

Mental Health Outcome In Breast Cancer Patients: Literature Review

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Abstrak

Masalah: Diagnosis kanker payudara dan berbagai pilihan pengobatan yang tersedia menimbulkan banyak tantangan bagi wanita, yang memengaruhi kesehatan dan kesejahteraan holistik mereka. Tujuan Penelitian: Tujuan dari tinjauan pustaka ini adalah untuk memeriksa konsekuensi kesehatan mental yang dialami oleh individu yang didiagnosis dengan kanker payudara. **Metode Penelitian:** Metodologi yang digunakan melibatkan pelaksanaan tinjauan pustaka dengan memanfaatkan basis data jurnal kesehatan, khususnya Google Scholar, yang menghasilkan 43 artikel, sementara 102 artikel diperoleh dari PubMed, dan 421 artikel dari Science Direct. Artikel yang dipilih diterbitkan antara tahun 2014 dan 2024. **Hasil:** Pasien kanker payudara dan pasangannya menghadapi tantangan kesehatan mental seperti kecemasan, depresi, masalah kognitif, kelelahan, dan disfungsi seksual. Pasangan juga mengalami kecemasan dan depresi, yang membutuhkan dukungan untuk keduanya. Penanganan yang tidak adaptif selama pengobatan dapat meningkatkan kecemasan, sehingga promosi mekanisme penanganan yang adaptif sangat penting. Kemoterapi dapat menyebabkan masalah kognitif dan kecemasan, yang membutuhkan pemantauan ketat. Penyakit lanjut dapat menyebabkan disfungsi seksual dan nyeri, yang membutuhkan manajemen gejala. COVID-19 meningkatkan rasa kesepian dan kecemasan, yang menekankan pentingnya dukungan kesehatan mental. Dukungan sosial, aktivitas fisik, persepsi kesehatan yang positif, dan akses ke sumber daya kesehatan mental penting untuk kesejahteraan mental. Rekonstruksi payudara dapat mendukung pemulihan emosional, sementara ketahanan dan religiusitas membantu mekanisme penanganan. **Kesimpulan:** Pasien kanker payudara dan pasangannya menghadapi berbagai tantangan kesehatan mental, termasuk kecemasan, depresi, masalah kognitif, dan disfungsi seksual, yang memengaruhi kualitas hidup mereka.

Kata kunci: Kesehatan Mental, Kanker Payudara

Abstract

Problems: The diagnosis of breast cancer and the range of treatment options available pose numerous challenges for women, affecting their holistic health and wellness. The Aim of The Research: The aim of this literature review is to examine the mental health consequences experienced by individuals diagnosed with breast cancer. **Research Method:** The methodology employed involves conducting a literature review utilizing a health journal database, specifically Google Scholar, which yielded 43 articles, while 102 articles were obtained from PubMed, and 421 articles from Science Direct. The selected articles were published between 2014 and 2024. The Result: Breast cancer patients and their partners face mental health challenges such as anxiety, depression, cognitive problems, fatigue and sexual dysfunction. Partners also experience anxiety and depression, requiring support for both. Non-adaptive coping during treatment can increase anxiety, so promotion of adaptive coping mechanisms is essential. Chemotherapy can cause cognitive problems and anxiety, requiring close monitoring. Advanced disease can cause sexual dysfunction and pain, requiring symptom management. COVID-19 increases loneliness and anxiety, emphasizing the importance of mental health support. Social support, physical activity, positive health perceptions, and access to mental health resources are important for mental well-being. Breast reconstruction can support emotional recovery, while resilience and religiosity aid coping mechanisms. **Conclusion:** Breast cancer patients and their spouses face various mental health challenges, including anxiety, depression, cognitive issues, and sexual dysfunction, affecting their quality of life.

Keywords: Mental Health, Breast Cancer

1. INTRODUCTION

Globally in 2020, the Global Cancer Observatory (GLOBOCAN) reported approximately 19.3 million new cancer cases and 10 million cancer-related deaths worldwide. Breast cancer in women was the most frequently diagnosed type, accounting for 2.3 million cases (11.7%), and it stood as the primary cause of cancer-related deaths among women [1]. In Africa, there were 531,086 new breast cancer cases reported in 2020, with 85,787 deaths. Despite lower reported incidence rates in Sub-Saharan Africa (SSA), breast cancer remains the top cause of mortality among cancer patients in the region. According to projections, the incidence and mortality rates of breast cancer in this area are expected to rise by 2050 [2]. In Ethiopia, breast cancer ranks as the foremost cause of death among all types of cancer, accounting for 16,133 new cases (20.9%) and 9,061 deaths (17.5%) [3].

Statistics from the Indonesian Ministry of Health's Directorate of Prevention and Control of Noncommunicable Diseases indicate that breast cancer had the highest incidence rate among women in 2020. Breast cancer accounted for 68,858 of the total 396,914 new cancer cases in Indonesia, or 16.6%. Furthermore, the number of fatalities related to breast cancer has exceeded 22,000 instances [4].

Breast cancer diagnosis and treatment choices provide significant obstacles for women, impacting their entire health and well-being [5]. A notable proportion of women undergoing treatment for newly diagnosed breast cancer encounter severe symptoms of anxiety and/or depression [6]. Studies indicate that breast cancer patients frequently experience concurrent mental health issues like anxiety and depression, which can diminish their quality of life [5]. Long-term research demonstrates that mental health challenges often ameliorate with time, with many breast cancer survivors reaching levels of well-being comparable to the general population approximately one year after their diagnosis [7].

The existence of several prevalent mental health disorders exacerbates patients' health outcomes by impeding their capacity to effectively manage their condition. Symptoms such as reduced interest, difficulties focusing, decreased appetite, restlessness, feelings of despair, and, in some cases, suicidal thoughts add to this interference [5]. Younger age upon diagnosis, worse socioeconomic level, persistent tiredness, lymphedema or arm-related problems, and prior chemotherapy treatment have been associated to poorer mental health outcomes [7]. Hence, the aim of this literature review is to examine the mental health consequences experienced by breast cancer patients.

2. METHODS

This article employs a literature review approach utilizing journal references and articles focusing on "mental health outcomes in breast cancer patients." The search was conducted across various databases including Google Scholar, PubMed, Springer, and Elsevier. The objective of this article is to explore mental health outcomes in breast cancer patients. Keywords such as "Mental Health," "Mental Health Outcomes," "Breast Cancer," and "Breast Cancer Patients" were used for the literature search. A total of 43 articles were retrieved from Google Scholar, 102 from PubMed, and 421 from Science Direct. The search targeted articles published in scientific journals, written in English, open access, and available in full text, with publication dates ranging from 2014 to 2024 or within the last decade. Following the specified criteria, 8 articles were selected for further analysis

3. RESULTS AND DISCUSSION

The table below illustrates the mental health outcomes experienced by breast cancer patients, as detailed in the 8 selected reference articles:

Table 1. Results of Literature Search Results of Literature Search on “Mental Health Outcomes in Breast Cancer Patients”

Author & Year	Country	Main Objective of Study	Study Design	Sample Size	Result
Fradelos et al. (2018)	Northern Greece	The aim of this study was to examine the relationship between religiosity, mental health, and psychological resilience in breast cancer patients.	A cross-sectional study	The sample consisted of 152 breast cancer patients.	According to our results, approximately 1 out of 3 patients had depression and anxiety. Also, the sample had moderate resilience and were moderately religious. Patients who were classified as end-stage cancer patients and those who underwent mastectomy found to be more religious. Religiosity correlated positively with the resilience, while no correlation was found with depression, anxiety, and symptom burden. Based on regression results, religious beliefs seem to be a predictive factor for resilience and resilience is a predictive factor for depression.
Borstelmann et al. (2020)	USA	Evaluation of psychosocial concerns, coping style, and mental health in partners of young (diagnosed at ≤40 years) survivors of early-stage breast cancer (BC).	A cross-sectional study	289 participants; most were male, white, working full-time, college educated, with median age of 43 years, parenting children <18 years old.	Overall, 41% reported symptoms of anxiety, 18% reported symptoms of depression, and 44% identified maladaptive coping. Multivariable regression analyses revealed: lower social support and poorer quality of life significantly associated with depression ($p < .05$); maladaptive coping, fulltime employment, poorer caregiver QOL, and less education significantly associated with anxiety.
Vaalavuo (2021)	Finland	Study the impact of breast cancer on earnings, employment, and mental health among Finnish women, specifically examining whether there is a heterogeneous impact according to socioeconomic status.	A quasi-experimental research design	The empirical analyses are based on unique register data including the total population of Finland from 2000 to 2016.	The results are based on difference-in-differences estimations. Breast cancer has an overall impact of -5.1 percent on annual earnings with significant differences between earnings quintiles: the negative impact in the second earnings quintile is the largest, -8.9 percent. Results hold when using other socioeconomic variables, while the impact is bigger when we include women with weaker labor market attachment to the analysis. Mental health problems mediate the impact only modestly. The negative effect is smaller when looking at total income highlighting the importance of the Finnish welfare state to buffer effects of ill health on economic well-being.

Author & Year	Country	Main Objective of Study	Study Design	Sample Size	Result
Fanakidou et al. (2018)	Greece	To explore the relationship between mental health (depression, anxiety, and stress), loneliness, and illness perception with health-related quality of life (HRQoL) in young breast cancer patients, within a year after mastectomy, and to investigate the role of breast reconstruction.	A cross-sectional study	Eighty-one women with stage II breast cancer-35 with breast reconstruction and 46 without breast reconstruction.	Breast reconstruction was a significant predictor of total HRQoL and its domains. Women with breast reconstruction had better HRQoL, significantly better mental health, less stress and anxiety levels but experienced more physical discomfort and perceived higher level of physical distress compared to the ones without breast reconstruction. On the contrary, patients without breast reconstruction had higher level of loneliness, which was found to be correlated with poor HRQoL and higher levels of anxiety. Negative illness perceptions were associated with poor HRQoL for both groups.
Rentscher et al. (2021)	United States	The study aimed to assess changes in loneliness, depression, anxiety, and stress during the pandemic in both groups and explore any differences or similarities in these outcomes between cancer survivors and controls.	A piecewise, linear mixed-effects model with fixed timepoints at study enrollment, the last pre-COVID-19 study assessment, and the COVID-19 survey	The authors included active participants enrolled in the longitudinal Thinking and Living with Cancer study of nonmetastatic breast cancer survivors aged 60 to 89 years (n = 262) and matched controls (n = 165) from 5 US regions.	Loneliness increased from before to during the pandemic (0.211; $P = .001$), with no survivor-control differences. Increased loneliness was associated with worsening depression (3.958; $P < .001$) and anxiety (3.242; $P < .001$) symptoms and higher stress (1.172; $P < .001$) during the pandemic, also with no survivor-control differences.
Carreira et al. (2021)	United Kingdom	The study aimed to address this by comparing patient-reported outcomes between breast cancer survivors and women with no history of breast cancer.	A cross-sectional study	All primary care practices contributing with data to the Clinical Practice Research Datalink (CPRD) General Practitioners Online Database (GOLD) to participate in the study.	A total of 356 breast cancer survivors (8.1 years post diagnosis) and 252 women with no prior cancer participated in the study. Compared with non-cancer controls, breast cancer survivors had poorer QoL in the domains of cognitive problems (adjusted β ($a\beta$) = 1.4, $p = 0.01$), sexual function ($a\beta = 1.7$, $p = 0.02$) and fatigue ($a\beta = 1.3$, $p = 0.01$), but no difference in negative feelings, positive feelings, pain, or social avoidance. Breast cancer survivors had higher odds of borderline-probable anxiety (score ≥ 8) (adjusted OR = 1.47, 95%CI:1.15-1.87), but no differences in depression. Advanced stage at diagnosis and chemotherapy treatment were associated with poorer QoL.

Author & Year	Country	Main Objective of Study	Study Design	Sample Size	Result
Al Eid et al. (2020)	Saudi Arabia	This study aimed to investigate the correlations of religiosity and psychological resilience with mental health among cancer patients and to examine whether religiosity and psychological resilience can predict mental health.	Descriptive research design	The sample consisted of 329 patients.	The results showed that there are positive, statistically significant correlations between religiosity and psychological resilience, while there were negative, statistically significant correlations of religiosity and psychological resilience with mental health. And there are correlations between the alternative therapeutic interventions currently used to religiosity and psychological resilience, while there were no statistically significant correlations between alternative therapeutic interventions that the patient will use in the future to religiosity and psychological resilience. The results also revealed the possibility of predicting mental health through religiosity and psychological resilience.
Kim et al. (2021)	USA	The purpose of this study was to investigate the effects of health perceptions, leisure-time physical activity (LTPA), and social support on the mental health of women with breast cancer living in the U.S.	A cross-sectional study	Data for this study were obtained from the 2017 Health Information National Trends Survey (HINTS 5 Cycle 1).	It was found that three independent variables (i.e., LTPA, perceived social support, and health perception) significantly contributed to mental health in the proposed model. Of these variables, social support was the strongest positive predictor of mental health among women with breast cancer, followed by LTPA and health perception.

Breast cancer patients often experience mental health challenges, especially in terms of anxiety and depression. Borstelmann et al. found that spouses of young breast cancer survivors experienced anxiety and depression post-diagnosis, with anxiety being the most common mental health challenge [8]. Borstelmann et al. demonstrated that couples who reported using less effective coping strategies during treatment exhibited significantly higher levels of anxiety during survivorship compared to those who reported using more adaptive behaviors. In addition, Borstelmann et al. also found that couples who used non-adaptive coping strategies, reported a lack of social support, worked full-time, and/or had lower levels of

education experienced negative impacts on mental health [8].

Carreira et al. also reported that breast cancer patients are at increased risk of cognitive impairment, sexual dysfunction, fatigue, and anxiety, especially if their cancer is advanced or if they undergo chemotherapy [7]. Patients with advanced disease and/or undergoing chemotherapy should receive careful monitoring and evidence-based interventions to address fatigue, cognitive issues, and sexual concerns. Research indicates that patients who undergo chemotherapy commonly report cognitive difficulties, fatigue, and anxiety compared to those who do not. Patients with metastatic breast cancer often experience increased pain and sexual dysfunction. Additionally, patients living alone express greater

concerns about cancer recurrence, while those with higher education levels also report heightened cancer-related worries. Thus, it is crucial to implement adequate monitoring and interventions to support the mental well-being of breast cancer patients.

Meanwhile, research by Rentscher et al. showed that Before the COVID-19 pandemic, older breast cancer patients did not exhibit a higher risk of loneliness or decreased mental health compared to a non-cancer control group under normal circumstances [9]. However, amid the COVID-19 pandemic, there was a surge in loneliness, depressive symptoms, and anxiety among these breast cancer patients. These findings underscore the pandemic's impact on mental well-being, particularly for breast cancer patients. Individuals experiencing elevated levels of loneliness during the pandemic are more likely to suffer from compromised mental health. Hence, this study underscores the importance of screening for loneliness during medical interactions to identify breast cancer patients vulnerable to adverse mental effects stemming from the pandemic situation. It underscores the importance of prioritizing the mental health care of breast cancer patients, especially during crises such as the COVID-19 pandemic.

Research by Kim et al. suggests that the mental well-being of breast cancer patients is impacted by factors such as perceived social support, leisure-time physical activity (LTPA), and health perception [10]. Among these factors, social support emerged as the most significant positive predictor of mental health among breast cancer patients, with LTPA and perceived health status following closely behind. These findings suggest that receiving robust social support, participating in physical activity during leisure time, and maintaining a positive perception of health are critical for the mental well-being and overall quality of life of breast cancer patients. This study highlights the importance of factors such as social support, physical activity, and health perception in fostering positive mental health outcomes for breast cancer patients. Social support

was found to exert the most significant influence on mental health, with physical activity and perceived health also playing significant roles. Therefore, it is essential for breast cancer patients to receive effective social support, participate in physical activity, and uphold a positive perception of their health to safeguard their mental well-being throughout their treatment journey.

Vaalavuo found that the influence of breast cancer on psychiatric diagnosis showed no significant variation across income groups, except for women in the lowest income bracket within the second analysis sample [11]. Although this study anticipated observing clearer socioeconomic gradients in how breast cancer affects psychiatric diagnoses, its intriguing findings suggest that the most financially vulnerable groups are particularly susceptible to experiencing stress, anxiety, and depression due to the illness. It's noteworthy that the metric utilized to assess mental health in this study was visits to specialized healthcare resulting in psychiatric diagnoses. This underscores the potentially severe psychological toll of breast cancer on individuals, necessitating specialized mental health interventions and care. Furthermore, the research indicated that overall household resources may have a greater impact on how breast cancer affects mental health than individual income levels. This highlights the importance of considering factors such as social support, access to healthcare, and the ability to manage overall stress in understanding the impact of breast cancer on an individual's psychological well-being.

Meanwhile, Fanakidou et al. states that Breast cancer patients who opt for breast reconstruction following mastectomy generally experience improved mental health outcomes compared to those who forego reconstruction [12]. Individuals undergoing breast reconstruction typically report notably enhanced mental well-being, reduced levels of stress and anxiety, and enhanced functioning across emotional, social, and physical domains. These findings suggest that breast reconstruction can positively impact the mental health and

overall quality of life of breast cancer patients.

Fradelos et al. found that psychological resilience had a positive impact on the mental health of breast cancer patients, while a higher burden of symptoms was associated with poorer psychological well-being [13]. Although there isn't a direct connection between religiosity and depression or anxiety, heightened religious beliefs might enhance patients' psychological resilience, thereby improving their mental health. Patients with advanced-stage cancer and those who have undergone mastectomy often show stronger religious tendencies, underscoring the importance of addressing their spiritual and religious needs, particularly in the later stages of their illness. While religious interventions may not directly influence psychological well-being, perceived social support from religious communities can offer significant benefits. Hence, the findings of this study emphasize the necessity of integrating spiritual and religious considerations into the care of breast cancer patients. Providing opportunities for patients to express their beliefs and values and supporting their engagement in religious practices can be pivotal components of holistic and personalized care aimed at enhancing patients' psychological well-being and overall quality of life.

Al Eid et al. similarly found that the mental health of breast cancer patients is influenced by factors such as religiosity and psychological resilience [14]. Their findings indicated that both religiosity and psychological resilience played significant roles in enhancing the mental well-being of breast cancer patients. These factors help in coping with cancer-related stress and reducing its negative impacts. Therefore, promoting religiosity and fostering psychological resilience through counseling interventions are considered essential for improving the mental well-being of breast cancer patients.

So, it can be concluded that breast cancer patients and their spouses face significant mental health challenges, including anxiety, depression, cognitive

problems, fatigue, sexual dysfunction, and other issues that can greatly impact their quality of life. Spouses of breast cancer survivors also experience anxiety and depression post-diagnosis, emphasizing the need for support for both the patient and their partner. Non-adaptive coping strategies during treatment can lead to higher anxiety levels in survivorship, highlighting the importance of promoting adaptive coping mechanisms for couples facing breast cancer.

Patients treated with chemotherapy may experience more cognitive issues, fatigue, and anxiety, necessitating close monitoring and interventions. Advanced disease or metastases can lead to sexual dysfunction and pain, underscoring the importance of managing these symptoms to maintain mental well-being. The COVID-19 pandemic exacerbated loneliness, depressive symptoms, and anxiety among breast cancer patients, reinforcing the need for mental health support during crisis situations.

Social support is a key predictor of better mental health for breast cancer patients, highlighting the need to foster supportive networks and connections. Leisure time physical activity and a positive health perception also contribute to mental well-being, suggesting the importance of maintaining an active lifestyle and a positive outlook. Socioeconomic factors, such as income and household resources, play a role in the psychological impact of breast cancer, pointing to the need for equitable access to mental health support and healthcare resources across all socioeconomic groups.

Breast reconstruction after mastectomy can have positive mental health outcomes, supporting emotional and psychological recovery. Psychological resilience and religiosity have been shown to have a significant positive impact on the mental health of breast cancer patients, indicating the potential benefits of strengthening resilience and religious or spiritual support to enhance patients' coping mechanisms.

4. CONCLUSION

Breast cancer patients and their spouses face various mental health challenges, including anxiety, depression, cognitive issues, and sexual dysfunction, affecting their quality of life. Support for both the patient and their partner is crucial, especially when undergoing treatments like chemotherapy. The COVID-19 pandemic exacerbated loneliness and anxiety, necessitating mental health support during crises. Social support, physical activity, and a positive outlook are key to better mental well-being. Socioeconomic factors and breast reconstruction impact psychological outcomes, while resilience and religiosity enhance coping mechanisms. Promoting adaptive strategies, fostering supportive networks, and ensuring equitable access to resources can improve mental health outcomes for breast cancer patients.

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