



Research Article

The Relationship between Nutritional Status and Mother Parenting on Child Development at 24-59 Months of Age in Palembang City

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ABSTRACT

Indonesia has 13-18% of child development problems such as motor delays, language, behavior, autism, and hyperactivity. In South Sumatra, the prevalence of stunting is 24.8%, wasting 7.6%, and obesity 4.9%. Parenting and nutritional status are recognized factors influencing child development because if it is not in accordance with the needs of the child it is possible to inhibit the growth and development of toddlers. The purpose of this study was to determine the relationship between nutritional status and mother parenting patterns on child development aged 24-59 months in Palembang city. The study employed quantitative research methods with a cross-sectional design and the population was families with toddlers aged 24-59 months who lived in Palembang City in four sub-districts namely Sukarami District, Kemuning District, Ilir Barat I District, Alang-Alang Lebar District. The sampling technique used was purposive sampling based on the predetermined criteria with a sample size of 128 children under five. The results showed there was no relationship between nutritional status and mother parenting patterns on child development aged 24-59 months in Palembang City (p -value = 0.332) and there was a relationship between mother parenting with the development of children aged 24-59 months in Palembang City (p -value = 0.000) with a PR value: 2,590. The conclusion of this study states that there is no relationship between nutritional status and mother parenting patterns on child development aged 24-59 months in Palembang City.

Keywords: Child development, Maternal parenting, Nutritional status

INTRODUCTION

In children under five years of age is an important period because it can affect and determine the development of children in the future. Optimal nutritional status is essential for healthy and age-appropriate growth and development in toddlers, particularly in terms of motor, mental, and social development (Hairunis et al., 2018). Child development is a series of progressive changes across multiple domains, including emotional, motor, cognitive, and psychosocial aspects, which reflect a child's ability to interact with and adapt to their environment. Nutritional status plays a critical role in brain structure and function, thereby



influencing motor performance and psychosocial development. Children who experience malnutrition are more likely to exhibit developmental delays due to insufficient intake of essential nutrients required to support optimal motor and cognitive functioning (Putri et al., 2018).

According to the Indonesian Ministry of Health (2018), data from Stimulation Detection and Early Intervention of Growth and Development or SDIDTK service in children, it was found that 11.9% of children experienced growth and development disorders (Kemenkes RI, 2018). In South Sumatra province, there are 62.02% or 85.779 children under five who experience developmental disorders (Novita et al., 2022). Recent evidence confirms that nutritional status plays an important role in the development of toddlers, particularly in motor, cognitive, and social domain. However, this relationship can be greatly influenced by other factors such as stimulation, parenting patterns, and the environment. Optimal child development outcomes require that nutritional interventions be paired with appropriate stimulation. If left unaddressed, malnutrition may negatively affect a child's developmental progress.

Nutritional status is an external factor of various factors that can affect child development (Nurhayati & Hidayat, 2019). According to data from the Palembang City Health Profile (2020), in Alang-alang Lebar sub-district and Kemuning sub-district the incidence of stunting is 15.2% and 4.1%, in Ilir Barat I sub-district the highest rate is the incidence of malnutrition, which is 3.3%, and in Sukarami sub-district the highest rate is the incidence of underweight toddlers, which is 4.9% (Dinas Kesehatan Kota Palembang, 2021).

In addition to nutritional status, parenting is also influencing child development, as it involves continuous interactions between children and their parents or caregivers. Parenting is a range of behaviours and practices through which parents guide, educate, and discipline children in accordance with prevailing social and cultural norms, thereby shaping children's development and readiness for subsequent stages of life. (Asri, 2018). According to the Palembang City Health Office (2022) shows that almost all toddlers in the Palembang subdistrict demonstrated good parenting indicators; however, the level of maternal knowledge remained below 80% (Dinas Kesehatan Kota Palembang, 2022). If parenting is not in accordance with the needs of toddlers and nutritional status is not met according to the needs of toddlers, it can hinder the growth and development of toddlers (Item et al., 2021).

MATERIAL AND METHODS

This study used a quantitative research method with a cross-sectional design and a family population that has children under five years of age 24-59 months who live in Palembang City in four districts namely Sukarami District, Kemuning District, Ilir Barat I District, Alang-Alang Lebar District. The sampling technique used was purposive sampling and this study included children cared for by parents or other family members living in the same household, as well as mothers or family members who were willing to participate. Children who were ill were excluded from the study. The study used a questionnaire to collect data through interviews with respondents (mothers of toddlers or caregivers) and using a Likert scale for rating scales. The results will be analysed using SPSS software.

RESULTS AND DISCUSSION

Table 1. Characteristics of Respondents By Categorical Variables

Variable	N	Persentase (%)
Gender		
Male	65	50.8

Female	63	49.2
Mother's Education		
Low	24	18.7
High	104	81.3
Mother's Occupation		
Work	49	38.3
Not Work	79	61.7
Family Income		
High	89	69.5
Low	39	30.5
Nutritional Status		
Normal	78	60.9
Wasted	12	9.4
Severely Wasted	7	5.5
Possible Risk Of Overweight	16	12.5
Overweight	11	8.6
Obese	4	3.1
Mother's Parenting		
High	76	59.4
Medium	50	39.1
Low	2	1.6
Toddler Development		
Appropriate	67	52.3
Dubious	31	24.2
Deviantion	30	23.4

Table 2. Characteristics of Respondents By Numeric Variables

Variable	Mean	SD	Median	Min	Max
Child Age	41	9.304	43	24	59
BirthSpacing	25	26.25355	24	0	96
Mother's Age	32	6.405	31	20	50
Number of Childern	2	1.202	2	1	7

Table 3. The Relationship Between Nutritional Status And Maternal Parenting Patterns On Child Development At 24-59 Months Of Age

Variable Independent	Child Development Age				Total		PR (95% Ci)	P-Value
	24-59 Months							
	Dubious / Deviantion		Unidirectional					
	N	%	N	%	N	%		
Nutritional Status								
Abnormal	27	54	23	46	50	100	1.239 (0.865- 1.775)	0.332
Normal	34	43.6	44	56.4	78	100		
Mother's Parenting								
Medium	38	73.1	14	26.9	52	100	2.415 (1.653- 3.528)	0.000
High	23	30.3	53	69.7	76	100		

Based on the results of the table above, it is found that the results of abnormal nutritional status based on the development of children who are dubious/deviations 27 people (54%) and the incidence of normal nutritional status based on the development of children who are

dubious/deviations are 34 people (43.6%). For the incidence of abnormal nutritional status on appropriate child development as many as 23 people (46%) and the incidence of normal nutritional status on appropriate child development as many as 44 people (56.4%). The results of the chi-square test showed a p-value of 0.332 (Sig>0.05), which means that the hypothesis is not related or cannot be accepted between nutritional status and child development aged 24-59 months. Then, the results of medium maternal parenting patterns on dubious/ deviation child development were 38 people (73.1%), and the incidence of high maternal parenting patterns on dubious/deviation child development were 23 people (30.3%). For the incidence of medium maternal parenting patterns on appropriate child development as many as 14 people (26.9%) and the high maternal parenting patterns on appropriate child development as many as 53 people (69.7%). The results of the Chi-Square test showed a p-value of 0.000 (Sig <0.05), hypothesis is related between maternal parenting and child development aged 24-59 months with a PR value of 2.415. The PR value explains that the medium mother's parenting pattern will be 2.415 times more at risk of experiencing dubious / deviation child development than the high mother's parenting pattern.

Child development can be said to be all changes that occur in children that can be seen from many aspects such as emotional aspects, motorik aspects, cognitive and psychosocial aspects, that is how children can interact with their surroundings (Putri et al., 2018). According to (Purba, 2022), it was found that the higher the mother's knowledge, the better the mother's understanding of parenting in toddler development. In addition, the higher the age of the mother, the better the mother's knowledge, especially about parenting on the development of toddlers. Mothers who have extensive information about child development (Purba, 2022). The results of this study, the average mother is 32 years old. Mothers aged 20-35 years are ages with healthy reproduction for women, because the increasing age of the mother, the experience and maturity of the mother will increase in parenting patterns and determine good food for children (Indrayani & Khadijah, 2020). Mothers who do not work are likely to provide more time for childcare. Working mothers need to be able to divide their time between work and childcare in order to fulfill basic fulfillment in early childhood (N. N. Amalia et al., 2021; Novita et al., 2022).

Family income impacts child development. Income can come from various sources, such as self-employment, employment by others, donations or assistance, and loans to others. According to research related to nutritional status and child development, the number of children has an influence on nutritional status which results in child growth and development. If the income is insufficient while the number of children is large, it will be more difficult to meet the adequacy of food. It is necessary to limit the birth of children in families in the low income category to avoid children experiencing growth and development disorders (Banjarnahor et al., 2015; Susilawati, 2020). Children with a birth spacing of 3-5 years with previous births have the potential to have a higher survival rate than children born with a birth spacing of less than 2 years because with birth spacing regulations, the risk of malnutrition can be reduced because the mother is relatively healthier and has more time to provide care (Asrul et al., 2019). The results of the study show that the average birth spacing of children is 27 months, which can be said that children have the potential to have a better survival rate, both in getting stimulation, care, and growth and development.

From the results of questionnaires and interviews conducted during fieldwork, it was found that in children aged 24-36 months there were 18 out of 45 children with appropriate development such as at this age the child can walk up the stairs alone, help pick up toys if asked, and already

understand and know if asked to point to the requested body parts such as hair, eyes, hands, and others. Out of 45 children aged 37-48 months, 21 showed appropriate development. This included being able to stand on one foot for several seconds, jump with both feet raised, wash and dry their hands by themselves, and stack blocks one by one. Then in children aged 49-59 months there are 28 out of 38 children with appropriate development such as being able to wear their own clothes, can play hide and seek, snakes and ladders, or other games, some can say their full names, and can draw circles.

According to the book *Stimulasi Deteksi Intervensi Dini Tumbuh Kembang (SDIDTK)*, children aged 24-36 can walk up stairs by themselves, cross out paper, point to one or more parts of their body if asked, pick up toys if asked, and eat rice by themselves without spilling much. Then children aged 36-48 months can stand on one foot, jump with both feet, arrange cubes, wash and dry their own hands, and put on pants or clothes. Then children aged 48-60 months can draw crosses and circles, say their full names, count and say numbers, jump, stand on one leg, and dress themselves (Kemenkes RI, 2016). Suspicion in the aspects of child development that are detected to be impaired is in the motorik aspect. According to (Susanty et al., 2014), factors that can cause delayed motorik development in children are lack of stimulation, family history of stunted motorik development, and pathological disorders or disorders or previous illnesses suffered. However, even children who are developmentally appropriate for their age still need stimulation that suits their need (Susanty et al., 2014).

The results of the study showed no significant relationship between nutritional status and child development among children aged 24 months to 59 months, with a p-value of 0.332. (sig>0.05). This study is in line with research conducted by TK Sumange Tealara Bone with the results of P-Value = 0.891 so that nutritional status has no relationship to child development. The ability of smooth motoric is influenced by motoric function in the form of posture, intelligence, good muscle nerves, and accurate vision (Amalia et al., 2022). This is supported by research (Sunarti & Nurbaiti, 2019), which states that motorik development focuses more on children's muscle and nerve strength. Motorik development is one of the other child developments. It is not good to force children to stand or jump when their age does not allow them to be at that stage (Sunarti & Nurbaiti, 2019). According to (Papotot et al., 2021), malnutrition can have an impact on children's brain development related to thinking ability, directly, children with poor nutritional status can affect motorik development (Papotot et al., 2021). According to (Mayar & Astuti, 2021), Malnutrition can stunt a child's growth and development, making them susceptible to infections (Mayar & Astuti, 2021). Besides nutrition, other factors related to child development include environmental sanitation and food safety. This study did not discuss these factors, so further research is needed (Matariya et al., 2016).

The results showed a relationship between maternal parenting and child development aged 24 to 59 months in Palembang City with a p-value = 0.000 (sig <0.05). In theory, the better the parenting pattern given, the more appropriate the development of the child because in parenting there is a process of interaction that can form warm bonds and improve children's skills, namely child growth and development such as motorik, language, independence, social and emotional (Solihati et al., 2022). It is better when scolding or reprimanding children to be adjusted to how old the child is and how big the child's mistake is, because it will have a negative impact on the development of the child's personality. Parents who scold children badly since childhood will be imitated and imprinted until adulthood (Mahdalena, 2015). Research conducted in PAUD Denpasar city related to maternal parenting with the development of children aged 4-5 years with

a p-value = 0.048. Prohibiting and scolding children can be a mistake in providing parenting for child growth and development so that stiffness and decreased development arise because the mother is one of the closest people to the child (Cahyaningrum et al., 2020).

The role of the mother in supporting and encouraging the importance of eating vegetables and eating foods that are important and foods that need to be avoided. Parents play a role in helping children's eating habits and helping children to eat vegetables and other good foods (Kahi Leba et al., 2021). Maintaining body hygiene, environmental hygiene, and food hygiene can also play a role in maintaining the health of children under five in order to prevent infectious diseases in children which will ultimately affect the growth and development of toddlers (Sinuhaji, 2017).

CONCLUSION AND SUGGESTION

Palembang is one of the Indonesian cities that still has problems with toddler development. The results of the study show that there is no relationship between nutritional status and the development of children aged 24–59 months in Palembang. However, there is a relationship between maternal parenting patterns and the development of children in this age group. This finding is supported by several other studies. Based on observations in the field, it is recommended that working mothers pay more attention to their children and enhance stimulation. It is also hoped that working mothers can balance their time with their children more prudently.

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CONFLICT OF INTEREST

There is no conflict of interest in this research.

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