
INTERNATIONAL JOURNAL OF HEALTH SCIENCE

Link Page: <https://ejurnal.politeknikpratama.ac.id/index.php/ijhs>

Page: <https://ejurnal.politeknikpratama.ac.id/index.php>

**COMPARISON OF ECONOMIC STATUS AND EDUCATIONAL
STATUS OF PARENTS ON FINE MOTOR DEVELOPMENT IN
CHILDREN AGED 24 MONTHS IN THE CHILD POLY OF
RSUD Dr. ADJIDARMO**

Ermi Rosmayanti¹, Resi Galaupa²

^{1,2} Abdi Nusantara College of Health Sciences

Jl. Swadaya No.7, RT.001/RW.014, Jatibening, Kec. Pd. Gede,
Kota Bekasi, Jawa Barat 17412

e-mail : ressigalaupa09@gmail.com

Abstract

Delay in early childhood development is high in all countries, this condition is more common than other chronic conditions that cause major morbidity throughout life. This incident is evidenced by the incidence of child development delay problems in the world in 2015 around 12-16%, in Asia 50% and in Africa as much as 30%. The purpose of this study was to compare the economic status and educational status of parents on fine motor development in toddlers aged 24 months at the children's polyclinic at ADJIDARMO Hospital in 2022. This research method used an analytic survey with a cross-sectional design. The sample in this study were toddlers aged 24 months as many as 82 respondents, the sampling technique was accidental sampling. Data analysis using chi square. The results showed that there was a significant relationship between education ($0.026 < 0.05$), economic status ($P\text{-Value} < 0.040$) and fine motor development in toddlers aged 24 months at the Children's Clinic of Dr. ADJIDARMO in 2022 with ($P\text{value} < \alpha$). So that this research is expected to be able to provide education and information Fine Motoric Development in Toddlers.

Keywords : Economic Status, Educational Status, Fine Motor Development, Toddlers

INTRODUCTION

Indonesia's development 2020-2024 is aimed at forming quality human resources, namely people who are healthy, intelligent, adaptive, innovative, skilled and with character. The formation of quality human resources is determined by the quality of early childhood development. Early childhood is the golden age of children's growth in which the brain's capacity develops optimally in the child's intellectual, emotional and social dimensions. Quality early childhood development is the main investment in human development in Indonesia (Noviani amalia et al., 2020).

Delay in early childhood development is high in all countries, this condition is more common than other chronic conditions that cause major morbidity throughout life. This incident is evidenced by the incidence of child development delay problems in the world in 2015 around 12-16%, in Asia 50% and in Africa as much as 30% (Jurana, 2017). Indonesia experienced problems with child development delays in 2013 of 11-16%. In 2014, 10-14 children experienced developmental disorders and increased in 2015, namely 13-18%. (Kemenkes RI, 2022).

Riskesdas (2018) explains that Indonesia has a child development index at the age of 36-59 months of 88.3% lower than Thailand and Vietnam which have a child development index of 91.1% and 88.7%. (Ministry of National Development Planning/Bappenas, 2018).

Data from the Indonesian Ministry of Health in Indonesia's health profile for 2016, stated that as many as 56.4% of children under the age of five suffered from growth and development disorders (Syahailatua & Kartini, 2020). The success indicator for the Early Detection of Toddler Growth and Development program set by the Indonesian Ministry of Health in 2017 was 90% of the total population, while the results of the Early Detection Stimulation of Toddler Growth and Development in West Sumatra Province in 2017 was 53.14% (Syofiah et al., 2019).

According to research conducted by Septiani et al (2016) regarding cases of developmental deviations, the majority of developmental problems were found to be speech and language disorders 56.61%, autism 13.15%, attention deficit disorder and hyperactivity 12.10% and delays in sitting or standing 10.09% (Septiani et al., 2016).

According to Minister of Health Regulation No. 66 of 2014 Delay in motor development is influenced by internal and external factors. Internal factors are factors from within as the initial capital in achieving a final process of child growth and development. Internal factors include: genetics, race, age, sex, and chromosomal abnormalities. While external factors are divided into prenatal factors, delivery factors, and postpartum factors. Postpartum factors can directly influence development, namely: nutritional factors, family environment, socioeconomic status, health status, and sports which stimulate child development (Suhartanti et al., 2019).

The condition of the family's socio-economic status has an important role in the education and development of children, this is in line with research conducted that socio-economic status affects children's development, one of which is children's social skills. Sufficient economy in the form of material ownership faced by children in their families will have an impact on children. This condition is very good for the child to get the opportunity to develop a wider variety of skills. In addition to material ownership, parental education also plays a role in children's education, because the high/low level of education possessed or attained by parents may have an influence on their children.

Children's motor development is also influenced by the family environment. Many things play a role in the family environment. One of them is the importance of maternal skills. This skill is influenced by mother's education and knowledge. Good mother's education affects good motor development. Poor maternal education means that mothers are unable to absorb knowledge about good parenting and the stages of development experienced by children according to their age (Soetjningsih, 2015).

Based on the results of observations in the children's polyclinic at RSUD DR. ADJIDARMO, that several cases were found related to developmental delays in toddlers, in June 2022 there were 54 toddlers 27% of 200 toddlers who experienced developmental delays who consulted the Children's Polyclinic at Dr. Adjidarmo is less than his age.

Based on the results of observations in the children's polyclinic at RSUD DR. ADJIDARMO, that several cases were found related to developmental delays in toddlers, in June 2022 there were 54 toddlers 27% of 200 toddlers who experienced developmental delays who consulted the Children's Polyclinic at Dr. Adjidarmo is less than his age. From these problems, the authors are interested in researchers raising the title Comparison of Economic Status and Educational Status of Parents on Fine Motor Development in Toddlers Aged 24 Months at the Children's Polyclinic at ADJIDARMO Hospital in 2022

METHOD

This type of research is an analytic survey with a cross sectional design. The population used in this study were all toddlers who visited in November 2022, to determine the sample using the Slovin formula, based on calculating the number of samples included in the study of 82 respondents using the accidental sampling technique. This research was conducted in November 2022 at the Regional General Hospital Dr. Adjidarmo, Lebak Regency, Banten in 2022. The data obtained in this study are primary and secondary data. The research instrument used was a questionnaire which was distributed directly to the respondents. Data processing in this study includes editing, coding, data entry and cleaning.

RESEARCH RESULT

1. Univariate analysis

Fine Motor Development

Table Fine Motor Development Frequency Distribution

No	Fine Motor Development	Amount	Percentage (%)
1	Age Appropriate	48	58.5
2	Doubtful	34	41.5
Total		Total	58

Table shows that the majority of respondents with fine motor development were age-appropriate with a total of 48 respondents (58.5%) while respondents with doubtful fine motor development were as many as 34 respondents (41.5%).

Table Distribution of Mother's Education Frequency

No	Education	Amount	Percentage (%)
1	Tall	48	58.5
2	Low	34	41.5
	Total	Total	58

Table shows that the education of the majority of respondents is highly educated with a total of 48 respondents (58.5%) while respondents with low education are as many as 34 respondents (41.5%).

Table Economic Status Frequency Distribution

No	Economic Status	Amount	Percentage (%)
1	Tall	40	48.8
2	Low	42	51.2
	Total	Total	58

Table shows that the economic status of the majority of respondents is of low economic status with a total of 42 respondents (51.2%) while respondents with high economic status are as many as 40 respondents (48.8%).

2. Bivariate Analysis

Table Relationship between mother's education and fine motor development in toddlers aged 24 months at the Children's Polyclinic at RSUD Dr. ADJIDARMO Year 2022

No	Mother's Education	Fine Motor Development				Amount		P Value	OR 95% CI
		Age Appropriate		Doubtful					
		f	%	f	%	N	%		
1	Tall	33	68.	1	31,3	4	100	0.026	2,787 1.120- 6.933
2	Low	15	44,	1	55,9	3	100		
Total		48	58.	3	41.5	8	100		

Table shows that the majority of respondents with higher education in the fine motor development category according to age, namely 33 respondents (68.8%), while the majority of respondents with low education doubted the fine motor development, namely 19 respondents (55.9%).

From a statistical test to determine the relationship between education and fine motor development for toddlers aged 24 months using the Chi Square test, P-Value = 0.026 (P-value < α). This means that H0 is rejected and Ha is accepted, thus showing a significant relationship between education and fine motor development in toddlers aged 24 months at the Children's Polyclinic at RSUD Dr. ADJIDARMO Year 2022.

In this study, the OR = value was obtained 2.787 with a 95% CI (1.120-6.933), so it can be concluded that mothers with low education have a 2.7 times chance of experiencing doubtful fine motor development in toddlers aged 24 months compared to mothers with higher education.

Table The Relationship between Economic Status and Fine Motor Development in Toddlers Age 24 Months at the Children's Polyclinic at RSUD Dr. ADJIDARMO Year 2022

No	Economic Status	Fine Motor Development				Amount		P Value	OR 95% CI
		Age Appropriate		Doubtful					
		f	%	f	%	N	%		
1	Tall	28	70.0	1	30.0	4	100	0.040	2,567
2	Low	20	47,6	2	52,4	4	100		1.035-
				2		2			6.362
Total		48	58.5	3	41.5	8	100		2

Table shows that the majority of fine motor development according to age occurred in respondents with high economic status, namely 28 respondents (70.0%), while the majority of respondents with doubtful fine motor development occurred in respondents with low economic status, namely 22 respondents (52.4 %). From a statistical test to determine the relationship between economic status and fine motor development of toddlers aged 24 months using the Chi Square test, P-Value = 0.040 (P-value < α). This means that H0 is rejected and Ha is accepted, thus showing a significant relationship between economic status and fine motor development in toddlers aged 24 months at the Children's Polyclinic at RSUD Dr. ADJIDARMO Year 2022. In this study, the OR = value was obtained 2.567 with a 95% CI (1.035-6.362), so it can be concluded that mothers with low economic status have a 2.5 times chance of experiencing doubtful fine motor development in toddlers aged 24 months compared to mothers with high economic status.

DISCUSSION

Fine Motor Development Frequency Distribution

The results of univariate analysis related to fine motor development found that the majority of fine motor development was according to age with a total of 48 respondents (58.5%) while respondents with doubtful fine motor development were as many as 34 respondents (41.5%). In this study, it was found that from 82 respondents, most toddlers had fine motor development according to their age.

In line with the research entitled The Relationship between Nutritional and Economic Status and Fine Motoric Development in Children Aged 2 to 3 Years in the Working Area of the Lima Kaum 1 Health Center, it is known that out of 50 respondents, more than half of the respondents according to their fine motor development, 26 respondents (52%) (Noflidaputri & Herwindi, 2020).

Fine motor skills are movements that only involve certain parts of the body and are carried out by small muscles, such as the skill to use the fingers and wrists properly, so that these movements do not require energy but require careful eye and ear coordination. In carrying out fine motor movements, children also need the support of other physical skills and mental maturity (Santrock, 2015).

According to the researchers' assumptions, it is said that children aged 24 months are age-appropriate because children have abilities according to their current age, which are more than the abilities that have been categorized. Meanwhile, children who are unable to reach this ability category can be said to have dubious motor development.

Distribution of Mother's Education Frequency

The results of univariate analysis related to mother's education showed that the majority of mother's education was in the category of higher education (SMA – PT) with a total of 48 respondents (58.5%) while respondents with a low education level were 34 respondents (41.5%).

In line with the research entitled *The Relationship between Mother's Education and Knowledge Levels and Infant Development (0–12 Months) in Bandung City*, and 22 (31.88%) had dubious developmental delays (Fauziah et al., 2018).

Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their own potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and the skills needed by themselves, society, nation and state. Republic of Indonesia, 2003. Law No. 20 of 2003 concerning Education, No. 1).

According to the assumptions of educational researchers, it also determines whether or not it is easy for someone to absorb and understand the knowledge they acquire. Mother's education determines the mother's understanding in providing care for the baby such as providing parenting, providing nutritional intake and even providing stimulation to support the development and growth of children.

Economic Status Frequency Distribution

The results of univariate analysis related to economic status showed that the majority of economic status were in the low category with a total of 42 respondents (51.2%) while some of the respondents were in the high economic status category with as many as 40 respondents (48.8%).

In contrast to the study entitled *The Relationship between Nutritional and Economic Status with Fine Motoric Development in Children Aged 2 to 3 Years in the Working Area of the Lima Kaum 1 Health Center*, it was found that out of 50 respondents, more than half of the respondents had a high economy, 28 respondents (56%) (Noflidaputri & Herwindi, 2020).

Poverty related to food shortages, poor environmental health, and parents' ignorance will hinder children's growth (Kemenkes RI, 2022). According to Sugiharto, et al (2015) states the socio-economic status of parents, including parents' education level, parents' occupation, parents' income. Families who have poor socio-economic status will tend to think about how to fulfill their basic needs.

According to the researcher's assumptions, there are many respondents in the high economic status category, this is because many respondents have a fixed income compared to respondents who do not have a fixed income.

The Relationship between Mother's Education and Fine Motor Development

The results of the analysis showed that the majority of respondents with higher education in the category of fine motor development according to age, namely 33 respondents (68.8%), while the majority of respondents with low education doubted the fine motor development, namely 19 respondents (55.9%). From a statistical test to determine the relationship between education and fine motor development for toddlers aged 24 months using the Chi Square test, $P\text{-Value} = 0.026$ ($P\text{-value} < \alpha$). This means that H_0 is rejected and H_a is accepted, thus showing a significant relationship between education and fine motor development in toddlers aged 24 months at the Children's Polyclinic at RSUD Dr. ADJIDARMO Year 2022.

In this study, the $OR = 2.787$ with a 95% CI (1.120-6.933), so it can be concluded that mothers with low education have a 2.7 times chance of experiencing questionable fine motor development in toddlers aged 24 months compared to mothers with higher education.

In line with the research entitled *The Relationship between Mother's Education and Knowledge Levels on Infant Development (0-12 Months)* in Bandung City, statistical calculations show that there is a significant relationship between the level of mother's knowledge and development, with a $p\text{-value} < 0.05$. It can be concluded that the higher the level of Mother's knowledge will be accompanied by an increase in the suitability of the baby's development. This study showed that the majority of mothers had secondary education, namely high school, as many as 69 people with normal baby development, 47 (68.12%) and 22 (31.88%) experienced dubious developmental delays. (Fauziah et al., 2018).

Factors that can influence developmental deviations include genetic factors and environmental factors. This genetic factor is the initial capital in reaching an end process of child development. Environmental factors are further divided into biological factors, physical factors, psychosocial factors and family factors (family work, parental education, number of siblings, and parenting patterns (Cahyaningsih, 2011). Family factors can hinder children's development, especially in preschool-aged children, one of The factor in the family that influences is education. Parental education, especially mother's education, greatly influences child growth and development. Low maternal education makes mothers less able to absorb information about good parenting and what developmental stages children go through according to their age (Soetjningsih, 2018).

Education is a human effort to gain experience in the form of knowledge. The higher the level of education attained, the maturity and ability of a person to absorb, digest, and understand the information obtained. 10 The level of education affects the ability of parents (mothers) to apply the information they receive about child development. The higher the level of education, the better the mother is in forming the character of the child so that the character development of the child will go well. Conversely, if the mother's education is low, the mother will be less able to shape the child's character, which results in the formation of the child's character is not good (Kusumaningtyas, and Wayanti, 2016).

According to the assumptions of parental education researchers, especially mothers, is very important for children's development, considering the role of a mother, one of which is as an educator in a family so that education will be very important for a mother. Mother's education will improve children's abilities in various ways, one of which is the ability in fine motor development. The education obtained will affect the knowledge and attitudes of parents, especially mothers, so that parents will more easily accept new ideas. This means that a high level of parental education will increase the child's ability to develop fine motor skills that will be experienced.

Relationship between Economic Status and Fine Motor Development

The results of the analysis show that the majority of fine motor development categories according to age occur in respondents with high economic status, namely as many as 28 respondents (70.0%) while the majority of respondents with doubtful fine motor development occur in respondents with low economic status, namely as many as 22 respondents (52.4 %). From a statistical test to determine the relationship between economic status and fine motor development of toddlers aged 24 months using the Chi Square test, P-Value = 0.040 (P-value < α). This means that H_0 is rejected and H_a is accepted, thus showing a significant relationship between economic status and fine motor development in toddlers aged 24 months at the Children's Polyclinic at RSUD Dr. ADJIDARMO Year 2022.

In this study, the value of OR = 2.567 with a CI of 95% (1.035-6.362), so it can be concluded that mothers with low economic status have 2.5 times the opportunity to experience doubtful fine motor development in toddlers aged 24 months compared to mothers with economic status tall.

This research is in line with research entitled The Relationship between Nutritional and Economic Status and Fine Motoric Development in Children Aged 2 to 3 Years in the Working Area of the Lima Kaum 1 Health Center. The statistical test results obtained $p = 0.002$ ($p < 0.05$), so it can be concluded statistically significant relationship between economics and fine motor development of children aged 2-3 with OR = 4.524 meaning that respondents who have a low economy have the opportunity 4.524 times for their fine motor development to be inappropriate (Noflidaputri & Herwindi, 2020).

Motoric development is influenced by many environmental factors, including parents' socio-economic background factors which include educational level, parents' income. Parents as the basis of the family, as supporters to shape physical activity play a central role in organizing and financing children's participation in sports. People with a low economic level will concentrate more on meeting the basic needs that support their lives and their families. On the other hand, people with a high economic level will have greater opportunities to pursue education where people with a high economic level will more easily receive information so that they will have more knowledge so that they will pay attention to the health of themselves and their families (Notoatmodjo, 2018).

According to the researcher's assumption that economic level influences the development of fine motor skills in children, parents who have a high economic level can provide balanced nutritional food intake and are able to buy tools that can stimulate their child's development such as buying toys, books, etc. However, parents who have a low economic level do not always have children with dubious fine motor development, there are also parents who have children with age-appropriate developments because they have high knowledge regarding the growth and development of their children so that parents can stimulate and support their child's development. .

CONCLUSION

Based on the results of the study, there is a significant relationship between education and fine motor development in toddlers aged 24 months at the Children's Polyclinic at Dr. ADJIDARMO in 2022 with P-Value = 0.026 (Pvalue < α). There is a significant relationship between economic status and fine motor development in toddlers aged 24 months at the Children's Polyclinic at Dr. ADJIDARMO in 2022 with P-Value = 0.040 (Pvalue < α).

SUGGESTION

It is hoped that the results of this study will be used as input in order to improve the quality of hospital services, especially in health promotion activities regarding the growth and development of toddlers. It is also hoped that in the future the hospital will have a special polyclinic for developmental stimulation therapy.

BIBLIOGRAPHY

- Fauziah, N., Tanuwidjaja, S., & Yunus, A. (2018). Hubungan Tingkat Pendidikan dan Pengetahuan Ibu Terhadap Perkembangan Bayi (0 – 12 Bulan) di Kota Bandung The Relationships Between Levels Of Education And Knowledge Of Mothers To Infant Development (0 – 12 Month) In Bandung City Nika Fauziah , 2 Suga. Universitas Islam Bandung, 01(Prosiding Pendidikan Dokter), 178–186.
- Hidayat, A. A. A. (2011). Metode Penelitian Keperawatan dan Teknik Analisis Data. Salemba Medika.
- Kementerian Kesehatan RI. (2016). Pedoman pelaksanaan Stimulasi, Deteksi dan Intervensi Dini Tumbuh Kembang Anak.
- Kementerian PPN/ Bappenas. (2018). Pedoman Pelaksanaan Intervensi Penurunan Stunting Terintegrasi di Kabupaten/Kota. Rencana Aksi Nasional Dalam Rangka Penurunan Stunting: Rembuk Stunting, November, 1–51. <https://www.bappenas.go.id>
- Kementrian Kesehatan RI. (2022). Pedoman Pelaksanaan Stimulasi, Deteksi, dan Intervensi Dini Tumbuh Kembang Anak di Tingkat Pelayanan Kesehatan Dasar. Kementerian Kesehatan RI.
- Noflidaputri, R., & Herwindi, R. (2020). Hubungan Status Gizi Dan Ekonomi Dengan Perkembangan Motorik Halus Anak Usia 2 Sampai 3 Tahun Di Wilayah Kerja Puskesmas Lima. 3(2), 95–104.
- Notoatmodjo, S. (2015). Metodologi Penelitian Kesehatan. Rineka Cipta.
- Noviani amalia, Sari, M., Septina, H. rahma, & Hardianto. (2020). Profil Kesehatan Ibu Dan Anak 2020. Badan Pusat Statistik, 53(9), 111–133.
- Riwidikdo, H. (2013). Statistik kesehatan dengan aplikasi spss dalam prosedur penelitian (Cetakan 1). Rohima Press 2013.
- Septiani, R., Widyaningsih, S., & Igomh, M. K. B. (2016). Tingkat Perkembangan Anak Pra Sekolah Usia 3-5 Tahun Yang Mengikuti Dan Tidak Mengikuti Pendidikan Anak Usia. Keperawatan, 4(2), 114–125.
- Silalahi, U. (2012). Metode Penelitian Sosial. Refika Aditama.
- Soetjiningsih, C. H. (2018). Psikologi Perkembangan: Perkembangan Anak Sejak Pembuahan Sampai Dengan Kanak-kanak Akhir. Kencana.
- Suhartanti, I., Rufaida, Z., Setyowati, W., & Ariyanti, F. W. (2019). Stimulasi Kemampuan Motorik Halus Anak Pra Sekolah. STIKes Majapahit Mojokerto.
- Sukamti, E. R. (2018). Perkembangan Motorik. UNY Press.