



THE EFFECT OF NURSING CARE BY USING MODIFIED HOLISTIC CARE (MHC) MODEL APPROACH TOWARD REDUCTION OF CHILDREN HOSPITALIZATION STRESS

M. Hasinuddin¹ Nursalam² I Ketut Sudiana³ Ulva Noviana¹ Fitriah⁴

1. STIKES NHM Bangkalan Madura Indonesia

2. Faculty of Nursing, Airlangga University, Surabaya Indonesia

3. Faculty of Medicine, Airlangga University, Surabaya Indonesia

4. Polytechnic of Health, Surabaya Indonesia

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Email: info@jusres.com

ABSTRACT

Most of hospitalized children facing stress during hospital care which one of its indication is getting anxious. Nursing care by using holistic care oriented is expected to be able to reduce stress during hospitalization. This research aims to reveal the influence of nursing care by using modified holistic care model toward the stress reduction of pediatric patients. This research was designed in two stages. The first stage was compiling modul and the second was testing the modul by using “Quasy experimental” design and pre post control group non randomized design. The population of this research was taken from 50 hospitalized children in Syamrabu hospital which consist of 15 patient in each group as the sampel. Mann whitney, wilcoxon, t independent and t dependent test were used for the hypothesis test. Meanwhile, Confirmatory Factor Analysis (CFA) with the asistance of Lisrel student program was used to test the model. The result of this research shows that nursing care by applying modified holistic care model could reduce stress hospitalization to the pediatric patients. However, it could ameliorate coping behaviour ($p=0,000$), it could reduce the stress both on psychological dimension (Children became cooperative) ($p=0,023$) and on social dimension (interpersonal relation got improved) ($p=0,035$). Moreover, the stress on spiritual dimension could also be reduced (patients and the family got determined) ($p=0,002$) and importantly, it could lower the

cortisol level of the pediatric patients ($p = 0,031$). Nursing care by using modified holistic care model can be applied by nurses in taking care the hospitalized patients. The stress reduction and the shortened-hospitalized period became one of the bases in holistic care model implementation.

Keywords : Cortisol, Holistic care, Children hospitalization stress, Nursing care.

INTRODUCTION

Most of hospitalized children facing stress during hospital care. One of its indication is getting anxious. Anxiety of the hospitalized children is a sort of disorder which refers to the inadequate emotional needs. Based on the observation conducted in August 2013, in Syarifah Ambami Rato Ebu hospital Bangkalan, on 10 patients of 3-4 year old children, it could be seen that those 10 observed patients were not cooperative during the nursing care given by nurses. For example, they expressed some uncooperative responses such as crying, groaning, hugging their mothers, asking to go home, and screaming when they were going to get nursing treatments such as being injected, taken their temperature, given the drugs, and taken their blood. The objective of this research is to demonstrate the influence of nursing care through modified holistic care model approach toward the reduction of hospitalization stress of pediatric patients.

Nursing care that has been applied so far, especially in Indonesia is still not optimal yet in practice. Therefore, a solution through nursing care by considering holistic care aspects is highly needed. Holistic nursing is a holistic nursing model that focuses on the patterns and causes of disease, not the symptoms. This model emphasizes on taking care of the human as a whole, not just giving treatment of disease suffered by patients. Instead, nurses are expected to be involved in identifying the interrelationships of biological-psychological-social-spiritual dimension of the patients.

MATERIAL AND METHODS

This research was designed into two stages. The first stage was compiling modul of modified holistic care which consists of: atraumatic care, family support, communication of nurse, and spiritual nursing. Afterwards, the modul was tested to the nurses who were on duty at pediatric ward by using modified holistic nursing care model approach. The second stage of this research was testing the modul to the patients by using “*Quasy experimental*” design and *pre post control group non randomized design*. In this context, the researcher gave certain treatment

to the observed subject groups before and after intervention and in the meantime, the controlled group was not given any intervention.

The population of this research were pediatric patients in Syarifah Ambami Rato Ebu hospital Bangkalan who were undergoing hospitalization stress in 2014. There were 50 pediatric patients that were the average number of hospitalized patients each month. By using lemesow formula, the researcher took 15 patients in each group as the sampel. *Concecutive sampling* was used in determining the sampling technique. In addition, *Mann whitney*, *wilcoxon*, *t independent* and *t dependent* test were used for the hypothesis test. Meanwhile, *Confirmatory Factor Analysis* (CFA) with the asistance of Lisrel student program was used to test the model.

Instruments, materials and methods used in this study were a questionnaire, medical records and observation sheet. The instrument of perception used questionnaire perception with 10 questions. This questionnaire applied Illness Perception Questionnaire (IPQ) designed by Witteman, Bolks (2011). Coping instrument applied questionnaire Children's Coping Behavior Questionnaire designed by Hernandez (2008) with 20 questions. Hospitalization stress instrument used a questionnaire that had been used by Wowiling in 2014. Examination of physical stress used serum cortisol levels that were taken from 3-6 year old children.

This study has passed the ethics examination from Health Research Ethics Committee Airlangga University with a letter No: 493-IEC on October 2, 2014.

RESULTS

This research was conducted at pediatric care (IRNA E) Syarifah Ambami Rato Ebu hospital Bangkalan. Research feasibility test was carried out on October 2, 2014 by the Health Research Ethics Committee of the Faculty of Public Health, University of Airlangga. The period of the research was 5 months during October 2014 until February 2015. This research was conducted by the researcher supported by all nurses in IRNA E, and the 5 nursing students that have got training for a week. The supervision was assisted by head of the ward, and a senior nurse in IRNA E Syarifah Ambami Rato Ebu hospital Bangkalan.

There were 15 patients in each group as the sample of this research. Group I (treatment: 15 patients) was the group who received Modified Holistic Care model development and Group II (Control : 15 patients) was the group who got service based on the service standard in the ward. To obtain a high validity in which the dependent variable is only influenced by the studied

independent variable, there were various efforts to be done by minimalizing the bias values and the confounding factors.

During the sampling process, measurement on biological, psychological, social, and spiritual responses were done to the 33 patients. Three patients were dropout (1 respondent died, 1 patient was referred, and 1 patient resigned).

The treatment group got Modified Holistic Care intervention. It is a nursing care approach which is performed by nurses to the patients as well as their family in order to improve coping behaviour and decrease hospitalization stress. Meanwhile, the control group got a standard nursing care intervention. Modified Holistic Care intervention was performed through such method of giving nursing care by considering biological-psychological-social-spiritual aspects.

The implementation of Modified Holistic Care was performed from the second until the third day within the nursing period. Interventions were given in every nursing actions. For the play therapy, it was given twice a day in the morning and evening. The Modified Holistic Care implementation involved nurses on ward, patients, and family.

The data about respondents:(1) age, (2) sex, (3) occupation of the parents, (4) education background, (5) Medical diagnostics can be seen on table 1

Table 1 : Characteristics of respondents

Number	Characteristics	Amount	Percentage (%)
Socio demography			
Age :			
	3 years	7	23,3
	4 years	2	6,7
	5 years	6	20,0
	6 years	15	50,0
Sex			
	Male	11	36,7
	Female	19	63,3

Parents' education		
Elementary	5	16,7
Middleschool	15	50,0
High school	9	30,0
University	1	3,3
Parents' occupation		
Civilservants	10	33,3
Private	19	63,3
Army/police	1	3,4
Medical Diagnostics		
DHF	25	83,3
Non DHF	5	18,7

The table above indicates that the socio demography majority based on patients' age is 6 years old (50%), 19 patients are female (63,3%), parents' education is middle school 15 persons (50%), parents' occupation is private (63,3%), and the major diagnostics is DHF (83%).

Variable Differences Test Result

1) Data of Patients Perception

Perception of pediatric patients suffered from hospitalization stress was measured before and after interventions through *Modified Holistic Care* model. Hence, between treatment and control group resulted the following data.

Table 2. Perception test result of treatment and control group, Syarifah Ambami Rato Ebu Hospital Bangkalan 2014

Variable Indicator	Test	Treatment (Mean±SD)	Control (Mean±SD)	Independent test
Perception	Pre test (P1)	17,07±2,34	13,47±2,34	t = -0,848
	Post test (P2)	16,47±4,05	16,67±4,05	t = 4,207
	Paired (P3)	$\Delta = 0,6$ Z = -2,740 p = 0,006	$\Delta = -3,2$ t = 0,354 p = 0,728	CI = 95%

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From the table above, it indicates that there are differences in perception before and after treatment ($p = 0,006$), with $\Delta = 0,6$. There is no different perception on control group ($0=0,728$), with $\Delta = -3,2$, and it also can be seen that there is different perception between treatment group and kontrol group ($p = 0,000$). It suggests that intervension through *modified holistic care* model approach can improve patients' perception significantly.

2) Data of Patients Coping

Coping in pediatric patients suffered from hospitalization stress was measured before and after intervension through a modified model of holicic care. Hence, between treatment and control group resulted the following data.

Tabel 3. Coping test result on treatment and control group, Syarifah Ambami Rato Ebu

Hospital Bangkalan 2014				
Variable		Treatment	Control	Independent
indicator	Test	(Mean±SD)	(Mean±S	test
				D)
Coping	Pre test (P1)	34,80±7,65	29,80±5,0	t = 2,110
			6	p = 0,44
	Post test (P2)	42,73±6,77	32,20±6,0	t = 4,491
			6	p = 0,000
		$\Delta = -7,93$	$\Delta = -2,4$	CI = 95%
	Paired (P3)	Z = -2,673	Z = -1,226	
		p = 0,008	p = 0,220	

The table above indicates that there are differences in coping before and after treatment ($p = 0,008$), with $\Delta = -7,93$. There is no coping differences on control group ($0,220$), with $\Delta = -2,4$. There are clearly coping differences between treatment and control group ($p = 0,000$). It suggests that intervension through *modified holistic care* model approach can significantly improve coping to the patients.

3) Data of Hospitalization Stress on Psychological Dimension of Patients:

Hospitalization stress of psychological dimension was measured before and after

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intervention through *modified holistic care* model. Hence, between treatment and control group resulted the following data.

Table 4. Test result hospitalization stress of psychological dimension of treatment group and control group in Syarifah Ambami Rato Ebu Hospital Bangkalan 2014

Variabel indicator	Test	Treatment (Mean±SD)	Control (Mean±SD)	Independent test
Psychology	Pre test (P1)	13,07±1,79	12,47±1,99	t = 0,867 p = 0,394
	Post test (P2)	11,47±1,77	13,00±1,73	t = -2,400 p = 0,023
	Paired (P3)	$\Delta = 1,6$ Z = -2,277 p = 0,023	$\Delta = -0,53$ Z = -1,134 p = 0,257	CI = 95%

The table above indicates that there are significant differences in psychological stress in treatment group before and after intervention ($p = 0,023$), with $\Delta = 1,6$. There is no differences in control group before and after intervention ($p = 0,257$), with $\Delta = -0,53$, and there are differences on psychological stress on treatment group and control group ($p = 0,023$). This suggests that intervention through *modified holistic care* model is significantly able to reduce psychological stress of the patients.

4) Data of Stress Hospitalization on Social Dimension of Patients

Social dimension of stress hospitalization was measured before and after intervention through *modified holistic care* model. Hence, between treatment and control group resulted the following data.

Table 5. Test Result of hospitalization stress on social dimension of treatment and control group in Syarifah Ambami Rato Ebu Hospital Bangkalan 2014

Variable Indicator	Test	Treatment (Mean±SD)	Control (Mean±SD)	Independent test
Social	Pre test (P1)	27,27±6,85	25,40±3,87	t = 0,919 p = 0,366
	Post test (P2)	22,07±4,99	17,07±3,62	t = -2,219 p = 0,035
	Paired (P3)	$\Delta = 5,2$ t = 3,322 p = 0,005	$\Delta = 8,33$ Z = -0,357 p = 0,721	CI = 95%

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The table above indicates that there are significant differences in social stress of the treatment group before and after intervention ($p = 0,005$), with $\Delta = 5,2$. There is no differences before and after intervention at control group ($p = 0,721$), with $\Delta = 8,33$, and there are social stress differences between treatment and control group ($p = 0,035$). This suggests that intervention through *modified holistic care model* is significantly able to reduce social stress of the patients.

5) Data of Hospitalization Stress on Spiritual Dimension of Patients

Spiritual dimension of hospitalization stress was measured before and after intervention through *modified holistic care model*. Thus, between treatment and control group resulted the following data.

Table 6 Test Result of spiritual dimension hospitalization stress of treatment and control group in Syarifah Ambami Rato Ebu Hospital Bangkalan 2014

Variable Indicator	Test	Treatment (Mean±SD)	Control (Mean±SD)	Independent test
Spiritual	Pre test (P1)	7,93±1,49	10,60±2,38	t = -3,676 p = 0,001
	Post test (P2)	7,47±1,25	10,60±2,39	Z = -3,151 p = 0,002
	Paired (P3)	$\Delta = 0,46$ Z = -0,988 p = 0,323	$\Delta = 0$ Z = -0,663 p = 0,507	CI = 95%

The table above shows that there is no significant differences on spiritual stress of the treatment group before and after intervention ($p = 0,323$), with $\Delta = 0,46$. There is no differences on the control group before and after intervention ($p = 0,507$), with $\Delta = 0$. In addition, there are differences on spiritual stress between treatment group and control group ($p = 0,002$). According to difference average values between pre test and post test on the treatment and control group, there are differences in which spiritual stress of the treatment group is decreasing whereas the control group does not indicate any changes on the average values. This data proves that

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intervension through *model modified holistic* care approach can significantly decrease spiritual stress of the patients.

6) Data of Hospitalization Stress of Physical dimension (cortisol level) of Pasients

Physical dimension (cortisol level) of hospitalization stress was measured before and after intervension through *model modified holistic* on both treatment and control group. Thus, it resulted as the following data.

Table 7. Test Result hospitalization stress of physical dimension (cortisol level) of treatment and control group in Syarifah Ambami Rato Ebu Hospital Bangkalan 2014

Variable	Test	Treatment (Mean±SD)	Control (Mean±SD)	Independent test
Cortisol	Pre test (P1)	14,30±12,62	9,71±9,08	t = 1,142 p = 0,263
	Post test (P2)	5,36±3,95	8,49±5,75	t = -1,741 p = 0,031
		Δ = 0,6	Δ = 1,22	CI = 95%
	Paired (P3)	Z = -2,897 p = 0,004	t = -0,142 p = 0,887	

Based on the table above, it can be seen that there are different cortisol level before and after treatment (p = 0,004), with Δ = 0,6. In the control group, there is no differences on cortisol level (0,887), with Δ = 1,22, and there is different cortisol level between treatment and control group (p = 0,031). This suggests that intervension through *Modified Holistic Care* model is able to reduce cortisol level of the patients.

DISCUSSION

The result of analysis shows that intervension through *Modified Holistic Care model* approach is significantly able to improve perception of the patients in recognizing their disease. Moreover, it plays a very important role to determine how they will deal with their condition since pediatric patients are usually frightened by the doctors who will examine and give medication to them. The analysis of questions about perception indicates that 75% pediatric patients told their parents that they were frightened when they were going to be examined. In

addition, the interview with the parents indicates that 75% parents declared that their children were traumatized by infusion they got at the first time they entered emergency room.

Being hospitalized is such stressful experience for both patients and parents. Some scientific evidences show that the hospital environment itself which cause the stress, such as the physical building of the hospital, the building, the wards, equipments, the odor, white clothes, or social environment such as interaction with the other patients and the attitude of the medical officers (Supartini, 2004).

Children’s anxiety responses usually arise when they are hospitalized at the first time. There were various responses expressed by children such as screaming while crying, being sensitive to unfamiliar persons, wanting to be accompanied by parents all the time, being not enthusiastic, unwilling to do any activity, neglecting surrounding, and showing unusual attitude such as bedwetting, sucking thumb and drooling. Those responses were not only caused by the disease they suffered from but it was also caused by negative perception of the children about the hospital.

Perception is a cognitive process in order to give interpretation about other people, certain objects or their social realm (Wong, 2009). When the perception is already obtained it can be used to predict the hospitalization stress. Perception will develop into beliefs. Dossey (2004) argues that perception of children and parents is almost the same. It is found from moderate until high level. There is no statistically significant difference about perception of children and parents.

Nursing care to pediatric patients through modified holistic care model at Syarifah Ambami Rato Ebu hospital could significantly improve the coping behaviour of the patients. Each child had different reaction in undergoing hospitalization period. This period is considered as threatening experience that can cause stress for both children and parents. Besides, this assumption can cause crisis for children and their family. It is occurred as children do not understand why they are injured or why they have to be hospitalized. They likely feel stress because of the changes of their health, the new and strange environment, daily habits, as well as the limit of coping mechanism.

Based on the observation result, pediatric patients were frequently feeling a hard stress because of being afraid of medication and health workers, and unfamiliar with the environment.

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However, this fact is an important issue that nurses should pay a big attention to in managing nursing care. This factor is also strongly connected with hospitalization distress so that it needs a longer nursing period and even escalate complication during the nursing period. To overcome this issue, there should be improvement on nurses' performance in implementing nursing care by using holistic model; a nursing care model which emphasizes on biological-psychological-social-spiritual aspects. One of the developed models of this technology is adapted from a theory proposed by S.C. Roy. This theory emphasizes on fulfilling the patients' needs holistically, they are physical aspect (atraumatic care), psychological aspect (facilitating constructive coping), social aspect (creating constructive relationship and environment that involves family in nursing care) and spiritual aspect (sincere and prayer or effort).

75% of hospitalized children experience anxiety. It is an emotional response without specific object which is subjectively undergone and communicated interpersonally. It is a confusion, fear of something that will happen with no apparent cause, and can be associated with feelings of uncertainty and helplessness. The reaction is individualized and highly dependent on the stage of development of the child's age, the record of the illness, the support system availability, and their coping skills (Supartini, 2004).

Intervention through nursing care by using modified holistic care model that involves nurses and family can decrease the children's anxiety since there will be an adaptive coping mechanism. This mechanism will be able to ameliorate the hospitalized children's psychology. Once their psychological condition is good, they will be more cooperative in receiving nursing care and medical treatment.

According Wong (2007) coping for hospitalized pre school children shows a maladaptive coping. It is a reaction such as protest, desperate and regression. Protest is shown by crying and screaming for a couple hours or days. They refuse attention from nurses and just want to be accompanied by their mother.

1. The Effect of Modified Holistic Care Model towards Psychological Dimension (patients become cooperative) Hospitalization Stress Reduction of Pediatric Patients at Hospital.

Nursing care through modified holistic care model approach can significantly reduce the psychological stress of the patients. The pediatric patients stress is caused by some factors. Firstly, the environment factor of the hospital which often make children get frightened. It can

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worsen the children stress. However, it can be overcome by modifying environment through playing therapy and redesigning the hospital wards become more interesting for children so that they will feel comfortable and fun. Secondly, the interaction and relationship among nurses, parents and children become the key factor which affects the children stress. It can also be a supporting factor that can reduce children stress. By applying modified holistic care model approach to nursing care, the relationship among nurses, parents and children is strongly encouraged. Therapeutic communication used by nurses to the patients and family is implemented optimally.

A study conducted by Corsano (2013) about the experience of hospitalized children on their relationships with nurses and doctors reports an exploratory study aimed to investigate the perception of hospitalized children on their relationships with nurses and doctors. Twenty-seven school-age children and adolescents in pediatric hematology and oncology wards of hospital in Italy participated in this study. Each respondent was asked to describe themselves with a doctor or nurse of the environment when they were doing something. Images were analyzed using Analyzed Pictorial Interpersonal Relationship (PAIR) and qualitative analysis. The results showed that the children were seen through their relationship with positive health professionals, especially with the nurses. This relationship was considered close, intimate, cohesive and without conflict. In some cases it becomes an emotional bond. Finally, this relationship helps patients to cope with medical procedures which are sometimes painful and uncomfortable. Thus, it will gradually becomes familiar and acceptable. The clinical implications of this research through parents or relatives will benefit the nurses. They can obtain more information about pediatric patients. Besides, they can ask the parents or relatives to support them to deal with their hospitalized children (Corsano, 2013).

The behavior of nurses is vital for coping the children stress during hospitalization period. They should treat the patients effectively based on the identified needs of the children and family. Some important roles of nurses in taking care the stress patients are; preparing the patients for the treatment given by the hospital, preventing or minimizing the impact of separation from family member, minimalizing loss control feeling since children are likely to experience such condition. In addition, nurses also have roles to prevent or minimize injured body of the children as they usually do rebellious reaction when the medication is going to be

given. It is also encouraged to play music for anxious children who suffer from high level stress, thereby it can reduce the stress level during the treatment. Giving music therapy to stressful children is also able to distract children attention so that their anxiety as well as their stress gets decreased.

The implementation of playing and listening music therapy in nursing care as sort of effort to satisfy children's favorite was done twice a day at the pediatric center by using simple audio-visual tools. As the result, children seemed enthusiastic to follow the therapy and get involved with other patients.

Every single action to overcome pediatric patients problem should be based on atraumatic principle or therapeutic nursing which intended as a mean of therapy for children. This therapeutic nursing cannot be apart from the role of the parents (Supartini, 2004). Atraumatic care in nursing care is to modify physical environment of the hospital becomes more homelike, decorate the wall in childhood nuances. For example, using loom to make a curtain with floral and cute animals figures, sticking wall-hanging with colorful and interesting pictures, painting the walls and stairs with bright, colorful and hue impressions, not wearing white clothes for nurses, and allowing the children to touch and hold the medical devices.

A study conducted by William (2011) about the effectivity of playing therapy by using virtual computer game in improving psychological health of pediatric patients with cancer aimed at recognizing the effectivity of playing therapy in minimalizing anxiety and reducing stress depression on pediatric patients with cancer in Hongkong and China. The background of the study reveals that there was escalation number in implementing intervention of playing therapy to help the patients in reducing stress. Yet, it was unclear whether the intended therapy suited to the pediatric patients with cancer in China. The design used in the study was pre test and post test of the non random control group. The hospitalized children with cancer in pediatric oncology ward from Hongkong and China participated in this study for 14 months. There were 122 patients participated in this study, 70 patients were included in control group who received routine treatment and 52 patients were in experimented group who received intervention of playing therapy (William, 2011). At day 7, experimented patients group was reported to have statistically less depression than those in the control group. This study gives an empirical proof to support the effectivity of playing therapy for pediatric patients with cancer. Thus, it also maps

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out the way of qualified holistic nursing. The relevance of the findings with the clinical practitioner is to increase awareness of the health professionals that playing is an important part of children life. Besides, it also suggests that children do need playing eventhough they are ill (William, 2011).

2. The effect of Modified Holistic Care approach toward the social dimension of hospitalization stress reduction (the improved of interpersonal relationship) in pediatric patients at the hospital.

The nursing care of pediatric patients through modified holistic care approach in Syarifah Ambani Rato Ebu Bangkalan Hospital could significantly reduce the social stress of the patients. The perception of pain and hospitalization of preschoolers are the feeling of being punished, so that the children feel shame, guilty, or fear. The children's fear against injury appears due to their assumption that the actions and procedures of the treatment can threaten the integrity of their body. This fear raises aggressive reaction such as anger and revolt, verbal expression by saying angry words, unwilling to cooperate with the nurses, and being dependence to the children's parents or family. In this case, the support of the family is needed because family is an important element in treatment, especially in children's treatment. Besides, the nurses need to understand that family is the living place or remain constant in children's life (Wong, 2009).

Brandon (2013) conducted a research about the experiences of parents and patients in hospitals through Family Centered Care (FCC). Brandon's research, conducted at the Children's Hospital of Boston, aims to describe the experience of parental care during their child's hospitalization and to identify the strategies to improve care centered to patient and family. The findings of this research support the importance of continuous evaluation on Family Centered Care to identify the strenghts and weaknesses. The research recommends for improvements in nursing centered to patient and family (Brandon, 2013).

Family is called as individual team connected by the bonds of marriage, blood and adoption, as well as the interaction between one and another. In addition, family can cover a wider social group, which is formed from two or more individuals who live in the same place, has the same intention and purpose, also doing related activities. In this research, all respondents are guarded by their parents, 90 % is the mother who become primary caretaker in the hospital. It indicates a very good support from the family to the patients.

The presence of the family is important for the psychological stability of the patients. It becomes the support for better and quick recovery. Besides, the role of family, friends and relatives are very important for maintaining the quality of life of the hospitalized patients with chronic problems. It is due to the fact that family can fulfill most basic needs of the patients in hospital. Family is able to reduce stress by encouraging the patients to do therapy effectively. At the same time, family is able to direct the patients to participate in self-care activities to be more effective in dealing with the complications of the disease (Bellou, 2013).

The presence of family during the hospitalization of the patients is reinforced by the perception of holistic care, as the science and art supported the idea of anthropocentric and holistic treatments. Consequently, there is a need for constant interaction between nurse and family to achieve the holistic care.

3. The effect of modified holistic care toward the spiritual dimension of hospitalization stress reduction (patient and family resignation) in pediatric patients at the hospital.

The nursing care through modified holistic care approach in pediatric patients in Syarifah Ambani Rato Ebu Bangkalan could significantly improve the spiritual stress of the patients. Spiritual need is the need to maintain or give back, to fulfill the religious obligations, the need to get forgiveness, loving, and trusting relationship with God. The spiritual need can be fulfilled if the nurses have the ability of nursing care using the spiritual aspects of the client as part of the patient's holistic need. The spiritual fulfillment is needed both for the patient and the family to find out the meaning of live from the suffering due to the illness and the feeling of being loved by the surrounding people and God.

Nurses are professional health workers providing comprehensive care or nursing by helping the client to fulfill the holistic basic needs. For the nurses, patients are bio-psycho-socio-cultural and spiritual creatures able to give respond holistically and uniquely toward the changes of their health or critical conditions. The nursing care of the nurses cannot be separated from the spiritual aspects which is an integral part of the interaction between the nurse and the client. The nurses try to help and fulfill the spiritual needs of the clients and they become the spiritual facilitator eventhough they have different spiritual belief or religion with the clients (Dossey, 2004).

The nurses have to fulfill the needs of the clients including the spiritual needs. Various methods are used by the nurses to fulfill the needs of the clients such as the fulfillment of the purpose and the spiritual meaning, facilitate the clients to express their belief and religion. The fulfillment of spiritual aspects of the clients cannot be separated from five dimension of human views that should be integrated in life. The five dimensions are physical, emotional, intellectual, social and spiritual. These dimensions are within interconnected system, interrelation, and interdependence, thus, if there is disturbance in one dimension, it may interfere the other dimensions.

The spiritual development of children is very important to be noticed. Humans as a client in nursing children are individuals aged between 0-18 months, whom they are in the process of growth and development, who have specific needs (physical, psychological, social, and spiritual) different from adults. Children are individuals who still depending on the adults and the environment. It means that they need an environment that can facilitate and fulfill their basic needs to be independent (Rahmat, 2013).

The result of the research conducted by Wong (2009) states that it is important for pediatric nurses to understand the spiritual problems of children. Pediatric nurses have to focus on understanding about individual child or the traditions of the family, values, beliefs, and how the impact of spiritual toward the dimension of children's health.

Spiritual dimension starts to develop in early childhood (18 months – 3 years). In this period, children is already experienced an increase of cognitive ability. Children can learn to compare the good and bad things to continue the greater role of independence. This stage of development shows that children begin to argue and respect the existence of ritual events in their living place. The observation of children's spiritual life can be started from a simple habit such as praying before sleeping and eating, or the way to greet in everyday life. The children will be happier if they get new experiences, including the spiritual experiences.

The spiritual development at pre-school age (3-6 years) is closely related to the dominant psychological condition, the super ego. Pre-school age children begin to understand the social needs, norms, and expectations, and trying to adjust the norms of the family. Children is not only comparing the good and bad things, but also comparing the norms in their family with the norms from other family. The needs of children during pre-school age is to know the basic philosophy

of spiritual issues. The spiritual needs are important to be considered because the children start to think concretely. They sometimes difficult to accept the explanation of God, which is still abstract, even they are difficult to distinguish between God and their parents.

4. The effect of modified holistic care approach toward the physical dimension of hospitalization stress improvement (the decrease of cortisol levels) in pediatric patients at the hospital.

The nursing care through modified holistic care approach in pediatric patients in Syarifah Ambani Rato Ebu Bangkalan could significantly decrease the cortisol levels of the patients. The result of the research shows that the cortisol levels can be significantly decreased if the patients receive nursing care with holistic care approach.

Based on the concept of psychoneuroimmunology through the hypothalamus hypofisi adrenal axis, the psychological stress can be affected on hypotalamus. The hypotalamus then affected the hypofise so that the hypofise will express the ACTH (adrenal cortico tropic hormone) which ultimately can affect the adrenal glands, the producer of cortisol. If the stress of the patients is extremely high, the adrenal glands will produce cortisol in very huge amount to suppress the immune system (Playfair, 2009).

In modern society, many physical and psychological stressors can increase the amount of stress especially in hospitalized children at the hospital. The continuous stress can disturb the work of immune system. The natural immunity, the humoral immunity, and cellular immunity (Cellulerpredator exposure) affect the axis of hypothalamus-pituitary-adrenal (HPA axis) to produce cortisol. Various effects of cortisol is then distributed to various receptors that make a person more susceptible to infections.

The role of cortisol in helping the body to cope with stress are expected to have relation with its metabolic effects. Cortisol has metabolic effects to increase the concentration of blood glucose using protein and fat deposits. A logical assumption is that the increase of glucose deposit, amino acid, and fatty acid are used when its needed, for example in stress condition (Guyton, 2000).

Although the external events produce the same average value for both groups, the average difference in cortisol pre-post for negative treatment group (-0,95 nmol / L). Although it is not significantly different compared to the control group with students t - tes ($P = 0,29$), the

average negative results are consistent with cortisol levels decreased during the second sample collection, after experiencing therapy (Yount, 2013).

The result shows that the respondent of the treatment group experience the increase of cortisol level as much as one person due to the respondent has an increase of body temperature (febris) during the examination of cortisol post treatment. This result is in accordance with the result of the research conducted by Supartini (2004). Supartini mentions that the heat stress of chicken is able to make the cortisol level high. The increased of cortisol level in the feces is still detectable 2-3 hours after the cessation of heat stress. The increased of cortisol level in the feces shows that chicken under stress so that the body response to cortisol formation and excretion in the feces increased. The increased of cortisol level in the feces of 2-3 hours after cessation of heat stress is allegedly associated with the efforts of the body to excrete the cortisol from the body.

CONCLUSIONS

The conclusion of this research is that holistic care can improve the perception, improve the individual coping, and lower the hospitalization stress on physical, psychological, social, and spiritual responses. The new findings of this research are the nursing care with Modified Holistic Care approach can reduce the hospitalization stress in children. Nursing care through a modified holistic care approach can be implemented by nurses in caring for patients in hospitals. The stress decreased and the reducing of hospitalization length of stay become one of the basic application-based in holistic nursing care. The management of the hospital needs to implement a system to assess the performance of nursing supervision of nurses, especially in the implementation of nursing care which is oriented to holistic care to improve the patient satisfaction and quality of nursing care.

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