Self-Concept Influences the Hopes and Psychological Well-Being of Cancer Survivors in Surabaya, Indonesia: A Cross-Sectional Study

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ABSTRACT

Background: The stigma of cancer as a deadly disease greatly affects the patient's perspective in shaping self-concept, which impacts on hopes and influences the stability of psychological well-being. The purpose of this study was to prove that the self-concept influences the hopes and psychological well-being of cancer survivors.

Methods: This was a cross-sectional study. Samples were 90 cancer survivors from three public health centers in Surabaya, Indonesia taken by simple random sampling. All participants completed the instruments of the Tennessee Self-Concept Scale, Herth Hope Index, and Ryff's Psychological Well-Being Scale. All the instruments were valid and reliable based on the test. Ethical feasibility has been conducted. The Pearson Product-Moment Correlation Test was applied to analyze the data with $P < .05$.

Results: The demographic characteristics of cancer survivors include the age majority of 46-65 years (53%), female sex (80%), married (61%), having stage-III cancer (44%), diagnosed of cancer for 1-6 years (56%), having support system from nuclear families (73%), and actively involved in the community (66%). The mean score of self-concept is 78.2, hope 38.2, and psychological well-being 76.3. Self-concept had a significant effect on hope ($r = .783$, $P = .000$) and psychological well-being ($r = .611$, $P = .000$).

Conclusions: Cancer survivors who had positive self-concepts are more likely to accept themselves, which triggers the formation of high hope for recovery and the achievement of positive psychological well-being.

INTRODUCTION

The stigma of cancer as a deadly disease greatly influences the point of view of people on the cancer disease. One study mentioned that the majority of cancer patients automatically think about death [1]. Cancer stigma is caused by the ability of cancer cells to metastasize and replicate without control and the side effects of therapy which significantly affect physical function disorders. The health team is also pessimistic about the prognosis of cancer, especially if the patient is found at an end-stage [2]. Other people's opinions of cancer can affect the patient's self-concept dimensions. Individual relationships with others can form positive and negative self-concepts. It affects the patient's expectations of life. The previous study stated that in cancer patients, there was a positive relationship between hopes and self-esteem [3]. When individuals feel life is meaningless, then there is only pessimism and despair in their life. If the condition lasts a long

time, it will reduce the physical function of cancer patients and can lead to death. A study stated that most patients have experienced high levels of stress at the start of being diagnosed, 6 months, and even 1 year after being diagnosed. This high-stress level also has a high anxiety score [4]. A study explained that 39% of cancer patients suffer severe emotional distress and have a significant relationship with the patient's functional status [5].

GLOBOCAN 2018 estimated the incidence and deaths from cancer in 20 regions of the world; there would be around 18.1 million new cancer cases (17.0 million excluding non-melanoma skin cancer) and 9.6 million cancer deaths (9.5 million excluding cancer non-melanoma skin) in 2018. The main causes of death were lung cancer (18.4% of total cancer deaths), followed by female breast cancer (11.6%), prostate cancer (7.1%) and colorectal cancer (6.1%), gastric cancer (8.2%), and liver cancer (8.2%). Cancer is most often diagnosed, and the leading cause of death from cancer substantially

varies in each country [6]. The prevalence of cancer in Southeast Asia in men is 16.3% and in women 14.52%. Lung cancer is the highest prevalence in Southeast Asia at 35.9%; breast cancer has an incidence of 38.1% with a mortality rate of 14.1%; cervical cancer has an incidence of 17.2% with a mortality rate of 10%; prostate cancer prevalence is 12.7% [6].

Negative testimonials from other cancer patients cause the formation of pessimism towards hopes, which can cause frustration and reduce self-esteem. The previous study stated that the hopes score was negatively related significantly to age. This occurs in oncology patients over 65 years of age; they have much lower hope than those under 65 years [7]. Previous studies on kidney cancer patients mentioned that the majority of patients experienced frustration with their diagnoses and fear of recurrence or development of cancer and financial problems due to cancer treatment [8]. Other studies further explained that self-concept with 3 sub-variables including body image, self-esteem, and self-efficacy affects emotional well-being in breast cancer patients in the form of anxiety and depression [9]. Cancer patients have negative body image, health evaluation, and disease orientation [10]. The hope possessed by someone has an impact on his psychological well-being. Cancer patients, who are unable to accept themselves and do not have a good relationship with others, tend to have poor psychological well-being. Impaired fulfillment of a patient's basic needs has a long-term impact on his psychological well-being [11]. The purpose of this study was to prove that the self-concept influences the hopes and psychological well-being of cancer survivors.

METHODS

This was a cross-sectional study. The populations were 118 cancer survivors in three public health centers in Surabaya, Indonesia who have completed a series of cancer therapies. The samples included 90 cancer survivors taken by simple random sampling. The period for this research was on March-May 2019. The instrument used has been tested for validity and reliability, resulting in the Tennessee Self-Concept Scale of R 0.607–0.949 and Cronbach's alpha score of 0.966, Herth Hope Index of R 0.548–0.949, Cronbach's alpha score of 0.928, Ryff's Psychological Well-Being Scale of R 0.608–0.935, and Cronbach's alpha score of 0.965. The ethical test was conducted by Ethical Foundation, and this study was declared ethical with certificate number 003/WM12/KEPK/T/2019. The researcher has explained the research purposes, benefits, procedures, risk, and research confidentiality as the research ethics requirement. The participants who were willing and

agreed to be involved in the research signed the informed consent. All the participants completed the three instruments. The assessment of each questionnaire was done by calculating the scores; the score obtained is more than half of the score range, it is categorized as the high score, which means positive self-concept, high hopes, and positive psychological well-being; if it is less than half of the score range it means, it is categorized as the low, which means negative self-concept, low hope, and negative psychological well-being. The score range of self-concept is 25–100, hope 12–48, and psychological well-being 24 – 96.

After the data had been collected, the next step was to analyze the normality test using the One-Sample Kolmogorov-Smirnov Test. Normally-distributed data is a requirement for the Pearson Product Moment Correlation Test. The last statistic test was the Pearson Product Moment Correlation to correlate self-concept on the hopes and psychological well-being.

RESULTS

Table 1: Demographic characteristics (n = 90)

Demographic Data	Category	n	%
Age (years)	17–25 (adolescent)	4	5
	26–45 (adulthood)	11	12
	46–65 (older adult)	48	53
	> 65 (elderly)	27	30
Gender	Female	72	80
	Male	18	20
Marital status	Single	11	12
	Married	55	61
	Widow	23	26
	Widower	1	1
Cancer stage	I	7	8
	II	31	34
	III	40	44
	IV	12	14
Duration of cancer diagnosed (year)	< 1	20	22
	1–3	25	28
	4–6	25	28
	> 6	20	22
Support system	Nuclear families	65	73
	Extended families	12	12
	Others	8	9
	Alone	5	6
Community activities involvement	Active	59	66
	Not Active	31	34

Based on **Table 1**, most participants were older adults in the age range of 46–55 years old and dominated by the female and married status. The most cases were of stage-III cancer. Many participants had cancer diagnosed for 1–6 years. Nuclear families were

involved in caring as a support system, and the majority of participants were actively involved in community activity.

Table 2: Descriptive statistic between self-concept, hopes and psychological well-being

Variable	n	Min	Max	Mean	SD
Self-Concept	90	57.00	95.00	78.2	7.5
Hopes	90	29.00	47.00	38.2	4.1
Psychological Well-being	90	59.00	90.00	76.3	7.6

Based on **Table 2**, the mean score of self-concept was 78.2, hope 38.2, and psychological well-being 76.3. All of the mean scores reached more than half the score range (score range of self-concept was 25–100, hope 12–48, psychological well-being 24–96). It means that almost all the participants had a positive self-concept, high hope, and positive psychological well-being.

Table 3: The normality test of self-concept, hopes, psychological well-being

Variable	One Sample Kolmogorov Smirnov
Self-Concept	$p = .071$
Hopes	$p = .227$
Psychological Well-Being	$p = .070$

Based on **Table 3**, all variables had normally distributed data with $P > .05$. The P -value of the self-concept variable was 0.071, hope 0.227, and psychological well-being 0.070.

Table 4: Pearson product moment correlation test of variable self-concept and hopes and psychological well-being

Independent Variable	Pearson Product Moment Correlation Test	Hopes	Psychological well-being
Self-Concept	Pearson correlation	0.783	0.611
	p	0.000	0.000

Based on **Table 4**, there was a significant correlation between self-concept, hope, and psychological well-being. It means that self-concept influences hope and psychological well-being significantly.

DISCUSSION

The result in **Table 2** showed that most participants had high scores of self-concept, which is more than

half of the range score of self-concept. It means that the self-concept was positive. An individual with a positive self-concept is more likely to change unhealthy habits to improve health than an individual with a negative self-concept. Positive feelings about themselves help individuals to overcome crises in various situations even when they suffer from life-threatening diseases such as cancer [9]. One factor contributed to this result that all participants were cancer survivors who had been finishing the complex therapeutic processes. After undergoing cancer therapy, various physical complaints decreased, and the patient's condition is getting better. It was supported by another study that physical condition, cognitive function, and emotion increased significantly after the treatment and so did fatigue, pain, insomnia, and loss of appetite [12]. Other researchers stated that cancer survivors had experienced more positive psychological and physical adjustments after undergoing medical treatment [13]. The positive self-concept findings in this study have a significant correlation with age, that is most respondents are older adults. A study in line with these findings states that the self-concept of an older person is better than the younger one [14].

Passed the critical stage will make cancer survivors have a strong personality and more confidence. A prior study reported that the average score for self-confidence in patients with a terminal disease was better when they finished the therapy management [15]. Positive self-concept arises from a high sense of optimism. Cancer patients with a high degree of optimism will adapt to their disease better than pessimistic patients [16]. A good adaptation process was found in patients who had been diagnosed with the disease for a long time. **Table 1** shows that most participants have been diagnosed with cancer for more than 1 year. Suffering illness for a long time, cancer patients can adapt to the situation and accept the condition more easily. Cancer survivors who can survive until the second year have the potential to be able to surpass the following days better [17] and can recover from physical and psychological trauma [18]. Most cancer patients after 6 months of being diagnosed with cancer and undergoing treatment were found to be able to return to work [19].

Table 2 shows that the score of hope is also high, more than half of the score range of hope, and **Table 4** shows that there is a significant influence of self-concept on participant's hope. Hope is an important element in chronic diseases that can help patients adhere to treatment for better success [20]. According to cancer survivors, hope is one's desire to lead a normal life, get social support, actively relinquish control, and accept life and death [21]. Hope can arise from external supports such as family and social supports [22]. The same thing was mentioned by another study that hope has a significant value with family support [23]. This is

in line with the results of this study that most participants are married and live with nuclear families. Patients who are married and live with their families have more material, psychological, and spiritual supports, which can increase their hopes. A study of breast cancer survivors stated that married status has a more positive influence on the psychological function [24]. The family caregiver was eager to be involved in the patient care process, desired to accompany the patient, to provide the positive respect needed by the patient [25], to provide and build good communication with the patient [26], and to provide positive support to the patient [27]. Besides that, hope is also formed from interactions with other people or the community. A study mentioned that intense interaction with neighbors can help increase hope in people who experience depression or posttraumatic stress symptoms [28]. The findings of this study are similar as in **Table 1** that shows most participants are involved in activities in the community. Social support provided by the community makes individuals more confident, feel accepted, and valued so that they can improve their enthusiasm for life [29]. Social support provided by the community can increase optimism and positive feelings [30].

The mechanism of the emergence of hope is obtained through the impact of the disease on health and is a protective effect from stress in the hope that it will prevent someone from bad effects [31]. The participants in this study perceived that cancer patients must have the hope of recovery because it can motivate them to survive and make a better life. A study reported that the majority of cancer patients have high hope [23]. Patients who had high optimism reported better health status and had greater happiness and hope [32].

Table 2 shows that the score of psychological well-being is also high, more than half of the score range of psychological well-being, which means most participants have positive psychological well-being. Meanwhile, **Table 4** describes that there is a significant influence of self-concept on the participant's psychological well-being. Being optimistic also has a positive effect on psychological well-being. A study in cancer patients stated that there was a positive relationship between optimism and psychological well-being and there was a negative relationship between optimism, pressure, and depression [33]. Significantly-higher levels of optimism are associated with fewer anxiety and depression symptoms, a lack of hopelessness, and a better quality of life [34]. A study found that optimism is the strongest for the emergence of positive psychological well-being which can further produce positive health behaviors and biological functions [35]. One aspect of psychological welfare is eudaimonic well-being which includes the meaning, purpose in life, self-actualization, and autonomy [36]. The role, self-ideal, and self-identity are attributed to achieving self-

actualization contained in self-concept. This is in line with the results of this study that participants who have positive self-concepts also have positive psychological well-being. Social relationships are also an element of psychological well-being [37]. This study also found the participant's involvement in community activities. A study states that social relationships provide a major influence on physical and mental health in patients who experience physical limitations [38,39]. Besides, a study also mentioned that family relationships also have a positive impact on reducing individual stress and increasing psychological well-being [40]. This is consistent with the findings in this study that most participants are supported by nuclear families.

The limitation of this study is that there were no restrictions regarding the stages of cancer. All stages of cancer were used as research samples which might contribute to the achievement of the results of this study.

CONCLUSIONS

Cancer survivors who have completed the cancer therapy program have a positive self-concept, which causes them to be more excited and optimistic about their lives. This can trigger the high hope to recover from illness and cause psychological well-being to be positive.

DECLARATIONS

Competing interest

I declare that I do not have any competing interests, especially with the study funder.

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