

Jigsaw Learning Method To Improve The Mother's Knowledge About Pre-Hospital Handling Of Choking In Toddler In Pengangsalan, KalitengahLamongan

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ABSTRACT

Introduction: Choking in toddler is commonly happens during feeding or playing and often in the presence of parents. Low maternal knowledge will lead to the wrong pre-hospital handling that can be a cause of death.

Objective:To determine the effect of jigsaw learning method to improve the mother's knowledge about pre-hospital handling of choking in toddler.

Method: By using pre-experimental one group pretest posttest design, 33 subjects were taken by total sampling. Posttest was conducted after providing jigsaw learning method for 2 hours. Data were analyzed using Wilcoxon sign rank test($\alpha=0.05$).

Result: The results showed that there are significant effect of jigsaw learning method to improve the mother's knowledge about pre-hospital handling of choking in toddler ($z=-4.944$ with $p=0.000$). **Conclusion:** Based on the results, jigsaw method can be expected to be a choice in providing effective information to the mothers.

Keywords: choking, jigsaw method, knowledge

INTRODUCTION

Toddler is a period of children entering the age of 1-3 years in which they experienced a period of intensive exploration of the environment due to high curiosity. That curiosity led them wanting to grab, hold, or put all things into their mouth. As a result, children in this age are more often to get burnt, fall and choke. Choking is a condition where the body is impaired due to obstruction of the upper respiratory tract (Tilong, 2014).

Choking in toddler is commonly due to aspiration of foreign body, food (feeds) or vomiting. It usually happens during feeding or playing and often in the presence of parents or caregivers. Choking prevalence in the United States is about 77.2% cases occurred in children under 4 years old, 11.6% occurred in children under 1 year old, 36.2% occurred in children aged 1 to 2 years and 29.4% occurred at age 2-4 years old (Committee, Violence, & Ang, 2010).

Data from Indonesia's Ministry of Health/ DepKes RI (2009), showed the cause of choking is a foreign body of grain with the number of 105 patients, 82 patients choking on foreign objects of nuts, choking on vegetables 79 patients, and more choking caused by metals, food, and fish bones.

Foreign body airway obstruction (FBAO) should be suspected in toddler who develops sudden onset of respiratory distress associated with coughing, gagging, stridor, or wheezing. Mother's inability to recognize these signs due to low maternal knowledge will lead to the wrong pre-hospital handling and initial treatment that can be a cause of death.

According to the research of Chlivia Charnovan Putra (2015), the level of mothers' knowledge of first handling on choking in Sawahan, Ngemplak, Boyolali categorized by 83.4% as poor knowledge, while only 16.6% considered good. Based on the initial survey that has been conducted by researchers through interviews with 8 mothers in Pengangsalan, Kalitengah Lamongan, there were 6 (75%) of mothers said that they do not know how to perform first handling or initial treatment of choking toddler,

while 2 (25%) of mothers said that they will only give a drink as much as possible when their child had a choking incident. Based on these phenomena, it can be concluded that there are still many mothers who do not know how to handle choking.

Ignorance of parents or caregivers to find out the handling of choking are influenced by several factors, including experience, age, level of education, resources, income and culture (Notoatmodjo, 2007). But the main factor in Pengangsalan Kalitengah Lamongan is a lack of resources obtained by the mother, because there has never been a counseling or health education about pre-hospital handling of choking in toddler previously. Therefore there is need for a method to improve the mother's knowledge about pre-hospital handling of choking in toddler.

Learning system that gives an opportunity to the learner to cooperate with other fellow learners in structured tasks called cooperative learning system. According to Indah Kusharyati (2009), cooperative learning with the jigsaw method developed in order to build a learning community that appreciates all the capabilities of the participants. The participants have developing and

sharing capabilities in a variety of different aspects of their work. Thus, the learning experience will be more numerous and varied that ultimately can optimize the potential existing in the participant, so mastery of the concept of the material will be increased compared to the other methods that more focused on educators.

METHOD

The study design used pre experimental research design (one group pretest-posttest design). The population is the mothers who had a toddler enrolled in Posyandu

Pengangsalan Kalitengah Lamongan in March 2016. Thirty three subjects were taken by total sampling method. Data were retrieved using the enclosed questionnaire about mother’s knowledge of pre-hospital handling in choking in toddler. Posttest was conducted after being provided jigsaw learning method for 2 hours. Data were analyzed using Wilcoxon sign rank test with $\alpha=0.05$.

The result of the mother’s knowledge before and after being given jigsaw method is presented in the table 2.

RESULT

Based on the study, the data obtained are presented in the following table

Table 1. Characteristics of Respondents

Characteristic	Frequency (f)	Percentage (%)
Age		
21-30 yo	9	27.3
31-40 yo	20	60.6
41-60 yo	4	12.1
Education		
Elementary	28	84.8
High school	5	15.2
Bachelor degree	0	0
Occupation		
Farmer	5	15.2
Laborer	3	9.1
Entrepreneur	5	15.2
Housewife	20	60.6

Table 2. Pretest- Posttest Crosstabulation

			Posttest		Total
			Moderate	Good	
Pretest	Low	Count	14	8	22
		% within Pretest	63.6%	36.4%	100.0%
	Moderate	Count	4	7	11
		% within Pretest	36.4%	63.6%	100.0%
Total	Count		18	15	33
	% within Pretest		54.5%	45.5%	100.0%

Based on *Wilcoxon* sign rank test between pretest and posttest showed significant difference with Z value= -4,944 (p= 0,000;α=0.05). It means there are significant effect of jigsaw learning method to improve the mother’s knowledge about pre-hospital handling of choking in toddler in Pengangsalan, KalitengahLamongan.

DISCUSSION

The results showed that the level of knowledge of the mother after being given intervention Jigsaw learning methods increased. Before the intervention, it showed that the majority of respondents had low knowledge and none of them had good knowledge. After the

intervention, the respondents showed an increase in knowledge, and none of mothers had low knowledge. This finding is consistent with previous research by Chlivia Charnovan Putra (2015). He found the level of mothers' knowledge of first handling on choking in Sawahan, Ngemplak, Boyolali Categorized by 83.4% considered as poor knowledge, while only 16.6% considered as good.

There are many factors affecting knowledge such as experience, age, education, resources, income, and social culture. Table 1 show that most mothers have education level of elementary school and only

small proportions have education level of high school. There are several levels in education which are divided to get the teaching different material. The lowest level in the education is elementary school which provides limited science on the introduction of the world, and all the material is only superficial. Those are not allowing the mother to get knowledge about the handling of pre-hospital choking toddler, because basically, the higher education the better the person's knowledge.

According to Satria (2008), education means the guidance given by one person to another so they can understand something. It is inevitable that the higher one's education, the more easily the information they receive, and ultimately the more knowledge he has. Conversely, if one level of education is low, it will hinder the development of a person's attitude towards the reception, information and values that are newly introduced. Education is an activity or process of learning to develop or enhance certain capabilities so that the educational goals can stand on its own. The lower the level of education possessed it will also lower the ability owned by someone in addressing a problem (Notoatmodjo, 2007).

Not only the education that affects a person's knowledge. Table 1 show that most mothers work as a housewife. Housewife puts the mother only in the home and make her does not know the other environment that can add the experience to improve her knowledge. The income is also only obtained from the husband. Although income has no direct effect on maternal knowledge, but with income, person will be able to buy the facilities of resources that can increase knowledge. According to Notoatmodjo (2007), income not directly affects the person's knowledge. But if someone earning big enough then he will be able to provide facilities or buy resources.

According to the table 1, most of mothers are at the age of 22-40 years. Someone at the age range of 22-40 years is the age where a person more excited about digging much information. According to Slavin (2010), age can affect perception and person's mindset. Increasing age will be also increasing perception and mindset, so that the knowledge gained is getting better. At the age of 22-40 years is the age at which a person seeking knowledge as much as possible. While in middle age (41-60 years) someone staying

maintain the achievements that have been achieved in adulthood. And at the older age (>60 years), he/ she is no longer productive age and just enjoy his/ her achievements.

To improve mother's knowledge, researchers are trying to provide information through jigsaw learning method of pre-hospital handling of choking in toddler. The result was the respondents' knowledge increased after the intervention given. This indicates that the jigsaw learning method affects the mother's knowledge. This proves that the selection of appropriate learning method can result in the increasing knowledge. Jigsaw learning method is a method that encourages participants more active and helps each other in mastering the material. The method is very beneficial in distributing the material of pre-hospital handling of choking in toddler so the mother will get easier to understand. Facilitators arrange participants in groups. Each group member is assigned a different piece of information. Group members then join with members of other groups assigned the same piece of information, and share ideas about the information. Eventually, participants return to their original

groups to try to "piece together" a clear picture of the topic at hand. That's the simple overview. The facilitators will fill in the details and provide examples of the technique in action (Rusman, 2013).

From the observations that have been made by the observer, it showed the participants were active in learning activities. Jigsaw learning method is one effective way to deliver information in an effort to increase knowledge of the mother, the delivery of the material can be easily understood because it is done by peers, so it is not monotonous and boring. Limitations of this study are the number of samples and the absence of a comparison group.

CONCLUSION

There is significant effect of jigsaw learning method to improve the mother's knowledge about pre-hospital handling of choking in toddler. Based on the results, jigsaw method can be expected to be a choice in providing effective information to the mothers.

Recommendation for further research can be done by increasing the number of samples and conducted a comparative study about effectiveness of jigsaw learning method compared with other learning methods.

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