



Original Research

## Family Support System as an Effort to Optimize Coping Mechanism of Preschool Children During Hospitalization

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### ABSTRACT

**Introduction:** The condition of the child during hospitalization can experience stress due to environmental changes. Child coping mechanism is very supportive of the adaptation process. The purpose of this study was to analyze the effect of family support system on coping mechanisms during hospitalisation.

**Methods:** It was quasi-experimental with pre-test post-test with control group design. The study population was preschool children who were treated in the Hospital of Bangkalan, East Java Province, Indonesia. Total sample was 60 respondents in treatment and control group and obtained consecutive sampling. The variables were family support system and coping mechanism. Data collection used Children's Coping Behavior questionnaire and tested by paired t-test.

**Results:** The treatment group showed the coping mechanism was mostly maladaptive (mean=34.07) and after the intervention most of them had adaptive coping (mean=46.87). Whereas in the control group before the intervention, the coping mechanism was mostly maladaptive (mean=36.22) and after the intervention most of the coping groups had maladaptive coping (mean=36.74).

**Conclusion:** Family support systems play an important role in improving the adaptive coping of preschool children during hospitalisation. Nurses should maximise family support as a strategy in interacting with children to enhance coping mechanisms to reduce the stress of hospitalisation.

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### INTRODUCTION

Hospital is a process for reasons of planning or emergency that requires children to stay in the hospital to undergo therapy and treatment (McMahon & Chang, 2020; Rückholdt, Tofler, Randall, & Buckley, 2019). Thus, being treated at the hospital remains a big problem and causes fear and anxiety (Chao & Chiang, 2003). Hospitality can also be interpreted as psychological changes that can be the cause of children being hospitalized (Priyoto, 2014). Disease and hospitalisation are often the first crisis children must be faced. Especially during the early years, children are very vulnerable to disease crises and hospitalisations due to stress due to changes from normal healthy and environmental

routines, and children have a limited amount of coping to deal with stress (Stratta et al., 2014). In general, preschoolers show maladaptive coping behaviours when adapting to the hospitalisation they experienced, namely behavioural reactions such as protest, hopelessness, and regression. This is because children feel afraid if their body parts will be injured by health care workers (Atkin & Ahmad, 2001; Sukoati & Astarani, 2012).

Rejection from nursing care and treatment has become a phenomenon in hospitals (Stratta et al., 2014). Based on research conducted by psychologists in the last 30 years, it is stated that 10-30% of children with hospitalisation have psychological disorders and as many as 90% of children feel disappointed and discouraged from

being hospitalized (Evi, Sri, & Junaidi, 2013). From the results of a survey of preliminary studies, four of five preschool children (3-6 years old) who are being treated show maladaptive coping behaviours manifested by crying, anger, withdrawal by not wanting to talk, always asking to go home, asking to be held, and do not want to eat. Preschoolers when they are hospitalised generally have a fear of both doctors and nurses, especially if the child has experienced such as immunized (Palka et al., 2016). In his shadow, a nurse or doctor would hurt him by injecting. In addition, children also feel disturbed relations with parents or siblings.

The environment at home is certainly different in an atmosphere with the tools in the treatment room (Foster, Mitchell, Young, Van, & Curtis, 2019; Foster, Young, Mitchell, Van, & Curtis, 2017). The first reaction of the child in addition to fear is the patient lacks an appetite and even cries, does not want to drink milk or eat the food provided (Joosten & Hulst, 2014; Stremmer, Haddad, Pullenayegum, & Parshuram, 2017; Whyte et al., 2011). The child's reaction is influenced by perceptions, age, previous experience of the process of illness and being treated and the support system available (Nursalam & Efendi, 2008). Effective coping produces a permanent adaptation which is a new habit and an improvement from the old situation, while ineffective coping ends in maladaptive i.e. behaviour deviating from normative desires and can harm oneself or others or the environment (Rasmun, 2014).

One of the best approaches is to encourage parents to stay with their children and participate in care if possible (Duzkaya, Uysal, & Akay, 2014; Moghaddam, Vashani, Reihani, & Zadegan, 2017; Olsson, Kenardy, De Young, & Spence, 2008). Parents can provide effective care during hospitalisation of their children (Konuk Şener & Karaca, 2017). It has been proven in several studies that children will feel safe when they are beside their parents, especially when facing invasive procedure (Supartini, 2004). Casey in (Supartini, 2004) suggested that the principle of nursing services to children must focus on children and families, to meet the needs of children and their families (Kudchadkar et al., 2019; Moghaddam et al., 2017). The purpose of this study is to analyze the effect of family support systems on coping mechanisms of preschool children.

## MATERIALS AND METHODS

The research design used quasi-experimental with pre-test post-test with control group design. Variables in this study were the family support system and coping mechanisms of preschool children. The population of this study was preschool children who were treated in the Hospital of Bangkalan, East Java Province, Indonesia. The sample size was 30 respondents in the treatment group and 30 respondents in the control group. Sampling technique using consecutive sampling.

Data collection used in the form of observation sheets of coping mechanisms for preschoolers using the Children's Coping Behavior checklist designed by (Hernandez, 2008).

The implementation of the family support system intervention in the treatment group is based on the standard procedure that has been made, and each nurse carries out nursing care to patients from the first day to the third day. The steps in implementing the family support system include the pre-action stage, the orientation phase, the work phase and the termination stage. The study was conducted for three months (August - October 2018). The intervention in the control group used standard therapy that was routinely carried out in the Hospital of Bangkalan, East Java Province, Indonesia. The results of the study to determine differences in coping mechanisms before and after the intervention in the treatment and control groups were tested by paired T-test. This research has been conducted ethics due diligence by KEPK STIKES Ngudia Husada Madura.

## RESULTS

The age of children in the treatment group was mostly three years old (10.3%). In the control group, most of the age of nine years was 30 people (30%). Based on the sex of the children in the treatment group, most of the male were 17 people (56.7%). In the control group, most of the male was 16 people (53.3%) (Table 1).

The coping mechanisms of respondents in the treatment group before the intervention were mostly maladaptive as many as 18 people (60%), after the intervention most of the coping mechanisms were quite adaptive as many as 20 people (66.7%). The coping mechanisms of respondents in the control group before the intervention were mostly maladaptive as many as 16 people (53.3%), after the intervention most of the coping mechanisms were maladaptive as many as 15 people (50%). In the treatment group, there was an increase in the mean coping mechanism before (34.07) and after (46.87) intervention family support system. Whereas in the control group, there were less significant mean differences in coping mechanisms between before (36.22) and after (36.74) administration of the intervention. Paired t-test results in the treatment group showed p-value

Table 1. Characteristic Respondents (n=60)

Characteristics	Treatment		Control	
	n	%	n	%
Age				
3 year	10	33.3	9	30
4 year	8	26.7	7	23.3
5 year	7	23.3	8	26.7
6 year	5	16.7	6	20
Gender				
Male	17	56.7	16	53.3
Female	13	43.3	14	46.7

(0.000) and in the control group p-value (0.065) with  $\alpha$  (0.05). This indicates that there is an influence of the family support system on the coping mechanism of preschool children (Table 2).

**DISCUSSION**

Sickness and hospitalisation are the main crises seen in children. If a child is hospitalized, the child will be prone to crisis because the child will experience stress due to changes in both his health status and the environment in daily habits, and the child has a number of limitations in coping mechanisms to deal with problems and events that are of nature (Almis, Bucak, Konca, & Turgut, 2017). push. Children's reaction in overcoming the crisis is influenced by the level of age development, previous experience of the process of illness and being treated, support systems available, and coping skills in dealing with stress (Christian, 2018).

Effective coping produces a permanent adaptation which is a new habit and an improvement from the old situation, while ineffective coping ends in maladaptive ie behaviour deviating from normative desires and can harm oneself or others or the environment (Rasmun, 2014). During early childhood, children understand that certain circumstances can arouse certain emotions, facial expressions indicate certain emotions, emotions affect behaviour, and emotions can be used to influence the emotions of others. At this stage of preschool age, stable concepts are formed, mental reasoning emerges, egocentrism begins to become strong and then weakens, as well as the formation of belief in the magical. Based on Piaget's theory, at this stage, the focus is on the limitations of children's thinking which refers to mental activities that allow children to think about the events or experiences they experience (Duzkaya et al., 2014; Hill et al., 2019).

Changes in coping patterns in children can be caused by environmental changes that are entirely meaningful for children. Usually, children are at home with family or friends in a pleasant atmosphere. However, when a child is sick and has to undergo treatment in a hospital, the child must adapt to the environment and atmosphere that is foreign to him. Besides that, the child's activity must also be limited unlike at home, it will make the child feel lost his strength. This situation tends to make children act aggressively with anger and rebellion (Stremler

et al., 2017). Apart from environmental changes experienced by children, the absence of children who have adaptive coping mechanisms can also be caused by child development based on the child's age and physical condition of the child who is sick. Preschoolers have not been able to reason, they are only able to perceive anything that makes them uncomfortable and make the pain in themselves as something that can threaten them at any time while the condition of illness experienced by children will worsen their perceptions about things that are considered threatening so that children become unable to cope well (Christian, 2018).

In helping coping mechanisms to be more adaptive in children during hospitalisation, the role of the family as a support provider is needed in the care of children while undergoing hospitalisation. The presence of a family for a child being treated in the hospital helps the child deal with the changes it receives, the child will adapt and try to learn and change their perceptions about things they feel are uncomfortable and afraid (Smith, 2018).

The coping mechanism of children is greatly influenced by good social support from families for sick children. The family plays an important supporting role during the child's recovery period. If this support is not available, the success of recovery decreases significantly (Friedman & Jones, 2010). One of the best approaches is to encourage parents to stay with their children and participate in care if possible (Smith, 2018). Family support system (family support system) is a support system provided by the family to family members in order to maintain the social identity of family members, provide emotional support, material assistance, provide information and services, or facilitate family members in making new social contacts with the environment. Family support is obtained from people who have social relationships with individuals. The primary source of social support is the closest people such as parents, family and close friends. The foundation of children's social relations is the relationship between parents and children, where parents have an important role in the family as adults who provide a sense of security, love, protection and education. The social support that can be shown by the family includes giving more attention to children, but that does not mean spoiling and obeying all the wishes of the child.

Attention can be done by accompanying children

Table 2. Distribution of Coping Mechanism of Preschool Children (n=60)

Coping mechanism	Treatment				Control			
	Before		After		Before		After	
	n	%	n	%	n	%	n	%
Adaptive	0	0	8	26.7	0	0	1	3.3
Enough	12	40	20	66.7	14	46.7	14	46.7
Maladaptive	18	60	2	6.6	16	53.3	15	50
Paired t test	Mean = 34.07		Mean = 46.87 p-value = 0.000		Mean = 36.22		Mean = 36.74 p-value = 0.065	

Significant: p-value < 0.05; insignificant: p-value > 0.05

during treatment, inviting children to joke and play, providing understanding in language that children understand about the care and treatment provided during hospitalisation is a way to help the child recover quickly. Family participation is significant for healing children because the family is the closest support system for children. Support from the family is also verbal or non-verbal information, both in real/behavioural assistance provided by people who are familiar with children in their social environment or in the form of attendance and things that can provide emotional benefits. If the child gets good social support from the family or the people closest to him, the child will feel safe and comfortable and indirectly influence the use of children's coping during the treatment process (Garro, Thurman, Kerwin, & Ducette, 2005; Hasegawa et al., 2015).

The coping mechanism that children learn is very important in their ability to cope with disorders experienced by children. The positive effect of family social support is on adjusting for events in a stressful life (Bordone, Arpino, & Aassve, 2017). Support from the family can improve ways of dealing with problems or solve problems focused on reducing stress reactions through the attention, information and feedback needed (Alcântara et al., 2016).

The influence of family support on the use of coping mechanisms for preschoolers in principle, family support system intervention is one way that can be used to make children feel safe and comfortable and help children adapt during the treatment process in the hospital (Helton & House, 2019; Iio, Hamaguchi, Nagata, & Yoshida, 2018). Families usually know what makes their children feel comfortable, such as being held, stroked, or talked. Children will be free to express their feelings when near the people closest to them. Another case with children who do not get more attention from their families, children will seek a lot of attention with fuss and tend to act aggressively (Weber & Harrison, 2019).

Based on the results of existing research and theories, it can be done to help children adapt adaptively during hospitalisation by doing a family support system. In providing this intervention, the role of parents in assisting children is significant as supporting children, nurses and hospitals only act as facilitators so that if there are procedures for nursing care offered by nurses, parents must be actively involved and assist children and provide motivation to children (Iio et al., 2018; Tsitsi, Charalambous, Papastavrou, & Raftopoulos, 2017).

## CONCLUSION

Preschoolers (3-6 years old) who are treated have a good coping mechanism after an intervention using a family support system approach. The family especially the presence of parents, means to be able to improve coping mechanisms in children undergoing hospitalisation to help children reduce stress and the adverse effects of stress due to

hospitalisation. Nurses are expected to be able to involve the role of the family in providing nursing care to children especially preschool age to improve coping mechanisms and reduce the stress of hospitalisation.

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