

The Effect of the Therapeutic Wax Play on Anxiety Levels of Preschool Children (3-6 years old) Underwent Hospitalization in Garuda Ward at S. K. Leric Hospital, Kupang City

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ABSTRACT

Background

At the time of preschool, children often get tired and experience a decline in the immune system so they are susceptible to illness. This often caused the child to experience hospitalization. This study aims to find out the effect of the therapeutic wax play toward the decrease of the anxiety in preschool children underwent hospitalization.

Methods

This research method was a pre-experimental quantitative research with One group pre-test-post-test design. The sample of this study amounted to 28 respondents preschool children and had undergone treatment at the hospital less than 3 days. The sampling technique used Accidental Sampling.

Results

The results of Wilcoxon test showed that there was a significant effect of the therapeutic wax play on reducing anxiety levels of preschool children underwent hospitalization as indicated by $p_value = 0,025$ with anxiety levels ($p < 0,05$).

Conclusions

This study proved that the therapeutic wax play can reduced anxiety levels of preschool children underwent hospitalization.

Thus, nurses can use the therapeutic wax play as one type of the therapeutic to overcome anxiety in children who experienced hospitalization.

Key words

The therapeutic wax play; Anxiety; Preschool children

BACKGROUND

Preschools are children with an age range of 3-6 years. At the time of its growth and development, preschool children can be more active, creative, and imaginative. Because of increased activity, children often get tired and experience a decline in the immune system so they are susceptible to illness. This often causes the child to experience hospitalization. Hospitalization is a process for a planned reason or an emergency so that the child requires staying in the hospital undergoes therapy and treatment until return home. At this point, sometimes children experience various traumatic experiences and stress. Stress that arises in children is shown by anxiety. Anxiety in preschool children is mainly caused by many things

new, children find such as separation with family members, foreign environment of the hospital, and undergoes medication.

Based on a survey from World Health Organization in 2013, children underwent hospitalization are 80%, and about 5% of the children in the United States of America undergo hospitalization every year. Based on the survey of the National Economic in 2014, the number of preschool children in Indonesia is 20.72% of the total population. Based on the data, it estimates 35% of children underwent hospitalization. The results of the Maternal and Child Health survey in 2013 found that out of 1.425 children had undergone hospitalizations, 32.2% of them experienced severe hospitalization impacts, 41.6% experienced moderate hospitalization impacts and 25.5% experienced mild hospitalization impacts. According to the research of Sing's (2014) showed that 68.8% less cooperation in undergoing care (Puspasari, 2010). Based on the medical record data in March, 2015, there were 30 of preschool children underwent hospitalization in Garuda ward at S.K. Lerik Local Hospital, Kupang City.

There are various reactions shown by the preschool children due to hospitalization stress such as refuse to eat or drink, ask questions often, crying continuously though slowly, and not cooperatively to the medical staff because they assume that the medical actions and procedures can bring injury and will threaten the integrity of their bodies. Child care in hospitals is a stressful experience for both children and parents. Some scientific evidence showed that the foreign or new environment of the hospital itself is a cause of stress for both children and parents, both in the physical environment of the hospital such as buildings/wards, medical equipments, a distinctive smell, and medical staff's white uniform as well as in the social environment such as fellow patient, pediatric patient interaction, and the behavior of medical staff themselves or even by feelings such as fear, anxiety, tension, pain and other agitated feelings, often experienced by children (Supartini, 2004)

Increasing levels of anxiety in children who experienced hospitalization can suppress the immune system. In immunological psychoneurotic science, it is said that if a person or a child has undergone hospitalization would experience stress due to various kinds of stressors and it would increase cortisol by HPA axis. Increasing of cortisol levels in the body will inhibit the immune system especially lymphocytes will detain healing process (Adriana, 2011). As mentioned above, in the case of separation from parents also causes anxiety. If the anxiety lasts for a long time and is not overcome, then it would cause the child to start not caring about the absence of his/her parents and prefers to silent, refuses to any action given and the worst is traumatic after return home.

Play activity is a child's psychosocial needs which can eliminate body pain. It also helps to train child motor activity and increases intelligence. (Wong, 2008). Play activity is not only needed by a healthy child even a child with illness needs it as well especially when they are hospitalized (Adriana, 2011). Nursing focus intervention is done to minimize stressors, to give psychological support to the child and family members during undergoing hospitalization. Preschool children who are invited to play will be more cooperative. (Supartini, 2004).

The effective media to overcome hospitalization impacts in children is the therapeutic play. The therapeutic play has proven to reduce anxiety, fear, pain and anger. The purpose of this type of the therapeutic play at the hospital is an effort to continue developing a normal growth which enables children to respond effectively toward difficult situations, to develop creativity, and the ability of solving problems, can adapt effectively from stress situation after medication treatment at the hospital.

The therapeutic play at the hospital can improve the wrong concepts regarding the use of equipments in medical procedures. While doing the therapeutic play, the nurse can explain the function of medical equipments such as thermometer, stethoscope which harmless when use it, thus the children would have no misperception.

One of the most effective type of the therapeutic play for preschool children is the therapeutic wax play that is adaptable because the therapeutic play does not need much energy and can be done on a child's bed so it does not interfere with the recovery process of children's health (Ngastiyah, 2005). According to which this therapeutic play called, it will increase the intake of children especially their fine and coarse motor. For example, babies will be skilled at holding small objects, moving objects from one place to another; children will be skilled at cycling. These skills are obtained through repetition of the therapeutic play. Based on the background above, the author is interested in conducting a research entitled "The effect of the therapeutic wax play on anxiety levels in preschool children (3-6 years old) underwent hospitalization in Garuda Ward at S.K. Lerik Local Hospital, Kupang City.

Aims

To find out the effect of the therapeutic wax play on anxiety levels in preschool children (3-6 years old) underwent hospitalization in Garuda Ward at S.K. Lerik Local Hospital, Kupang City.

METHODS

The type of research used was the pre-experimental with a design (*One group pre-test-post-test*). In this research there was no comparison (control) however first observation has been made (pretest) to test whether there was an alteration after experiment (Setiadi, 2007).

RESULTS

General data described the characteristic of respondent underwent hospitalization in Garuda Ward at S. K. Lerik Local Hospital, Kupang City which covered the distribution of respondent by age, gender, order of a child in the family, inpatient days, diagnosis of illness, and record of hospitalization categories at the hospitals.

Table 1. The distribution of respondent by age category in Garuda Ward at S. K. Lerik Local Hospital, Kupang City.

June 28th – July 28th 2016

No	Age	Amount	(%)
1	36-47 months	5 persons	17.9%
2	48-59 months	9 persons	32.1%
3	60-72 months	8 persons	28.6%
4	73-84 months	6 persons	21.4%
Total		28 persons	100%

Source: Primary Data, July 2016

Based on table 1, showed that the distribution of respondent by age category in Garuda Ward at S.K. Lerik Local Hospital, Kupang City was mostly 48-59 months old, amount of 9 respondents (32.1%) and the least was 36-47 months old, amount of 5 respondents (17.9%).

Table 2. The distribution of respondent by gender category in Garuda Ward at S.K. Lerik Local Hospital, Kupang City Kota Kupang.

June 28th - July 28th 2016

No	Gender	Amount	(%)
1	Male	17 persons	60.7%
2	Female	11 persons	39.3%
Total		28 persons	100%

Source: Primary Data, July 2016

Based on table 2, showed that the distribution of respondent by gender category in Garuda Ward at S.K. Lerik Local Hospital, Kupang City was mostly male gender amount of 17 respondents (67.7%) while female gender amount of 11 respondents (39.3%).

Table 3. The distribution of respondent by inpatient days in Garuda Ward at S.K. Lerik Local Hospital, Kupang City.

June 28th – July 28th 2016

No	Inpatient days	Amount	(%)
1	Day -1	4 orang	14.3%
2	Day - 2	13 persons	46.4%
3	Day - 3	11 persons	39.3%
Total		28 persons	100%

Source: Primary Data, Juli 2016

Based on table 3, showed that the distribution of respondent by the most inpatient days in Garuda Ward at S.K. Lerik Local Hospital, Kupang City was the day – 2, amount of 13 respondents (46.4%) while the least inpatient days was day – 1, amount of 4 respondents (14.3%).

Table 4. The distribution of respondent by record of hospitalization in Garuda Ward at S.K. Lerik Local Hospital, Kupang City.

June 28th - July 28th 2016

No	Record of hospitalization	Amount	(%)
1	Never	4 persons	14.3 %
2	Ever	24 persons	85.7%
Total		28 persons	100%

Source: Primary Data, July 2016

Based on table 4, showed that the distribution of respondent by record of hospitalization in Garuda Ward at S.K. Lerik Local Hospital, Kupang City, amount of 24 respondents (85.7%).

Table 5. The distribution of respondent by diagnosis of illness in Garuda Ward at S.K. Lerik Local Hospital, Kupang City.

June 28th – July 28th , 2016

No	Problematic system	Amount	(%)
1	Digestion	11persons	39.3%
2	Respiratory	9 persons	32.1%
3	Immune system	6 persons	21.4%
4	Integumen	2 persons	7.1%
Total		28 persons	100%

Source: Primary Data, July 2016

Based on table 5, showed that the distribution of respondent by the most diagnosis of illness was digestion system amount of 11 respondents (39%), and the least was the Integumen 2 respondents (3.6%)

Table 6. The distribution of preschool children anxiety levels before the therapeutic wax play in Garuda Ward at S.K. Lerik Local Hospital, Kupang City.

June 28th – July 28th 2016

No	Anxiety Levels	Amount	(%)
1	Mild Anxiety	4 persons	14.3%
2	Moderate Anxiety	18 persons	64.3%
3	Severe Anxiety	6 persons	21.4%
Total		28 persons	100%

Source: Primary Data, July 2016

Based on table 6, showed that before the therapeutic wax play, the most anxiety levels was moderate anxiety, a number of 18 respondents (64.3%).

Table 7. The distribution of preschool children anxiety levels after the therapeutic wax play in Garuda Ward at S.K. Lerik Local Hospital, Kupang City.

June 28th – July 28th 2016

No	Anxiety Levels	Amount	(%)
1	Mild Anxiety	7 persons	25.0%
2	Moderate Anxiety	17 persons	60.7%
3	Severe Anxiety	4 persons	14.3%
Total		28 persons	100%

Source: Primary Data, July 2016

Based on table 7, showed that after the therapeutic wax play, most of the anxiety levels was the moderate anxiety, a number of 17 respondents (60.7%).

Table 8. The effect of anxiety levels before and after the therapeutic wax play in Garuda Ward at S. K. Lerik Local Hospital, Kupang City.

June 28th – July 28th 2016.

	Z	P
Anxiety Levels (after) – Anxiety Levels (before)	-2.236 ^a	.025

Source: SPSS Data, July 2016

Based on the Wilcoxon test results obtained grade $z = 2.236^a$ ($z > 1.96$) and $p =$ value 0,025 ($p < 0.05$) it can be concluded that H_0 is rejected and H_1 is accepted which means that there was a therapeutic effect of the wax play on anxiety levels in preschool children (3-6 years old) underwent hospitalization in Garuda Ward at S.K. Lerik Local Hospital, Kupang City.

DISCUSSIONS

According to Stuart & Sundeen (2006), confirmed that someone in a foreign or new environment is prone to anxiety than if he/she in the environment he/she normally occupies (Stuart & Sundeen, 2006). This condition is a source of stress (*stressors*) which can affect the psychological condition of a child who at a certain level can cause a child to fall into a state of anxiety, both being moderate, and severe anxiety as well as panic (Keliat, 2011). Some studies stated that the younger the age of the child, the level of anxiety of hospitalization will increase (Mahat & Scoloveno, 2003). Gender affects the level of anxiety and stress of children hospitalization where children of preschool aged girls who undergo hospitalization have higher levels than boys (Stubbe, 2008). Children underwent hospitalization, have a higher level of anxiety than children who have not had one. This anxiety will be diminished greatly until the children leave the hospital (Tsai, 2007). Anxiety in children who have not had previous

treatment experience will remain high until the child has undergone hospitalization for more than two weeks (Stubbe, 2008).

According to researchers, there is suitability between the theory and the fact which causes anxiety in children because separation from family members, loss of control and fear of limbs treatment and when a child is hospitalized will experience various feelings that are very unpleasant. In this study, pre-school children can experience anxiety at mild, moderate, and severe levels.

The anxiety levels of preschool children before the therapeutic wax play

Pediatric patient underwent hospitalization at the hospital caused anxiety and stress at all age levels and it influenced by many factors which were from medical staff: nurses, doctors and other health workers, medical procedures, foreign or new environment, loss of freedom, loss of self-respect, as well as new family members who have accompanied the child during treatment (Nursalam, 2015).

Children care in the hospital forces children to separate from the environment that they feel safe, loving, and exciting. They are going to miss their home environment, games, and playmates. The reactions toward separation shown by pre-school children are refuse to eat, ask questions frequently, crying although slowly and not cooperative with the medical staff (Deslidel, 2011).

Hospitalization perceived by the pre-school children as a punishment that the children felt lost in strength, embarrassed, lost of freedom, guilty and afraid. These feelings arose because children assumed that medical actions and procedures threatened the integrity of their bodies. This resulted in an aggressive reaction with anger and rebellion, verbal expression by saying mean words, unwilling to cooperate with nurses and dependence on parents.

The results showed that before this type of therapeutic was carried out, there were 4 respondents (14.3%) respondent who experienced mild anxiety, a number of 18 respondents (46.3%) who experienced moderate anxiety and 6 respondents (21,4%) who experienced severe anxiety.

The anxiety levels of preschool children after the therapeutic wax play

A therapeutic play is an activity which carried out voluntarily to gain pleasure or satisfaction. One of the nursing interventions in cope with child hospitalization impacts is the therapeutic wax play. The therapeutic wax play is an educative play to develop growth, to encourage children in activity and creativity. It carried out to divert the feeling of pain into the play and it reduced tensions, overcome emotions and relaxation through its enjoyment of playing it (Supartini, 2004).

This study is also in accordance with the opinion of Pravitasari (2012) that by doing the therapeutic wax play, it is considered to cause a relaxed effect on children and it became a distraction tool when the parents accompany the child, distraction from foreign environment and children forgot for a moment about bad experience during hospitalization (Pravitasari & Edi, 2012). Through this type of therapeutic released whatever feelings the children have and created a positive coping mechanism. This positive coping mechanism was marked by positive

behaviors and emotions of the children. This situation helped reduce stress experienced by children.

Through the therapeutic wax play, children poured out the pressure of traumatic condition which he/she has been through. Another thing was that through the therapeutic wax play, children unconsciously have produced imaginative content that is expressing feelings of sadness, stress, and pressure.

The results showed that after the therapeutic wax play was carried out, respondent who experienced mild anxiety as many as 7 respondents (25%), respondent who experienced moderate anxiety as many as 17 respondents (60%), respondent who experienced severe anxiety as many as 4 respondents (14.3%).

In this study, there were still preschool children, who experienced severe anxiety levels, it happened because of the first undergone hospitalization impact in children.

The effect of the therapeutic wax play on anxiety levels in preschool children underwent hospitalization

Based on the results of the study, the acceptance hypothesis was H_1 . There was an effect of wax play therapy toward the anxiety levels in preschool children in Garuda Ward at S. K. Lerik Local Hospital, Kupang City. As evidence by the results of statistical tests using the Wilcoxon Signed ranks Test for the therapeutic wax play showed $p_value = 0,025$ ($p < 0,05$).

The therapeutic wax play gave a positive impact and one of the suitable activities was forming toys or objects using wax media. These activities were exciting, gave a feeling of confidence and gave children the opportunity to be free to express their feelings. It showed that children were communicating indirectly without words.

The therapeutic play those kids loved to play and made them feel happy. It became one of the exciting ways for children to face illness and to cope with stress. This is consistent with Supartini's (2004) opinion that playing wax as the therapeutic play through toys or objects made of wax has developed creativity, reduced stress and anxiety as well as increased communication skill in the child. The results of this study are also supported by previous similar studies on the therapeutic play.

CONCLUSIONS

This study proves that there is an effect of the therapeutic wax play on anxiety levels in preschool children underwent hospitalization.

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