Factors Related To Children 1-2 Years Old Developmental Delay In Bululawang Subdistrict, Malang

ABSTRACT

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Child's developmental delay may related with many factors, one of them is nutritional status, mother's knowledge about child development, stimulation given by their parents and parenting style. Earlu detection of developmental delay in children aged 102 years old can be done with KPSP. The purpose of this study is to analyze which factors related to children 1-2 years old developmental delay in Bululawang Subdistrict, Malang.

Method: The design study was a quantitative research using "cross sectional" approach. The sampling technique was accidental sampling with a sample of 157 respondents. Data was analyzed with logistic regression, significancy ($\alpha = 0.05$.

Results: stimulation (p-value = 0,036) and parental knowledge (p-value = 0,000) are affecting developmental delay 0f 1-2 years old child in Bululawang Subdistrict, Malang, meanwhile nutritional status (p-value = 0,449) is not influencing developmental delay. There is a simoultaneous affect of nutritional status, stimulation, and parental knowledge to developmental delay of 1-2 years old child in Bululawang, Malang (p-value=0,000). Parental knowledge (OR=116,785) is dominant factor that affecting developmental delays followed by stimulation (OR=3,705) and nutritional status (OR=0,676).

Conclusion: nutritional status is not related to developmental delay in child aged 1-2 years old, then, stimulation and parental knowledge are related to developmental delay in child aged 1-2 years old in Bululawang Subdistrict, Malang. The dominant factor that related to child developmental delay in Bululawang Subdistrict, Malang is parental knowledge.

INTRODUCTION

The growth and development of a child is characterized by growth and development. The golden period for a child's growth and development begins in the first 1000 years of his life, which at this time will be the basis for further development and determine the child's development in the future. The determining factors for children's growth and development are genetic and environmental factors. Child development is influenced by many factors, including nutritional status, parental knowledge about child development and stimulation, psychology, stimulation and parenting.

In 2007, 35.4% of children in Indonesia suffered irregularities in gross motor skills, fine motor skills, and mental emotional disorders. The Indonesian Association of Pediatricians (IDAI) of East Java also examined 2,634 children aged 0-72 months. The results of development examination found normal data according to age of 53%, doubtful (requires deeper examination) of 13%, and deviation of development by 34%. From the results of developmental deviation data, 10% are gross motor, and 30% are fine motor. Based on the data above it can be seen that the number of doubts and deviations in development are still quite large in Indonesia. (Indahwati et al., 2017).

Based on the diversity of factors that affect growth and development, the authors are interested in conducting a study entitled "Factors Affecting Developmental Delays in Children 1-2 Years of Age in Bululawang District, Malang Regency".

METHODS

The research design is a depiction of the overall activities of researchers during research work, from preparation to implementation of research (Nursalam 2016). In this research the research design used is observational which is used to get a systematic, factual and accurate picture of the facts, the nature of the phenomena being investigated (Sugiyono, 2008). This study uses a cross sectional approach where the measurement of free and bound variables is observed at one time

RESULTS

The characteristics of the area in the working area of the Bululawang Health Center are low-lying areas where the people earn income as farmers and industries. Most of the population earns as a farmer. Traffic links between villages can all be passed by two-wheeled vehicles and four-wheeled vehicles. The furthest distance from Bululawang Puskesmas to the village can be 20 minutes.

Characteristics of respondents were identified based on questionnaires that have been collected as many as 157 respondents. The analysis results are presented as follows.

Respondents Age

■ 12-18 Months   ■ 19-24 Months
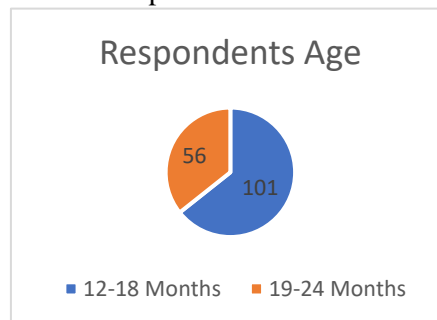
The majority of respondents constituted a group of children aged 12-18 months by 101 respondents, equivalent to 64% of the total research respondents.
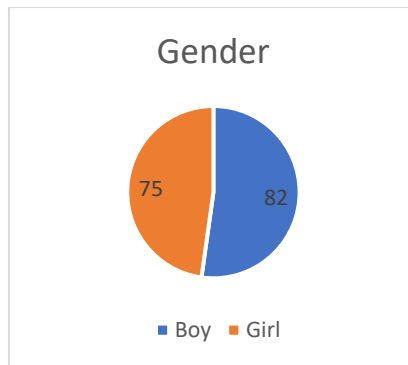
The majority of respondents are male gender by 82 respondents or equivalent to 52% of the total research respondents.
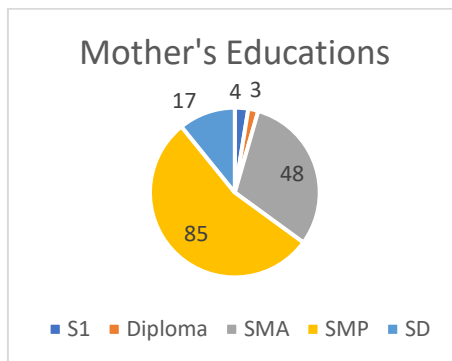
The majority of respondents constituted the most maternal education as junior high school by 85 respondents or equivalent to 54% of the total research respondents.

Table 1 Cross Tabulation Of Age with Nutritional Status in Children 1-2 Years Old in Bululawang District in 2019

			Nutrition Status			Total
			Very Thin	Thin	Normal	
Age	12-18 Months	Frequency	20	27	54	101
		%	12,7	17,2	34,4	64,3
	19-24 Months	Frequency	12	13	31	56
		%	7,6	8,3	19,7	35,7
Total		Frequency	32	40	85	157
		%	20,4	25,5	54,1	100

The majority of respondents aged 12-18 months have normal nutritional status of 54 respondents, equivalent to 34.4% of the total study respondents.

Table 2 Cross Tabulation Of Age with Stimulation of Parents in Children 1-2 Years Old in Bululawang District in 2019

			Stimulations			Total
			Less	Enough	Good	
Age	12-18 Months	Frequency	23	38	40	101
		%	14,6	24,2	25,5	64,3
	19-24 Months	Frequency	23	10	23	56
		%	14,6	6,4	14,6	35,7
Total		Frequency	46	48	63	157
		%	29,3	30,6	40,1	100

The majority of respondents aged 19-24 months received less stimulation and good stimulation of 23 respondents or equivalent to 14.6% of the total study respondents

Table 3 Cross Tabulation Of Age with Parental Knowledge in Children 1-2 Years Old in Bululawang District in 2019

| | | | Knowledge | | | Total |
			Less	Good	Very Good	
Age	12-18 Months	Frequency	19	24	58	101
		%	12,1	15,3	36,9	64,3
	19-24 Months	Frequency	12	12	32	56
		%	7,6	7,6	20,4	35,7
Total		Frequency	31	36	90	157
		%	19.7	22.9	57.3	100

The majority of respondents aged 12-18 months have parents with good knowledge of 58 respondents or equivalent to 36.9% of the total study respondents

Table 4 Cross Tabulation of Age with Development in Children 1-2 Years Old in Bululawang District in 2019

| | | | Development | | Total |
			Not Suitable	Suitable	
Age	12-18 Months	Frequency	28	73	101
		%	17,8	46,5	64,3
	19-24 Months	Frequency	14	42	56
		%	8,9	26,8	35,7
Total		Frequency	42	115	157
		%	26.8	73.2	100

The majority of respondents aged 12-18 months have age-appropriate development of 73 respondents, equivalent to 46.5% of the total study respondents.

Table 5 Cross Tabulation of Gender with Nutrition Status in Children 1-2 Years Old in Bululawang District in 2019

| | | | Nutrition Status | | | Total |
			Very Thin	Thin	Normal	
Gender	Boy	Frequency	22	14	46	82
		%	14	8,9	29,3	52,2
	Girl	Frequency	10	26	39	75
		%	6,4	16,6	24,8	47,8
Total		Frequency	32	40	85	157
		%	20,4	25,5	54,1	100

The majority of respondents with male gender have a normal nutritional status of 46 respondents, equivalent to 29.3% of the total study respondents

Table 6 Cross Tabulation of Gender with Parental Stimulation in Children 1-2 Years Old in Bululawang District in 2019

| | | | Stimulation | | | Total |
			Less	Enough	Good	
Gender	Boy	Frequency	27	24	31	82
		%	17,2	15,3	19,7	52,2
	Girl	Frequency	19	24	32	75
		%	12,1	15,3	20,4	47,8
Total		Frequency	46	48	63	157
		%	29,3	30,6	40,1	100

The majority of respondents with female sex get good stimulation from parents by 32 respondents or equivalent to 20.4% of the total study respondents.

Table 7 Cross Tabulation of Gender with Parental Knowledge in Children 1-2 Years Old in Bululawang District in 2019

			Knowledge			Total
			Less	Good	Very Good	
Gender	Boy	Frequency	19	17	46	82
		%	12,1	10,8	29,3	52,2
	Girl	Frequency	12	19	44	75
		%	7,6	12,1	28,0	47,8
Total		Frequency	31	36	90	157
		%	19,7	22,9	57,3	100

The majority of respondents with male gender have parents with good knowledge of 46 respondents or equivalent to 29.3% of the total study respondents.

Table 8 Cross Tabulation of Gender with Child Development in Children 1-2 Years Old in Bululawang District in 2019

			Develpoment		Total
			Not Suitable	Suitable	
Gender	Boy	Frequency	21	61	82
		%	13,4	38,9	52,2
	Girl	Frequency	21	54	75
		%	13,4	34,4	47,8
Total		Frequency	42	115	157
		%	26,8	73,2	100

The majority of respondents with male gender have age-appropriate development of 61 respondents or equivalent to 38.9% of the total research respondents.

Table 9 Cross Tabulation of Mother's Education with Nutrition Status in Children 1-2 Years Old in Bululawang District in 2019

			Nutrition Status			Total
			Very Thin	Thin	Normal	
Mother's Education	S1	Frequency	0	1	3	4
		%	0,0	0,6	1,9	2,5
	Diploma	Frequency	0	0	3	3
		%	0,0	0,0	1,9	1,9
	SMA	Frequency	11	16	21	48
		%	7,0	10,2	13,4	30,6
	SMP	Frequency	14	23	48	85
		%	8,9	24,6	30,6	54,1
	SD	Frequency	7	0	10	17
		%	4,5	0,0	6,4	10,8
Total		Frequency	32	40	85	157
		%	20,4	25,5	54,1	100

The majority of respondents with junior high school education have children with normal nutritional status of 48 respondents, equivalent to 30.6% of the total study respondents.

Table 10 Cross Tabulation of Mother's Education with Stimulation in Children 1-2 Years Old in Bululawang District in 2019

			Stimulation			Total
			Less	Enough	Good	
Mother's Education	S1	Frequency	0	1	3	4
		%	0	0,6	1,9	2,5

Diploma	Frequency	1	0	2	3	
	%	0,6	0	1,3	1,9	
SMA	Frequency	15	18	14	48	
	%	9,6	11,5	9,6	30,6	
SMP	Frequency	23	26	36	85	
	%	14,6	16,6	22,9	54,1	
SD	Frequency	7	3	7	17	
	%	4,5	1,9	4,5	10,8	
Total	Frequency	46	48	63	157	
	%	29,3	30,6	40,1	100	

The majority of respondents with junior high school education provided good stimulation to their children by 36 respondents, equivalent to 22.9% of the total study respondents.

Table 11 Cross Tabulation of Mother's Education with Knowledge in Children 1-2 Years Old in Bululawang District in 2019

			Knowledge			Total
			Less	Good	Very Good	
Mother's Education	S1	Frequency	0	1	3	4
		%	0,0	0,6	1,9	2,5
	Diploma	Frequency	1	0	2	3
		%	0,6	0,0	1,3	1,9
	SMA	Frequency	6	13	29	48
		%	3,8	8,3	18,5	30,6
	SMP	Frequency	22	19	44	85
		%	14,0	12,1	28,0	54,1
	SD	Frequency	2	3	12	17
		%	1,3	1,9	7,6	10,8
Total		Frequency	31	36	90	157
		%	19,7	22,9	57,3	100

The majority of respondents with junior high school education have good knowledge of stimulation by 44 respondents or equivalent to 28.0% of the total research respondents.

Table 12 Cross Tabulation of Mother's Education with Development in Children 1-2 Years Old in Bululawang District in 2019

			Develpoment		Total
			Not Suitable	Suitable	
Mother's Education	S1	Frequency	1	3	4
		%	0.6	1,9	2,5
	Diploma	Frequency	1	2	3
		%	0,6	1,3	1,9
	SMA	Frequency	6	42	48
		%	3,8	26,8	30,6
	SMP	Frequency	31	54	85
		%	19,7	34,4	54,1
	SD	Frequency	3	14	17
		%	1,9	8,9	10,8
Total		Frequency	42	115	157
		%	26.8	73.2	100

The majority of respondents with junior high school education had a age-appropriate development of 54 respondents, equivalent to 34.4% of the total research respondents.

DISCUSSION

The results showed that the nutritional status variable had a p-value = 0.449> α = 0.05, so that H0 was accepted and H1 was rejected, which means there was no influence of nutritional status with delayed development of children aged 1-2 years in Bululawang District, Malang Regency.

Based on its characteristics, the majority of respondents have normal nutritional status, which is 85 respondents (54.1%). Based on the results of cross tabulation between nutritional status and development of children aged 1-2 years, the results obtained were 19 respondents (12.1%) with normal nutritional status had development that was not in accordance with their age.

These findings are in line with previous studies conducted by Moonik (2015), in his research it was stated that the nutritional status of a child does not affect the delay in the development of a kindergarten child. Research conducted by Gunawan (2011) also shows results that nutritional status does not affect the development of children aged 1-2 years.

The results showed that the stimulation variable had a p-value = 0.036 <α = 0.05, so H0 was rejected and H1 was accepted which meant there was a stimulation effect with developmental delay of children aged 1-2 years in Bululawang District, Malang Regency. Based on its characteristics, most respondents get good stimulation, which is 63 respondents (40.1%). The results of cross tabulation between stimulation and child development show that as many as 58 respondents (36.9%) who get good stimulation have development in accordance with their age.

Nabela (2013) stated in her study that the behavior of stimulation was related to the level of maternal education, where good stimulation levels were found in mothers with an S1 education of 21 respondents (32.8%). So it can be said that the stimulus also has a relationship with the level of education and knowledge of parents towards the child's development. Lack of stimulation in children with deviant development shows that the stimulatory role of the closest person holds an important key.

The results showed that the parental knowledge variable had a p-value = 0,000 <α = 0.05, so H0 was rejected and H1 was accepted, which means there was an influence of parental knowledge with developmental delays of children aged 1-2 years in Bululawang District, Malang Regency. Based on its characteristics, most respondents have good knowledge, namely 90 respondents (57.3%). While the results of the cross tabulation showed that 89 respondents' parents (56.7%) had knowledge of good development so that the respondent had an age-appropriate development.

As research has been done by Nabela (2013) and Santri (2014) which shows a relationship between the level of education with mother's knowledge and growth and growth stimulation behavior. So it can be concluded that the mother's high level of knowledge about stimulation will influence the way to do the stimulation which affects the child's development according to age. The high level of knowledge of mothers regarding stimulation and growth and development will also affect the nutritional status of children, providing stimulation and child development according to their age.

Based on the value of odd ratio or Exp (B) and p-value it can be concluded that the parent's knowledge factor is the most dominant factor in influencing the development delay of children aged 1-2 years with an odd ratio value of 116.785.

CONCLUSION

1. There is no effect of nutritional status on delayed development of children aged 1-2 years in the working area of the Bululawang Public Health Center (p value = 0.449).
2. There is an influence of giving stimulation to the development delay of children aged 1-2 years in the working area of the Bululawang Public Health Center (p value = 0.036).
3. There is an influence of parents' knowledge about stimulation to delay the development of children aged 1-2 years in the working area of the Bululawang Community Health Center (p-value = 0,000).
4. Based on the ood ratio value, it is known that the knowledge factor of people is the most dominant factor in influencing the delay in the development of children aged 1-2 years in the working area of the Bululawang Health Center with an OR value of 116.785.

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