

ISSN 2354-7642 (Print), ISSN 2503-1856 (Online) JNKI (Jurnal Ners dan Kebidanan Indonesia) (Indonesian Journal of Nursing and Midwifery) Tersedia *online* pada: http://ejournal.almaata.ac.id/index.php/JNKI

# Hope and psychological well-being after 5 years become breast cancer survivors: a Qualitative Study

Yesiana Dwi Wahyu Werdani<sup>1</sup>, Arief Widya Prasetya<sup>2</sup>

<sup>1</sup>Departement of Nursing Widya Mandala Catholic University Surabaya Jalan Kalisari Selatan No.1 Kalisari, Pakuwon City, Kec. Mulyorejo, Kota Surabaya, Jawa Timur <sup>2</sup>Departement of Nursing STIKES Katolik St. Vincentius a Paulo Surabaya, Indonesia Jalan Jambi No.12 - 18, Darmo, Kec. Wonokromo, Kota Surabaya, Jawa Timur *\*Corresponding author : ywerdani@yahoo.com* 

# ABSTRAK

**Latar Belakang:** Kanker dianggap sebagai penyakit mematikan bagi sebagian besar orang, hal itu akan mempengaruhi harapan dan kesejahteraan psikologis penderita kanker jangka panjang.

**Tujuan:** Penelitian ini bertujuan untuk mengeksplorasi perubahan harapan dan kesejahteraan psikologis setelah 5 tahun menjadi survivor kanker payudara.

**Metode:** Penelitian ini merupakan penelitian kualitatif dengan desain fenomenologis. Sampel penelitian adalah 23 penderita kanker payudara di tiga Puskesmas di Surabaya Indonesia yang diambil dengan teknik purposive sampling berdasarkan kriteria inklusi. In depth interview dilakukan pada saat pengumpulan data. Wawancara direkam dengan izin dari peserta. Data dianalisis secara induktif melalui analisis isi konvensional.

**Hasil:** Partisipan memiliki rentang usia 41 – 70 tahun, dan sebagian besar sudah tidak bekerja lagi sejak didiagnosa menderita kanker. Penelitian ini menemukan 4 tema yang terdiri dari tema pertama adalah harapan positif tentang kanker dengan 3 subtema: harapan untuk sembuh, harapan tidak terjadi kekambuhan, dan harapan untuk lebih sehat, tema kedua adalah masa depan yang baik dengan 3 subtema: kehidupan yang lama, kembali bekerja, dan optimisme, tema ketiga kesejahteraan psikologis positif dengan 3 subtema: berpikir positif, kemampuan mengendalikan diri, perasaan bahagia, tema terakhir adalah hubungan dekat dengan Tuhan dengan 2 subtema: bersyukur dan berdoa, pertobatan. **Kesimpulan:** Penderita kanker payudara yang telah didiagnosis lebih dari 5 tahun dan telah menyelesaikan terapi kanker memiliki harapan positif untuk sembuh, optimis akan masa depan dan lebih dekat dengan Tuhan, hal ini mendorong tercapainya kesejahteraan psikologis yang positif.

**KATA KUNCI:** harapan; kesejahteraan psikologis; kanker payudara; penyintas kanker; studi kualitatif

# ABSTRACT

**Background:** Cancer is perceived as a deadly disease for most people, it will affect the hope and psychological well-being of long-term cancer survivors.

**Objectives:** This study aimed to explore changes in hope and psychological well-being after 5 years become breast cancer survivors.

**Methods:** This was a qualitative study with a phenomenological design. Samples were 23 breast cancer survivors in three health centers in Surabaya Indonesia taken by purposive sampling technique based on inclusion criteria. An in-depth interview was done when collecting the data. The interview was recorded with the permission of the participants. The data were inductively analyzed through conventional content analysis.

**Results:** The participant has an age range of 41 – 70 years old, and most of them are no longer working since being diagnosed with cancer. This study found 4 themes consisting of the first theme was positive hope about cancer with 3 sub-themes: hope to recover, hope no recurrence occurs, and hope to be healthier, the second theme was a good future with 3 sub-themes: long life, back to work, and optimism, the third theme was positive psychological well-being with 3 sub-themes: positive thinking, self-control ability, happy feeling, the last theme was a close relationship with God with 2 sub-themes: grateful and pray, repentance.

**Conclusions:** Breast cancer survivors who have been diagnosed for more than 5 years and have completed cancer therapy had a positive hope to recover, are optimistic about the future and are closer to God, this encourages the achievement of positive psychological well-being.

**KEYWORD:** hope; psychological well-being; breast cancer; cancer survivor; qualitative study

Article Info : Article submitted on June 08, 2022 Article revised on July 07, 2022 Article received on September 08, 2022

### INTRODUCTION

Being diagnosed with cancer triggers the emergence of psychological distress, anxiety, and depression, which are caused by a fear of the prognosis of cancer (1). The negative perception that cancer is a terrible and deadly disease is still widely perceived by the public (2). The statistical agency determines that the long duration after being diagnosed with cancer is after 5 years, this is a period that various types of initial treatment have passed, a period of adaptation to the situation, but also a period of high risk of recurrence and metastasis of cancer cells to other organs. (3). A study mentions a gap in life expectancy in cancer survivors who have been diagnosed for more than 5 years compared to individuals without a history of cancer (4). Previous research explained that cancer can cause uncertainty, ambiguity, lack of emotional control, and insecurity in patients which has a significant impact on the emergence of negative effects on patients' life expectancy to live a normal life again (5). Cancer patients may experience anxiety, irritability, sadness, feelings of hopelessness or emptiness, lose interest,

have thoughts that they are better off dead, and even have active plans of suicide (6). Anxiety is a predictor of the emergence of negative psychological well-being, especially in cancer patients undergoing chemotherapy (7). A study stated that cancer patients continue to worry about their future health because of the possibility of cancer recurrence even after completing their treatment (8). Likewise, depression can cause cancer patients to feel hopeless (9). In breast cancer patients, it is found that there is poor psychological well-being when undergoing mastectomy surgery (10). A study found that breast cancer patients showed a higher level of hopelessness than other groups of cancer patients and also experienced significantly more tension and fear of the possible side effects of treatment (11). Psychological distress and hopelessness can cause a significant reduction in quality of life (12).

Cancer prevalence of more than 16.9 million Americans with a history of cancer still alive on January 1, 2019, and this number is estimated to grow to more than 22.1 million by January 1, 2030. The five most common cancers

in 2019 are Prostate (3,650), Large intestine and rectum (776,120), Melanoma (684, 470), Breast cancer (3,861,520), Uterine Corpus (807, 860. In breast cancer, specifically, there are estimated to be more than 3.8 million women living in the United States with а history of invasive breast cancer, and 268.600 women will be newly diagnosed in 2019. More than 150.000 people who have survived breast cancer live with metastatic disease. About 64% of breast cancer sufferers (more than 2.4 million women) are aged 65 years and over, while 7% are younger than 50 years (3)

A study explains that the majority of patients diagnosed with cancer feel physical discomfort, emotional disturbances (such as anxiety, fear of relapse) uncertainty in life, and the loss of social support (13). Data compiled from a study states that psychological disorders in breast cancer patients include anxiety, impaired body image, ineffective coping strategies, depression, fatigue, and decreased quality of life (14). Psychological problems of cancer patients are usually found in stage II to IV, especially those who undergo chemotherapy or radiotherapy treatment (15). The stigma of breast cancer as an incurable disease causes patients to feel lonely, and lose social support from family and loved ones which can harm their emotional wellbeing (16). Hopelessness usually occurs after completing cancer treatment, because intensive support from the family is no longer available, and patients feel alone and fear the situations that remind them of the period of treatment (17). A study reported that the hopelessness in recurrence cancer patients was worse than in patients without recurrence (18). A study stated that cancer recurrence in the form of enlargement of the tumor size by more than 20 mm and the spread of cells through the lymph increased in cancer survivors more than 10 years to 32 years after being diagnosed with cancer (19). A study explains that cancer patients who have had

breast cancer for a long time can become anxious and depressed because of their worry about the spread of cancer cells (20). From the explanation above, many previous studies discussed the physical condition and psychological disorders of cancer patients. However, there are no studies that clearly describe the hope and psychological well-being of breast cancer patients who have lived more than 5 years as cancer survivors. This study objectives to explore changes in hope and psychological well-being after 5 years becoming breast cancer survivors.

### MATERIAL AND METHODS

This was a gualitative study with phenomenological design, conducted in February – April 2019. The participants were selected from the population using a purposive sampling technique from three health centers in Surabaya Indonesia. Inclusion criteria consist of participants who had been diagnosed with breast cancer more than 5 years after cancer was diagnosed, had cancer stage III-IV, completed cancer therapy, and lived with a nuclear family. In this study, data saturation occurred after 23 interviews. The ethical test was conducted by Medical Faculty Widya Mandala Catholic University Surabaya Ethical Foundation and declared ethical. The research ethics procedures were carried out by explaining the objectives, benefits of the study, and confidentiality, free of charge, then agreed participants signed the informed consent. An in-depth, interview was done when collecting the data. The interviews were recorded with the permission of the participants. During the interview process, there was no attempt to interrupt. After all the data was recorded, the information from the recording was transcribed and written verbatim immediately, and the process of listening was repeated and analyzed. To ensure the accuracy of the data the transcript was printed while matched by re-listening to the recording. The interview was

last for 30-45 minutes each. The next process was to identify the sentence or paragraph form of statements and transcripts and provide the code. After extracting, it was then reviewed to get a theme.

# RESULTS AND DISCUSSION RESULT

The number of participants were 23 women with breast cancer, within the age range 41 - 70 years, 8 participants were still working and 15 participants have not worked anymore since

being diagnosed with cancer, all participants are active members in their community.

## DISCUSSION

Based on **Table 1-4** there are 4 themes and 11 subthemes found. Theme 1 showed, a participant emphasizing about positive hope that leads to 3 sub-themes consisting of hope to recover, hope no recurrence occurs, and hope to be healthier. The participants on theme 2 stated about good future with 3 sub-theme consisting of long life, back to work, and optimism. On

Table 1. The theme of "positive hope about cancer", sub-theme and participant's narratives

Sub-theme	sitive hope about cancer Participant's narratives
Hope to	All participants hope to recover from illness
recover	Participant 7 said:
	"I hope that my cancer can be cured soon and I will be healthy again" Participant 15 said:
	"Everyone with any illness wants to get well, and so do I." Participant 22 said:
	"I have finished the all treatment program consisting of surgery, chemotherapy, and radiation. I hope to recover soon"
Hope no	Many participants hope no recurrence occurs
recurrence	Participant 2 said:
occurs	"I have undergone all treatments, I hope the cancer cells can die and not grow again" Participant 10 said:
	"The doctor has stated that my cancer cells are dead, I hope it won't recur again"
Hope to be	All participants hope to be healthier and the symptoms reduced
healthier	Participant 3 said:
	"I still feel pain and nausea sometimes, but it's not as often as before, and I hope to be healthier"
	Participant 14 said:
	"Since finishing the chemotherapy program, I am healthier and not tired anymore, and hope to continue to be healthy"

#### Table 2. The theme of "good future", sub-theme and participant's narratives

Theme 2: Good future		
Sub-theme	Participant's narratives	
Long life	All of the participants have a long life in the future	
	Participant 1 said:	
	"Even though I was diagnosed with end-stage cancer, I still had hope for a long life"	
	Participant 8 said:	
	"I wish that I was still given a long life and could see my child married"	
Back to work	Some participants want to back to work	
	Participant 4 said:	
	"I haven't worked for 4 years, I hope one day I can go back to work and be productive again"	
	Participant 18 said:	
	I want to go back to work and make money for the future for me and my child	
Optimism	Many participants were very optimistic about future	
	Participant 6 said:	
	"I am always optimistic about a better future because optimistic people recover faster from illness"	
	Participant 19 said:	
	"My condition has improved greatly, I am optimistic that my future life will be better"	

Sub-theme	Participant's narratives
Positive thinking	Most participants had positive thinking after completing their treatment program
	Participant 5 said:
	"Previously I was a person who easily thinks negatively about others, but now I become more positive
	and my family supported me"
	Participant 11 said:
	"No matter how bad the pain is if we always think positively, surely the disease will slowly disappear"
Self-control ability	Many participants had good self-control ability
	Participant 17 said:
	"I have changed to be a person who can control myself and not easy to be angry"
	Participant 21 said:
	"My ability to control myself is better now, I can respect others and I will never be angry with my family anymore because they always supported me"
Happy feeling	Many participants stated happiness after 5 years diagnosed with cancer
	Participant 3 said:
	"I can adapt to my illness now even though it is stage III and I feel happy no more stress"
	Participant 12 said:
	"The purpose of my life is only to be happy even in a healthy or sick condition like now"

## Theme 3: Positive psychological well-being

Table 4. The theme of "close relationship to God", sub-theme and participant's narratives

Theme 4: Close relationship with God		
Sub-theme	Participant's narratives	
Grateful and pray	Most participants feel closer to God after being diagnosed with cancer Participant 5 said:	
	"I pray every day and be close to God because only God can cure my illness" Participant 20 said:	
	"I am always grateful even though God gave me this cancer, but I still live it with sincerity"	
Repentance	Most of the participants think that the main key to life is repentance Participant 2 said:	
	"In my opinion, repenting is an effort to get closer to God, so that I am easily live the life even in conditions of severe illness"	
	Participant 13 said:	
	"I think repenting is very important to get closer to God, and I believe God will provide healing for my illness"	

theme 3, participants emphasized positive psychological well-being after 5 years diagnosed with cancer with 3 sub-theme consisting of positive thinking, self-control ability, and happy feeling. On theme 4, participants emphasized that a close relationship to God is very important, with 2 sub-theme consisting of gratitude and prayer, and repentance.

Based on the findings of this study, the first theme was positive hope about cancer with the sub-theme of hope to recover, hope no recurrence occurs, and hope to be healthier. Hope is a source of strength to get well soon from cancer suffered. Almost all of the participants in this study believed that this hope arose because the patient had undergone a complete medical treatment. According to the participants, the treatment that has been completed can restore the condition and will make them recover from cancer soon. Although most of the patients also know that there is a possibility of relapse and cancer cells spreading, they hope it doesn't happen to them. This theme is consistent with previous research which revealed that cancer patients have positive expectations for survival which become a source of motivation during the course of their disease (21). Hope is an important aspect of increasing patient acceptance especially those related to the healing process (22), it can trigger individuals to gain new experiences and create new strengths (23). After completing cancer treatment, many patients decide to live a healthy life, especially about diet in the hope of a change and no recurrence which can increase their chances of survival (24). A study states that cancer patients are aware of the uncertainty of the cancer prognosis and continue to build their resilience and hope to minimize the fear of recurrence (25). Other research explains that positive support and solidarity from individuals in their environment affect self-confidence and hope to achieve better health (26).

The second theme of this study was a good future with the sub-theme of long life, back to work, and optimism. Although most of the patients also know that there is a possibility of relapse and cancer cells spreading, they hope it doesn't happen to them. One study reported that the relative survival of ten-year cancer patients increased by 2.4% from 76.9% to 79.3% (27). A study reported that there was a fairly high increase in survival at the point 5 and 10 years after being diagnosed with cancer (28). Some of the participants in this study were still working even though they had been diagnosed with cancer. Similar findings were conveyed by a study that stated that prolonged survival in cancer patients after being diagnosed with cancer allowed cancer patients to have retention for long-term work (29). Other research shows that the work status of cancer patients is mainly determined by changes in the patient's personal and environment after cancer diagnosis as well as psychological pressures such as fear of cancer recurrence, financial burden, and work environment (30). This is in line with a study that explained that breast cancer survivors still work with good performance, because through work they give the energy to forget the physical complaint and limitations of their bodies, and most of those who have stopped working due to cancer hope to be able to return to work (31). Cancer patients who have completed medical treatment stated that they hoped for a better future (32). In previous findings, it was found

that the majority of cancer patients who have completed cancer treatment have high optimism which triggers better life satisfaction (33). Cancer patients who are optimistic about the future show increased positive emotional well-being and better control over their health (34), and can also improve their quality of life (35). Optimistic cancer survivors can find bright spots in their lives as opportunities for rebirth after experiencing this disease by increasing personal strength, accepting their situation, and having positive spiritual beliefs (36).

Another finding of this study was positive psychological well-being with the sub-theme of positive thinking, self-control ability, and happy feeling. In this study, most of the patients were able to have positive psychological well-being, especially in the ability to think positively and self-control, one of which was due to full support from their families to strengthen them. A study also conveyed similar findings that breast cancer patients felt that family support helped patients to cope with the disease and be able to accept their condition better (37). Other studies also support that the ability to think positively can be the main motivation for cancer patients to have a high spirit of optimism in survival (38). The optimism of cancer patients can lead to higher happiness and positive life well-being (39). Another study reported that cancer patients who have been diagnosed for more than 5 years can reduce depression and improve mental health (40). It was supported by a study of 90 women with breast cancer, the results found that psychological well-being (41). A cohort study conducted on patients more than 4 years suffering from cancer was found to have better welfare than patients who were newly diagnosed with cancer, this welfare included fewer visits to the doctor or hospitalization due to improved health conditions, and the majority of cancer survivors can work again and have a happiness that is far greater than the newly diagnosed group

(42). Another study stated that patients with post-traumatic due to cancer found that patients became stronger, appreciated life, and identified new opportunities (43).

The last finding of this study was a close relationship with God with the sub-theme grateful and prayer, and repentance. The findings of this study are in line with the results of previous studies which stated that patients had better awareness to worship God, pray, read scriptures, and have positive thoughts about God after a traumatic experience was diagnosed with cancer (44). A study of breast cancer patients who experienced metastases stated that spirituality helped them live to overcome fear and can live calmly even though cancer had spread (45). Cancer patients who have high realistic expectations, also have high spirituality as a means to deal with their disease (46). Another similar study also mentions that women with breast cancer rely on God and believe that God is the ultimate healer, through prayer and reading the scriptures make their hearts feel at peace (47). A study on long-term patients diagnosed with cancer showed mental stability, a harmonious spiritual relationship with God, and a high quality of life and well-being (48). Having a close relationship with God and strengthening faith are the needs of cancer patients to hope for healing, patients always pray to God and increase loyalty to God, as well as having a better new perspective (49).

## CONCLUSION AND RECOMMENDATION

Breast cancer survivor who has been diagnosed for more than 5 years and has completed cancer therapy can arise from stress and depression to be religious individual and be able to control themself so they have good optimism and high hopes for recovery, this causes patients to have positive thinking that can change positive psychological well-being. Family support plays an important role in increasing patient motivation to rise from adversity. Based on the findings of this study, it is recommended for health workers and volunteers of cancer patients to continue to provide consistent assistance, especially psychosocially, for long-term cancer survivors to maintain high expectations and positive psychological wellbeing. The limitation of this study is that cancer patients with metastases have not yet been identified.

### REFERENCES

- Niedzwiedz CL, Knifton L, Robb KA, Katikireddi SV, Smith DJ. Depression and anxiety among people living with and beyond cancer: A growing clinical and research priority. BMC Cancer [Internet]. 2019 Oct 11 [cited 2022 Jun 8];19(1):1–8. Available from: https://bmccancer.biomedcentral.com/ articles/10.1186/s12885-019-6181-4
- Shiri FH, Mohtashami J, Manoochehri H, Rohani C. Explaining the Meaning of Cancer Stigma from the Point of View of Iranian Stakeholders: A Qualitative Study. International Journal of Cancer Management 117 [Internet]. 2018 Jul 1 [cited 2022 Jun 10];11(7):61165. Available from: https:// brieflands.com/articles/ijcm-61165.html
- Miller KD, Nogueira L, Mariotto AB, Rowland JH, Yabroff KR, Alfano CM, et al. Cancer treatment and survivorship statistics, 2019. CA: A Cancer Journal for Clinicians [Internet]. 2019 Sep 11 [cited 2019 Oct 26];69(5):363– 85. Available from: https://onlinelibrary.wiley. com/doi/abs/10.3322/caac.21565
- Yeh JM, Ward ZJ, Chaudhry A, Liu Q, Yasui Y, Armstrong GT, et al. Life Expectancy of Adult Survivors of Childhood Cancer Over 3 Decades. JAMA Oncology [Internet]. 2020 Mar 1 [cited 2022 Jun 9];6(3):350–7. Available from: https://jamanetwork.com/ journals/jamaoncology/fullarticle/2757844
- 5. Ghahari S, Fallah R, Behnam L, Rad MM, Farrokhi N, Ghayoomi R. Preoccupations

and Worries in Women with Breast Cancer: A Qualitative Study. Journal of Pharmaceutical Research International. 2018;24(2):1–7.

- Yi JC, Syrjala KL. Anxiety and Depression in Cancer Survivors. Med Clin North Am [Internet]. 2017 Nov 1 [cited 2022 Jun 8];101(6):1099. Available from: /pmc/articles/ PMC5915316/
- Nurwahyuni E, Poeranto S, Supriati L. Anxiety as Predictor of Negative Psychological Well-Being on Chemotherapy Patients of Breast Cancer. International Journal of Nursing Education. 2019;11(3):63.
- Nies YH, Ali AM, Abdullah N, Islahudin F, Shah NM. A qualitative study among breast cancer patients on chemotherapy: experiences and side-effects. Patient Prefer Adherence [Internet]. 2018 [cited 2022 Jun 10];12:1955. Available from: /pmc/articles/ PMC6167974/
- Bener A, Alsulaiman R, Doodson L, Agathangelou T. Depression, Hopelessness and Social Support among Breast Cancer Patients: in Highly Endogamous Population. Asian Pac J Cancer Prev [Internet]. 2017 Jul 1 [cited 2022 Jun 8];18(7):1889. Available from: /pmc/articles/PMC5648395/
- DeMiglio L, Murdoch V, Ivison J, Fageria S, Voutsadakis IA. Factors influencing psychological wellbeing of early breast cancer patients. Reports Pract Oncol Radiother [Internet]. 2020 Nov 1 [cited 2022 Jun 8];25(6):913. Available from: /pmc/ articles/PMC7553884/
- 11. Van Oers H, Schlebusch L. Breast cancer patients' experiences of psychological distress, hopelessness, and suicidal ideation. Journal of Nature and Science of Medicine [Internet]. 2021 Jul 1 [cited 2022 Jun 8];4(3):250. Available from: https://www. jnsmonline.org/article.asp?issn=2589-627X; year=2021;volume=4;issue=3;spage=250;e page=257;aulast=Oers

- Ravindran O, Shankar A, Murthy T. A Comparative Study on Perceived Stress, Coping, Quality of Life, and Hopelessness between Cancer Patients and Survivors. Indian Journal of Palliat Care [Internet]. 2019 Jul 1 [cited 2022 Jun 8];25(3):414. Available from: /pmc/articles/PMC6659528/
- Malkanthi KMS, Thambavita DRSWK, Karunarathna RMIC, Kumari AMND, Kumari LYSS, Siriwardhana EWAIM. Experience of the Young Women with Early Stage Breast Cancer: A Qualitative Study. International Journal of Science and Healthcare Research [Internet]. 2020;5(February 2021):204. Available from: www.ijshr.com
- Refaee Saeedi N, Aghamohammadian Sharbaf H, Asghari Ebrahimabad MJ, Kareshki H. Psychological Consequences of Breast Cancer in Iran: A Meta-Analysis. Iran Journal of Public Health [Internet]. 2019 May 15 [cited 2022 Jun 9];48(5):816. Available from: /pmc/articles/PMC6717424/
- 15. Prakash Saxena PU, Kulkarni V, Thapar R, Pai K, Gupta A, Kotian H. Assessment of spectrum of mental disorders in cancer patients. Journal of Cancer Research and Therapeutics [Internet]. 2018 Oct 1 [cited 2022 Jun 8];14(6):1312. Available from: https://www.cancerjournal.net/article. asp?issn=0973-1482;year=2018;volume=1 4;issue=6;spage=1312;epage=1315;aulast =Prakash
- Kugbey N, Meyer-Weitz A, Oppong Asante K, Yarney J, Vanderpuye V. Lived Experiences of Women Receiving Medical Treatments for Breast Cancer in Ghana: A Qualitative Study: https://doi. org/101177/21582440211045077 [Internet]. 2021 Sep 8 [cited 2022 Jun 10];11(3). Available from: https://journals.sagepub. com/doi/full/10.1177/21582440211045077
- 17. Yi JC, Syrjala KL. Anxiety and Depression in Cancer Survivors. The Medical Clinics

of North America [Internet]. 2017 Nov [cited 2019 Oct 4];101(6):1099–113. Available from: http://www.ncbi.nlm.nih.gov/ pubmed/28992857

- Madani H, Pourmemari M, Moghimi M, Rashvand F. Hopelessness, Perceived Social Support and their Relationship in Iranian Patients with Cancer. Asia-Pacific Journal of Oncology Nursing [Internet].
   2018 [cited 2019 Oct 6];5(3):314–9. Available from: http://www.ncbi.nlm.nih.gov/ pubmed/29963594
- Pedersen RN, Esen BÖ, Mellemkjær L, Christiansen P, Ejlertsen B, Lash TL, et al. The Incidence of Breast Cancer Recurrence 10-32 Years After Primary Diagnosis. Journal of The National Cancer Institute [Internet]. 2022 Mar 8 [cited 2022 Jun 9];114(3):391–9. Available from: https://academic.oup.com/ jnci/article/114/3/391/6423212
- Ochoa-Arnedo C, Prats C, Travier N, Marques-Feixa L, Flix-Valle A, de Frutos ML, et al. Stressful Life Events and Distress in Breast Cancer: A 5-Years Follow-Up. International Journal of Clinical and Health Psychology. 2022 May 1;22(2):100303.
- 21. Rahul Ganavadiya CSB, , Suma S2, Pallavi Singh3 RG, Poonam Tomar Rana SJD. Effectiveness of two psychological intervention techniques Article for de-addiction among patients with addiction to tobacco and alcohol – A double-blind randomized control trial Rahul Ganavadiya, Chandra Shekar BR1, Suma S2, Pallavi Singh3, Ruchika Gu. Indian Journal of Cancer. 2018;55(1):382–9.
- Alfons DW, Rochmawati E. Interventions to Increase Hope in Adult Patients with Cancer : Scoping Review. Jurnal Keperawatan Komprehensif. 2021;7(2):118–37.
- Montazer A, Nemati F, Dehghani F, Fallah
  T. Efficacy of Acceptance and Commitment Therapy on Breast Cancer Female Patients'

Hope. Iranian Journal of Cancer Prev 2017 102 [Internet]. 2017 Feb 1 [cited 2022 Jun 11];10(2):5526. Available from: https:// brieflands.com/articles/ijcm-5526.html

- Rock CL, Thomson C, Gansler T, Gapstur SM, McCullough ML, Patel A V., et al. American Cancer Society guideline for diet and physical activity for cancer prevention. CA: A Cancer Journal for Clinicians. 2020 Jul;70(4):245–71.
- 25. Han PKJ, Gutheil C, Hutchinson RN, LaChance JA. Cause or Effect? The Role of Prognostic Uncertainty in the Fear of Cancer Recurrence. Front Psychol [Internet]. 2021 Jan 15 [cited 2022 Jun 11];11. Available from: /pmc/articles/PMC7843433/
- 26. Nural N, Yaşar YÇ, Güner SG. Hope and Life Engagement of Cancer Patients at the Advanced Stage. Asian Pacific Journal of Cancer Care [Internet]. 2019 Mar 2 [cited 2022 Jun 11];4(2):19–25. Available from: http://waocp.com/journal/index.php/apjcc/ article/view/245
- Yoshimura A, Ito H, Nishino Y, Hattori M, Matsuda T, Miyashiro I, et al. Recent improvement in the long-term survival of breast cancer patients by age and stage in japan. Journal of Epidemiology. 2018;28(10):420–7.
- Cheng E, Lee DH, Tamimi RM, Hankinson SE, Willett WC, Giovannucci EL, et al. Long-Term Survival and Causes of Death After Diagnoses of Common Cancers in 3 Cohorts of US Health Professionals. JNCI Cancer Spectrum [Internet]. 2022 Mar 2 [cited 2022 Jun 11];6(2). Available from: /pmc/articles/ PMC8973409/
- de Boer AG, Torp S, Popa A, Horsboel T, Zadnik V, Rottenberg Y, et al. Long-term work retention after treatment for cancer: a systematic review and meta-analysis. Journal of Cancer Survivorship [Internet].
   2020 Apr 1 [cited 2022 Jun 11];14(2):135–50.

Available from: https://link.springer.com/ article/10.1007/s11764-020-00862-2

- 30. Bae KR, Cho J. Changes after cancer diagnosis and return to work: experience of Korean cancer patients. BMC Cancer [Internet]. 2021 Dec 1 [cited 2022 Jun 11];21(1):1–11. Available from: https:// bmccancer.biomedcentral.com/ articles/10.1186/s12885-021-07812-w
- Jakobsen K, Magnus E, Lundgren S, Reidunsdatter RJ. Everyday life in breast cancer survivors experiencing challenges: A qualitative study. Scandinavian Journal of Occupational Therapy [Internet]. 2018;25(4):298–307. Available from: https:// doi.org/10.1080/11038128.2017.1335777
- 32. Knaul FM, Doubova S V., Gonzalez Robledo MC, Durstine A, Pages GS, Casanova F, et al. Self-identity, lived experiences, and challenges of breast, cervical, and prostate cancer survivorship in Mexico: A qualitative study. BMC Cancer [Internet]. 2020 Jun 22 [cited 2022 Jun 10];20(1):1–11. Available from: https://bmccancer.biomedcentral.com/ articles/10.1186/s12885-020-07076-w
- Werdani YDW. Spiritual Well-Being and Optimism as Contributing Factors that Influence the Subjective Well-Being of Cancer Patients. Indonesian Journal of Cancer. 2022;16(1):16.
- 34. Gallagher MW, Long LJ, Richardson A, D'Souza JM. Resilience and Coping in Cancer Survivors: The Unique Effects of Optimism and Mastery. Cognitive Therapy and Research [Internet]. 2019 Feb 15 [cited 2022 Jun 11];43(1):32. Available from: /pmc/ articles/PMC6586435/
- 35. Ruiz-Rodríguez I, Hombrados-Mendieta I, Melguizo-Garín A, Martos-Méndez MJ. The Importance of Social Support, Optimism and Resilience on the Quality of Life of Cancer Patients. Frontiers in Psychology. 2022 Mar 9;0:634.

- 36. Luo Z, Chen C, Xu W, Wang P, Wang Y. A qualitative study on the experience of empowerment from the perspectives of breast cancer survivors. Nursing Open [Internet]. 2021 Sep 1 [cited 2022 Jun 10];8(5):2429. Available from: /pmc/articles/ PMC8363359/
- 37. Ghaemi SZ, Keshavarz Z, Tahmasebi S, Akrami M, Heydari ST. Explaining Perceived Priorities in Women with Breast Cancer: A Qualitative Study. Asian Pacific Journal of Cancer Prevention [Internet]. 2019 [cited 2022 Jun 10];20(11):3311. Available from: / pmc/articles/PMC7063021/
- Hosseini F, Alavi NM, Mohammadi E, Sadat Z. Motivation for healing in cancer patients: A qualitative study. Iranian Journal of Nursing and Midwifery Research [Internet]. 2021 Nov 1 [cited 2022 Jun 10];26(6):555. Available from: https://www.ijnmrjournal.net/article. asp?issn=1735-9066;year=2021;volume= 26;issue=6;spage=555;epage=561;aulast= Hosseini
- 39. De Camargos MG, Paiva BSR, De Oliveira MA, De Souza Ferreira P, De Almeida VTN, De Andrade Cadamuro S, et al. An explorative analysis of the differences in levels of happiness between cancer patients, informal caregivers and the general population. BMC Palliative Care [Internet]. 2020 Jul 11 [cited 2022 Jun 10];19(1):1–13. Available from: https://bmcpalliatcare. biomedcentral.com/articles/10.1186/s12904-020-00594-1
- Lloyd S, Baraghoshi D, Tao R, Garrido-Laguna I, Gilcrease GW, Whisenant J, et al. Mental Health Disorders are More Common in Colorectal Cancer Survivors and Associated With Decreased Overall Survival. American Journal of Clinical Oncology [Internet].
   2019 Apr [cited 2019 Oct 26];42(4):355–62. Available from: http://insights.ovid.com/cros sref?an=00000421-201904000-00005

- Ahoei K, Faramarzi M, Hassanzadeh R. The relationship between spiritual intelligence and psychological well-being in women with breast cancer. Shiraz E Medical Journal. 2017;18(10):4–9.
- 42. Sullivan J, Snider JT, van Eijndhoven E, Okoro T, Batt K, DeLeire T. The Well-Being of Long-Term Cancer Survivors. Am J Manag Care [Internet]. 2018 [cited 2019 Oct 26]; Available from: https://www.ajmc.com/ journals/issue/2018/2018-vol24-n4/the-wellbeing-of-long-term-cancer-survivors
- 43. Heidarzadeh M, Rassouli M, Brant JM, Mohammadi-Shahbolaghi F, Alavi-Majd H. Dimensions of posttraumatic growth in patients with cancer. Cancer Nursing. 2018;41(6):441–9.
- Dsouza SM, Vyas N, Narayanan P, Parsekar SS, Gore M, Sharan K. A qualitative study on experiences and needs of breast cancer survivors in Karnataka, India. Clinical Epidemiology and Global Health [Internet].
   2018 Jun 1 [cited 2022 Jun 10];6(2):69– 74. Available from: http://cegh.net/article/ S2213398417300532/fulltext
- 45. Guo YQ, Ju QM, You M, Yusuf A, Wu Y, Soon LK. A Qualitative Study on Coping Strategies of Chinese Women With Metastatic Breast Cancer Undergoing Chemotherapy. Frontiers in Psychology. 2022 Mar 11;13:613.

- 46. Bovero A, Opezzo M, Botto R, Gottardo F, Torta R. Hope in end-of-life cancer patients: A cross-sectional analysis. Palliative and Supportive Care [Internet]. 2021 Oct 26 [cited 2022 Jun 11];19(5):563–9. Available from: https://www.cambridge.org/core/journals/ palliative-and-supportive-care/ article/ abs/hope-in-endoflife-cancer- patients-acrosssectional-analysis/EAD4DC289649D 42009D5CA1CFCC6123B
- Iddrisu M, Aziato L, Dedey F. A qualitative study on coping strategies of young women living with breast cancer in Ghana. International Journal of Africa Nursing Sciences. 2019 Jan 1;11:100173.
- 48. Agarwal K, Kelly LL, Heintzman JC, Fortune LD. Lived Spiritual Experiences of Cancer Survivors with Long-term Meditation Practices: An Interpretative Phenomenological Analysis. Pastor Psychology 2022 [Internet]. 2022 May 28 [cited 2022 Jun 10];1–17. Available from: https://link.springer.com/article/10.1007/ s11089-022-01014-2
- Devi MK, Fong KC. Spiritual Experiences of Women with Breast Cancer in Singapore: a Qualitative Study. Asia-pacific Journal of Oncology Nursing [Internet]. 2019 Apr 1 [cited 2022 Jun 11];6(2):145–50. Available from: https://europepmc.org/articles/PMC6371664