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ORIGINAL RESEARCH

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ANALYSIS OF STIMULATION AUDITORY SINCE THE DEVELOPMENT OF LANGUAGE IN CHILDREN AGES 12-24 MONTHS IN 19TH AND 20TH NEIGHBORHOOD ASSOCIATION, TAWANGSARI BARAT VILLAGE, SIDOARJO, EAST JAVA PROVINCE, INDONESIA

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ABSTRACT

Background: Speech delay is a problem that occurs in society commonly found in children. One of the factors affecting language development is the early sensory perception stimulation.

Objectives: This study was purposed to analyze the correlation between early sensory perception stimulation and language development in children aged 12-24 months.

Methods: This observational study was conducted using a cross-sectional approach. It involved 34 parents and their children aged 12-24 months as the population, in which 32 parents and their children were taken as the samples using simple random sampling technique. The independent variable was the early sensory perception stimulation, whereas the dependent variable was language development. The instruments used in this study were questionnaire and observation sheets. Furthermore, the collected data were analyzed using Spearman's rank correlation test with the significance level of $\alpha = 0.05$.

Results: The results of this study showed that nearly all of the respondents (89.5%) provided their children with the early sensory perception stimulation sufficiently. Consequently, most of the children (62.5%) experienced language development sufficiently. Moreover, the correlation test using Spearman's rank test showed that Sig. = 0.000 ($p < 0.05$) illustrating that $p < \alpha$ so that H_0 was rejected. This result showed that there was a correlation between early sensory perception stimulation and language development in children aged 12-24 months.

Conclusion: The early sensory perception stimulation which is given well to children will result in optimal language development. Hence, the health workers, especially the nurses, are expected to provide the family with a counseling program about the importance of giving the early sensory perception stimulation to children to optimize their language development.

Key words: Early sensory perception stimulation, language development.

INTRODUCTION

During the golden period it was called the ideal period to study development, in this stage, the child began to develop his language. They began to present objects with words and pictures. The role of the family is needed by the child at the time of

growth but in fact, many parents leave children to work when children need basic needs to include foster care, compassion, sharpening, and stimulation. So that many children get less stimulation from the family. The role of the family is a risk factor for the low implementation of early

stimulation in children aged 12-24 months (Yuniarti, 2015) According to Yuniarti (2015), stimulation is part of the child's basic needs, namely sharpening. Parents can carry out activities that are able to stimulate the basic abilities of children so that children can grow and develop optimally. Providing stimulation to children can be done by parents and family members around the child.

Based on preliminary data obtained from RT 19 and RT 20 Tawang Sari Barat Sidoarjo Village in October 2016 there were 34 children aged 12-24 months and 34 mothers who had children aged 12-24 months. And from the results of interviews with parent's data obtained 10 children experienced delays in terms of language skills and speech. That the problem that is often found in the community is that children often experience delays in terms of language and speech abilities, which are not able to say daddy mama, do not look when called by his name. This is because the environment is not supportive. The lack of parents to invite communication early since the child is still in the womb can be the cause of the delay in the child's ability to speak so that his speech is impaired.

According to Soetjningsih (2010), the delay in talking to children is due to the lack of stimulation from parents and caregivers. They assume that later the child will be able to speak automatically so that parents and caregivers often underestimate the provision of stimulation for children. Other causes also cause parents and lazy caregivers to teach children to talk.

According to the Ministry of Health of the Republic of Indonesia in 2013, there were 26.7 million children under five in Indonesia, and data obtained that 4.2 million children under five (16%) had developmental disorders, both fine and rough motor development, hearing loss, lack of intelligence and speech delay (RisKesDas, 2013). Based on the 2010 Indonesian Health Demographic Census (IDHS), there were 26.09 million children

in early childhood (0-6 years). In this amount, 13.5 million of them were aged between 0-2 years, of the number of children around 52% of children experienced developmental delays. The delay in development has actually become a concern of the government. Health monitoring for toddlers is done through early detection of growth and development at least twice.

The effort that can be made by parents is to become an active partner to talk and always have the initiative to start conversations with children even though the child has not been able to speak fluently. If the child is cared for by someone else or a care institution, try to get the child to receive adequate language stimulation (Soetjningsih, 2012). Nursing staff also play an important role in stimulating this, because nurses also educate families, especially parents of children to provide stimulation in order to achieve optimal growth and development.

METHODS

Study Design

The type of research conducted in this study was observational research using Cross-sectional.

Setting

The study was conducted in 19th and 20th Neighborhood Association, Tawang Sari Barat Village, Sidoarjo, East Java Province, Indonesia.

Research Subject

The population of 12-24 months was 34 pairs in 19th and 20th Neighborhood Association, Tawang Sari Barat Village, Sidoarjo, East Java Province, Indonesia. The sample in this study was from the total population of 32 with the sampling method using probability sampling and the technique used was Simple random sampling.

Instruments

The independent variables are an early perception of sensory stimulation, and the dependent variable is the development of the language of children aged 12-24 months in 19th and 20th Neighborhood Association, Tawang Sari Barat Village, Sidoarjo, East Java Province, Indonesia. The instruments used are checklist sheets for KPSP stimulation and questionnaire to measure children's language development ages 12-24 months at 19th and 20th Neighborhood Association, Tawang Sari Barat Village, Sidoarjo, East Java Province, Indonesia.

Data Analysis

Data analysis used a Spearman rank test with a significance level of $\alpha = 0.05$. Ethical issues that must be considered are Informed consent, Anonymity, Confidentiality.

Ethical Consideration

This research has gone through an ethical test from the Nahdlatul Ulama University of Surabaya and obtained permission from National Unity and Politics of Sidoarjo Regency.

RESULTS

Characteristics of Early Auditory Stimulation for Children

Table 1. Frequency Distribution of Early Auditory Stimulation by Parents of Children in 19th and 20th Neighborhood Association, Tawang Sari Barat Village, Sidoarjo, East Java Province, Indonesia (n = 32).

Early Auditory Stimulation	Frequency	Percentage (%)
Good	13	40.6
Enough	19	59.4
Less	0	0
Total	32	100.0

Sources: Primary Data of Questionnaire

Based on table 1 above, it was found that the majority (59.4%) of respondents provided good early auditory stimulation.

The Language Development by Parents of Children

Table 2. Frequency Distribution of The Development of Language by Parents of Children by Parents of Children in 19th and 20th Neighborhood Association, Tawang Sari Barat Village, Sidoarjo, East Java Province, Indonesia (n = 32).

Language Development	Frequency	Percentage (%)
Good	12	37.5
Enough	20	62.5
Less	0	0
Total	32	100.0

Sources: Primary Data of Questionnaire

Based on table 2 above showed the most respondents experienced fairly good, as many as 20 respondents (62.5%).

The Correlation between Early Auditory Stimulation and The Language Development

Table 3. The Correlation between Early Auditory Stimulation and The Language Development in 19th and 20th Neighborhood Association, Tawang Sari Barat Village, Sidoarjo, East Java Province, Indonesia (n = 32).

Early Auditory Stimulation	Language Development			Total n (%)
	Good	Enough	Less	
Good	10 (76.9)	3 (23.1)	0 (0)	13 (100)
Enough	2 (10.5)	17 (89.5)	0 (0)	19 (100)
Less	0 (0)	0 (0)	0 (0)	0 (0)
Total	12 (37.5)	20 (62.5)	0 (0)	32 (100)

$\alpha = 0,000$ ($p < 0.05$)

Sources: Primary Data of Questionnaire

Table 3 above showed that of the 15 respondents who provided early auditory stimulation, 80% of their children had good language development. While 11 respondents who provide early auditory are good enough 100% of children have good language development. Of the 6 respondents who have auditory lack of sufficient language

development. Based on the results of the Spearman rank test, the Sig. = 0,000 ($p < 0.05$), which means that there is an association of early auditory stimulation with language development in children aged 12-24 months in 19th and 20th Neighborhood Association, Tawang Sari Barat Village, Sidoarjo, East Java Province, Indonesia.

DISCUSSION

Based on the results of research in 19th and 20th Neighborhood Association, Tawang Sari Barat Village, Sidoarjo, East Java Province, Indonesia, it was obtained from 32 respondents, almost all (89.5%) of respondents provided adequate auditory stimulation. This is supported by the theory of Sunarti (2008) which states that the best stimulation is through sound by playing music - music that has the most harmonious combination of sounds. Early auditory stimulation given to children during the first three years (golden age) will have a huge influence on the development of their brains and become the basis for the formation of future lives. The earlier the early auditory stimulation is given, the better the child's development. According to Yuniarti (2015), the provision of early Auditory stimulation that is good follows several principles that need to be considered including early auditory stimulation carried out by parents or the closest family as often as possible while interacting with the child, according to the age group of the child. The earlier auditory stimulation that is given, the child's knowledge will be broad so that children's development is more optimal. This is supported by the answer of Auditory stimulation questionnaire at the age of 12-24 months about sound stimulation. Of the 32 respondents, almost half (34.4%) of respondents did sound stimulation to their children since the womb.

Factors influencing stimulation include family age and family education level. Based on the results of research in 19th and 20th Neighborhood Association, Tawang Sari Barat Village, Sidoarjo, East

Java Province, Indonesia, it was found that of 32 respondents almost half (46.9%) of respondents were 36-45 years old. Age is a place of maturity of a person, the more adults grow up, the more knowledge increases, because the knowledge that he gets for the Age influences the power of capture and mindset of a person. Mothers of this age know more about what can improve language development in children. This is supported by Soetjningsih's theory (2012) The task of development is that it includes adjusting to social roles flexibly, caring for children means fulfilling all the basic needs of children, one that is providing stimuli so that children develop optimally. This means that in late adulthood already know the developmental task of caring for and managing the family.

The level of family education found that almost all (78.1%) respondents had high school and equivalent. The education learning process, the higher one's education is, the easier it is to receive information. With higher education, someone will get information both from other people and from the mass media. The more information obtained; the more knowledge gained about health. Knowledge is very closely related to education which is expected by someone with higher education so that the person has more knowledge. But it needs to be emphasized that someone with low education does not mean absolute low knowledge. Based on Soetjningsih's theory (2012) states that education requires information from formal education and informal education, for example, seeking information about stimulation. Parents who have been informed through formal and informal education better understand how to provide good stimulation to children compared to parents who have low levels of education. It has the ability or knowledge to provide early auditory stimulation sufficiently.

Based on the results of research conducted in 19th and 20th Neighborhood Association, Tawang Sari Barat Village,

Sidoarjo, East Java Province, Indonesia, it was shown that of the 32 respondents who provided sufficiently early auditory stimulation almost entirely (89.5%) the development of children's language was sufficient. Language development sometimes children can adjust to their own desires. A child from day to day will experience the development of language and speaking skills, but of course, each child is not exactly the achievement, there are those who are quick to talk there who also need a little longer. To help the development of the mother can provide stimulation according to the age of her child. In line with the development of physical abilities and maturity, communication is increasing and expanding, for example with people around the environment and developing with other people who are just known and friendly with them. Based on the theory of Sulistyawati (2014) the development of appropriate children's language means that children have begun to introduce or change topics, begin learning to maintain the flow of conversation, and capture the perceptions of listeners. Mother's facilitating behavior will help her child in introducing new topics. There is an increase in active speech and children gain social awareness in conversation. This is supported by the KPSP observation sheet from 32 respondents, most (62.5%) respondents experienced sufficient language development.

Table 3 showed that of the 13 respondents who provided early auditory stimulation well, almost all (76.9%) of their children had good language development. Whereas from 19 respondents who provided early auditory stimulation with almost all (89.5%). Based on the results of the Spearman rank test the Sig test is obtained. = 0,000 ($p < 0.05$), which means that there is an association of early auditory stimulation with language development in children aged 12-24 months in 19th and 20th Neighborhood Association, Tawang Sari

Barat Village, Sidoarjo, East Java Province, Indonesia. This is proven by the provision of early Auditory stimulation that is appropriate for the mother to stimulate optimal children's language development. If the family is lacking in providing early auditory stimulation to children, children will experience delays in language development.

According to Yuniarti (2015), the ability and growth of children need to be stimulated so that children can grow and develop optimally according to their age. This is in accordance with the mother's learning that is applied to children related to the provision of early auditory stimulation such as providing voice stimulation, touch stimulation, light stimulation, will stimulate children's language development. So that children get directed and regular stimulation will develop faster than children who lack or do not get stimulation. Children who lack stimulation will experience obstacles in their growth and development as well as difficulties in interacting with others. That the role of stimulation from parents is so great in helping children ready to enter the children's future gates so that children can grow and develop optimally.

CONCLUSION

In children aged 12-24 months in 19th and 20th Neighborhood Association, Tawang Sari Barat Village, Sidoarjo, East Java Province, Indonesia, most of them get enough early auditory stimulation. In children aged 12-24 months in 19th and 20th Neighborhood Association, Tawang Sari Barat Village, Sidoarjo, East Java Province, Indonesia, most experienced sufficient language development. Early auditory stimulation has correlation with the language development of children aged 12-24 months in 19th and 20th Neighborhood Association, Tawang Sari Barat Village, Sidoarjo, East Java Province, Indonesia.

SUGGESTIONS

For mothers to further increase the provision of stimulation for their children, so that children do not experience developmental delays or children can continue to develop well according to their age. The results of this study also can be used as a reference in the study of health science and can develop further research with different sampling techniques and larger samples so that the results of research can be more maximal.

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