

Relationship Between Mother's Education Level and Social Development of Children Aged 1–3 Years

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Abstract:

The quality of today's children is a determinant of the quality of human resources in the future. Baby's brain growth is influenced by environmental factors, including stimulation, as well as parenting. Growth is said to be too late if a child does not reach the stage of growth and development that is expected at the proper age of this research determined the relationship between maternal education level to the social development of children aged 1-3 years in Alas sumur Kulon village district of Kraksaan Probolinggo. This research used the correlation analytic research with cross sectional approach. The total sample were 40 mothers and children. The sampling technique by using total sampling. The collection of data collected through observation and interviews with aid DDST sheet. That was analyzed by using the Spearman rank test. The findings revealed a significant relationship between maternal education level and children's social development. From the test results obtained Spearman rank $p = 0,000$ $r = 0.538$ with a force that showed a positive direction (+) of this study is an association between maternal education level to the social development of children aged 1-3 years in Alas sumur Kulon village district of Kraksaan Probolinggo.

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INTRODUCTION

The family environment (parents) is the first and foremost center of education for a child. The family plays a decisive role in the success of learning. Parents are considered the first and primary educators because the education they provide serves as the foundation and greatly influences the child's future development. The cultivation of habits must begin within the family environment, starting from childhood and continuing to grow and develop, so parents must possess the ability to educate their children effectively (Yao and Enright 2023).

Every child is essentially born with a set of potentials inherited from their biological parents. The basic needs required for a child's growth and development are

primarily fulfilled by the mother, father, other family members, and the surrounding environment. Efforts to meet these basic needs are carried out through adequate and continuous interactions appropriate to the child's developmental stage. The closer and more frequent these environmental factors interact with the child, the greater their role in determining the quality of the child's growth and development (Wilkinson et al. 2023). The Central Statistics Agency of Indonesia (BPS) reported in 2020 that out of a population of 206.2 million, there were 27 million children. According to the National Population and Family Planning Board (BKKBN) in 2019, the number of children under five in Indonesia reached 17% of the population, with a population growth rate of 2.7 children per family compared to previous years (Podungge et al. 2021). With this increase, it is hoped that the quality of children will continue to improve, as they represent the driving force of future civilization and must be well-prepared to navigate the changing times. Nearly 50% of children aged 1–3 years in 54 developed countries show symptoms of antisocial behavioral disorders, which can develop into more serious behavioral problems (Robinson et al. 2024). Similarly, in many developing countries, including Indonesia, inadequate early mental stimulation in childcare practices is still commonly found. Meanwhile, an Indonesian research journal based on data from two hospitals in Jakarta reported that 11.3% of children experienced delays in social development. Based on data from the Indonesian Ministry of Health, it is hoped that the quality of children will continue to improve, as many still experience delays in social development (Vergunst and Berry 2022).

According to data from the Probolinggo District Health Office in 2013, there were 24,450 people who completed senior high school education (SLTA level). Meanwhile, 15,985 people had completed junior high school (SLTP level), and 15,494 people had graduated from elementary school (SD level). Based on data obtained from Kraksaan Community Health Center (Puskesmas Kraksaan), which serves a population of 65,622 people, the center manages approximately 30 integrated health service posts (posyandu). Furthermore, in 2019, the health center had conducted early detection of child growth and development, achieving a coverage rate of 82.65%. However, data from 2013–2014 showed that mother's knowledge about child education remained low, with 28.1% of children experiencing delays in social development. The findings from the Probolinggo District Health Office and Kraksaan Health Center indicate that many children still face social developmental delays. A related study conducted in the slum area of Pulogadung Subdistrict, Jakarta, revealed that Mother's knowledge about stimulation for children's social development remained very limited — around 64.3% of them had low levels of knowledge. A survey conducted through interviews involving 40 mothers and children aged 1–3 years in Alas Sumur Kulon Village, Kraksaan District, Probolinggo Regency, also showed below-average results. Approximately 75% of mothers with low education levels still lacked understanding of effective parenting methods, while 25% of mothers with higher education levels demonstrated adequate understanding of how to educate their children (Suharno, Pambudi, and Harjanto 2020). In addition to the data mentioned above, the researcher also conducted interviews and observations with one mother who spent 24 hours a day with her child. The mother stated that she forbade her 2.5-year-old child from playing with “naughty” children by scolding the child and taking them home (Toda et al. 2023). One important aspect of socialization for children aged 1–3 years is playing with peers; if parents prevent this, it can disrupt their child's social development (Chakona 2020). Such phenomena, which are often observed in daily life, have drawn the researcher's interest to conduct a study on the relationship between mother's educational level and their knowledge regarding the social development of children aged 1–3 years in Alas Sumur Kulon Village.

RESEARCH METHODS

In this study, the research method used was a correlational analytic design with a cross-sectional approach, which is a type of study emphasizing the measurement and observation of both independent and dependent variables at a single point in time. In this design, the independent and dependent variables are assessed simultaneously, meaning there is no follow-up phase (Wang et al. 2021). It is not necessary for all research subjects to be observed on the same day or at the same time; however, both the independent and dependent variables are evaluated only once. Through this study, the prevalence or effect of a phenomenon (dependent variable) is analyzed in relation to its possible cause (independent variable). The sample in this study consisted of mothers with children aged 1–3 years living in Alas Sumur Kulon Village, Kraksaan District, Probolinggo Regency, who met the inclusion criteria. A total of 40 respondents were included, and data collection was conducted from September 2013 to October 2013 using the total sampling technique, meaning all subjects who met both inclusion and exclusion criteria were included in the study. The inclusion criteria in this study are mothers who have children aged 1–3 years and reside in Alas Sumur Kulon.

Research Procedure Data collection was carried out through the following steps: Selecting children aged 1–3 years as subjects, Providing informed consent to mothers who had children aged 1–3 years and explaining the purpose and objectives of the study, giving each participant a statement of consent to serve as a respondent. Conducting observations and interviews with the mothers and their children using the Denver Developmental Screening Test (DDST) form as a tool. The data obtained from the observations using the DDST form were analyzed using the Spearman Rho statistical test with the help of the SPSS program.

RESULTS

The results obtained from 40 child respondents in this study were children aged 1–3 years who met both the inclusion and exclusion criteria.

Table 1. Frequency Distribution Based on the Age of the Children

Mean	Median	S.D	Minimum - maximum	95% CI
21,13	19,50	7,376	12 - 36	14,96 – 27,29

Source: SPSS

Based on the univariate data from the statistical test of respondents' ages (N = 40 children), the mean age of the children was 21.13 months, with a median value of 19.50 months. The standard deviation (SD) of 7.376 indicates the average dispersion of the sample. The minimum value was 12 months, the maximum value was 36 months, and the 95% confidence interval (CI) ranged from 14.96 to 27.29 months.

Table 2. Frequency Distribution of Mothers Based on Educational Level

No	Educational Level	Frequency	Persentase
1	Elementary School	18	45 %
2	Junior High School	12	30 %
3	Senior High School	10	25 %
Total		40	100%

Source: Based on Interviews

Based on the univariate data of mother’s educational levels (N = 40), there were 18 mothers with an elementary school (SD) education, 12 mothers with a junior high school (SMP) education, and 10 mothers with a senior high school (SMA) education. The data show that the highest proportion of respondents were those with elementary school education, totaling 18 people (45%), followed by junior high school with 12 people (30%), and senior high school with 10 people (25%).

Table 3. Frequency Distribution of Children Based on Social Development

No	Parameter	Frequency	Persentase
1	P (Successful)	12	30 %
2	F (Failed)	28	70 %
3	NO (No oportunity)	0	0%
4	R (Refused)	0	0%
Total		40	100%

Source: Based on DDST

Based on the univariate data of children’s social development (N = 40), there were 12 children categorized as P (Passed/Successful), 28 children categorized as F (Failed), 0 children categorized as NO (No Opportunity), and 0 children categorized as R (Refused). The mean social development score among the 40 children was 1.50. The data indicate that the highest number of respondents fell into the F (Failed) category, with 12 children (30%) in the P (Passed) category, 28 children (70%) in the F (Failed) category, 0 children (0%) in the NO (No Opportunity) category, and 0 children (0%) in the R (Refused) category.

Table 4. Distribution of the Relationship Between Mother’s Educational Level and Children’s Social Development

Educational Level	Social Development				Total	Value
	P	F	NO	R		
Elementary School	2	16	0	0	18	0,000
Junior High School	2	10	0	0	12	
Senior High School	8	2	0	0	10	

Source: Based on Interviews and DDST

Based on Table 4, it can be seen that the result of the Spearman rank correlation test shows an Asymp. Sig. (2-tailed) value of 0.000 (P-Value = 0.000), which is less than 0.05 (0.000 < 0.05). Therefore, it can be concluded that H_0 is rejected and H_a is accepted, meaning that there is a significant relationship between the mother’s educational level and the social development of children aged 1–3 years in Alas Sumur Kulon Village, Kraksaan District, Probolinggo Regency.

After determining that H_a is accepted and H_0 is rejected—indicating that there is a relationship between mother’s educational level and the social development of children aged 1–3 years in Alas Sumur Kulon Village, Kraksaan District, Probolinggo Regency—the next step is to measure the strength of the relationship between the two variables (independent and dependent variables) by examining the Spearman rank correlation coefficient. An overview of the Spearman rank correlation.

Table 5. Overview of the Spearman Rank Correlation Test

Mother's Educational Level	Children's Social Development		Total	
	P	F	r	p
Elementary School	2	16	18	
Junior High School	2	10	12	
Senior High School	8	2	10	0.538
Total	12	28	40	0.0

Source: Based on SPSS Results

Based on Table 5 above, with a total of N = 40 respondents, the results of the Spearman rank correlation test show an r-value of 0.538, indicating a positive (+) direction. This means that the relationship between the two variables is directly proportional — in other words, when the value of variable X (mother's educational level) increases, the value of variable Y (children's social development) also increases. It can be concluded that the strength or closeness of the correlation between the independent and dependent variables can be interpreted as strong.

DISCUSSION

Mother's Educational Level room the results of the study above, it can be seen that mother's education levels are generally associated with lower social development outcomes in their children, with most falling into the "failed" category. This is influenced primarily by the mother's educational background. The findings show that most mothers had only completed elementary school (SD) and worked as housewives. This condition contributes to a lack of knowledge about effective parenting, as housewives tend to spend more time at home and have limited access to new information (Houtepen et al. 2020). Furthermore, the low level of education itself also affects their understanding. The data indicate that the majority of mothers had only completed elementary school, meaning their level of knowledge remains relatively low (Scher 2022). In the past, education was often considered unimportant due to economic limitations and traditional beliefs that women's roles were confined to domestic responsibilities. Such perceptions are still commonly found among the community of Alas Sumur Kulon Village. (Kostecka, Jackowska, and Kostecka 2021) Parents are the first and foremost individuals responsible for educating their children with faith and good character, shaping them through physical and psychological maturity, and guiding them toward beneficial knowledge and diverse cultural understanding (Estriplet et al. 2022).

Education is an effort to guide children so that they can become useful members of society in the future. Therefore, at every stage of their development, children need to be nurtured and guided to acquire sufficient knowledge and life skills. Within the family, parents serve as the first and foremost educators (Huang et al. 2022). Although parents naturally possess varying abilities, these differences are often influenced by their educational attainment. Thus, differing levels of education among parents lead to variations in their parenting abilities. It is evident that parents' educational level significantly affects how they raise their children (Lewinn et al. 2020).

The aspects of child growth and development are among the key areas that experts pay close attention to, as they explain the process of an individual's formation— both physically and psychosocially. However, many parents still lack understanding of this matter, particularly those with low levels of education and socioeconomic status

(Attig and Weinert 2020). They often assume that as long as their child is not ill, the child has no health problems, including issues related to growth and development. In this regard, the researcher believes that the role of parents as educators within the family serves as the foundation of peace and harmony in life. To ensure the well-being of the family, parents have the responsibility to educate their children so that they are protected from harm and moral decline. From the explanation above, it can be understood that parental education plays a crucial role in determining a child's social development (Islam and Khan 2023).

Children's Social Development based on the results of interviews with mothers and observations of children during the DDST assessment, it was found that among mothers with an elementary school (SD) education, 16 children were categorized as failed and 2 children as successful. Among mothers with a junior high school (SMP) education, 10 children were failed and 2 children were successful. Meanwhile, among mothers with a senior high school (SMA) education, 8 children were successful and 2 children were failed. In Alas Sumur Kulon Village, most children are suspected to experience delays or difficulties in their personal-social development. This is primarily due to parents who rarely, or even never, teach or guide their children. They tend to allow their children to grow on their own with minimal stimulation, largely as a result of limited parental knowledge about how to support social and developmental growth effectively (Suriani et al. 2022). Factors Influencing Children's Social Development among the various factors that influence a child's social development, parenting style—particularly that of the mother—is one of the most significant. Parents are the individuals who interact most closely with their children; therefore, the way they educate and nurture them greatly supports the child's ability to develop normally according to their developmental stages (Schochet, Johnson, and Ryan 2020).

Environmental Influence on Development according to theory, the environment is a crucial factor in determining whether an individual's innate potential can be fully realized. A supportive environment allows these inherent potentials to develop optimally, while an unfavorable environment can hinder their growth. This environment is described as a "bio-psycho-social" setting that continuously influences an individual's life—from conception to the end of their lifetime (Gao et al. 2021) (Bon throne et al. 2021).

A child's abilities and overall growth need to be stimulated by parents so that the child can grow and develop optimally according to their age. Stimulation refers to the sensory input—through sight, speech, hearing, and touch—that comes from the child's environment. Children who receive structured and consistent stimulation tend to develop faster than those who receive little or no stimulation. Moreover, stimulation serves as a reinforcing factor that supports a child's developmental progress. Various forms of stimulation—such as visual (sight), verbal (speech), auditory (hearing), and tactile (touch)—can help maximize a child's growth and development (Bon throne et al. 2021) (Bornstein, Putnick, and Esposito 2020).

In this regard, the researcher believes that a child's first environment is the mother. The mother is the person closest to the child from birth, and the quality of this relationship has a profound impact on the child's emotional development. The better the bond between mother and child, the more positive influence it will have on the child's psychological growth and overall well-being (Kim, Kim, and Yun 2020) (Houtepen et al. 2020).

The Relationship Between Mother's Educational Level and the Social Development of Children Aged 1–3 Years in Alas Sumur Kulon Village, Kraksaan District, Probolinggo Regency

Based on the results of the Spearman rank correlation test, which was used to determine whether there was a correlation between the mother's educational level and the social development of children in Alas Sumur Kulon Village, Kraksaan District, Probolinggo Regency, the obtained significance value was 0.000. Since this value is smaller than 0.05 ($0.000 < 0.05$), it can be concluded that there is a significant relationship between the mother's educational level and the social development of children aged 1–3 years in Alas Sumur Kulon Village, Kraksaan District, Probolinggo Regency.

After determining the significance value of the relationship between the two variables, the next step is to examine the Spearman rank correlation coefficient (r) to understand the strength of the relationship between the independent and dependent variables. The obtained correlation value was $r = 0.538$. It indicates that the strength of the relationship or the degree of correlation between the independent and dependent variables can be interpreted as strong.

A related study conducted in a slum area found that mother's knowledge regarding stimulation for children's social development was still very low, with about 64.3% categorized as having low knowledge levels. One of the essential aspects of child development is social-emotional development, which is strongly influenced by the family environment. The family serves as the first environment where a child learns and develops fundamental social and emotional skills (Ponguta et al. 2020) (Selebano and Ataguba 2022).

Parents often make mistakes in treating their children due to a lack of knowledge about proper guidance and parenting methods. If this condition continues, it may hinder the child's growth and development. In the current era, there has been a shift in the social roles of parents — for example, both parents tend to spend more time working outside the home, accompanied by high levels of social mobility within the community. In fact, stimulation plays a crucial role in a child's growth and development. Moreover, learning motivation can be fostered from an early age by providing a supportive learning environment (Yao and Enright 2023) (Brumbaugh et al. 2023). Appropriate rewards and punishments can also serve as strong motivators in shaping the child's future personality development. During the socialization process, a child requires quality interaction with parents, which significantly influences the development of their social and emotional competencies (Schochet et al. 2020).

Child's social development is greatly influenced by their social environment. When the social environment provides positive opportunities for social growth, the child can achieve mature social development. However, if the social environment is less conducive—for example, if parents exhibit harsh behavior, frequent scolding, indifference, lack of guidance, or fail to model and teach proper religious and social norms—children tend to display maladjusted behaviors. These may include being insecure or timid, domineering, selfish, socially withdrawn, lacking empathy, and disregarding behavioral norms (Yao and Enright 2023) (Huang et al. 2022).

Through the social environment provided by the family, a child gains a quality caregiving environment, allowing them to learn about and understand their surrounding natural and social environment. Children who receive structured and consistent stimulation tend to develop faster than those who receive little or no stimulation. The quality of the caregiving environment that a child experiences is closely related to both the child's characteristics and the family's characteristics (Huang et al. 2022).

Parents play a crucial role in stimulating the potential of their children. Generally, the task of caregiving is assigned to the mother, based on the knowledge she possesses. One of the factors that influences a mother's knowledge is her educational

level. Mothers with higher knowledge levels tend to be more proactive in seeking information to improve their skills in child-rearing (Sentenac et al. 2020).

Therefore, according to the researcher regarding the relationship between mother's educational level and children's social development, a mother's education has a significant influence on her child's social development. The higher the mother's educational level, the better her knowledge of proper child-rearing practices, which positively impacts the child's social growth (Sultana, Wong, and Purdy 2020).

The results of this study are consistent with a previous study conducted by Hika (2004) entitled "*The Relationship Between Nutritional Status and Maternal Parenting Patterns with the Development of Children Aged 0–2 Years at Ngampilan Health Center, Yogyakarta.*" The study involved 30 respondents, and data were collected using questionnaires and the DDST. The results showed a relationship between nutritional status, maternal parenting patterns, and the development of children aged 0–2 years. This finding aligns closely with the current study, which also found a significant relationship between mother's educational level and the social development of children aged 1–3 years.

CONCLUSION

In Alas Sumur Kulon Village, Kraksaan District, Probolinggo Regency, the educational level of mothers is distributed as follows: 18 mothers (45%) completed elementary school (SD), 12 mothers (30%) completed junior high school (SMP), and 10 mothers (25%) completed senior high school (SMA). Regarding the social development of children, 12 children are categorized as P (Passed/Successful), 28 children as F (Failed), and no children are categorized as NO (No Opportunity) or R (Refused). Additionally, a significant relationship exists between the educational level of mothers and the social development of children aged 1–3 years in this village.

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