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

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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.⁵ 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 hardiness 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 hardiness, 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' hardiness, 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 hardiness, as observed with the p-value of 0.674 > 0.05. The statistical analysis conducted showed a significant relationship between social support and the hardiness of cancer patients. This is in line with the findings of Kobasa that individuals with high hardiness 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.⁸ Moreover, according to Vinokur, social support is able to resist any form of stress by increasing toughness and positive feelings.⁹ It has, therefore, been discovered that cancer patients with high hardiness 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 hardiness always tend to lose faith, be pessimistic in facing problems, lack goals and avoid problems.¹⁰

The results also showed most of the respondents graduated from high school and this may influence the relationship between social support and hardiness. This is in line with the findings of Notoatmodjo¹¹ 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 hardiness.¹¹ 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.¹²

A significant relationship was established between democratic parenting and hardiness in cancer patients. According to Kobasa⁸, 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, Weeks¹² 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 hardiness.¹² 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-

Table 1. Characteristics of Respondents.

Variables	Category	Number (n)	Percentage (%)
Age	20-30 years	18	28.12
	31-40 years	10	15.62
	41-50 years	18	28.12
	51-60 years	14	21.87
	> 60 years	4	6.25
Gender	Male	18	28.12
	Female	46	71.87
Level of education	Elementary	18	28.12
	Junior High School	16	25
	High School	28	43.75
	Diploma	2	0.1
Occupation	Public employees	0	0
	Private employees	10	15.62
	Entrepreneur	14	21.87
	Not working	40	62.5

Table 2. Hardiness, social support, parenting, confident.

Variables	Category	Number (n)	Percentage (%)
Hardiness	Yes	54	84.37
	No	10	15.62
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
Confident	Well	2	3.12
	Enough	62	96.87
	Less	0	0

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

Variables	Hardiness		P-value
	No	Yes	
Social support	Less	0	0.009 *
	Enough	6 (50%)	
	Well	4 (7.6%)	
Parenting	Permissive	0 (0%)	0.035 *
	Authoritarian	4 (66.6%)	
	Democratic	6 (10.7%)	
Confidence	Less	0 (0%)	0.674
	Enough	10 (16.1%)	
	Well	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 hardiness. Therefore, a cancer patient needs to be responsible, self-confident, and think positively always.¹²

The results showed there was no significant relationship between confidence and the hardiness of cancer patients. According to Retnowati,¹³ 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.¹³ 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.¹⁴ 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 hardiness of cancer patients is confirmed.¹⁴

Conclusions

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

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