



THE ROLE OF FAMILY FUNCTIONING AND TREATMENT SELF-EFFICACY IN RESILIENCE AMONG WOMEN WITH BREAST CANCER

Maryati Rizka Sari, Nida Ul Hasanat, Rizki Nur Pratama*
Faculty of Psychology, Universitas Gadjah Mada, Yogyakarta, Indonesia

Keywords:

*Family functioning,
Self-efficacy in treatment,
Resilience,
Breast cancer.*

Received: 07 February 2026

Revised: 01 March 2026

Accepted: 01 March 2026

Available online: 01 September 2026

Corresponding Author:

E-mail: rizkinurpratama@mail.ugm.ac.id

ABSTRACT

Background: Resilience plays a critical role in enabling women with breast cancer to adapt to diagnosis and treatment-related challenges. This study examined the roles of family functioning and treatment-related self-efficacy in predicting resilience among women with stage II–III breast cancer in Yogyakarta and Banda Aceh using a cross-sectional quantitative design (N = 81). Data were collected using the Connor–Davidson Resilience Scale (CD-RISC), the General Functioning subscale of the McMaster Family Assessment Device (FAD), and the Symptoms Management Self-Efficacy Scale for Breast Cancer (SMSES-BC) and analyzed through multiple regression. The findings indicated that although family functioning and treatment-related self-efficacy jointly contributed to resilience, only family functioning emerged as a significant independent predictor ($\beta = 0.398$, $p = 0.002$). In contrast, treatment-related self-efficacy did not show a significant independent effect ($\beta = 0.133$, $p = 0.282$). Together, the variables explained 23.8% of the variance in resilience. These findings identify family functioning as the most salient psychosocial factor in fostering resilience among women undergoing breast cancer treatment and emphasize the need to integrate family-centered approaches, such as communication training and caregiver education, into psychosocial support programs. Future longitudinal and mixed-methods research is recommended to examine additional potential mediating or moderating mechanisms through which treatment-related self-efficacy influences resilience.

Copyright ©2026 by Authors. Published by Faculty of Medicine, Universitas Diponegoro Semarang Indonesia. This is an open access article under the CC-BY-NC-SA (<https://creativecommons.org/licenses/by-nc-sa/4.0/>).

INTRODUCTION

Cancer is a chronic disease with one of the highest mortality rates worldwide. According to the World Health Organization (WHO, 2022), cancer is characterized by the uncontrolled growth of abnormal cells that exceed their normal boundaries and spread to other parts of the body, a process known as metastasis. Extensive metastasis to vital organs is the primary cause of cancer-related mortality. Data from the Global Burden of Disease Cancer Collaboration (2020) reported 396,914 new cancer cases in Indonesia, with breast cancer accounting for the highest proportion (68,858 cases), followed by cervical cancer (36,633 cases), lung cancer (34,783 cases), liver cancer (21,392 cases), and nasopharyngeal cancer (19,943 cases).

Breast cancer remains the most prevalent cancer among women in Indonesia. A report from the Directorate of Prevention and Control of Non-Communicable Diseases, Ministry of Health of the Republic of Indonesia (2025), in 2024, new cases of breast cancer in Indonesia reached 20 million cases, with a mortality rate of 9.7 million cases. This figure illustrates the substantial burden of breast cancer within the female population. Breast cancer is a major source of concern for women, particularly because its prognosis worsens significantly when diagnosed at an advanced stage. Similar to other types of cancer, breast cancer can be identified at different stages of progression, ranging from early to advanced stages (Zahara & Minerty, 2021).



Breast cancer is a condition in which normal breast cells undergo abnormal changes in form and function, leading to the development of malignant tumors. These malignant cells can invade surrounding tissues and metastasize to distant organs (Purba & Siahaan, 2023). Several risk factors contribute to the development of breast cancer, including age, reproductive history, family history, genetic predisposition, hormonal factors, environmental exposure, and genetic variations. The disease arises from disturbances in cell growth within breast tissues, including mammary glands, fatty tissue, milk ducts, and lymph nodes. Exposure to viruses, bacteria, chemical substances, ultraviolet radiation, and psychological stress has also been identified as contributing factors (Shah et al., 2014; Traves & Cokenakes, 2021).

Advances in medical technology have led to the development of various cancer treatment modalities, including surgery, radiotherapy, and chemotherapy. Among these, chemotherapy remains one of the most widely used approaches due to its significant therapeutic benefits (Gebremedhin et al., 2021). However, chemotherapy often requires prolonged treatment periods and specialized care, and it exerts substantial physical and psychological burdens on patients. Common physical side effects include pain, nausea, dyspnea, and weight loss, which can negatively affect patients' quality of life when not adequately managed (Gebremedhin et al., 2021). Beyond physical symptoms, receiving a breast cancer diagnosis and undergoing treatment may lead to long-term psychological consequences, such as depression, anxiety, fatigue, body image disturbances, and reduced motivation to cope with the disease (Hill et al., 2010; Phillips-Salimi & Andrykowski, 2013; Saboonchi et al., 2014; Sulistyarini et al., 2022).

Psychological factors play a crucial role in the treatment journey and recovery process of women with breast cancer, alongside medical interventions (Sulistyarini et al., 2022). Previous studies have shown that women undergoing breast cancer treatment often experience anxiety, hopelessness, and emotional exhaustion due to the prolonged and uncertain nature of therapy (Nolan et al., 2019; Sitio, 2019). Although some patients eventually reach a stage of acceptance, uncertainty regarding treatment

outcomes and recovery continues to be a significant source of stress.

Resilience has been identified as a key psychological resource that enables individuals to adapt positively to adversity. Safitri et al. (2024) reported that 60% of cancer patients exhibited low levels of life motivation, indicating low resilience, while only 40% demonstrated strong resilience. These findings highlight the need to strengthen resilience among cancer patients to help them cope with diagnosis and treatment demands. Resilient individuals are better able to maintain optimism, learn from adversity, and persist in the face of life-threatening challenges (Aspinwall & MacNamara, 2005; Siebert, 2005).

Resilience has been associated with better emotional regulation, optimism, improved physical functioning, and higher quality of life among individuals with breast cancer (Castell-Alcalá et al., 2022; Ghriwati et al., 2021; Ristevska-Dimitrovska et al., 2015). Conversely, low resilience has been linked to poorer body image, pessimistic life perspectives, greater physical decline, and more severe treatment side effects. Previous studies have also demonstrated that resilience can reduce anxiety levels in women undergoing chemotherapy for breast cancer (Antari et al., 2023) and serve as a protective factor that enhances psychological well-being and overall quality of life (Ulibarri-Ochoa et al., 2024).

Resilience is defined as an individual's capacity to adapt, recover, and grow in the face of adversity (Connor & Davidson, 2003; Reivich & Shatté, 2002). Connor and Davidson (2003) conceptualized resilience as comprising five dimensions: personal competence, trust in instincts, positive acceptance of change, self-control, and spiritual influences. Both internal and external factors shape resilience. Internal factors include spirituality, optimism, self-esteem, and self-efficacy (Bandura, 1997; Duran et al., 2020; Seligman & Kahana, 2015), while external factors encompass social and family support (Miller et al., 2000; Yuliana et al., 2020).

Family functioning represents a critical external factor influencing resilience. Well-functioning families are characterized by effective communication, emotional involvement, role clarity, problem-solving abilities, and behavioral control (Miller et al., 2000). Research has consistently shown that positive family functioning enhances resilience,



psychological well-being, and quality of life among individuals with cancer (Kukihara et al., 2020; Wang et al., 2021). Supportive family environments provide emotional security, reduce psychological burden, and enable patients to focus more effectively on recovery (Huang et al., 2022).

The significance of family functioning is particularly salient in the Indonesian and broader Southeast Asian context, where collectivistic cultural values emphasize family interdependence in facing life-threatening illnesses (Sumari et al., 2020). Recent studies in the region have highlighted that family involvement is not merely a source of social support but a primary driver of psychological resilience that allows patients to navigate complex treatment regimens (Suwartono et al., 2025; Agustina et al., 2024; He et al., 2024). Furthermore, evidence from 2021–2024 emphasizes that the family's role in managing psychosocial burdens is increasingly critical to ensuring sustained resilience among patients facing long-term treatment challenges (Jiang et al., 2023; Wang et al., 2021).

In addition to family functioning, self-efficacy is an important internal resource for individuals coping with chronic illness. Self-efficacy refers to an individual's belief in their ability to manage behaviours and challenges necessary to achieve desired outcomes (Bandura, 1997). In the context of breast cancer, treatment-related self-efficacy reflects patients' confidence in managing chemotherapy-related symptoms, emotional distress, and interpersonal challenges (Liang et al., 2015). Higher self-efficacy has been associated with better coping strategies, adherence to treatment, and improved quality of life among breast cancer patients (Chou, 2019; Johansson et al., 2018; Karademas et al., 2023).

Although previous studies have examined the relationship between family functioning and resilience, as well as self-efficacy and resilience, research investigating the combined role of family functioning and treatment-related self-efficacy in predicting resilience among women with breast cancer remains limited. Most prior studies have explored these variables separately, without considering how internal psychological resources and external social support systems may interact in shaping resilience. Furthermore, empirical evidence within the Indonesian context is still scarce, despite Indonesia's collectivistic cultural orientation in

which family plays a central role in emotional support, decision-making, and illness management.

Considering that resilience is influenced by both internal and external protective factors, examining these variables simultaneously may provide a more comprehensive understanding of psychosocial adjustment among women undergoing breast cancer treatment. Therefore, this study aims to examine the joint and individual roles of family functioning and treatment-related self-efficacy in predicting resilience among women with breast cancer. It is hypothesized that family functioning and treatment-related self-efficacy jointly contribute to resilience in women with breast cancer.

METHODS

This study employed a quantitative cross-sectional design involving 81 women diagnosed with stage II–III breast cancer who were receiving treatment at hospitals specializing in breast cancer care. Participants were recruited using non-probability convenience sampling due to practical and ethical considerations, as access to patients depended on hospital approval and participants' willingness during ongoing treatment. Although this sampling approach may limit the generalizability of the findings, it enabled the inclusion of participants who met the study's specific clinical criteria.

The majority of participants were aged 51–60 years (40%), had a bachelor's or master's degree (48%), were housewives (57%), were diagnosed with stage II breast cancer (72%), and had been diagnosed for 1–4 years (54.3%). Further details are presented in Table 1.

Table 1. Demographic characteristics of participants (N = 81)

Variable	Category	N	Percentage
Age (years)	33–40	5	6%
	41–50	26	32%
	51–60	32	40%
	61–73	18	22%
Education level	Elementary school	3	4%
	Junior high school	4	5%
	Senior high school / vocational school	27	33%
	Diploma (D1–D4)	8	10%
Occupation	Bachelor's–Master's degree	39	48%
	Housewife	46	57%
	Retired	6	7%
	Private sector employee	20	25%



Maryati Rizka Sari, Nida Ul Hasanat, Rizki Nur Pratama

	Civil servant	9	11%
Cancer	Stage II	58	72%
stage	Stage III	23	28%
Time since	< 1 year	2	2.5%
diagnosis	1–4 years	44	54.3%
	5–9 years	29	35.8%
	≥ 10 years	6	7.4%

Resilience was measured using the Connor–Davidson Resilience Scale (CD-RISC) (Connor & Davidson, 2003), which was adapted into Indonesian by Wahyudi et al. (2020) and modified for women with breast cancer. The instrument consists of 25 favorable items representing five dimensions: personal competence, trust in instincts, positive acceptance of change, self-control, and spiritual influence. Responses are rated on a 4-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). The scale demonstrated good content validity, with Aiken's V values ranging from 0.72 to 0.94, and high internal consistency (Cronbach's $\alpha = 0.948$).

Family functioning was assessed using the General Functioning subscale of the McMaster Family Assessment Device (FAD; Epstein et al., 1983), adapted into Indonesian by Sugiyanto (2014) and modified by Khatimah (2020). The final scale comprised eight items measuring general family functioning, rated on a 4-point Likert scale, and showed good reliability ($\alpha = 0.808$). Treatment-related self-efficacy was measured using the Symptoms Management Self-Efficacy Scale for Breast Cancer (SMSES-BC; Liang et al., 2015), which was translated into Indonesian using a forward-translation procedure. The final version consisted of 25 items covering three dimensions: acquiring problem-solving skills, managing chemotherapy-related symptoms, and managing emotional and interpersonal disturbances. Responses were rated on an 11-point scale from 0 (not at all confident) to 10 (very confident), with high reliability ($\alpha = 0.934$).

Data collection was conducted after obtaining ethical approval from the Ethics Committee of the Faculty of Psychology, Universitas Gadjah Mada (No. 1225/UNI/FPSi. 1.3/SD/PT.01.04/2024) and permission from two private hospitals in Yogyakarta. Participants provided informed consent before completing the questionnaires, which were administered both offline at outpatient clinics and chemotherapy units and online via Google Forms.

Content validity for the resilience and family functioning scales was evaluated using Aiken's V (Aiken, 1985) by nine expert panelists. Data were analyzed using multiple regression after meeting the classical assumptions, including normality, linearity, homoscedasticity, and multicollinearity. All statistical analyses were performed using SPSS version 27.

RESULTS

Descriptive analyses indicated that participants generally reported moderate levels of resilience ($M = 86.20$, $SD = 8.74$), family functioning ($M = 25.10$, $SD = 3.87$), and treatment-related self-efficacy ($M = 190.00$, $SD = 33.50$). More than half of the participants were categorized in the moderate range for resilience (54%), family functioning (69%), and self-efficacy (74%), suggesting that overall psychosocial resources were present but not optimal.

A one-way analysis of variance showed no significant differences in resilience based on time since diagnosis, $F(3) = 0.699$, $p = 0.555$, indicating that resilience levels were relatively stable across diagnosis duration groups.

Prior to regression analysis, classical assumption tests were performed. Residuals were normally distributed (Kolmogorov–Smirnov $p = 0.200$), and multicollinearity diagnostics indicated acceptable values (VIF = 1.534; tolerance = 0.652). Although the homoscedasticity test was statistically significant ($p = 0.004$), visual inspection of the scatterplot suggested no substantial violation, as residuals were randomly distributed.

Correlation analysis revealed significant positive associations among the main variables. Family functioning was moderately correlated with treatment-related self-efficacy ($r = 0.590$, $p < 0.001$). Resilience showed a significant positive correlation with family functioning ($r = 0.476$, $p < 0.001$) and with treatment-related self-efficacy ($r = 0.367$, $p < 0.001$), indicating that higher resilience was associated with stronger family functioning and greater confidence in managing treatment.

Multiple regression analysis demonstrated that family functioning and treatment-related self-efficacy jointly predicted resilience, $F = 12.182$, $p < 0.001$, accounting for 23.8% of the variance ($R^2 = 0.238$; adjusted $R^2 = 0.218$). However, when examined individually, only family functioning emerged as a significant predictor ($\beta = 0.398$, $t = 3.248$, $p = 0.002$),



contributing an effective variance of 18.9%. In contrast, treatment self-efficacy did not significantly predict resilience ($\beta = 0.133$, $t = 1.084$, $p = 0.282$), contributing 4.9% of the variance. Although self-efficacy was positively correlated with resilience, its predictive effect diminished when analyzed simultaneously with family functioning, suggesting overlapping or shared variance between the two variables.

DISCUSSION

This study examined the role of family functioning and treatment-related self-efficacy in predicting resilience among women with breast cancer. The findings partially supported the proposed hypothesis: although family functioning and treatment-related self-efficacy jointly contributed to resilience, only family functioning emerged as a significant independent predictor. Specifically, family functioning accounted for 18.9% of the variance in resilience, whereas treatment-related self-efficacy contributed 4.9% and did not reach statistical significance.

The significant contribution of family functioning underscores the central role of relational systems in fostering resilience during chronic illness. Family functioning reflects the extent to which family members maintain emotional bonds, communicate effectively, fulfil roles, and collaboratively solve problems (Walsh, 2012). According to family resilience theory, adaptive family processes—such as emotional cohesion, shared meaning-making, and flexible role distribution—serve as protective mechanisms that buffer stress and promote psychological adaptation. In line with this perspective, previous studies have consistently demonstrated that positive family functioning is associated with higher resilience, better psychological adjustment, and improved quality of life among individuals with cancer (Wang et al., 2021; Jiang et al., 2023; Alexander et al., 2019; Zhang et al., 2019). Supportive family environments provide both emotional reassurance and instrumental assistance, which may reduce treatment-related distress and enhance patients' capacity to cope with illness-related uncertainty (Konradsen et al., 2018; Kirana, 2016).

These results are further strengthened by recent empirical evidence, which underscores that family

functioning remains a robust predictor of psychological outcomes even amid modern treatment advancements. For instance, Jiang et al. (2023) demonstrated that resilience acts as a vital bridge between family dynamics and the quality of life in advanced cancer patients. Similarly, Wang et al. (2021) highlighted the dyadic nature of this relationship, suggesting that the collective resilience of the family unit directly bolsters the individual patient's ability to adapt. In the Indonesian context, where family interdependence is culturally central, these contemporary findings validate that a stable and functional family environment is not just a secondary support but a primary necessity for maintaining resilience throughout the arduous chemotherapy process (Antari et al., 2023; Purba & Siahaan, 2023).

The findings also revealed that most participants exhibited moderate levels of resilience. This suggests that while participants were generally able to adapt to the demands of diagnosis and treatment, they may still experience ongoing psychological strain. Resilience in this context should be understood as a dynamic process rather than a stable trait, shaped by interactions between individual strengths and environmental resources (Mufidah, 2017; Baraqbah & Hatta, 2017). The presence of moderate resilience may indicate an adaptive yet vulnerable state, where supportive contexts remain essential for sustained psychological well-being.

Interestingly, treatment-related self-efficacy did not independently predict resilience, which contrasts with prior studies reporting significant positive associations between self-efficacy and resilience (Taheri & Falavarjani, 2019; Yang et al., 2019). Several interpretations may explain this discrepancy. First, the self-efficacy construct measured in this study focused specifically on confidence in managing treatment-related symptoms and challenges. While such domain-specific efficacy beliefs may enhance adherence and symptom management, they may not fully capture broader psychological adaptation processes that define resilience. Second, resilience encompasses emotional regulation, cognitive reframing, and social integration—dimensions that may depend more strongly on interpersonal support than on individual confidence alone.

Third, cultural context may play an important role. In collectivistic societies such as Indonesia, psychological adjustment is often embedded within



family interdependence and relational harmony. In such contexts, external support systems may exert a stronger influence on resilience than internal self-beliefs. Thus, treatment-related self-efficacy may function indirectly, possibly strengthening engagement with family support or moderating the impact of stress, rather than acting as a direct predictor. Previous research has suggested that self-efficacy can serve as a mediating or moderating variable in psychosocial adaptation processes (Chirico et al., 2017), supporting the possibility of a more complex relational mechanism.

Regarding demographic characteristics, resilience did not significantly differ based on duration since diagnosis. Although earlier research suggests that newly diagnosed patients may exhibit lower resilience due to acute psychological distress (Sugeng et al., 2016), the present findings indicate that adaptation may not be determined solely by time. Individual coping styles, perceived social support, and illness perceptions may contribute more substantially to resilience trajectories (Desweni et al., 2021; Martino et al., 2019).

Several limitations warrant consideration. The use of non-probability convenience sampling restricts the generalizability of the findings to broader populations of women with breast cancer. The cross-sectional design precludes causal interpretation of the observed relationships. Furthermore, reliance on self-report measures may introduce response bias or social desirability effects. Future research employing longitudinal designs could better capture the dynamic interplay between family functioning, self-efficacy, and resilience over time. Additionally, incorporating qualitative approaches may provide deeper insight into cultural and relational dimensions of resilience.

Overall, the present study highlights family functioning as a central psychosocial resource in fostering resilience among women undergoing breast cancer treatment. These findings emphasize the need to conceptualize resilience not merely as an individual capacity but as a relationally embedded process influenced by family dynamics and sociocultural context.

CONCLUSION

This study highlights family functioning as the most significant psychosocial predictor of resilience among women with breast cancer. While treatment-related self-efficacy showed a positive association with resilience, its independent contribution was limited when considered alongside family functioning. These findings suggest that resilience in the context of breast cancer is shaped not only by individual confidence in managing treatment, but more critically by the quality of relational and emotional support within the family system.

The results underscore the importance of integrating family-centered approaches into psychosocial care for women undergoing breast cancer treatment. Interventions such as family communication training, caregiver education programs, and structured emotional support initiatives may strengthen relational resources that foster adaptive coping and long-term psychological adjustment. Embedding these strategies within hospital-based or community support services may enhance holistic recovery beyond medical management alone.

Future research should employ longitudinal designs to examine how family functioning and self-efficacy interact over time in shaping resilience trajectories. Additionally, mixed-methods approaches could provide deeper insight into potential mediating or moderating mechanisms through which treatment-related self-efficacy influences resilience. Such directions would advance theoretical understanding while informing culturally responsive psychosocial interventions for women coping with breast cancer.

ETHICAL APPROVAL

This study was conducted in accordance with ethical principles for research involving human participants and received ethical approval from the Ethics Committee of the Faculty of Psychology, Universitas Gadjah Mada (No. 1225/UNI/FPSi.1.3/SD/PT.01.04/2024). Prior to data collection, all participants were provided with complete information regarding the study objectives, procedures, potential risks, and their right to withdraw at any time without consequences. Written informed consent was obtained from all participants, and confidentiality of personal data was strictly maintained.



Maryati Rizka Sari, Nida Ul Hasanat, Rizki Nur Pratama

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

FUNDING

This study was supported by a scholarship grant provided by the Ministry of Health of the Republic of Indonesia (Kementerian Kesehatan Republik Indonesia).

AUTHOR CONTRIBUTIONS

Maryati Rizka Sari contributed to conceptualization, data collection, formal analysis, data interpretation, and writing original draft preparation. Nida Ul Hasanat contributed to conceptualization, supervision, and writing review and editing. Rizki Nur Pratama contributed to formal analysis, data interpretation, and writing review and editing. All authors have read and approved the final version of the manuscript.

ACKNOWLEDGMENTS

None to declare.

REFERENCES

1. Agustina, R., Fetzer, S. J., Lai, W. S., Konlan, K. D., Romadhon, P. Z., & Lin, M. F. (2024). ABCDE assessment for palliative care truth-telling dilemmas: a case study. *International journal of palliative nursing*, 30(8), 444-450. <https://doi.org/10.12968/ijpn.2024.30.8.444>
2. Aiken, L. R. (1985). Three coefficients for analyzing the reliability and validity of ratings. *Educational and Psychological Measurement*, 45(1), 131-142. <https://doi.org/10.1177/0013164485451012>
3. Alexander, A., Kaluve, R., Prabhu, J. S., Korlimarla, A., Srinath, B. S., Manjunath, S., Patil, S., Gopinath, K. S., & Sridhar, T. S. (2019). The impact of breast cancer on the patient and the family in an Indian perspective. *Indian Journal of Palliative Care*, 25(1), 66-72. https://doi.org/10.4103/IJPC.IJPC_158_18
4. Antari, N. K. W., Jayanti, D. M. A. D., & Sanjiwani, A. A. S. (2023). Hubungan resiliensi dengan tingkat kecemasan pasien kanker payudara yang menjalani kemoterapi. *Jurnal Keperawatan Jiwa*, 11(2), 293-304.
5. Aspinwall, L. G., & MacNamara, A. (2005). Taking positive changes seriously: Toward a positive psychology of cancer survivorship and resilience. *Cancer*, 104(11 Suppl.), 2549-2556. <https://doi.org/10.1002/cncr.21244>
6. Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman.
7. Baraqbah, A., & Hatta, M. I. (2017). Studi deskriptif mengenai resiliensi pada pasien kanker serviks. *Prosiding Psikologi*, 286-292.
8. Chirico, A., Serpentine, S., Merluzzi, T., Mallia, L., Del Bianco, P., Martino, R., Trentin, L., Bucci, E., De Laurentiis, M., Capovilla, E., Lucidi, F., Botti, G., & Giordano, A. (2017). Self-efficacy for coping moderates the effects of distress on quality of life in palliative cancer care. *Anticancer Research*, 37(4), 1609-1615. <https://doi.org/10.21873/anticancer.11491>
9. Connor, K. M., & Davidson, J. R. (2003). Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety*, 18(2), 76-82. <https://doi.org/10.1002/da.10113>
10. Desweni, E., Harahap, W. A., & Afriwardi. (2021). Pemeriksaan payudara sendiri dengan stadium kanker payudara. *Journal of Telenursing*, 3(2), 629-635.
11. Duran, S., Avci, D., & Esim, F. (2020). Association between spiritual well-being and resilience among Turkish patients. *Journal of Religion and Health*, 59(6), 3097-3109. <https://doi.org/10.1007/s10943-020-01000-z>
12. Epstein, N. B., Baldwin, L. M., & Bishop, D. S. (1983). The McMaster Family Assessment Device. *Journal of Marital and Family Therapy*, 9(2), 171-180. <https://doi.org/10.1111/j.1752-0606.1983.tb01497.x>
13. Gebremedhin, T. K., Cherie, A., Tolera, B. D., Atinafu, B. T., & Demelew, T. M. (2021). Prevalence and risk factors of malnutrition among adult cancer patients receiving chemotherapy treatment in Ethiopia: A cross-sectional study. *Heliyon*, 7(6), e07362. <https://doi.org/10.1016/j.heliyon.2021.e07362>
14. Global Burden of Disease Cancer Collaboration. (2020). Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide. *CA: A Cancer Journal for Clinicians*, 71(3), 209-249. <https://doi.org/10.3322/caac.21660>



15. He, Y., Liu, X., Lin, T., Guo, X., & Chen, J. (2024). The mediating role of perceived stress in the association between family resilience and psychological distress among gynecological cancer patients: a cross-sectional study. *BMC psychiatry*, 24(1), 622. <https://doi.org/10.1186/s12888-024-06060-z>
16. Hill, J., Holcombe, C., Clark, L., Boothby, M. R. K., Hincks, A., Fisher, J., Tufail, S., & Salmon, P. (2010). Predictors of onset of depression and anxiety after diagnosis of breast cancer. *Psychological Medicine*, 41(7), 1429–1436. <https://doi.org/10.1017/S0033291710001868>
17. Jiang, L., Wang, M., Chen, Y., & Liu, Q. (2023). Mediating role of resilience between family functioning and quality of life in patients with advanced cancer. *Journal of Psychosocial Oncology*, 1–15. <https://doi.org/10.1080/07347332.2023.2231431>
18. Karademas, E. C., Simos, P., Pat-Horenczyk, R., et al. (2023). The interplay between trait resilience and coping self-efficacy in patients with breast cancer. *Journal of Clinical Psychology in Medical Settings*, 30(1), 119–128. <https://doi.org/10.1007/s10880-022-09872-x>
19. Khatimah, K. (2020). *Peran moderasi oleh family hardiness dan mediasi oleh family functioning* [Tesis, Universitas Indonesia].
20. Kirana, L. A. (2016). Dukungan sosial dan resiliensi pada pasien kanker payudara. *Psikoborneo: Jurnal Ilmiah Psikologi*, 4(4), 522–529.
21. Konradsen, H., Dieperink, K. B., Lauridsen, J., Sorknaes, A. D., & Ostergaard, B. (2018). Validity and reliability of family functioning questionnaires. *Scandinavian Journal of Caring Sciences*, 32(4), 1447–1457. <https://doi.org/10.1111/scs.12591>
22. Kukihara, H., Yamawaki, N., Ando, M., Nishio, M., Kimura, H., & Tamura, Y. (2020). The mediating effect of resilience between family functioning and mental well-being. *Health and Quality of Life Outcomes*, 18(1), 1–8. <https://doi.org/10.1186/s12955-020-01486-x>
23. Liang, S. Y., Wu, W. W., Kuo, C. Y., & Lu, Y. Y. (2015). Development of the symptom-management self-efficacy scale for breast cancer. *Asian Nursing Research*, 9(4), 312–317. <https://doi.org/10.1016/j.anr.2015.09.001>
24. Martino, M. L., Gargiulo, A., Lemmo, D., & Margherita, G. (2019). Cancer blog narratives of women with breast cancer. *The Qualitative Report*, 24(1), 158–173.
25. Miller, I. W., Epstein, N. B., Bishop, D. S., & Keitner, G. I. (1985). The McMaster Family Assessment Device: Reliability and validity. *Journal of Marital and Family Therapy*, 11(4), 345–356. <http://dx.doi.org/10.1111/j.1752-0606.1985.tb00028.x>
26. Miller, I. W., Ryan, C. E., Keitner, G. I., Bishop, D. S., & Epstein, N. B. (2000). The McMaster approach to families. *Journal of Family Therapy*, 22(2), 168–189. <https://doi.org/10.1111/1467-6427.00145>
27. Ministry of Health of the Republic of Indonesia. (2025). *Call for paper informasi kesehatan nasional pencegahan, tatalaksana dan registrasi kanker payudara angkatan 1*. <https://lms.kemkes.go.id/courses/38b962c5-5d5b-4df6-80fd-fe1965cc5c1d>
28. Mufidah, A. C. (2017). Hubungan dukungan sosial terhadap resiliensi dengan mediasi efikasi diri. *Jurnal Sains Psikologi*, 6(2), 68–74.
29. Nolan, T. S., Ivankova, N., Carson, T. L., Spaulding, A. M., Dunovan, S., Davies, S., Enah, C., & Meneses, K. (2022). Life after breast cancer: 'Being' a young African American survivor. *Ethnicity & Health*, 27(2), 247–274. <https://doi.org/10.1080/13557858.2019.1682524>
30. Phillips-Salimi, C. R., & Andrykowski, M. A. (2013). Physical and mental health status of female adolescent/young adult survivors of breast and gynecological cancer: A national, population-based, case-control study. *Supportive Care in Cancer*, 21(6), 1597–1604. <https://doi.org/10.1007/s00520-012-1701-7>
31. Purba, B., & Siahaan, E. M. R. (2023). Resilience in women with breast cancer. *Innovative: Journal of Social Science Research*, 3(4), 4123–4137.
32. Ristevska-Dimitrovska, G., Filov, I., Rajchanovska, D., Stefanovski, P., & Dejanova, B. (2015). Resilience and quality of life in breast cancer patients. *Open Access Macedonian Journal of Medical Sciences*, 3(4), 727–731. <https://doi.org/10.3889/oamjms.2015.128>
33. Saboonchi, F., Petersson, L. M., Wennman-Larsen, A., Alexanderson, K., Brännström, R., & Vaez, M. (2014). Changes in caseness of anxiety



- and depression in breast cancer patients during the first year following surgery: Patterns of transiency and severity of the distress response. *European Journal of Oncology Nursing*, 18(6), 598–604.
<https://doi.org/10.1016/j.ejon.2014.06.007>
34. Sitio, R. (2019). Pengalaman psikososial pasien kanker payudara yang menjalani kemoterapi. *Jurnal Keperawatan Priority*, 2(1), 17–32.
35. Suwartono, H., Latief, J. A., Herman, A., & Napirah, M. R. (2025). Resilience as a Socially Embedded Process in Cervical Cancer Care: A Qualitative Study. *Media Publikasi Promosi Kesehatan Indonesia (MPPKI)*, 8(10), 1241–1252.
<https://doi.org/10.56338/mppki.v8i10.8667>
36. Taheri, A., & Falavarjani, M. F. (2019). Hope, self-efficacy, and perceived stress among Iranian women with breast cancer: Examining the mediating role of resilience. *Middle East Journal of Positive Psychology*, 5(1), 82–96.
<https://www.middleeastjournalofpositivepsychology.org/index.php/mejpp/article/view/90>
37. Trayes, K. P., & Cokenakes, S. E. H. (2021). Breast cancer treatment. *American Family Physician*, 104(2), 171–178.
38. Ulibarri-Ochoa, A., Macia, P., Ruiz-de-Alegria, B., Garcia-Vivar, C., & Iraurgi, I. (2024). The role of resilience and coping strategies in breast cancer patients. *European Journal of Oncology Nursing*, 71, 102620.
<https://doi.org/10.1016/j.ejon.2024.102620>
39. Wahyudi, A., Mahyuddin, M. J., Irawan, A. W., Silondae, D. P., Lestari, M., Bosco, F. H., & Kurniawan, S. J. (2020). Model rasch: analisis skala resiliensi connor-davidson versi bahasa indonesia. *advice: Jurnal Bimbingan Dan Konseling*, 2(1), 28.
<https://doi.org/10.32585/advice.v2i1.701>
40. Walsh, F. (2012). *The new normal: Diversity and complexity in 21st-century families*. Guilford Press.
41. Wang, H., Yue, H., Ren, M., & Feng, D. (2021). Dyadic effects of family functioning and resilience on quality of life. *European Journal of Oncology Nursing*, 52, 101963.
<https://doi.org/10.1016/j.ejon.2021.101963>
42. World Health Organization. (2022). Cancer.
43. Yang, C., Zhou, Y., Cao, Q., Xia, M., & An, J. (2019). The relationship between self-efficacy and resilience. *Frontiers in Psychiatry*, 10, 388.
<https://doi.org/10.3389/fpsyt.2019.00388>
44. Yuan, Y., Xu, H. W., Zhang, S., Wang, Y., Kitayama, A., Takashi, E., Gong, W. J., & Liang, J. Y. (2021). The mediating effect of self-efficacy on the relationship between family functioning and quality of life among elders with chronic diseases. *Nursing Open*, 8(6), 3566–3574.
<https://doi.org/10.1002/nop2.906>
45. Zahara, A. R., & Minerty, B. P. (2021). Post-traumatic growth in women breast cancer survivors. *Journal of Healthcare Technology and Medicine*, 7(2).
<https://doi.org/10.33143/jhtm.v7i2.1756>
46. Zhang, Q., Xiao, S., Yan, L., Sun, L., Wang, Y., & Huang, M. (2019). Psychosocial predictors of adjustment to disability among patients with breast cancer: A cross-sectional descriptive study. *The Journal of Nursing Research: JNR*, 27(2), e15.
<https://doi.org/10.1097/jnr.0000000000000283>
47. Zhang Y. (2018). Family functioning in the context of an adult family member with illness: A concept analysis. *Journal of Clinical Nursing*, 27(15-16), 3205–3224.
<https://doi.org/10.1111/jocn.14500>