, body image, self-esteem, depression, anxiety, difficulty in having sex, infertility, remain issues which have to be resolved.^{34, 48, 49}

After the diagnosis, women with breast cancer have to deal with a serious illness that may be closely interwoven with death. However, this situation changes over time, since it passes through different stages, moving

from uncertainty to motivation and "*rebirth*"; a continuum that allows for transition and the ability to regain optimism and hope.

STRENGTHS AND LIMITATIONS OF THE STUDY

The present study equally shares strengths and limitations. The wide range of the participants' age was an advantage of the study, since the variety of the collected information reflect the experience of women with breast cancer that belong to different age groups. Furthermore, the gender of the interviewers (females), contributed to the wealth and depth of the information collected, as the participants felt more comfortable to disclose their feelings to a same-gender interviewer. Reflexivity and triangulation techniques which were used for data analysis further added to the quality of the study.

A limitation of the study concerned with the difficulties in recruitment and the group's prolonged time since the initial diagnosis. These might be due to the sensitivity of the topic under investigation that caused a reluctance of potential participants to join the research. Finally, although qualitative research does not aim at large sample sizes, a larger sample in the present study may have provided some more diversity in our findings

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(e.g. referral of more coping strategies or adaptation patterns).

CONCLUSION

Breast cancer negatively affects the health-related quality of life for patients of all stages and brings many biological and psychological effects such as anxiety, stress, depression, fear and uncertainty. Women feel vulnerable, distressed and forced to cope with a new life-threatening situation. The altered body image, the friable social and personal relationships and financial concerns constitute additional parameters in an already overwhelming situation. The present study revealed that the uncertainty brought about by the breast cancer diagnosis and the initial inability of the women to confront with massive life changes was managed through coping approaches that helped women to adjust and minimise existing uncertainties. Coping strategies that involve conscious self-isolation or denial, support and motivation from family and friends may gradually lead to adjustment and positive outcomes such as empowerment, self-development, meaningful living and "*rebirth*".

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APPENDIX
Table 1. Demographic data of the study participants

	Age	Educational level	Marital status	Children	Years since first diagnosis
Artemis	54	University	Divorced	2	10
Aphrodite	46	University	Married	2	8
Eve	53	Secondary	Married	2	7
Rosa	61	Secondary	Married	2	9
Daphne	57	Secondary	Married	2	12
Dora	54	University	Married	2	8
Rea	55	Secondary	Married	2	7
Athena	52	Secondary	Married	2	9
Lina	49	Secondary	Married	2	6
Themis	71	Secondary	Widow	2	11

Table 2. Main themes and sub-themes derived from the data

THEMES	UNCERTAINTY	COPING STRATEGIES	ADAPTATION MECHANISMS
Subthemes	Fear of the unknown	Denial	Discovering a new self
	Life changes	Support and motivation	Towards a better life