Factors affecting hardiness in cancer patients: A case study of the Indonesian Cancer Foundation

Erika Untari Dewi,1,4 Nursalam Nursalam,2 Mahmudah Mahmudah,3 Aristina Halawa,4 Azhari Ayu4

1Doctoral Program of Public Health, Faculty of Public Health, Universitas Airlangga, Mulyorejo; 2Faculty of Nursing, Universitas Airlangga, Surabaya; 3Faculty of Public Health, Universitas Airlangga, Surabaya; 4William Booth Health Science College, Surabaya, East Java, Indonesia

Abstract

Background: Cancer patients are usually filled with fear and anxiety but hardiness is a personal characteristic that makes them stronger, resistant, and optimistic in dealing with the pressures related to the disease. There are, however, several factors influencing hardiness and those include social support, parenting, and self-confidence. Therefore, the objective of this study was to identify these factors in cancer patients at the Indonesian Cancer Foundation in Surabaya.

Design and Methods: The study made use of observational design with a population of 70 and a total sample of 64 cancer patients were selected as respondents using simple random sampling. The research instrument used for data collection was a questionnaire and results were analyzed using Spearman statistical test.

Results: The results showed social support was 0.009, parenting patterns was 0.035, and confidence was 0.647. Therefore, H1 was accepted and this means there was a relationship between support and hardiness, as well as parenting patterns and hardiness. Moreover, H0 was also accepted and this indicates self-confidence did not have any influence on hardiness.

Conclusions: In conclusion, providing adequate support and good parenting have the ability to increase hardiness.

Introduction

In Indonesia, cancer is the second leading cause of death and its prevalence is attached to unhealthy lifestyles such as smoking, fast food, alcohol, and excessive weight. Cancer is defined as the uncontrolled growth of cells which eventually causes damage to the normal tissue.1 According to WHO in 2013, cancer is the cause of 13% death in the world after heart disease and its incidence is estimated to reach 26 million with 17 million death by 2030.2 Moreover, GLOBOCAN, an International Agency for Research on Cancer (IARC) reported 18.1 million new cancer cases with 9.6 million death worldwide in 2018.3 Another data provided by the Basic Health Research 2018 (Riskesdas) showed the prevalence of the disease was 4.3/1000 population in Indonesia and the projection of this figure on the ±38 million population of East Java showed approximately 160,000 have cancer in the city. Furthermore, people in their productive age of 30-35 years were observed to be mostly affected with 16.9% for breast and 11.8% for cervical cancer.4

The absence of adequate treatment is causing several physiological problems for the patients.2 This was observed in the form of excessive fear and anxiety exhibited by those without hardiness or toughness, a personality characteristic allowing individuals to become more powerful, durable, and optimistic to face the pressure of the disease.6 Hardiness, however, is affected by social support, parenting patterns, family, and self-confidence.7

The preliminary study conducted showed there are approximately 30-35 cancer patients from all over Indonesia at Surabaya Indonesian Cancer Foundation and the most prevalent type observed with people aged 20-60 years old was cervical cancer. Moreover, the management of the Foundation reported that some of the patients do not have a mentor or family to accompany them during the treatment. The research conducted on 7 patients showed 3 of them have accepted the disease with self-confidence without being afraid to undergo the treatment, and they also participated in all the medication efforts thanks to the support from parents and families. Meanwhile, the remaining patients preferred to stay alone in their room, lacked confidence, felt irritated, and did not get any support from family or closest friends. This shows 57% of the patients were not confident in accepting the disease and this led to physical disability, mental disorders, and impaired psychosocial functioning.

Tough personality or hardiness is an important factor in managing stress and it can be improved through social support in the form of material, emotional and information assistance provided by family, friends, and loved ones.8 Parents also play an important role through the provision of adequate problem-solving training to their children from early childhood. Moreover, confidence is another factor required to avoid stress in a cancer patient and remain calm and optimistic.9

Significance for public health

Cancer patients are usually filled with fear and anxiety but hardiness is a personality characteristic that makes them stronger, resistant, and optimistic in dealing with the pressures related to the disease. Tough personality or hardiness is an important factor in managing stress and it can be improved through social support in the form of material, emotional and information assistance provided by family, friends, and loved ones. Parents also play an important role through the provision of adequate problem-solving training to their children from early childhood. This study describes factors in cancer patients at the Indonesian Cancer Foundation in Surabaya.
Design and Methods

This research was conducted using an observational design involving a cross-sectional approach on the cancer patients in the Indonesian Cancer Foundation, Surabaya, in March 2019. The samples used in this study include 64 respondents selected using simple random sampling. The dependent variable was hardness while the independent variables include social support, parenting patterns, and self-confidence. Data was collected through the use of questionnaires and observations and analyzed using the Spearman correlation test.

Results and Discussion

Table 1 shows the majority of the respondents aged 20-30 years and 41-50 years as shown by the records (28.12%). They are mostly female (71.87%) and high school educated (43.75%). Moreover, the majority of them, 62.5%, do not have any work. Table 2 shows 84.37% of the respondents had hardness, 81.25% had good social support, 87.5% experienced democratic parenting, and 96.87% had sufficient confidence.

According to the Table 3, 92.3% of the respondents had good social support and 89.2% experienced democratic parenting, and these features led to the improvement of the patients’ hardness, as indicated by the P-value of 0.009 and 0.035 < 0.05. However, even though 83.8% of the respondents had self-confidence, no significant relationship was established with hardness, as observed with the p-value of 0.674 > 0.05. The statistical analysis conducted showed a significant relationship between social support and the hardness of cancer patients. This is in line with the findings of Kobasa that individuals with high hardness have a set of attitudes making them resistant to stress. However, social support has been discovered to be an instrument to maintain the psychological state of individuals subjected to pressure and with the ability to cause positive influence required to reduce the disorders. Moreover, according to Vinokur, social support is able to resist any form of stress by increasing toughness and positive feelings. It has, therefore, been discovered that cancer patients with high hardness usually tend to be optimistic in facing the diseases, confident of recovery, participate actively in daily activities, and have the ability and required passion for sustenance. Meanwhile, those lacking hardness always tend to lose faith, be pessimistic in facing problems, lack goals and avoid problems.

The results also showed most of the respondents graduated from high school and this may influence the relationship between social support and hardness. This is in line with the findings of Notoatmodjo that a high school graduate usually has a broad level of knowledge and ability to manage information on the disease which eventually leads to a positive hardness. This means information obtained from family and friends are processed efficiently and used as a support to ensure toughness against the medical problem being faced. Therefore, cancer patients with high school education accept and understand their situation regarding the disease better, and this gives them more confidence. A significant relationship was established between democratic parenting and hardness in cancer patients. According to Kobasa, this form of parenting involves recognizing and rewarding children’s freedom by allowing them to express their opinion and conduct actions freely without any limitation while insightful guidance is adequately provided. In support of this assertion, Weeks reported the style encourages independence, and the children raised using this method are often cheerful and also possess the ability to cope with stress. It is characterized by an open attitude among children, especially those between the age of 20-30 years old, as evidenced by the exhibition of responsibility, critical thinking, creativity, independence, expressiveness, and the freedom to make decision which further leads to hardness. The results showed the majority of the respondents aged between 20-30 and 41-50 years and, in relation to democratic parenting, those in the 20-30 years age range have the ability to solve problems independ-

| Variables          | Category       | Number (n) | Percentage (%) |
|--------------------|----------------|------------|----------------|
| Social support     | Well           | 52         | 81.25          |
|                    | Enough         | 12         | 18.75          |
|                    | Less           | 0          | 0              |
| Parents’ parenting| Permissive     | 2          | 3.12           |
|                    | Authoritarian  | 6          | 9.37           |
|                    | Democratic     | 56         | 87.5           |
| Confidence         | Well           | 2          | 3.12           |
|                    | Enough         | 62         | 96.87          |
|                    | Less           | 0          | 0              |

Table 3. Relationships between Social Support, Parenting, Confidence and Hardiness.

| Variables          | Hardness       | P-value |
|--------------------|----------------|---------|
| Social support     | Less           | 0       | 0.009 *       |
|                    | Enough         | 6 (50%) | 6 (50%)       |
|                    | Well           | 4 (7.6%)| 4 (7.6%)      |
| Parenting          | Permissive     | 2 (100%)| 0 (0%)        |
|                    | Authoritarian  | 2 (33.3%)| 4 (66.6%)    |
|                    | Democratic     | 6 (10.7%)| 50 (99.2%)   |
| Confidence         | Less           | 0 (0%)  | 0.674         |
|                    | Enough         | 10 (16.1%)| 52 (83.8%)  |
|                    | Well           | 0 (0%)  | 2 (100%)      |

*Significant P-value (< 0.05).
ently and have more positive thoughts. They realized there is the need to face the medical problem without giving up and this helps them form hardness. Therefore, a cancer patient needs to be responsible, self-confident, and think positively always. The results showed there was no significant relationship between confidence and the hardness of cancer patients. According to Retnowati, self-confidence includes believing in one’s ability, performing actions and taking responsibilities for them, being polite while interacting with other people, and understanding one’s strengths and weaknesses. People with this attribute are characteristically selfless, independent, and optimistic. However, building confidence in cancer patients depends on the situation and condition considering they typically suffer physically through hair loss, nausea, vomiting, fatigue, skin discoloration, and weight changes as well as psychologically through stress. Moreover, it has been reported that patients with self-confidence are independent and relentless despite the critical nature of the illness. Since most of the respondents have been found to be female without much self-confidence, the results showing the lack of relationship between this factor and the hardness of cancer patients is confirmed.

Conclusions

In conclusion, providing adequate support and good parenting have the ability to increase hardness.

References

1. Baskar R, Lee KA, Yeo R, et al. Cancer and radiation therapy: current advances and future directions. Int J Med Sci 2012;9:193.
2. Mathers CD, Loncar D. Projections of global mortality and burden of disease from 2002 to 2030. PLoS medicine 2006;3:e442.
3. IARC Working Group on the Evaluation of Carcinogenic Risk to Humans. Tobacco Smoke and Involuntary Smoking. Lyon (FR): International Agency for Research on Cancer; 2004.
4. Pratama IA. The Risk of Cervical Cancer from Smoking in Indonesia. KnE Life Sciences 2018;11:47-54.
5. Vinokur AD, Threatt BA, Vinokur-Kaplan D, et al. The process of recovery from breast cancer for younger and older patients. Cancer 1990;65:1242-54.
6. Cooper C, Flint-Taylor J, Pearn M. Building resilience for success: A resource for managers and organizations. London: Springer; 2013.
7. Schaefer JA, Moos RH. The context for posttraumatic growth: Life crises, individual and social resources, and coping. In Tedeschi RG, Calhoun LG (Eds.). The LEA series in personality and clinical psychology. Posttraumatic growth: Positive changes in the aftermath of crisis. London: Lawrence Erlbaum Associates Publishers; 1998. pp. 99–125.
8. Kobasa SC, Puccetti MC. Personality and social resources in stress resistance. J Pers Soc Psychol 1984;55:45-839.
9. Taylor SE, Kemeny ME, Reed GM, et al. Psychological resources, positive illusions, and health. Am Psychol 2000;55:99.
10. Scheier MF, Carver CS, Bridges MW. Optimism, pessimism, and psychological well-being. In Chang EC (Ed.). Optimism & pessimism: Implications for theory, research, and practice. American Psychological Association 2001. Available at: https://doi.org/10.1037/10385-009. Accessed on: 7 September 2019.
11. Notoatmodjo S. Education and promotion. Jakarta: Rineka Cipta; 2003.
12. Weeks JC, Catalano PJ, Cronin A, et al. Patients’ expectations about effects of chemotherapy for advanced cancer. N Eng J Med 2012;367:1616-25.
13. Retnowati. Hardiness, Self-Esteem, Social Support With Subjective Prosperity in Students of the Faculty of Psychology. Surakarta: Muhammadiyah University; 2012.
14. Maharani NN, Halimah L. Relationship between Social Support and Hardiness in Mothers Who Have Children with Acute Lymphoblastic Leukemia Patients in Bandung’s Cancer Love House. Bandung: Unisba; 2015.