

# Hardiness Personality and Family Support for Women's Quality of Life with Breast Cancer

## Personalidad resistente y apoyo familiar para la calidad de vida de las mujeres con cáncer de mama

Supatmi Supatmi<sup>1a\*</sup>, Reliani Reliani<sup>2a</sup>, Raden Khairiyatul Afiyah<sup>3b</sup>, Ernawati Ernawati<sup>4c</sup>

### SUMMARY

**Introduction:** Breast cancer diagnosis and treatment can lead to psychological changes such as stress and depression, which significantly impact the quality of life. Psychological hardiness and family support are two necessary health-elevating factors that strengthen individuals to remain both psychologically and physically healthy despite encountering negative life events such as breast cancer.

**Objective:** This study investigated the relationship between hardiness personality and family support on the quality of life in women with breast cancer.

**Methods:** The study utilized a correlational design with a cross-sectional approach. Hardiness personality and family support were independent variables, while the quality of life during breast cancer served as the dependent variable. To measure hardiness personality, the Revised Hardiness Health Inventory (RHHI-24) was employed, and family support was measured using the Family Support Scale (FSS). The Quality of Life Breast Cancer (QOL-BC) scale was used to assess the quality of life. The sample size consisted of 43 participants selected through simple random sampling, adhering to specific inclusion and exclusion criteria. The data collected were analyzed statistically using linear regression analysis with a confidence interval of 95 % and an alpha value of 0.05.

**Results:** The study found that a hardy personality positively influenced the quality of life in women with breast cancer. This was indicated by a *t* statistics value of 3.327, a probability of 0.0024, and a coefficient of 0.260 (positive). Similarly, family support also had a positive effect on the quality of life, as shown by a *t* statistics value of 2.412, a probability of 0.026, and a coefficient of 0.137 (positive).

**Conclusion:** This study reveals that both hardiness personality and family support play crucial roles in positively impacting the quality of life among women with breast cancer. These factors contribute to their ability to cope effectively with the challenges posed by the disease. Further research should focus on improving psychological adaptation to enhance the quality of life in these individuals.

**Keywords:** Hardiness personality, family support, breast cancer.

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ORCID: 0000-0002-8013-1961<sup>1</sup>

ORCID: 0000-0003-4904-5720<sup>2</sup>

ORCID: 0000-0002-9416-2646<sup>3</sup>

ORCID: 0000-0003-0023-2234<sup>4</sup>

<sup>1</sup>Department of Nursing, Faculty of Health Sciences, Universitas Muhammadiyah Surabaya, Surabaya, Indonesia.

<sup>2</sup>Department of Professional Nurse Education Program, Faculty of Nursing and Midwifery, Universitas Nahdlatul Ulama Surabaya, Surabaya, Indonesia.

<sup>3</sup>Department of Nursing and Health Sciences, Universitas Muhammadiyah Semarang, Semarang, Indonesia.

\*Corresponding author: Supatmi Supatmi  
E-mail: [supatmioppi@gmail.com](mailto:supatmioppi@gmail.com)

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## RESUMEN

**Introducción:** *El diagnóstico y tratamiento del cáncer de mama pueden provocar cambios psicológicos como el estrés y la depresión, que afectan significativamente la calidad de vida. La resistencia psicológica y el apoyo familiar son dos factores necesarios para mejorar la salud, que fortalecen a las personas para mantenerse tanto psicológica como físicamente sanas a pesar de enfrentar eventos negativos como el cáncer de mama.*

**Objetivo:** *Este estudio tuvo como objetivo investigar la relación entre la resistencia psicológica y el apoyo familiar en la calidad de vida de mujeres con cáncer de mama.*

**Métodos:** *El estudio utilizó un diseño correlacional con un enfoque transversal. La resistencia psicológica y el apoyo familiar fueron variables independientes, mientras que la calidad de vida durante el cáncer de mama fue la variable dependiente. Para medir la resistencia psicológica, se utilizó el Inventario de Salud y Resistencia Revisado (RHHI-24), y para medir el apoyo familiar se utilizó la Escala de Apoyo Familiar (FSS). La Escala de Calidad de Vida del Cáncer de Mama (QOL-BC) se utilizó para evaluar la calidad de vida. El tamaño de la muestra consistió en 43 participantes seleccionadas mediante muestreo aleatorio simple, siguiendo criterios de inclusión y exclusión específicos. Los datos recopilados se analizaron estadísticamente utilizando análisis de regresión lineal con un intervalo de confianza del 95 % y un valor alfa de 0,05.*

**Resultados:** *El estudio encontró que la resistencia psicológica influyó positivamente en la calidad de vida de las mujeres con cáncer de mama, como lo indican un valor de estadísticas T de 3,327, una probabilidad de 0,0024 y un coeficiente de 0,260 (positivo). Del mismo modo, el apoyo familiar también tuvo un efecto positivo en la calidad de vida, como lo muestra un valor de estadísticas T de 2,412, una probabilidad de 0,026 y un coeficiente de 0,137 (positivo).*

**Conclusión:** *Este estudio revela que tanto la resistencia psicológica como el apoyo familiar desempeñan papeles cruciales al impactar positivamente la calidad de vida de las mujeres con cáncer de mama. Estos factores contribuyen a su capacidad para hacer frente eficazmente a los desafíos que plantea la enfermedad. Se recomienda que futuras investigaciones se centren en mejorar la adaptación psicológica para mejorar la calidad de vida de estas personas.*

**Palabras clave:** *Resistencia psicológica, apoyo familiar, cáncer de mama.*

## INTRODUCTION

Women who are diagnosed with breast cancer and undergo treatment experience anxiety and even depression, which has an impact on their quality of life (1,2). The most decrease in quality of life in breast cancer patients is a decrease in the psychological dimension (3). Psychological problems faced by women with breast cancer such as feeling fear, thinking about death, and feeling worried when the family knows about the disease (4). Previous studies showed that the symptoms of breast cancer survivors tend to decrease in quality of life (QoL) in the early years of diagnosis (5). Studies have shown that cancer diagnosis and treatment will lead to many somatic problems, reduced life function, and family disintegration (6). Quality of life in breast cancer patients decreased due to several factors, such as personality and lack of support from husbands (7).

The World Health Organization (WHO) indicates that 8 %-9 % of women have breast cancer, reaching 23.6 million in 2020 (4). The results of The Basic Health Research of Indonesia in 2018 showed that the most common cancer cases in Indonesia were 58 256 cases of breast cancer out of a total of 348 809 cancer cases (8). Based on data from the East Java Provincial Health Office in 2019, the number of breast cancer patients reached 12 186 cases. According to Waltrin's research (2017) 85 % with poor quality of life and 15 % with good quality in breast cancer patients. Based on Basic Health Research in 2018, the prevalence of cancer in East Java is 2.2 per 1 000 population. If converted to the population of East Java, the number of cancer patients is 86 000 (10). According to Indotang's research (11) of 30 respondents with breast cancer, 19 respondents (63.3 %) had a very low husband support category. Studies conducted by Mahdian and Ghafari explain that hardiness personality is related to the support and expectations received by cancer patients (12). Hardiness personality it was usually defined as a personality structure comprising the three related general dispositions of commitment, control and challenge that functions as a resistance resource in encounters with stressful conditions.

Cancer affects many aspects of life and can cause many temporary or permanent psychosocial

problems (13). Individuals with hardiness personalities in coping with psychological distress use positive coping strategies and are effective in reducing psychological distress (9,11-13). A person who has strong husband support can increase feelings of calm and give them the strength to heal (14). Research conducted for recovery compared to breast cancer patients who have high husband support, they have the motivation or have the spirit to recover.

Hardiness is a psychological trait that serves as a reliable predictor of good health, even in the face of highly stressful events. It involves two key elements: reduced threat evaluation and increased positive expectations. When dealing with cervical cancer, patients employ various coping strategies to manage their condition (15,16). Prior research has shown that hardiness influences the development of a healthy character (17). It fosters inner attitudes that lead to a more realistic approach to life's challenges and stressors (18). Highly resilient individuals tend to report greater happiness, life satisfaction, and better physical and mental health (19). On the other hand, less resilient individuals are more prone to mental health issues like depression, anxiety, and maladaptive coping styles (20-22). Hardiness acts as a protective factor against stress, mitigating its negative impact on individual health (23). Studies have indicated that a person's quality of life can be predicted based on their level of hardiness personality. Additionally, like perceived social support, hardiness personality positively influences the quality of life in oncology patients (12). Another critical factor affecting the quality of life is the support provided by families, including informational and emotional support through effective family communication patterns (24). Psychological care for oncology patients and their families is of significant importance (25). This study aimed at investigating the relationship between hardiness personality and family support on the quality of life in women with breast cancer.

## METHODS

This study used analytical correlation with cross sectional approach. The purpose of the study was to determine the effect of hardiness

personality, and family support on quality of life in breast cancer patients in the north Surabaya area. A population of 48 women with breast cancer with a sample of 43 respondents was taken using a simple random sampling technique based on inclusion criteria: 1) breast cancer patients, 2) have and live with a partner, 3) are conscious and able to communicate well. The instrument used in this study to assess the variable hardiness personality was the Revised Hardiness Health Inventory (RHHI-24). This instrument allows participants to respond to five items for each domain using a 4-point Likert-type scale. The reliability scale has been examined with  $\alpha$  ranging from 0.6-0.79 by using Cronbach's alpha, 0.76-0.92. The Quality of Life was evaluated using the Quality Of Life Breast Cancer questionnaire (QOL-BC) with 46 question items for physical health, psychological, social, and spiritual dimensions. Before collecting the data, the patients who were recruited for this study were asked to fill out and sign the informed consent, while the researchers explained the aims and procedure of this study. Then, the researchers began to distribute the questionnaire and guided the recruited respondents to answer the questionnaire to obtain a data set for analysis. The collected data was analyzed statistically using the linear regression analysis test (95 % CI:  $\alpha=0.05$ ) with SPSS 20.0 (SPSS Inc., Chicago, IL).

## RESULTS

Most respondents were in the age group of 46 to 55 (41.9 %), with most of them having graduated from Junior school (5 5.8 %). The occupation of respondents was dominated by housewives (62.8 %) and from the Maduranese tribe (51.2 %). Moreover, the monthly revenue of patients was below the regional minimum basic salary (60.5 %). According to the stadium of cancer, stage IB has reached a low level (41.9 %) (Table 1).

Table 2 presents the results of the t-tests, indicating the influence of Hardiness Personality and Family Support on the quality of life. For Hardiness Personality, the t statistics value was 3.327 with a probability of 0.0024, showing a significant effect ( $p < 0.05$ ) with a positive coefficient of 0.260. This suggests that higher

Table 1. Sociodemographic of breast cancer woman

Variable	Frequency	Percentage (%)
<b>Ages</b>		
26-35	2	4.7
36-45	9	20.9
46-55	18	41.9
56-65	14	32.6
<b>Education</b>		
Elementary school	4	9.3
Junior school	24	55.8
Senior high school	15	34.9
<b>Occupation</b>		
Housewife	27	62.8
Worker	12	27.9
Self-employed	4	9.3
<b>Tribe</b>		
Javanese	21	48.8
Madura	22	51.2
<b>Stadium</b>		
SHE	4	9.3
IB	18	41.9
IIA	3	7.0
IIB	7	16.3
III	9	20.9
IV	2	4.7
<b>Revenue</b>		
Above region min basic salary	27	60.5
Average regional min basic salary	16	39.5

levels of Hardiness Personality are associated with an improvement in the quality of life. Similarly, for family support, the t-statistics value was 2.412 with a probability of 0.026, indicating

a significant effect ( $p < 0.05$ ) with a positive coefficient of 0.137. This implies that Family Support also has a positive and significant impact on the quality of life.

Table 2. T-test Results for Analysis of Quality of Life, Hardiness Personality, and Family Support in Women with Breast Cancer (n=43)

Variable	Min	Max	Mean	Std. Dev.	Coefficient	t Statistics	Sig.
Quality of life (Constant)	53.00	123.00	89.6	14.7458	1.709	4.192	0.0001
Hardiness personality	59.00	97.00	73.0	9.3886	0.260	3.327	0.0024
Family support	50.00	80.00	72.4	10.8503	0.137	2.412	0.0260

**DISCUSSION**

Hardiness personality acts as a shield for women diagnosed with cancer in the face of

conditions that increase stress in individuals. The result of this study showed a significant relationship between hardiness personality and perceived family support, which prevents psychological distress to deal with stress among

women with breast cancer. It means that the higher the level of perceived family support, the higher the psychological hardiness of women with breast cancer. In effect, our study indicates that respondents had an average hardiness score of 73.0233 with  $SD = 9.3998$ , where 51.2 % of respondents were mature and had a hard and resistant culture and character slamming in the face of various situations in life. In line with the resilient theory resilient individuals are more optimistic than individuals who are not strong, are more flexible in the face of adversity, and prefer to use adaptive coping styles, such as control and a personal approach using adaptive (26,27), rather than maladaptive coping, such as avoidance, in the face of conditions stress (28). Hardiness and optimism are two factors needed in dealing with and promoting individuals to remain psychologically healthy even in the face of difficulty (12). Hardiness personality has a positive impact on overcoming cancer and hardiness increases individual adaptation to the disease and acts as an intermediary between stress and disease (29–31). Hardiness people act better in the face of difficulties and cope with life's problems such as when women are diagnosed with breast cancer (32).

These values and beliefs make the subject optimistic in facing problems and independent in his life. On the other hand, individuals learn to be willing to take risks when faced with problems (29). Someone who dares to take risks, has confidence in his abilities, accompanied by a sense of optimism will make himself have good mental readiness when experiencing pressure due to the problems experienced. These things help develop a hardy personality in the individual (33). Family support is needed by patients who are facing chronic diseases or patients with terminal conditions such as patients with breast cancer, because the family can provide positive support to patients and know the patient's condition and expectations (34).

Quality of life in breast cancer patients between early stage and advanced stage show a difference in a long time (35). The patient's treatment as well as physical fatigue and activity, can affect the quality of life of patients with breast cancer (36). Family support is very instrumental in the patient's treatment process because family support can help patients with breast cancer to

reduce anxiety (37), stress, or depression while undergoing medical therapy (38). Family involvement during treatment therapy patients plays an important role because by involving the patient's family feel comfortable during therapy or the treatment process, and patients can also be cooperative during treatment therapy (39). Supportive care greatly affects the quality of life of patients with breast cancer (40), patients who undergo treatment regularly can improve their overall quality of life based on dimensions of physical, emotional, and social functioning (41).

## CONCLUSION

The findings showed that hardiness personality and family support are two important health factors in women with breast cancer. Hardiness personality and high family support affect the quality of life in women with breast cancer. High personality hardiness will increase adaptation because individuals have confidence in their abilities, accompanied by a sense of optimism will make themselves have good mental readiness when experiencing pressure due to breast cancer. Family support is instrumental in overcoming stress, anxiety, and depression that often occur in women with breast cancer.

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## Conflict of interest

The authors declare no conflict of interest.

## REFERENCES

1. Sobri FB, Bachtiar A, Panigoro SS, Ayuningtyas D, Gustada H, Yuswar PW, et al. Factors Affecting Delayed Presentation and Diagnosis of Breast Cancer in Asian Developing Countries Women: A Systematic Review. *Asian Pacific J Cancer Prev.* 2021;22(10):3081-3092.

2. Carreira H, Williams R, Dempsey H, Stanway S, Smeeth L, Bhaskaran K. Quality of life and mental health in breast cancer survivors compared with non-cancer controls: A study of patient-reported outcomes in the United Kingdom. *J Cancer Surviv.* 2021;15(4):564-575.
3. Wabula I, Yunitasari E, Wahyudi AS. Supportive Care Needs of Women with Breast Cancer: A Systematic Review. *J Ners.* 2020;15(2 Special Issue):142-148.
4. Chabirah S, Bujawati E, Habibi H, Azriful A. Impact of posttraumatic growth on the quality of life in woman with breast cancer. *Al-sihah Public Heal Sci J.* 2020;12(1):48.
5. Khoirunnisa SM, Suryanegara FDA, Setiawan D, Postma MJ. Health-related quality of life in Her2-positive early breast cancer woman using trastuzumab: A systematic review and meta-analysis. *Front Pharmacol.* 2023;14.
6. Henson E, Chen Y, Gibson S. EGFR Family Members' Regulation of Autophagy Is at a Crossroads of Cell Survival and Death in Cancer. *Cancers (Basel).* 2017;9(4).
7. Shen A, Qiang W, Wang Y, Chen Y. Quality of life among breast cancer survivors with triple-negative breast cancer--role of hope, self-efficacy and social support. *Eur J Oncol Nurs.* 2020;46(May):101771.
8. Sari P, Sayuti S, Ridwan M, Rekiaddin LO, Anisa A. The Relationship between Knowledge and Healthcare Personnel Support with Self-Breast Examination Behavior. *Perilaku dan Promosi Kesehatan Indones J Heal Promot Behav.* 2020;2(2):31.
9. Andini W. Overview of Quality of Life in Breast Cancer Patients Who Have Undergone Modified R. *Universitas Sumatera Utara;* 2017.
10. Badan Penelitian dan Pengembangan Kesehatan - Kemenkes. National Report on basic health research 2018. 2018.
11. Indotang FEF. The Relationship Between Family Support and Coping Mechanisms in Breast Cancer Patients. *Sun J.* 2015;2(4):55-61.
12. Bahrami M, Mohamadirizi S, Mohamadirizi S. Hardiness and optimism in women with breast cancer. *Iran J Nurs Midwifery Res.* 2018;23(2):105-110.
13. Haj Hashemi F, Atashzadeh-Shoorideh F, Oujian P, Mofid B, Bazargan M. Relationship between perceived social support and psychological hardiness with family communication patterns and quality of life of oncology patients. *Nurs Open.* 2021;8(4):1704-1711.
14. Almuhtaseb MIA, Alby F, Zuccheromaglio C, Fatigante M. Social support for breast cancer patients in the occupied Palestinian territory. *PLoS One.* 2021;16(6 June):1-13.
15. Binka C, Nyarko SH, Awusabo-Asare K, Doku DT. I always tried to forget about the condition and pretend I was healed: Coping with cervical cancer in rural Ghana. *BMC Palliat Care.* 2018;17(1):1-8.
16. Supatmi S, Santoso B, Yunitasari E. The Effect of Spirituality on Psychological Hardiness of Cervical Cancer Patients with Chemotherapy. *Stud Ethno-Medicine.* 2022;16(1-2):17-23.
17. Levin AO, Carpenter KM, Fowler JM, Brothers BM, Andersen BL, Maxwell GL. Sexual morbidity associated with poorer psychological adjustment among gynecological cancer survivors. *Int J Gynecol Cancer.* 2010;20(3):461-470.
18. Bukovic D, Silovski H, Silovski T et al. Sexual functioning and body image of patients treated for ovarian cancer. *Sex Disabil.* 2008;26:63-67.
19. Abdollahi A, Alsaikhan F, Nikolenko DA, Al-Gazally ME, Mahmudiono T, Allen KA, et al. Self-care behaviors mediate the relationship between resilience and quality of life in breast cancer patients. *BMC Psychiatry.* 2022;22(1).
20. Schreurs B, van Emmerik H, Notelaers G, de Witte H. Job insecurity and employee health: The buffering potential of job control and job self-efficacy. *Work Stress.* 2010;24(1):56-72.
21. Abdollahi A, Abu Talib M. Hardiness, spirituality, and suicidal ideation among individuals with substance abuse: The moderating role of gender and marital status. *J Dual Diagn.* 2015;11(1):12-21.
22. Eschleman KJ, Bowling NA, Alarcon GM. A Meta-Analytic Examination of Hardiness. *Int J Stress Manag.* 2010;17(4):277-307.
23. Talavera-Velasco B, Luceño-Moreno L, Martín-García J, García-Albuerne Y. Psychosocial risk factors, burnout and hardy personality as variables associated with mental health in police officers. *Front Psychol.* 2018;9(SEP).
24. Epstein N B, Bishop D S, Levin S. The McMaster model of family functioning. *J Marital Fam Ther.* 1978;4(4):19-31.
25. Sheikhzakaryae N, Atashzadeh-Shoorideh F, Ahmadi F, Fani M. Psychological limbo as a barrier to spiritual care for parents of children with cancer: A qualitative study. *Asian Pacific J Cancer Prev.* 2018;19(4):1063-1068.
26. Alharbi TAF, Alqurashi AAB, Mahmud I, Alharbi RJ, Islam SMS, Almustanyir S, et al. COVID-19: Factors Associated with the Psychological Distress, Fear and Resilient Coping Strategies among Community Members in Saudi Arabia. *Healthc.* 2023;11(8).
27. Erbes CR, Arbisi PA, Kehle SM, Ferrier-Auerbach AG, Barry RA, Polusny MA. The distinctiveness

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- of hardiness, positive emotionality, and negative emotionality in national guard soldiers. *J Res Pers.* 2011;45(5):508-512.
28. Delahajj R, Gaillard AWK, van Dam K. Hardiness and the response to stressful situations: Investigating mediating processes. *Pers Individ Dif.* 2010;49(5):386-390.
  29. Saraswati W, Wardani R, Suhatno S, Hartono P, Imandiri A. The effect of electroacupuncture therapy on pain, plasma  $\beta$ -endorphin, and quality of life of stage III cervical cancer patients: A randomized control trial. *JAMS J Acupunct Meridian Stud.* 2021;14(1):4-12.
  30. Naeini EE, Sanaei Zaker B. The Effectiveness of Stress Management Training on Hardiness in Patients with Breast Cancer. *Abnorm Behav Psychol.* 2016;2(2).
  31. Juraskova I, Butow P, Robertson R, Sharpe L, McLeod C, Hacker N. Post-treatment sexual adjustment following cervical and endometrial cancer: A qualitative insight. *Psychooncology.* 2003;12(3):267-279.
  32. Lindau ST, Gavrilova N, Anderson D. Sexual morbidity in very long term survivors of vaginal and cervical cancer: A comparison to national norms. *Gynecol Oncol.* 2007;106(2):413-418.
  33. Winda A, Sudiantara Y. Hardiness in Women with Breast Cancer. *Psikodimensia.* 2014;13(2).
  34. Jacob BM, Horton C, Rance-Ashley S, Field T, Patterson R, Johnson C, et al. Need of patient in ICU with Continuous visitation. *Fam Crit Care.* 2016;25(2):118-125.
  35. Yeong SW, Lee SW, Ong SC. Cost-Effectiveness of Breast Cancer Early Detection Program in Low- and Middle-Income Countries: A Systematic Review. *Value Heal Reg Issues.* 2023;35:57-68.
  36. Canário ACG, Cabral PUL, De Paiva LC, Florencio GLD, Spyrides MH, Da Silveira Gonçalves AK. Physical activity, fatigue and quality of life in breast cancer patients. *Rev Assoc Med Bras.* 2016;62(1):38-44.
  37. Cham CQ, Ibrahim N, Siau CS, Kalaman CR, Ho MC, Yahya AN, et al. Caregiver Burden among Caregivers of Patients with Mental Illness: A Systematic Review and Meta-Analysis. *Healthc.* 2022;10(12).
  38. Banerjee J, Aloysius A, Platonos K, Deierl A. Family-centred care and family delivered care – What are we talking about? *J Neonatal Nurs.* 2018;24(1):8-12.
  39. Al-Mutair AS, Plummer V, Clerehan R, O'Brien A. Needs and experiences of intensive care patients' families: A Saudi qualitative study. *Nurs Crit Care.* 2014;19(3):135-144.
  40. Dewi LC, Pratiwi IN, Nimah L, Ramoo V. Family caregivers, perspective of caring for cancer patients during radiotherapy: A qualitative study. *J Pak Med Assoc.* 2023;73(2):S18-20.
  41. Mackie BR, Mitchell M, Marshall PA. The impact of interventions that promote family involvement in care on adult acute-care wards: An integrative review. *Collegian.* 2018;25(1):131-140.