

CORRELATION OF FAMILY EMOTIONAL SUPPORT AND LEVEL OF PAIN IN CHILDREN ACUTE LYMPHOBLASTIC LEUKEMIA DUE TO CHEMOTHERAPYSapariah Anggraini¹, Dyah Trifianingsih²

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ABSTRACT

Background : *Acute Lymphoblastic Leukemia* is a malignant disease in blood-forming organs and is the most common type of cancer in children. In Hemato Oncology Room Tulip III A Ulin Hospital Banjarmasin in 2016 there are 88 children with *Acute Lymphoblastic Leukemia*. The phenomenon that occurs is the child feels pain due to side effects of chemotherapy. Emotional support of the family to the child is needed, because the positive feeling or energy provided to make children feel safe, peaceful, and loved, so as to reduce or minimize the pain felt by the child.

Objective : To know the relation of emotional support of family with level of pain in child *Acute Lymphoblastic Leukemia* due to chemotherapy in Hemato Oncology Room Tulip III A Ulin Hospital Banjarmasin.

Method : This research is a quantitative research with *cross sectional* design. The research population is family and children *Acute Lymphoblastic Leukemia* who experience pain due to chemotherapy at Hemato Oncology Room Tulip III A Ulin Hospital Banjarmasin. The sample was taken using *purposive sampling* technique that is 30 respondents. Data collection used questionnaire method and observation sheet. Data analysis used *Spearman Rank* test analysis at $\alpha = 0,05$.

Results : From the 30 respondents who provided emotional support to the *acute lymphoblastic leukemia* family, 18 respondents (60.0%) often gave emotional support to their families. Level of pain in children *Acute Lymphoblastic Leukemia* due to chemotherapy of 30 respondents / children who showed moderate pain is 19 respondents (63.3%). *Spearman Rank* correlation coefficient shows 0,380 significance 0,038 with () 0,05.

Conclusion : There is a correlation between the emotional support of the family and the level of pain in children *Acute Lymphoblastic Leukemia* due to chemotherapy ($p = 0.038$).

Keywords : Child, *Acute Lymphoblastic Leukemia*, Family Emotional Support, Pain Rate

INTRODUCTION

Cancer is one of the diseases belonging to the *non-communicable* diseases, where cells divide abnormally without control and can invade surrounding tissue. (National Cancer Institute, 2009). Cancer causes 7.6 million deaths (WHO, 2012).

Every year 11,000 new cases of cancer are found in children throughout Indonesia, as many as 70% is leukemia / cancer of blood (Indonesian Children Oncology Foundation, 2012). The most common type of cancer in children in developing countries, especially Indonesia is *Acute Lymphoblastic Leukemia* (ALL). ALL is the most common leukemia, accounting for approximately 71% of cases of malignancy in children (Behrman, 2004 and Porht, 2005 cit Mega, 2011).

ALL is a progressive malignant disease in blood-forming organs, characterized by changes in the proliferation and development of leukocytes and its precursors in blood and bone marrow (Dorland, 2012 cit Fella 2014).

Every year in the United States there are about 14,382 new cases of cancer diagnosed in people under the age of 20 years. Around 2,970 (21%) of these cases are ALL. The annual incidence rate for ALL under the age of 20 is 35.0 per million people, with men having a higher incidence than women (Robinson, 2011). In 2006, the number of patients with inpatient leukemia hospital in Indonesia as many as 2,513 people (Ministry of health republic Indonesia, 2012).

Areas of South Kalimantan, especially in the Regional General Hospital Ulin Banjarmasin, the incidence of children ALL quite a lot. Based on data in the Hemato Oncology Room of Tulip III A children in 2015 from January to December 2015, the number of children with leukemia as many as 406 patients and increased in 2016 to 444 patients with leukemia patients with age range between 4-14 years. Especially for ALL disease in children, based on data from Hemato Oncology Room Child Tulip III A, from January to November 2016 there are 88 children with ALL consisting of 56 boys and 32 girls with 1-16 years age range.

Clinical symptoms caused by ALL child patients after undergoing chemotherapy vary widely. Generally describes bone marrow failure. Clinical symptoms such as malaise, fatigue, bone pain, bleeding, bruising, fever, night sweats, and

infections. Pain, especially in children is a result of increased failure in the bone marrow (Langhorne, 2011).

Pain in cancer patients is a subjective phenomenon that is a combination of physical and nonphysical factors. For physical factors pain can come from various parts of the body or as a result of therapy and procedures performed including surgery, chemotherapy, and radiotherapy. (Rasjidi, 2010).

Factors that also affect the response to pain are the presence of the nearest person such as family / parents when the individual is in a state of pain. The absence of family or close friends may make the pain progressively increase. The presence of family / parents is of particular importance to children in the face of pain (Potter & Perry, 2010). Family or parent support when the child is hospitalized is able to collaborate with health personnel who are realized by the involvement in care such as caring for children with affection, spoiling children, massaging children, encouraging, and praying for children so that children feel safe, comfortable, and loved (Sarafino, 2006 cit Amanda, 2015).

Family or parents have support to participate and behave well in care, such as chemotherapy treatment which is a major curative therapy in leukemia patients. The results of the research by Debby Septiana Pertiwi (2014), concluded that there are 4 children / participants of leukemia patients have a closer relationship with their parents, it can be seen from the openness of children to tell stories and communicate well with parents. Tiurlan Mariasima Doloksaribu (2011), concludes that all the children / participants in this research received full support and had a harmonious relationship from both parents, siblings, and other relatives. Children become excited because they always have the support of the family.

The most prevalent phenomenon is that families / parents do not provide support to ALL children who experience pain after undergoing chemotherapy at the hospital, both in terms of informational support, assessment, instrumental, and especially on the emotional support of the family / parents to the less provide motivation and enthusiasm in the fulfillment of daily life of children, especially in reducing / minimizing the sensation of pain that is felt during the care or treatment at the hospital. Children who feel pain will be more depressed if the family / parents are not present / accompany so that the child's response will become uncooperative, crying, frowning,

anxiety, and avoid conversation and social contact. The most common phenomenon in hospital is the number of ALL children dropping out and not returning to the hospital for medical checkups and scheduled treatment due to various factors, such as the economy (low family / parent income level), the cost expensive treatment, transportation far from home to hospital, and lack of knowledge and support of parents / family of children with ALL disease.

Based on the preliminary research on November 29th to December 5th, 2016 at Ulin Hospital of Banjarmasin conducted by the researchers using interview technique to family / parents (respondent) had the result that in terms of knowledge 6 (60%) of 10 respondents said they never seek information from outside on how to overcome the pain felt by the child. In terms of motivation 7 (70%) of 10 respondents said not to encourage children who are sick after undergoing chemotherapy. In the case of treatment 6 (60%) of the 10 respondents said not to ask feelings to children who are sick after undergoing chemotherapy. Based on the preliminary research results, the problem with the highest percentage is from family support that is on the emotional support of the family.

Based on the background above, the researchers were interested in conducting research on "Relationship of emotional support family with the level of pain in children Acute Lymphoblastic Leukemia due to chemotherapy in Hemato Oncology Room Tulip III A Ulin Hospital Banjarmasin"

RESEARCH METHOD

Type of the Reaserch

This type of the research is quantitative research, which is a research method that describes and explains the problem situation. Using correlational research design that examines the relationship between variables, with cross sectional design which is a research design with a review of the relationship between two variables in a situation or a group of subjects. This is done to see the relationship between symptoms one and other symptoms, or one variable with other variables.

Research Variable

The independent variable in this research is the emotional support of the family.

The dependent variable in this research is the level of pain.

Research Population

The population in this research are families (father, mother, grandmother, grandfather) who care for children with Acute Lymphoblastic Leukemia and all children Acute Lymphoblastic Leukemia

due to chemotherapy at Hemato Oncology Room Tulip III A in Ulin Hospital of Banjarmasin in 2016. The total of population is 88 people.

Research Sample

The samples in this research are families (father, mother, grandmother, grandfather) who care for children with Acute Lymphoblastic Leukemia and all children Acute Lymphoblastic Leukemia due to chemotherapy in Room Hemato Oncology Tulip III A in Ulin Hospital of Banjarmasin which are 30 people who have met the inclusion criteria and exclusion criteria.

Time and Place of the Research

Data collection in this study was conducted at the Ulin Regional General Hospital of Banjarmasin. The time of the research was conducted for one month, starting from the 18th of February until the 18th of March 2017 at Hemato Oncology Room Tulip III A in Ulin Hospital of Banjarmasin.

Research Instrument

The instrument used in this research is in the form of questionnaire and observation sheet (scale of descriptive pain and faces pain rating scale).

Validity Test

Validity test was done by measuring the correlation between variables with total score of variables. Validity test in this research using Pearson product moment technique. Validity test was conducted on January 23rd to February 8th, 2017 to 20 respondents, namely the family of Pediatric Acute Lymphoblastic Leukemia patients in Hemato Oncology Room Tulip III A in Ulin Hospital of Banjarmasin. Respondents used for the validity test were different from the respondents used for the study. Apparently from 20 questions, there were two questions on the questionnaire that were not valid, that were on question number 4 and 6 of questionnaire that the count value was less than $r_{table} = 0.444$. The result of the validity test of the emotional support family questionnaire was known to be P4 (rhitung = 0,1309) and P6 (rhitung = 0,1344) has the value (rhitung < r_{table}). It can be concluded that both statements were invalid and excluded from within the research question. Thus the questionnaire used in this study to measure the emotional support of the family are 18 points of question.

Reliability Test

Reliability test in this Research was using Spearman Brown technique. The reliability test was conducted on January 23rd to February 8th, 2017 to

20 respondents, which are the family of Pediatric Acute Lymphoblastic Leukemia patients in the Hemato Oncology Room Tulip III A in Ulin Hospital of Banjarmasin. Respondents used for reliability test were different from respondents used for the research. Test reliability by using Spearman Brown technique to get the reliability test results. The instrument used was considered reliable by comparing to the reliability accuracy of 0.6 with the value of reliability test results is 0.950. Because the reliability test result was greater than 0.6. It can be concluded that the instrument is reliable and can or feasible to be used for research.

Data Analysis Technique

Univariate analysis aims to explain or describe the characteristics of each research variable. Univariate analysis was performed to describe frequency distribution of independent variable that is emotional support family and dependent variable that is level of pain.

Bivariate analysis was performed on two variables that were suspected to be correlated. To determine whether or not there is a relationship or to prove the hypothesis of the relationship between family support with the level of pain in ALL children performed by Spearman rank correlation test.

RESULT AND DISCUSSION

Univariate Analysis

a. Identify family emotional support in children Acute Lymphoblastic Leukemia from chemotherapy.

Distribution of family emotional support frequency in children Acute Lymphoblastic Leukemia from chemotherapy in Hemato Oncology Room Tulip III A Ulin Hospital Banjarmasin.

Category	F	%
Never	0	0
Seldom	0	0
Sometimes	2	6,7
Often	18	60,0
Always	10	33,3
Total	30	100

Family emotional support from 30 respondents / family (father, mother, grandmother, grandfather) from children with Acute Lymphoblastic Leukemia in Hemato Oncology Room Tulip III A in Ulin Hospital of Banjarmasin starting from 18th February to 18th of March 2017, the highest category is "often" category of 18 (60.0%) respondents, and the least category is "sometimes" category of 2 (6.7%) respondents.

Some respondents / parents (father, mother, grandmother, grandfather) of children suffering from Acute Lymphoblastic Leukemia from chemotherapy in Hemato Oncology Room Tulip III A Ulin Banjarmasin General Hospital, 18 (60.0%) often provide emotional support to children who are able to make children feel more secure, peaceful, and feel loved while undergoing treatment, because the existence and support of the family especially in terms of emotional support is very useful because the positive feeling / energy provided to avoid children from negative feelings and emotions that can extend the length of hospitalization of children. This is in line with research by Amanda Febriani Putri (2015) which shows that the form of emotional support given in the form of attention and showing a sense of care and affection to children so that children feel safe, comfortable, and loved.

The results of the research questionnaires on the emotional support variable of the family showed the highest score in question number 7 and number 11. Question number 7 is "I give the spirit to the child", got the total score 146 with the average answer score 5 (always) on favorable question the respondent / family said that they always give the spirit to the child, where based on the results of analysis conducted by researchers this is due to the spirit that always given the respondent / family to the child, make the child keep the spirit and strong in facing the disease, make the mood / happy, make the child easily adapt to the environment and increase confidence (self confidence) to socialize with peers and others in their daily life.

For the contents of question number 11 "I accompany the child during the treatment", got a total score of 144 with an average score of 5 (always) on a favorable question that respondents / family said always accompany the child during the treatment, which based on the results of the analysis conducted by researchers due to the family who always accompany and provide emotional support to the child during the hospitalization will make the child feel and have to rely on his family when undergoing chemotherapy which often gives unpleasant effects on children. The child's belief that his family is reliable will ultimately make the child eager in the care or treatment of chemotherapy.

Based on the analysis conducted by the researcher, the emotional support provided by the family to the child is by trying to please the child, providing a comfortable atmosphere for the child during the treatment, calming the child's feelings when looking frightened, trusting the child in each

activity, giving praise for the success of the child, accompanying the child during the treatment, taking time to communicate / tell the story with the child, hugging the child when crying or sad, listening to the complaints that the child convey during the treatment period, helping to solve the problem each time the child complains about the problem, and appreciate every expression of feelings conveyed by the child. Family emotional support given to children both verbally and non verbally is very useful and able to make the physical and psychological conditions of children to be better.

As the child receives emotional support from the family, he will feel happy and loved, where the child's happiness makes him experience a pleasant period during hospitalization. Caplan (1964) cit Friedman (1998) states that the emotional support of the family is a safe and peaceful place to rest and restore and help mastery over emotions, where aspects of emotional support include support embodied in the form of affection, and listening.

Some respondents / family (father, mother, grandmother, grandfather) of child suffering from Acute Lymphoblastic Leukemia from chemotherapy at Hemato Oncology Room Tulip III A Ulin Banjarmasin hospitals which amount to 2 (6.7%) respondents sometimes provide emotional support to children .

The results of the research questionnaires on the emotional support variables of the family showed the lowest value found in question number 12 and number 6. Question number 12 is "I feel sad during keeping and taking care of the child", obtained a total score of 51 with an average answer score of 1 (always) to unfavorable questions that respondents / family say always feel sad during maintaining and caring for children, where based on the results of the analysis conducted by the researcher this is caused by parents / family feels worried and anxious with the state of children who experience pain, both on the physical condition of children who experience decrease, and also on the psychological condition of children who feel less unpleasant during the hospitalization. Because according to the parents / family happiness and healing children is the most important thing.

For the content of question number 6, "I forbid children to play in the hospital environment", a total score of 92 is obtained with an average score of 3 (sometimes) on unfavorable questions: respondents / families say sometimes prohibit children from playing in the environment hospitals, where based on the results of analysis conducted by researchers this can cause negative feelings and emotions in children due to some activities that are restricted by parents.

According to the researchers, some respondents / family (father, mother, grandmother, grandfather) often and always provide emotional support of the family to children, it can be categorized that the respondent / family (father, mother, grandmother, grandfather) has provided good family emotional support to but it still needs to be improved again for the emotional support of the family because there are still some respondents who only occasionally provide emotional support to the child, indicating that the respondent has not been able to provide emotional support to the child who will make the child feel and have to rely on his family when undergoing treatment / treatment at the hospital.

b. Identify the level of pain in children Acute Lymphoblastic Leukemia due to chemotherapy.

Frequency distribution of pain level in children Acute Lymphoblastic Leukemia due to chemotherapy in Hemato Oncology Room Tulip III A Ulin Hospital Banjarmasin.

Category	F	%
Mild pain	11	36,7
Moderate pain	19	63,3
Severe pain	0	0
Unbearable	0	0
Total	30	100

Pain rate from 30 respondents / children Acute Lymphoblastic Leukemia in Hemato Oncology Room Tulip III A Ulin Banjarmasin Hospital which started from 18th of February until 18th of March 2017, with the most category is moderate pain category which amounted to 19 (63,3 %) of the respondents, and the least category was the mild pain category of 11 (36.7%) of the respondents.

The level of pain felt by the respondent is a picture of how severe the pain felt by the individual. Based on the results of analysis conducted by researchers found that the level of pain with the highest number is moderate pain which amounted to 19 (63.3%) of respondents.

Result of observation sheet of Wong-Baker Faces Pain Rating Scales in the research for the variable of pain level in children showed the highest value was in pain level that is "somewhat disturbing", got total score 60 with category answer 4 (moderate pain), where moderate pain felt by child occurs due to the severity of Acute Lymphoblastic Leukemia disease experienced and also due to one of the treatment is chemotherapy. Chemotherapy is a treatment process using drugs (Vinkristin, Prednisone, L-asparaginase, etc.) that aim to kill or slow the growth of cancer cells. Due to the chemotherapy given, the child also

experienced pain as one side effect. This is in line with the theory put forward by Langhorne (2011) which states that clinical symptoms caused by patients with Acute Lymphoblastic Leukemia patients after undergoing chemotherapy vary widely, pain especially in children is the result of increased failure in the bone marrow.

Moderate pain experienced by children is due to differences in perceived pain perception. The pain felt by the child will vary depending on how the child interprets the pain felt both verbally and nonverbally. Children can not undergo some activities such as playing, walking, and socializing with the people around him because of the pain felt. Moderate pain is felt by the child can be seen and known through various ways, such as children become anxious, frowned, and frowned. The child will become chatty and complain to the parents / family who are with him, in response to the pain he is feeling.

Pain due to chemotherapy is very influential on psychological, social functions, and other health aspects related to quality of life. This is in line with the theory put forward by Rasjidi (2010) which states that pain in cancer patients is a subjective phenomenon that is a combination of physical and non-physical factors.

While the results of the observation sheet of Wong-Baker Faces Pain Rating Scales in the study for the variable level of pain in children showed the lowest value found in the level of pain is "little pain", obtained a total value of 22 with the category of answer 2 (mild pain), where the level of mild pain which the child feels is visible from the facial expression becomes tense, referring to the movement of the body protects like a child doing slow and careful movements by trying to reach or touch the pain area, where mild pain in the child makes him feel pain that does not interfere with his activity. This is in line with the theory proposed by Zakiyah (2015) which states that children experience pain, but not to interfere with its activity.

After several times carrying out medication given by health workers in the form of invasive action one of them chemotherapy, children feel the pain and make the child will feel afraid when will be repeated treatment procedure. This is in line with the theory put forward by Zakiyah (2015) which states that previous pain experiences do not necessarily mean that individuals will receive pain more easily in the future.

According to researchers, the level of pain felt by respondents / children Acute Lymphoblastic Leukemia can interfere in terms of fulfilling activities and daily childhood, both in socializing

and interacting with others. The level of moderate pain that the child feels will make the child can only perform activities with a rest in a certain period of time. While the level of mild pain perceived by children not to interfere with activities and daily life.

Bivariate Analysis

Analyze the emotional support relationship of the family with the level of pain in children Acute Lymphoblastic Leukemia due to chemotherapy. Emotional support relationship of the family with the level of pain in children Acute Lymphoblastic Leukemia in Hemato Oncology Room Tulip III A Ulin Hospital Banjarmasin.

Emotional Support	Level Pain									
	Mild		Moderate		Severe		Unbearable		Total	
	F	%	F	%	F	%	F	%	F	%
Never	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Seldom	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Sometimes	0	0.0	2	100.0	0	0.0	0	0.0	2	4.7
Often	18	88.0	0	0.0	0	0.0	0	0.0	18	60.0
Always	1	10.0	0	0.0	0	0.0	0	0.0	10	33.2
Total	11	36.7	10	63.2	0	0.0	0	0.0	20	100

significant: $p = 0.038 < \alpha = 0.05$

Coefficient correlation = 0.380

Emotional support of families who have emotional support sometimes there are 2 respondents with moderate pain level as much as 2 respondents (100.0%), respondents who have emotional support there are often 18 respondents with mild pain level as much as 10 respondents (55.6%), and respondents who have emotional support always there were 10 respondents with moderate pain level as many as 9 respondents (90.0%).

Spearman correlation test results of family emotional support level and level of pain in children Acute Lymphoblastic Leukemia in Hemato Oncology Room Tulip III A Ulin Hospital Banjarmasin. Test results with significance level (α) 0.05 or 95% confidence level, obtained value $\rho = 0.038$ with Spearman correlation value of 0.380. Thus it can be concluded that H_0 is accepted and there is a relationship between the emotional support of the family with the level of pain, because it is said significant if the significance value of $\rho < (\alpha) 0.05$. This is evidenced by the value of $\rho = 0.038 < (\alpha) 0.05$. The result of interpretation according to Hidayat (2008), based on the guideline of the correlation rate range used, the data with the correlation coefficient of 0.380 means there is a low relation between the emotional support of the family with the level of pain in children Acute Lymphoblastic Leukemia due to chemotherapy in Hemato Oncology Room Tulip III A Ulin Hospital Banjarmasin.

Based on the analysis conducted by the researchers, that the family which provides direct and indirect

support, especially emotional support to children by giving a sense of love and affection, then this will inadvertently provide a sense of security in children, so it can divert the taste pain experienced. This is in line with the theory put forward by Supartini (2012) which states that parents can provide effective care during the hospitalization of children, has been proven in some studies that children will feel safe when they are in addition to their parents. This is in line with the theory put forward by Wong (2009) which states that the sense of security felt by the child, certainly reduce the hospitalization reaction he felt. The presence of parents during hospitalization, including during the therapy procedure, provides emotional support to the child and enhances the sense of empowerment of the parent in the role of the caregiver.

The relationship between the emotional support of the family and the level of pain has a correlation in this low category because in addition to the emotional support of the family, there are also several other factors both internal and external that affect the emotional support of families with pain levels such as, the treatment procedures undertaken by the child, hospitalization in children, previous pain experiences, and coping patterns of children.

As the theory put forward by Zakiyah (2015) which states that there are several factors that can affect the pain such as age, gender, culture, pain, attention, anxiety, fatigue, previous experience, coping style, and family / social support. Therefore there are many factors that can affect the level of pain in children not only because of family support, especially the emotional support the family is given to the child.

Based on the results of the analysis conducted by the researchers, one of the factors other than the emotional support of the family that can affect the level of pain in children is the procedure of medication / giving medication to the child during the hospitalization, where the medication / medication by the health worker to the child in the form of giving medicine for reduce pain in children, have a great influence on the level of pain felt by the child.

Based on the results of analysis conducted by researchers, most children experience anxiety during hospitalization caused due to pain felt by the child. Anxiety experienced by children due to pain will further aggravate the child's health condition that affects the increasing duration of hospitalization. Anxiety in children can be seen from the behavior and how children respond to the environment. This is in line with the theory put forward by Keliat (2011) cit Susanti (2013) which states that anxiety is a feeling of anxiety as if

something bad will happen and feel uncomfortable as if there is a threat accompanied by physical symptoms such as heart palpitations, debar, cold sweat, shaking hands. According to Hockbenberry (2011) cit Susanti (2013), there are several main factors of anxiety due to hospitalization include anxiety due to separation, loss of control, body injury, and one pain.

Based on the results of analysis conducted by researchers, pain due to chemotherapy is very influential on psychological, social functions, and other health aspects. This is in line with the theory put forward by Rasjidi (2010) which states that the pain in cancer patients is a subjective phenomenon. After several treatments administered by a health worker in the form of an invasive action of chemotherapy, the child feels the pain that makes the child feel afraid when they will repeat the procedure. This is in line with Zakiyah's (2015) theory which states that previous pain experiences do not necessarily mean that individuals will receive pain more easily in the future, since individuals have long experienced a series of episodes of pain without ever recovering, fear will arise.

Based on the analysis conducted by the researchers, the pattern of coping in children during undergoing hospitalization experienced many obstacles due to undergoing treatment for too long (treatment over and over) and various treatments / treatment one of them chemotherapy, so most children

experience maladaptive coping that is formed due to negative influences such as the tendency to discomfort or pain. It is very important that the support system from family or health personnel, especially emotional support family to avoid maladaptive coping in children.

Thus, from the results of correlation test, it can be concluded by the researchers that there is a relationship between emotional supports from family with the level of pain in children Acute Lymphoblastic Leukemia with low correlation value. Good family emotional support and always given to the child will be able to reduce / minimize the sensation of pain felt by the child, because the parent / family is the closest and can be trusted by the child.

CONCLUSIONS

Based on the results of research and discussion on "Relationship of Family Emotional Support with Pain Rate in Children Acute Lymphoblastic Leukemia due to chemotherapy in Room Hemato Oncology Tulip III A Ulin Hospital Banjarmasin", it can be concluded as follows:

1. Emotional support of the family in children Acute Lymphoblastic Leukemia from chemotherapy in Hemato Oncology Room Tulip III A Ulin Hospital is included in the frequent category of 18 respondents with a percentage of (60.0%).

2. Level of pain in children Acute Lymphoblastic Leukemia due to chemotherapy in Hemato Oncology Room Tulip III A Ulin Banjarmasin hospital included in the category of moderate pain that is as many as 19 respondents with a percentage of (63.3%).

3. There is a relationship between emotional support of the family and the level of pain in children Acute

Lymphoblastic Leukemia due to chemotherapy in Room Hemato Oncology Tulip III A Ulin Hospital Banjarmasin with test results at the level of significance (α) 0.05 or 95% confidence level, obtained value $\rho = 0.038$ with Spearman correlation value of 0.380.

REFERENCES

- Abraham, Anna, & L Appaji.(2009). "Cognitive assessment of children with acute lymphoblastic leukemia: Preliminary findings." *Indian Journal of Medical and Paediatric Oncology* 30,no.1:14.doi:10.4103/0971-5851.56330.
- Astriningrum, M. 2011. *Hubungan Tahap Kemoterapi Pada Penderita Leukemia Limfoblastik Akut Dengan Status Gizi Di Bangsal Ilmu Kesehatan Anak RSUD Dr. Moewardi*. Skripsi. Universitas Sebelas Maret.
- Barakat, L.P.,Marmer, P.,G., Schwartz, L.A. (2010). Quality of Life of Adolescent With Cancer : Family Risks and Resources. *Health and Quality Outcomes*. 8/1: 1-8.
- Doloksaribu, T, M. 2011. *Respon Dan Koping Anak Penderita Leukemia Limfoblastik Akut Dalam Menjalani Terapi Di Jakarta Dan Sekitarnya : Studi Grounded Theory*. Tesis. Universitas Indonesia.
- Friedman, M. 2010. *Buku Ajar Keperawatan keluarga : Riset, Teori, dan Praktek Edisi ke-5*. Jakarta: EGC.
- Hidayat, A. A. 2007. *Metode Penelitian Keperawatan Dan Teknik Analisis Data*. Jakarta : Salemba Medika.
- Ilmiasih, R., Nurhaeni, N., & Waluyanti, F, T. 2015. *Aplikasi Teori Comfort Kolcaba Dalam Mengatasi Nyeri Pada Anak Pasca Pembedahan Laparotomi Di Ruang BCH RSUPN Dr. Cipto Mangunkusumo Jakarta. Jurnal Keperawatan*. Volume 6 No. 1 Hal 27-33.
- Kwekkeboom, Kristine L., Catherine H. Cherwin, Jun W. Lee, and Britt Wanta. (2010). "Mind-Body Treatments for the Pain-Fatigue-Sleep Disturbance Symptom Cluster in Persons with Cancer." *Journal of Pain and Symptom Management* 39, no. 1: 126–38. doi:10.1016/j.jpainsymman.2009.05.022.
- Langhorne, M, E., Fulton, J, S., Otto, S, E. 2011. *Oncology Nursing Fifth Edition*. Mosby Elsevier.
- Latifah, F. 2012. *Hubungan Karakteristik Anak Usia Sekolah Dengan Kejadian Bullying Di Sekolah Dasar X Bogor*. Skripsi. Universitas Indonesia.
- Pertiwi, D, S. 2014. *Pengalaman Interaksi Sosial Pada Anak Penderita Leukemia Yang Menjalani Kemoterapi Di RSUD Dr. Moewardi Surakarta*. Skripsi. STIKES Kusuma Husada Surakarta.
- Potter, P, A. & Perry, A, G. 2010. *Fundamentals of nursing*. (7th edition). St. Louis: Mosby Elsevier, Jakarta : Salemba Medika
- Putri, A, F. 2015. *Dukungan Orang Tua Yang Memiliki Anak Dengan Leukemia Usia 6-12 Tahun Di RSUD Kabupaten Tangerang*. Skripsi. Universitas Islam Negeri Syarif Hidayattullah.
- Rachmawati, F. 2014. *Hubungan Status Gizi Dengan Frekuensi Hospitalisasi Pasien Leukemia Limfositik Akut Pada Anak Pra Sekolah Di RSUD Dr. Moewardi*. Skripsi. Universitas Muhammadiyah Surakarta.

- Rasjidi, I. 2010. *Perawatan Paliatif Suportif & Bebas Nyeri Pada Kanker*. Jakarta : Sagung Seto.
- Supartini, Y. 2012. *Buku Ajar Konsep Dasar Keperawatan Anak*. Jakarta: EGC.
- Susanti, E, T. 2013. *Hubungan Frekuensi Hospitalisasi Dengan Kecemasan Anak Leukemia Usia Prasekolah Saat Dilakukan Tindakan Invasif Di RSUD Dr. Moewardi*. Skripsi. Universitas Muhammadiyah Surakarta.
- Ward E, DeSantis C, Robbins A, Kohler B, Jemal A. (2014). Childhood and Adolescent Cancer Statistics 2014. *CA: A Cancer Journal for Clinicians*. 64(2):83-103.
- Wong, D, L. 2009. *Buku Ajar Keperawatan Pediatrik*, Volume 1 Alih Bahasa Agus Sujarna, Neti Juniarti, H. Y Kuncara, (Edisi 6). Jakarta : EGC.
- Zakiah, A. 2015. *Nyeri : Konsep Dan Penatalaksanaan Dalam Praktik Keperawatan Berbasis Bukti*. Jakarta; Salemba Medika.