

## THE SELF-CONCEPT OF ADOLESCENTS AGED 11-19 YEARS WITH CANCER

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### ABSTRACT

**Introduction:** Cancer is a disease marked by the abnormal growth of cells, significantly impacting various aspects of an individual's life, including adolescents. For those diagnosed with cancer, the illness can profoundly affect their self-concept, which encompasses identity, values, and body image. Physical changes from treatment, social stigma, and emotional challenges can disrupt these perceptions. Adolescents may struggle with body image, ideal self, self-esteem, roles, and identity, influencing their overall well-being. **Objective:** This study aimed to describe their self-concept of adolescents diagnosed with cancer. **Methods:** This study utilized a descriptive quantitative design with a cross-sectional approach. The sample included 60 adolescents selected through purposive sampling. A self-concept questionnaire was employed, and univariate analysis was conducted using frequency distribution. **Results:** The findings revealed that the majority of adolescents (85%) had a positive self-concept. Specifically, 56.7% reported a positive body image, 80% had a realistic ideal self, 78.3% exhibited high self-esteem, 85% engaged in active roles, and 85% demonstrated a strong identity. **Conclusion:** Adolescents aged 11-19 years suffering from cancer possess a positive self-concept. These findings highlight the importance of environmental support in shaping a positive self-concept for adolescents facing cancer.

**Keywords:** adolescents, cancer, self-concept.

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### INTRODUCTION

Uncontrolled abnormal cell growth called cancer can develop if the patient does not receive immediate and intensive treatment, developing cancer cells can spread to other parts of the body to form other cancer cells and eventually kill their victims (World Health Organization, 2022). Cancer comes from abnormal or damaged cells that can grow and multiply even though they are not supposed to (National Cancer Institute, 2021).

According to the Global Cancer Observatory (2022) cancer can occur at any age, including adolescents. On a global scale, 280,000 children and adolescents (aged between 0 and 19 years) were diagnosed with cancer. Nearly 110,000 children and adolescents lose their lives to cancer each year. According to Jemal *et al* (2019) low-income countries have very high cancer mortality rates due to factors such as

inadequate therapy, late diagnosis, inadequate treatment, and inadequate access to health services. Cancer rates among adolescents have increased by 1% annually Global Cancer Observatory (2022).

Based on Global Cancer Observatory (2022) statistics, Indonesia had 1,018,110 cancer cases in the previous 5 years, with 408,661 new cases and 242,988 deaths. According to the Kemenkes RI (2024), there were 11,156 children (0-19 years) diagnosed with cancer, with 3,880 cases (34.8%) of leukemia, 640 cases (5.7%) of lymph cancer, and 637 cases (5.7%) of brain cancer, but surprisingly only less than 30% of cancer cases in children and adolescents in Indonesia are treatable.

According to Adinatha (2020), the type of cancer in children and adolescents is often different from the type of cancer in adults. According to American Cancer Society (2024)

cancer in children and adolescents is mostly caused by genetic factors and is generally not closely related to lifestyle and environmental factors. Some common cancers that occur in adolescents include lymphoma, leukemia, thyroid gland, brain and spinal cord tumors, testicular cancer, sarcoma (bone or soft tissue cancer), melanoma and ovarian cancer (American Cancer Society, 2024). Cancer treatment includes various methods, including surgery, radiotherapy, chemotherapy, targeted therapy and hormone therapy (Tim Cancerhelps, 2019). The type of cancer and its stage determine the type of therapy that can be used (Nugrahaeni, 2023). As one type of cancer treatment, chemotherapy utilizes cytotoxic agents to slow the growth of cancer cells, reduce tumor size, improve the patient's quality of life, and reduce the possibility of problems caused by metastasis (Tim Cancerhelps, 2019). Some patients experience physical, mental and social problems due to the adverse effects of cancer treatment (Retnaningsih, 2021).

Cancer treatment has both long- and short-term physical consequences for patients, leaving a number of body systems and tissues as well as psychologically compromised (Tim Cancerhelps, 2019). Not only can it change the taste of soy sauce, but it can also cause hair loss, mucositis, dermatitis, fatigue, dry, tight skin, and even blackening of the skin. The desire to eat decreases, and aches and pains radiate throughout the body. In contrast, the psychological effects of cancer treatment include feelings of discomfort, anxiety, and even fear (Potter *et al.* 2019). The impact of cancer in adolescence can be very vulnerable, because adolescents with cancer will experience physical, emotional and social changes due to the disease and its treatment, which have an impact on life in adolescence (Potter *et al.* 2019).

Adolescence, which should be a time to find identity and develop a positive self-concept, must be hampered by the chronic illness experienced (Potter *et al.* 2019). Chronic illness can make major changes in the self, changes that can affect the development of a person's self-concept (Potter *et al.* 2019).

Patients with cancer, for example, may experience significant physical changes as a result of cancer or therapy (Potter *et al.* 2019). Some of them even have to undergo amputation of certain body parts and face psychological challenges that affect their perception of themselves (Ping *et al.* 2023). If an adolescent fails to adapt to the changes that occur physically, emotionally and socially, they will often build a negative self-concept (Potter *et al.* 2019).

In accordance with the concept of Jean Piaget's cognitive development theory and as explained by Warmansyah *et al.* (2023) at the age of 11 years or early adolescence has experienced very good cognitive development called the formal operation development stage. At the age of 11 years and above adolescents can think more abstractly, logically and idealistically which makes individuals at this age able to solve problems. At this stage adolescents have also assessed the ideal self that is expected either by the individual himself or from others. Based on the results of the research study on December 18, 2023, the total number of adolescents diagnosed with cancer at RSUD Arifin Ahmad was 148. These figures provide a clear picture of the prevalence of cancer associated with this age group at RSUD Arifin Ahmad. Among the six adolescents diagnosed with cancer between the ages of 11-19 years at RSUD Arifin Ahmad, two of them expressed complaints about the side effects of the disease and treatment that they experienced, particularly the changes in their body image. Most of the adolescents also said that they were anxious about the future, had difficulty adjusting and often felt isolated from their friends and family, who may not be able to understand what they were feeling. One adolescent even reported being depressed about their current condition. Thus adolescents diagnosed with cancer are at higher risk of developing a negative self-concept due to the major impact the disease has on their physical and mental health, as well as their overall well-being and quality of life (Sibulwa *et al.* 2019). Some of the challenges related to changes both physiologically and psychologically in adolescents aged 11-19 years facing cancer

indicate the importance of exploring how cancer affects self-concept, therefore, it is important to study the description of self-concept in adolescents with cancer. The limited research related to self-concept in adolescents with cancer and the changes experienced by adolescents as a result of cancer both physically, emotionally and socially also underline the need for a deeper understanding of the influence of cancer on self-concept. Thus, the researchers are interested in the title "Overview of the Self-Concept of Adolescents Aged 11-19 Years with Cancer". This study is expected to be a relevant and crucial step in exploring the impact of cancer on the psychological well-being of adolescents, with the aim of describing their self-concept.

## METHOD

This study uses a quantitative descriptive method, which is a method that aims to create a picture or descriptive of an objective situation using numbers, starting from data collection, interpretation of the data and the appearance and results, with a cross-sectional approach, where observation or measurement is carried out once at the same time (Adiputra *et al.* 2021). The total population obtained from Arifin Achmad Hospital in 2022 to 2023 was 148 adolescent patients aged 11-19 years who were diagnosed, the sampling technique used in this study was nonprobability sampling with purposive sampling. The number of samples from this study were 60 people. This study was conducted from December 2023 to December 2024. The research was conducted at Arifin Achmad Hospital, Pekanbaru City. The questionnaire used in this study is a self-concept questionnaire. This study employs univariate analysis utilizing frequency distribution.

## RESULTS

**Table 1 Frequency Distribution of Respondent Characteristics (n-60)**

Characteristics of responden	Frequency (F)	Percentage (%)
Age 11-13 years old	28	46,7

Characteristics of responden	Frequency (F)	Percentage (%)
(early adolescence) 14-16 years (middle adolescence)	19	31,7
16-19 (late adolescence)	13	21,7
Gender		
Male	21	35
Famale	39	65
Length of cancer illness		
1 month	11	18,3
2 month	8	13,3
3 month	11	18,3
> 3 month	30	50
Types of cancer		
Leukemia	42	70
Retina blastoma	2	3,3
Limfoma	2	3,3
Kanker tiroid	2	3,3
Tumor otak dan sumsum tulang belakang	4	6,7
Melanoma	2	3,3
Kanker ovarium	1	1,7
Sarkoma	2	3,3
Kanker kolorektal	3	5
Total	60	100

In the Table 1, the age of most respondents was early adolescence 11-13 as many as 28 respondents (48.7%). The gender of the respondents was mostly female, 39 respondents (65%). The length of cancer illness suffered by most was more than 3 months as many as 30 respondents (50%). Leukemia is the most common type of cancer suffered by adolescents with cancer as many as 42 respondents (70%).

**Table 2 Distribution of Self-Concept Components of Adolescents Aged 11-19 Years with Cancer**

Self-concept components distribution	Frequency	percentage (%)
Body image		
Positive	34	56,7
Negative	26	43,3
Ideal self		
Positive	48	80
Negative	12	20

Self-concept components distribution	Frequency	percentage (%)
Self-esteem		
Positive	48	80
Negative	12	20
Role		
Positive	51	85
Negative	9	15
Self-identity		
Positive	51	85
Negative	9	15

In Table 2, it can be seen that the perceptions of respondents with cancer about their physical condition, both form, body function and appearance, mostly have a positive body image as many as 34 people (56.7%). The assessment of adolescents aged 11-19 years who have cancer regarding the ideals of life goals and values according to their life expectations is mostly realistic as many as 48 people (80%). The assessment of adolescents aged 11-19 years who had cancer regarding their self-esteem in relation to friends and the environment mostly had high self-esteem as many as 48 people (80%). The assessment of adolescents aged 11-19 years with cancer on the role in the family and society mostly plays a role in their daily lives as many as 51 people (85%). The assessment of adolescents with cancer on their identity, which includes all the characteristics and uniqueness in themselves, is mostly clear and still has uniqueness, namely 51 people (85%).

**Table 3 Self-concept Distribution of Adolescents Aged 11-19 Years with Cancer**

Self-concept distribution	Frequency	percentage (%)
Self-concept adolescent aged 11-19 years with cancer		
Positive	51	15
negative	9	85
Total	60	100

In Table 3 it is known that the assessment of adolescents aged 11-19 years towards

themselves who have cancer is more positive as many as 51 people (85%).

## DISCUSSION

The results of research on the self-concept of adolescents aged 11-19 years with cancer at Arifiin Achmad Hospital show that the self-concept is positive. According to Desak *et al* (2022), an individual's self-concept includes all the ideas, beliefs, skills, and concepts that affect their relationships with others. A positive self-concept also contributes to improving the quality of life and psychological well-being of adolescents struggling with illness (Iswanti *et al.*, 2018) (Hards *et al.* 2023).

The positive self-concept among adolescents with cancer aged 11-19 years at RSUD Arifin Achmad, there are several main factors that contribute to the formation of positive self-concept among respondents. The characteristics of the respondents, the majority of whom are in the early adolescent developmental phase, with a duration of cancer diagnosis of more than 3 months, are likely to play an important role in the formation of a positive self-concept. The results also showed that the majority of adolescents had a positive body image, realistic self-ideals, high self-esteem, an active role in life, and a strong sense of self. Most respondents felt good about their physical appearance despite the changes caused by cancer. Adolescents also had a realistic self-image, which increased their hope for the future. Respondents also had high self-esteem, felt valuable, and were able to interact well in social settings. In addition, most respondents felt that they played an active role in their family and community and demonstrated a desire to remain involved despite health challenges. They also have a strong self-identity that helps them focus on their values and life goals.

Components of self-concept, such as body image, self-ideals, self-esteem, role, and self-identity, play an important role in shaping adolescents' perceptions of themselves. These components can be affected by their experience of illness, which can lead to changes in how they view themselves and their role in society (Alshakhshir & Montgomery,

2023). The process of self-acceptance includes the 5 stages of the grieving process Supiano (2019). Generally, this process can take a year or more for a person to accept their circumstances ((American Cancer Society, 2023). For adolescents with cancer, especially if the illness lasts more than three months, adolescents may experience various emotional reactions that correspond to the five stages of grief, including denial, anger, bargaining, depression, and acceptance (Supiano 2019).

Adolescents with a positive self-concept are more likely to make good decisions and act ethically, suggesting that the development of a healthy self-concept may contribute to positive social behavior ((Schipper & Koglin, 2021). Research shows that adolescents with cancer often experience feelings of isolation and distress due to their condition (Kim *et al.* 2018). Connecting with peers who have similar experiences can help normalize their feelings and provide a platform to share coping strategies (Clarke *et al.* 2021; Kim *et al.* 2018). This demonstrates the importance of emotional and social support in helping adolescents develop a healthy self-concept, even when facing serious health challenges (Alshakhshir & Montgomery, 2023).

Adolescents often face challenges in developing a positive body image, especially when they experience chronic health conditions (Belle *et al.* 2022). Cancer patients experience significant physical changes as a result of the cancer and treatment (Potter *et al.* 2019). This finding is consistent with research showing that body image among adolescents aged 11-19 years with cancer is the lowest of the 4 main components of self-concept. In accordance with the concept of Jean Piaget's cognitive development theory and as described by Warmansyah *et al.* (2023) at the age of 11 years or early adolescence has experienced excellent cognitive development, called the formal operation stage of development. At this stage, adolescents have also evaluated the self that is expected by both the individual and others (Iswanti *et al.*, 2021).

This study contradicts the research of Gürcan & Atay Turan (2020) which shows the majority of negative self-concept development

in adolescents caused by cancer and its treatment. However, overall the results of this study are in line with Sulistyanti (2012); Nisak (2022); Wang *et al.* (2024) which show that the majority of self-concept in adolescents with cancer is positive. Positive self-concept is very important for adolescents with cancer. Social support, understanding of identity, and development of the components of a healthy self-concept can help adolescents cope with the challenges they face and improve their quality of life. The development of a positive self-concept is influenced by 5 main components of self-concept.

The limitation of the research that is felt in this study, is the difference in the classification of adolescent age limits at RSUD Arifin Achmad Pekanbaru with the theory used, at RSUD Arifin Achmad Pekanbaru adolescents are classified from 11-18 years old, while in this study using the classification of adolescent age according to Jean Piaget's theory (11-19 years). Another limitation felt by the researcher is the limited grouping of respondents based on the length of cancer diagnosis on the questionnaire used.

## CONCLUSION

85% of adolescents with cancer have a positive self-concept. The development of self-concept is divided into five main components: body image, self-ideal, self-esteem, role, and self-identity. These findings highlight the importance of environmental support in shaping a positive self-concept for adolescents facing cancer.

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