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## The Intervention of Supportive Educative System Based on Family Centered Care Toward Family Support In Caring For Children With Leukemia In RSUD Tangerang

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#### **Abstract**

The series of medical treatment procedure in children with leukemia need more longer time or period by doing the intensive chemotherapy, so that the children have hospitalization over and over again which takes a risk to irritate their self-growing and causes a distress on healing process. The purpose of this research is to analyze the intervention effect in supportive educative system based on family centered care toward family support to relieve children anxiety with leukimia. This research method is using quasi experimental method with non equivalent control group before after design approach and the number of samples from each group is 24. Taking samples is done by consecutive sampling technique. The result of this research shows the average number of children ages in both of groups are six years old. The parent ages are approximately 35-36 years old and the low basic education happened to the majority of these parents. The research result is got p value 0.000 (> 0.05) which means there is a big difference in family support system between intervention group and control after giving intervention. It can be concluded that giving intervention to the supportive educative system based on family centered care takes effect toward family support in caring for children with leukemia.

Keywords: Leukemia In Children, Family Support, A Supportive Educative System Based on Family-Centered Care.

#### **Preliminary**

Leukemia is a cancer of the blood vessel tissue that is often found in children due to malignant diseases of the bone marrow and lymphatic system. In the world, children diagnosed with acute leukemia account for 30-40% of all types of malignancy. The average incidence of leukemia is 4-4.5 cases / year / 100,000 children under 15 years (Permono, 2010).

The problem of cancer in children is also a big enough problem in Indonesia because it is the top ten causes of death in children (Depkes, 2010). The order of the

prevalence of childhood cancer in Indonesia that causes death is leukemia and eye cancer (retinoblastoma). Cancer in children will cause physiological and psychological changes.

The psychological impact on children with cancer is not much different from that of adults, such as being more agitated, feeling depressed, and afraid of the future. The difference is that children are more likely to be silent and cry as an expression of their worries.

The level of anxiety that will be generated starts from mild anxiety,

moderate anxiety, severe anxiety to experiencing panic so that in this case cancer patients really need support from their families. The role of the family, especially both parents, is very important in making decisions to undergo chemotherapy and other types of therapy for sufferers. Family is needed during treatment.

The results of a preliminary study in the pediatric nursing room Tangerang District Hospital through interviews with three parents of children with leukemia, the emotional support provided was only limited to delivering to the hospital, providing motivation and always accompanying them and only focusing more on chemotherapy treatment, but other factors that support treatment are not paid attention. Meanwhile, instrumental support, it was found that two out of three parents said that the family had not been maximal in facilitating the type of game according to the child's developmental age that could be done in the hospital without making the child tired quickly.

Seeing the above phenomenon, it is necessary to empower families to enable themselves by being facilitated by others to improve or control family health status by increasing the family's ability to carry out family health care functions and duties.

Increasing family independence in an effort to increase support for children with

leukemia who experience anxiety in accordance with Dorothea Orem's theory of self-care.

Achievement of family welfare and independence can be provided through a supportive educative system intervention based on family centered care. Through this intervention, it is hoped that behavior changes can occur so that families can independently maintain the health of their children.

#### Method

This research is a Quasi Experimental study with a non equivalent control group approach before after design. In this study, the number of respondents for each intervention and control group was 24 children.

The sampling technique in this study was consecutive sampling. The inclusion criteria in this study were children with leukamia, aged 3-15 years, children with leukemia who had undergone chemotherapy at least once intravenously, parents who were willing to children with respondents and had leukemia.

The data collection tool used a family support questionnaire. Data analysis used paired t test, independent t test and path analysis.

ence in an Result ildren with Characteristics of Respondents by Age
Table 1 Distribution of Respondents by Age

No	Variable	Mean	Median	Modus	St.Deviation	Minimum	Maximum
	Child				_	_	_
1	Intervention Group	6,7500	6,000	3,000	3,70956	3	14
2	Control Group	6,7917	6,000	3,000	2,97788	3	14
	Parents						
3	Intervention Group	36,7917	37,0000	37,00	10,38803	20	57
4	Control Group	35,5417	32,5000	29,00	10,38803	22	56

Source: Primary Data 2019

Based on table 1 above, it explains the characteristics of children based on age in the intervention group the mean value is 6.75 with the majority age being 3 years old, while in the control group it has a mean value of 6.7917 with the majority age being 3 years old.

Parental characteristics based on age in the intervention group mean 36.7917 with the majority age being 37 years old, while in the control group having a mean value of 35.5417 with the Characteristics of Respondents Based on majority age being 29 years old. Gender, Education and Socio-Economy

Table 2 Distribution of Respondents by Gender, Education and Socio-Economy

No	Characteristics	Interventi	on Group	Control Group	
		F	%	F	%
			Child		
1	Gender				
	Man	13	54,2	17	70,8
	Woman	11	45,8	7	29,2
	Total	24	100	24	
	-		Parents	-	
2	Education				
	Basic Education	22	91.7	21	87,5
	High Education	2	8,3	3	12,5
	Total	24	100	24	100
3	Social Economy		-	-	<u>-</u>
	-Regional Minimum				
	Wage < Rp 2.250.000;	15	62,5	15	62,5
	- Rp 2.250.000;	3	12,5	3	12,5
	- >Rp 2.250.000;	6	25,0	6	25,0
	Total	24	100	24	100

Table 2 above describes the characteristics of children based on gender and characteristics of parents based on education, socio-economy. The majority of sex in children was male, namely 13 people (54.2%) in the intervention group and 17 people (70.8%) in the control group.

The distribution of parental characteristics in the two groups was dominated by respondents with basic

education, namely 21 people in the intervention group (91.7) and 21 in the control group (87.5%). In addition, the socioeconomic status of the two groups was mostly below the Regional Minimum Wage or <Rp. 2,250,000; namely each group of 15 people (62.5%).

**Average Score of Family Support Before and After Intervention** 

Table 3 Average Score of Family Support Before and After Intervention

No	Variable	Mean	Median	Modus	St.Deviation
1	Intervention Group				
	Before being given intervention	74,6250	75,0000	65,00a	5,64772
	After being given the intervention	93,5833	94,0000	94,00	3,64652
2	Control Group				
	Before being given intervention	78,7500	83,00	83,00	4,84768
	After being given the intervention	78,7500	83,00	83,00	4,84768

Source: Primary Data 2019

Based on table 3 above, it shows that family support in the intervention group before and after being given a supportive educative system based on family centered care, namely before being given treatment, the mean value was 74.6250 with the mode value mostly at a score of 65, while after being given treatment there was an increase in the mean results. that is, 93.5833 with the mode score mostly at

94. Family support in the control group before and after standard hospital intervention did not show any changes, namely the result was a mean value of 78.7500 with the mode value mostly at a score of 83.

Differences in Family Support After Intervention in the Intervention and Control Groups

Table 4 Differences in Family Support After Intervention in the Intervention and Control Groups

Variablr	N	Mean	Mean Difference	Std.Deviation	St.Std. Error Mean	p value
Family Support	2.4	02 5022550	10.0502	2 54552	5.54404	0.000
Intervention	24	93,5833778	18,9583	3,64652	7,74434	0,000
Control	24	,7500		4,84768	0,98953	

Source: Primary Data 2019

Table 5 explains that the significance value is 0.000 ( 0.05), which means that there is a difference in family support between the intervention and control groups after being given the intervention.

## Discussion Age of Parents

The majority of parents who cared for children with leukemia in this study were of productive age with the average age of the respondents in the intervention group, namely 36 years and the control group 35 years.

In this age group, it can be concluded that the respondents belong to the young adult age group. The older a person increases the maturity and level of psychological maturity which shows mental maturity.

#### Education

The results of statistical tests showed that there was no significant difference in education between the control and intervention groups, namely most of them had basic education levels (SD, SMP, SMA). The higher the educational status of a person can affect the way of thinking.

Education is a factor that contributes to the knowledge and motivation of families in caring for themselves. Someone with higher education will be able to manage, overcome, and use effective and constructive coping than someone who has low education.

## **Social Economy**

The results of the socioeconomic statistical test of the respondents showed that there was no significant difference in the income of the respondents in the control group and the intervention group. Respondents' income level data is dominated by respondents with incomes less than the Tangerang Regency regional minimum wage standard or less than Rp.2,250,000.00.

## The Effect of Family Support Before and After Given Supportive Educative System Based on Family Centered Care in the Intervention Group

The results showed that there was a significant increase in the value of family support after being given a supportive educative system based on family centered care using booklet media, with an average pretest of 74.6250 and posttest of 93.5833.

This significant increase in family support is due to several factors that influence the provision of education and the educational media used and the information contained therein. family in providing child care when cared for, especially in reducing anxiety.

In addition, researchers also provide time for consultation after education, through consultation will get more in-depth information and a more trusting relationship between health workers and the patient's family.

The implementation of family centered care while the child is being treated will greatly assist in the treatment process so that the child will recover faster and reduce the impact of hospitalization for the child and the parents.

Another application of family centered care is that researchers teach parents to schedule children's activities while being treated such as mealtime, watching television and playing. This schedule arrangement will help children adapt, increase self-control over activities during treatment and minimize the incidence of lack of rest, such as; the child is resting,

then there is a nurse who gives action to the child, so that the child's rest time is reduced.

Scheduling children's activities not only involves parents but children are involved in the nursing process, by involving independence through self-care such as; schedule activities, choose food, wear clothes, set bedtime. The principle of action is that the nurse respects the individuality of the patient and the decisions the patient makes.

Family-centered care is important for the care of children with cancer because it involves both children and parents. The philosophy of family centered care encourages nurses to provide care that involves the emotional aspects of the child and parents / family.

As shown in the research, children are able to recover faster and parents are more cooperative when emotional support is provided to parents during their child's hospitalization. Through the principles of family-centered care helps children recover faster because of the emotional aspects that parents give to their children.

According to the American Academy of Pediatrics, family centered care is the most important thing in child hospitalization which is based on collaboration between children, parents, pediatricians, pediatricians, and other professionals in clinical care based on planning, delivery and evaluation of health services.

Involving parents in child care and providing correct information to parents regarding the child's current condition can reduce stress experienced by parents and children.

# The Influence of Family Support After Intervention is Given in the Intervention and Control Group

Based on the statistical results, it shows that there is a difference in family support after intervention between the intervention and control groups (p-value <0.05).

The results of this analysis are comparable to the theory of self-care model in the form of supportive developmental nursing system intervention which can improve all dimensions of quality of life including physical function, physical role restriction, general health, mental in the experimental group compared to the control group (p 0.05).

The provision of knowledge conveyed through health education will directly result in an increase in knowledge from those who don't know to know. The health education provided is an effort to improve the welfare of children in the family.

Parents who have been given health education will find it easier to care for their children. Another benefit of health education for parents is to increase control over the health and illness of their children.

During the activities of providing supportive educative system based on family centered care, parents always play an active role, especially when there are demonstrations on how to reduce anxiety in children, parents are very enthusiastic during the provision of education by paying attention to the explanations given.

This is in accordance with the results of research which states that to act in care requires skill, belief in success, enthusiasm and very high motivation to always try to achieve the desired goals.

The role of nurses is to provide education and skills to families, strengthen psychological factors by improving cognitive abilities both by arousing family motivation that they have the ability and resources, because basically handling children due to hospitalization is a behavior that can be learned and every family has the potential to learn. and growing.

### **Conclusions and Recommendations**

Based on the discussion, it was concluded that there was an effect of family support before and after being given a supportive educative system based on family centered care for children with leukemia who experienced anxiety.

Characteristics of respondents that influence, namely the age of the child on anxiety through family support, age of

parents, low economy and family support have an effect on children's anxiety.

Suggestions given to nurses are optimizing the implementation of the principles of family centered care and a traumatic care while providing nursing care for children, in implementing this model requires some preparation such as cooperation between children, parents, staff, and hospital managers, explaining concepts related to family centered care.

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