The Influence of Socioeconomic Status on Executive Functions (Causal Study in Kindergarten Group B DKI Jakarta Province in 2024)

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ABSTRACT:
This study aims to examine the influence of socioeconomic status on executive function in Kindergarten children (Group B) in the DKI Jakarta Province in 2024. Using a quantitative causal associative approach with a survey method and path analysis technique, this research involved 102 students selected through multistage cluster random sampling. Data were collected using a modified BRIEF-P instrument to measure executive function and a questionnaire to assess socioeconomic status. The results indicate a significant favorable influence of socioeconomic status on children's executive function (path coefficient 0.358, t-value 5.47). Children with higher socioeconomic status tend to have better executive functions. These findings highlight the importance of interventions to improve executive function, particularly for children from lower socioeconomic backgrounds, to support their future academic success. This research provides valuable insights for developing more inclusive and equitable early childhood education policies.

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1. Introduction

Research on the developing brain shows that there is an influence of early childhood experiences and the environment on children's brain development.(UNICEF, 2014) Recent evidence has identified a group of capabilities that are important for school achievement or school achievement, the formation of positive attitudes and behaviors, adaptability, success at work, good health, which is the basis for the formation of a productive workforce, responsible communities, and economic growth of a nation. This ability is referred to as executive function or executive function, which is part of cognitive function in children (Peristeri, 2020). Executive functions are important in a child's development.

Children's executive functions include self-control, working memory, and mental flexibility (Jusienė, 2020). Children are not born with these abilities, but with the potential to develop them, depending on experiences during infancy, childhood and adolescence. Children's executive function begins to develop immediately after birth with the highest increase in age three to five years, which is when the child is at the early childhood education (ECE) level and its development continues into young adulthood. Although executive function develops rapidly from 0 to 6 years of age, the development of this ability varies from child to child (Wong, 2023).

Studies that have been conducted show that executive functions are related to various factors, including socioeconomic status in childhood or poverty. This is due to differences in parents' investment in children, home characteristics, and different parenting patterns.(Edgar, 2023)

The development of a child's executive function begins after birth, with the highest increase at the age of 3–5 years. Research by L. Weldch (Welsch, 2021) It was found that there were differences in brainwave activity related to executive function in 5-year-old children with different cultural backgrounds (Europe and China). The highest increase in executive function at the age of 3 - 5 years, due to increased stimulation of children's growth and development. In Indonesia, 5-year-olds or kindergarten group B are in transition to primary school (Azka & Hendrawan, 2023).

The executive function of children has never been studied in normal children in Indonesia in the realm of education, especially early childhood education, in children aged 5 years or group B of kindergarten, where there is an increase in the highest executive function. Based on relevant research that has been conducted previously and the facts of the problem in Indonesia, as well as the importance of the child executive function for the future of Indonesian children, it is necessary to conduct research to find out whether socioeconomic status is a factor that affects the executive function of 5-year-old children, especially in DKI Jakarta as a barometer of Indonesian education.

Literature Review

Executive Functions

In the brain, the ability to store and work with information, think focused on something, filter out distractions that arise, and change strategies is described as an airport having an air traffic control system that is very effective at regulating hundreds of aircraft arrivals and departures on multiple runways. Experts call these abilities executive functions, or a group of skills based on the three functions of the brain, which are working memory or working memory, mental flexibility or mental flexibility, and self-control (Silveira, 2020). These three brain functions work together to form a competent executive function.

Inhibitory control or the ability to control oneself to inhibit certain behaviors, which is the ability to control and filter thoughts and urges so that they can resist temptations, distractions, habits, and stop and think before acting. This causes children to be able to maintain attention, focus on goals, have important task priorities, and act according to those priorities. This ability keeps children from being impulsive or doing whatever comes to mind, filtering words or saying politely, controlling emotions when angry, frustrated, and in a hurry. Children use this ability to wait until they are called, when they should answer, to control themselves so that they do not yell or hit other children, ignore distractions and continue to do their homework at school. The ability to control oneself is necessary for children to control behavior, attention, and emotions.(Diamond, 2020)

Cognitive flexibility is the ability to change one's perspective on something, change the way one thinks about a problem, be flexible to adapt to changing needs or priorities, admit mistakes, and take advantage of opportunities that come suddenly and unexpectedly.(Diamond, 2020) This ability causes children to react and change quickly and adapt to changing needs, priorities and perspectives. This is what causes us to be able to apply different regulations to different situations. Cognitive flexibility allows us to recognize mistakes and correct them, improve the way we do things with new information, consider things from a different perspective and "think outside the box".(McHarg, 2020) Children use this cognitive flexibility as a means to solve the problems they face, find strategies to achieve goals and find solutions when engaging with other children.

Working memory or working memory is the capacity to store and manipulate information for a short period of time. Children can store information in their minds, and work mentally with it in their daily lives. Working memory is important to form an understanding of everything at all times. Things that happened before are remembered and connected to current events, so that children can make decisions and respond to the events they experience. Working memory is needed to form an understanding of the information received whether it is heard or read, make the stages of work to be done, understand cause and effect, connect pieces of information to form a general understanding or see new relationships of something.(Diamond, 2020) Working memory allows the child to remember various important numbers, to put things back in place, to help recall and find something lost. Children use this ability to remember, connect information with each other, solve a problem through several stages, follow the stages of the process without reminders, and help children in social interactions(Keller, 2023). In other words, through working memory, children can complete tasks that are given well according to the instructions and sequence.

Socioeconomic status

Various experts put forward definitions of socioeconomic status. According to Brym et al., socioeconomic status is a combination of income, education, and job prestige data in one index that determines a person's position in the socioeconomic hierarchy (Watson & Wilson, 1988). This is in accordance with the opinion of Bradley et al., who also stated that socioeconomic status is the most commonly studied concept in social sciences measured by the calculation of family income, education, and employment status (Bradley & Smith, 2015). The two concepts above state that socioeconomic status is determined by three factors.

This is reinforced by the definition of the concept of socioeconomic status according to American Psychological Association, Socioeconomic status is often conceptualized as the social position or class of an individual or group, which is measured as a combination of education, income and employment. The measurement of socioeconomic status often reveals access to a variety of sources, and issues related to privilege, power and control over something. The higher the socioeconomic status, the greater the investment parents have in their children to stimulate their growth and development (Sunarya, 2019).

2. Method

The research uses a causal associative quantitative approach, a survey method, with a path analysis technique. There are 2 (two) variables in this study, namely socioeconomic status (X1) and executive function (X2). This study aims to find out whether socioeconomic status is one of the factors that affect children's executive function. This research was carried out in the kindergarten of Johar Baru Village, Johar Baru District, Central Jakarta City, DKI Jakarta Province. Data collection was carried out from April to June 2024.

Population and Sample

The minimum number of samples in this study was calculated based on the Slovin formula according to (Sugiono, 2014) that is:

$$S = \frac{N}{N.d^2 + 1}$$

Information :

S = Sample size

N = Population size = 91,827

d = desired level of significance = 0.1

Picture 2. 1 Sampling formula

If the number of population (N) = 91,827 students, and the level of significance (d) = 0.1, then the minimum number of research samples is 99 students. To avoid dropping out, 10 percent of the minimum sample number was added, namely 10 students, so that the number of samples in this study was obtained, namely 109 students.

The target population of this study is all students of group B of Kindergarten in DKI Jakarta Province. The number of kindergarten students in DKI Jakarta Province is 91,827 students (Jakarta, 2024). The sampling method used is multistage cluster random sampling 4 stages. The sample in this study is all group B students from 6 kindergartens in Johar Baru Village for the 2023-2024 school year obtained by sampling method multistage cluster random sampling 4 stages that meet the research criteria and in writing the parents of the research subjects express their willingness to participate in this research by signing the consent form to participate in the research (informed consent). The research criteria consist of acceptance criteria and rejection criteria. The admission criteria in this study are 1) students of group B kindergarten in Johar Baru Village for the 2023-2024 school year from the selected cluster, 2) willing to participate in the research, 3) parents of the research subjects sign a consent form to participate in the research.
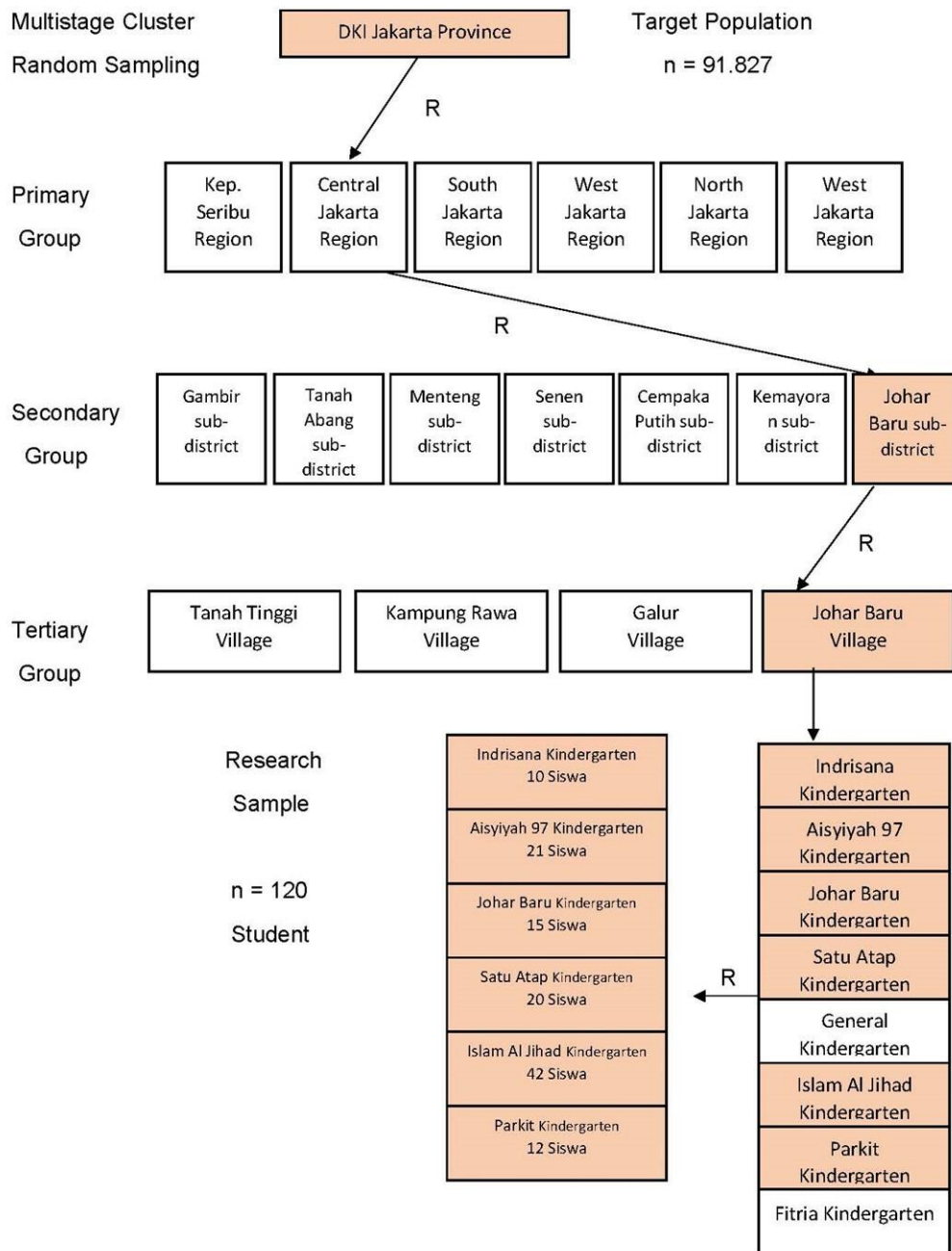
Picture 2.2 Sample draw chart

On April 25, 2024, a research socialization was carried out to 6 kindergarten principals in Johar Baru Village, facilitated by the head of Johar Baru Village and Mrs. Dra. Tri Sutarti, MM as the supervisor of Johar Baru District Kindergarten at the Johar Baru District UPTD Office. Based on the results of the socialization, all school principals are willing to participate and help this research. After the socialization, it was continued with the provision of guidelines for filling out questionnaires and training on filling out questionnaires by researchers and ended with questions and answers.

A questionnaire is given to each principal according to the number of students. The filling out of informed consent, child identity, socioeconomic status questionnaire, and executive function questionnaire by students' parents is guided by each school principal.

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Data collection techniques

All data in this study are primary data consisting of data on executive functions and socioeconomic status. The unit of analysis in this study is the child. Data on executive function and socioeconomic status of children were obtained through a survey method using the modified and validated BRIEF-P executive function instrument. The instrument of children's socioeconomic status is filled by parents, especially mothers. Children's demographic data was also taken, namely gender and age.

Executive Function Data

The operational definition of children's executive function is a skill score to harmonize the cognitive process components and emotional processes of group B students of Kindergarten in Johar Baru Village for the 2023-2024 school year in daily life to achieve goals, which include 1) self-control skills; 2) cognitive flexibility; 3) working memory; measured by a non-test instrument modified by the BRIEF-P instrument using a Likert scale in the form of a questionnaire filled out by parents, having positive and negative questions or statements, consisting of 46 items, for each statement 3 answer scales are provided, never, sometimes, and often which are given scores of 1, 2, and 3, with the interpretation of the results of low, medium, and high scores.

The instrument used to measure the variables of children's executive function in this study is in the form of a checklist and consists of 46 items filled in by the parents of the students. The scale used in this instrument is an assessment scale in the form of a Likert scale which is divided into three categories with a score of each category, namely never (score 1), sometimes (score 2), and often (score 3). There are 3 negativity questions, namely numbers 7, 16, and 42. The answer scores for the three questions are reversed, i.e. never have a score of 3, sometimes have a score of 2, and often have a score of 1. The maximum score of this instrument is 138 while the minimum score is 46. The score range is 92, so the interpretation of the results of the measurement of executive functions is as follows: 46-77 high executive functions, 78-108 medium executive functions, 109-138 low executive functions.

The instrument is tested for validity and reliability. Before being used in the initial instrument research, the child's executive function consisting of 65 items was tested for validity and reliability. The executive function instrument used is a modification of the English BRIEF-P executive function instrument which is then translated into Indonesian and modified so that it is in accordance with the operational definition of this study. The validity test was carried out by construct validity test and empirical validity.

Construct validity test through expert test or review by experts (expert judgement) in the field of early childhood education and substance. The validity test of the construct of the executive function variable was carried out by 3 (three) experts, namely 1) Prof. Dr. dr. Myrnawati Crie Handini, MS, PKK; 2) Prof. Dr. Yuviarti, M.Pd; and 3) Prof. dr. Fasli Djalal, Sp. GK, Ph.D.

After going through the construct validity test carried out by experts, the research instrument is then tested for validity and reliability empirically. This empirical test was carried out on 65 items of children's executive function instruments to find out whether each item of statement in the instrument is valid or not with the Product Moment correlation test, which is by correlating the score of each item with the total score. After the number of valid items is known, then the items that are declared valid are tested for reliability using Alpha Cronbach.

The instrument trial was carried out on 30 students of Kindergarten B at Genesis Kindergarten located in South Jakarta. The selection of the trial location was carried out purposively. The results of the trial showed that of the 65 questions, there were 19 questions that were declared invalid, namely question items 3, 5, 8, 9, 16, 21, 24, 29, 34, 38, 40, 42, 44, 48, 50, 53, 54, 56, and 60. Thus, there are 46 questions left that are declared valid. Furthermore, the items that were declared valid were tested for reliability, which was 0.966. The value of the alpha coefficient is closer to one, the instrument is declared reliable.

Socioeconomic status data

The operational definition of a child's socioeconomic status is a measure score that describes the position of the family in the society where group B students of kindergarten in Johar Baru Village for the 2023-2024 school year are raised, measured based on 1) family income, 2) parental employment, 3) parental education, and 4) living

conditions or physical and psychosocial environment where the child lives (home, school, and the surrounding environment) which was measured with non-test instruments through a questionnaire in the form of a scale likert which is filled in by parents, has questions consisting of 32 items, items from the socio-economic status questionnaire consist of questions in the form of multiple choice. The score of the multiple-choice question moves from 4 to 1 for answers A,B,C,D. Interpretation of low, intermediate, and high score results.

The instruments used to measure socioeconomic status variables in this study are in the form of multiple choice and consists of 32 questions filled out by parents. The scale used in this instrument is an assessment scale divided into four categories, namely answer A is given a score of 4, answer B is given a score of 3, answer C is given a score of 2, answer D is given a score of 1. The scores obtained are summed up. The maximum score of this instrument is 128, while the minimum score is 32. The score range is 96, so the interpretation of the results of the socioeconomic status measurement is as follows: 32-64 low socioeconomic status, 65-96 medium socioeconomic status, 97-128 high socioeconomic status.

Before being used in research, the socioeconomic status instrument in this study was tested for validity and reliability. The initial socioeconomic status instrument consisted of 44 questions. The validity test was carried out by construct validity test and empirical validity. Construct validity test through expert test or review by experts (expert judgement) in the field of early childhood education and substance. The validity test of the socioeconomic status variable construct was carried out by 2 (two) experts, namely Prof. Dr. Elindra Yetti, M.Pd and Dr. Muhammad Zid, M.Si.

After going through a validity test conducted by experts, the research instrument is then tested for validity and reliability empirically. This empirical test was carried out on 42 items of socioeconomic status instruments to find out whether each item of statement in the instrument is valid or not with the Product Moment correlation test. The instrument trial was carried out on 30 students of Kindergarten B at Genesis Kindergarten located in South Jakarta. The selection of the trial location was carried out purposively. The results of the test showed that of the 42 questions, there were 10 questions that were declared invalid, namely question items 7, 12, 18, 21, 22, 25, 29, 32, 37, and 41. Thus, there are 32 questions left that are declared valid.

After the number of valid items is known, then the items that are declared valid are tested for reliability using Alpha Cronbach. The results of the reliability test on the items that were declared valid were 0.956. The value of the alpha coefficient is getting closer to one, then the instrument is declared reliable.

Data analysis techniques

The data in this study was analyzed using descriptive analysis techniques and inferential analysis. Descriptive analysis was used to see an overview of the demographic characteristics of the research sample and data from each variable expressed through mean, median, mode, frequency distribution and histogram. Furthermore, the magnitude of exogenous influence on endogenous variables is calculated through inferential analysis. Inferential analysis techniques are used to test hypotheses. In the path analysis technique, the data must meet several requirements for inferential statistical tests, namely: normality test, significance test, regression coefficient test, and path coefficient test.

3. Result

Description of research data

Based on the results of the study, most of the research samples were female, as much as 54%. The age of the students with the highest number is in the category of 6 years 0 months to 6 years and 11 months, as many as 70 students. Meanwhile, students with the age of ≥ 7 years and 0 months are 13 children.
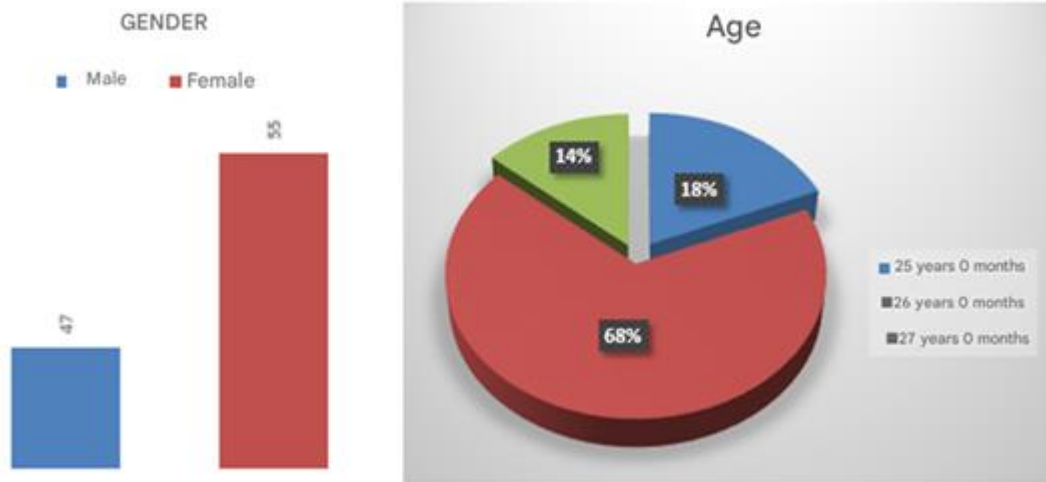
Picture 3. 1. Demographic data

Executive Function Data

The results of the data calculation were obtained for medium and high executive functions as many as 68 (67%) and 34 children (33%). No children with low executive function were found.

Table 3.1. Distribution of Executive Function Data by Gender, Age and Socioeconomic Status

Information	Executive Functio			Total
	low	medium	high	
Gender				
Man	-	33	14	47
Woman	-	35	20	55
Age				
≤ 5 years 0 months	-	16	3	19
≤ 6 years 0 months	-	45	25	70
≤ 7 years 0 months	-	7	6	13
Socioeconomic status				
Low	-	-	-	-
medium	-	66	34	100
High	-	2	-	2

Socioeconomic Status Data

Socioeconomic status data was processed and calculated to obtain medium and high social status as many as 100 (98%) and 2 (2%) children.

Table 3.2. Distribution of Socioeconomic Status Data by Gender, Age and Executive Function

Information	Executive Functio			Total
	low	medium	high	
Gender				
Man	-	45	2	47
Woman	-	55	-	55
Age				
≤ 5 years 0 months	-	19	-	19
≤ 6 years 0 months	-	68	2	70
≤ 7 years 0 months	-	13	-	13
Socioeconomic status				

Information	Executive Functio			Total
	low	medium	high	
Low	-	-	-	-
medium	-	66	2	68
High	-	34	-	34

The average recapitulation of executive function and stress response can be seen in the following table:

Table3.3. Average distribution of executive functions by gender, age, socioeconomic status

	Sum (n)	Executive Functions (mean±SE)
Gender		
Man	47	80,70±0,93
Woman	55	80,09±0,79
Age		
≤ 5 years 0 months	10	83,32±1,59
≤ 6 years 0 months	70	80,06±0,70
≤ 7 years 0 months	13	77,77±1,40
Socioeconomic status		
Low	-	-
medium	-	-
High	-	-

Based on the table above, there is a tendency to increase executive functions in accordance with the improvement of socio-economic status.

Data analysis requirements testing

Testing of the three requirements that apply in path analysis, namely the normality test of regression estimated error, linearity test, and regression coefficient significance test. For normality testing, the Lilliefors test is used. The results of the analysis for the normality test of the error of the estimate of executive functions on socioeconomic status obtained a calculated L value of 0.0577 while the L value of the table with a real level of 0.01 and a sample size of 102 was 0.100. Thus, the calculated L value is smaller than the L value of the table, so it can be concluded that the distribution of errors in children's executive functions on socioeconomic status comes from a normally distributed population.

Test for linearity and significance using the F test in the ANAVA table. Regression equation $X2 = 23.69+0.68X1$. It was obtained that Fcalculation = 64.14 is greater than the F valueof table 6.90 at $\alpha = 0.01$. Because Fcalculates> Ftable then the regression is declared very significant. For the linearity test, the calculated F of 1.05 was smaller than the table F of 2.06 at $\alpha = 0.01$. Since Fcalculates< Fof the table, the regression of X2 over X1 is linear.

Calculation of correlation coefficients between variables

Based on the calculation results, the correlation coefficient between variables was obtained, namely r12=0.625. Based on the calculation, it is obtained that t table ($\alpha = 0.01$) is smaller than t calculated, then the correlation coefficient is significant. The positive correlation is shown in the relationship between the variables of socioeconomic status and executive function.

Calculation of path coefficient

The value of the coefficient of the socioeconomic status pathway to the child's executive function was 0.358 with a t-value of 5.47. Because the calculated t-value is greater than the t-valueof the table in dk = 98 for $\alpha = 0.01$ of 2.63, H0 is rejected and H1 is accepted, which means that there is a direct positive influence of socioeconomic status on the child's executive function which is very significant.

3. Discussion

The results of the first hypothesis analysis resulted in the finding that socioeconomic status had a direct positive effect on children's executive function. Based on the findings, it can be concluded that the executive function of children is directly and positively influenced by socioeconomic status. The increase in socioeconomic status will result in an increase in the executive function of children.

This is also supported by the data in univariate table 4.10, the average distribution of executive functions based on socioeconomic status. The average executive function of children with medium socioeconomic status (n=100) was 80.22 ± 0.61, while the average executive function of children with high socioeconomic status (n=2) was 88.00 ± 3.00. There is a tendency to increase the average executive function of children in accordance with the improvement of children's socioeconomic status.

This happens because socioeconomic status affects the structure of the brain so that it affects executive function. This was proven by Ursache and Noble researching the structure of the brain by magnetic resonance imaging (MRI) which functions for the executive function of children of various socioeconomic statuses. Socioeconomic status is related to the volume of the white matter part of the brain. Lower volumes are associated with a lack of cognitive flexibility in children from lower-income families.(Lisca & Pratiwi, 2023) The brain structure of children of low socioeconomic status is different from high, so it affects the function of the brain structure, including executive function. This is one reason why socioeconomic status affects a child's executive function.

Ursache and Noble also revealed that socioeconomic status is related to a variety of neurocognitive functions including executive function, memory, language, social-emotional processing. Different socioeconomic statuses lead to differences in neural processes and different neurobiological pathways. The underlying mechanisms are related to language exposure and stress. Socioeconomic status will affect the neurocognitive processes that occur in the brain and form the relationship between nerves and behavior functionally (Susanti et al., 2023). This is consistent with the results of this study.
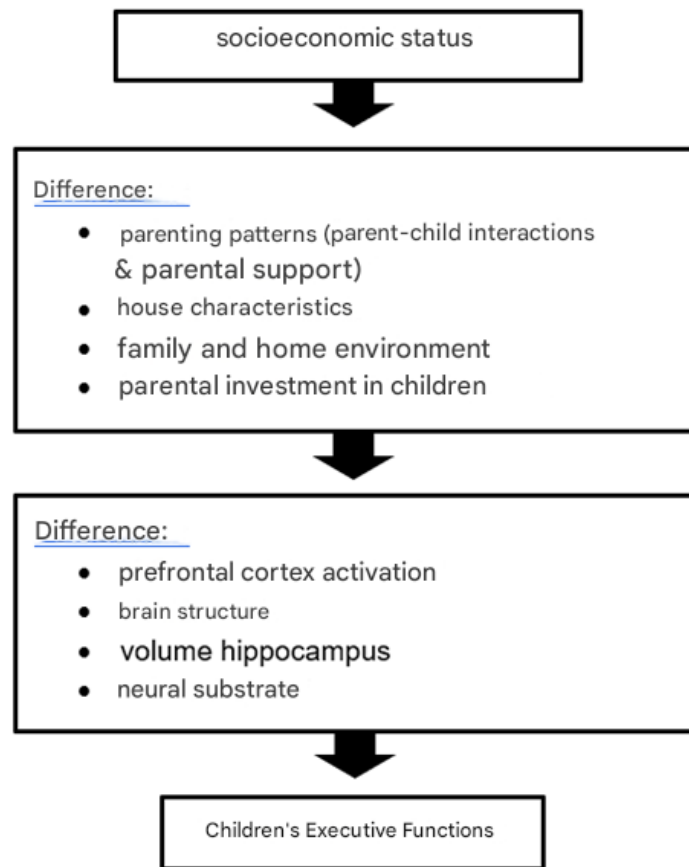
The executive function of children with low socioeconomic status showed worse in all aspects of executive function, namely self-control, cognitive flexibility, and working memory. In addition, differences in nerve substrates/chemical substances underlie the executive function of children which affect the activation of the prefrontal cortex, and the cortical structure of the brain. The difference in investment and facilities provided by parents to children also affects development. Parenting patterns and home environment affect brain development for the child's executive function and overall cognitive and behavioral development.(Hackman et al., 2015) The role of parenting as one of the mediators of children's socioeconomic status and cognitive and emotional development (Harianto & Theresia, 2022). Quality of the relationship Interaction between parents and children will shape the ability of children to survive or withstand adversity of children who live in a poor and stressful environment.

Children's cognitive stimulation at home includes the availability of books and other literacy resources at home, computers, and communication with parents.(Hackman et al., 2015) Children with low socioeconomic status receive less stimulation for growth and development such as learning media, toys, education, and watch more television, so they lag behind their peers.

Another impact of these differences is the prenatal factor. In pregnant women, the level of stress and infection is higher, as well as malnutrition during pregnancy so that it increases the tendency to premature birth and fetal growth disorders or low birth weight. After the child is born, this prenatal factor is related to growth disorders, development and nerve function that persists into adulthood, as well as the volume of the child's hippocampus is smaller as an adult, thus affecting the development of the child's brain which also affects the child's executive function.(Hackman et al., 2015)

Based on some of these theoretical studies, it can be concluded that differences in children's socioeconomic status will have differences in parenting styles (parent-child interaction & parental support), home characteristics, family and home environment, and parental investment in children. These differences cause differences in the activation of the prefrontal cortex, brain structure, hippocampus volume, and nerve substrate so that the executive

function of children with low, medium, and high social status is different. Theinfluence of socioeconomic status on executive functions is described as follows:

Picture 4.1 Direct influence of socioeconomic status on executive functions

The results of this study are in line with the results of research conducted by Finch and Obradovic. This study was conducted on 102 kindergarten children with an average age of 5.6 years to find out whether the socioeconomic gap linked to the emotional state of parents is the basis for the development of children's executive functions. The results showed that exposure to socioeconomic challenges was associated with lower executive function in children. This is due to the gap between parents with low, medium, and high socioeconomic status in terms of material investment that stimulates children's cognition and learning activities inside and outside the home (Yang, 2022). Low socioeconomic status causes families to face greater socioeconomic challenges. This makes parents' emotions more volatile which has an impact on children. Difficult economic conditions also cause family income sometimes only enough to meet basic living needs. Spending on various learning activities, educational game tools, and books for child stimulation is almost non-existent. The executive function of children in this condition is lower.

The results of this study are also in accordance with a study conducted by Korzeniowski, et al. in Argentina on 178 children. This study aims to analyze whether the executive function can predict children's school achievement from various socioeconomic statuses. The results of the study show that executive functions are influenced by socioeconomic status. Executive function is also a direct and significant predictor factor that links socioeconomic status and school achievement. The lack of educational materials at home and social and cultural conditions are related to low executive functions which will later have a negative impact on children's school achievement (Raffington, 2023). Therefore, it is important to implement programs that stimulate children's cognition or design low-cost and affordable curricula to improve executive function in children with low socioeconomic status in order to succeed in school. The existence of a similar PAUD unit (SPS) in Indonesia is very much in line with this, but it requires government guidance and support in order to implement the 2013 curriculum correctly and appropriately.

The results of this study are also in accordance with the results of a study conducted by Duncan, et al. on 100 children with an average age of 58.8 months. This study aims to determine the relationship between executive function, behavioral regulation and school achievement based on family income. This study shows that 1) the difference in the relationship between executive function and regulation of children's behavior is influenced by family income; 2) the difference in the relationship between executive function and behavioral regulation with children's school achievement is also influenced by family income. Children with lower family incomes have a greater risk of falling behind in school performance in relation to executive functions and regulation of children's behavior (Mauer, 2023). Interventions need to be carried out on children with low family incomes so that there is an increase in school achievement. One of the interventions is quality early childhood education from an early age for children with low family incomes, so that there is equality of education with children with high family incomes. Concrete steps that can be taken are 1) the declaration of compulsory early childhood education 2 years before entering elementary school; 2) government recommendations to participate in early childhood education from the age of 2 years; 3) 50% of the CSR funds of each company in Indonesia must be used to improve the quality of early childhood education in the company environment.

Lawson and Farah also expressed the same thing, that socioeconomic status affects executive function which affects math achievement in school.(Lawson & Farah, 2017) Likewise, Nesbit, et al. who researched the influence of executive functions in kindergarten on school achievement in the first grade of elementary school from 206 children with different socioeconomic and racial statuses. Executive functions are related to children's mathematics and literacy achievement (Mauer, 2023). The educational revolution in Indonesia can be started with various interventions to improve children's executive functions. Improving children's executive functions while in kindergarten will increase children's achievement in elementary school, especially children with low socioeconomic status.

This is strengthened by the research of Raver, et al. This study is a longitudinal study to test whether executive function in kindergartens exposed to misfortune due to poverty in families and schools is a predictor of executive function in elementary schools in grades 2 and 3 in children with low socioeconomic status. This study conducted on 391 students showed that difficulties in executive function during kindergarten and low socioeconomic status will cause difficulties in grades 2 and 3 of primary school (Kara, 2023)..

4. Conclusion

Thus, it is concluded that socioeconomic status affects children's executive function, this is supported by this research, theoretical studies, logical arguments, and previous relevant research

5. Acknowledgement

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