

The Role of Parental Motivation as a Mediator between Socioeconomic Factors and Temper Tantrum Incidents

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ABSTRACT

Parenting motivation is a critical factor in managing child behavior, as socioeconomic conditions often influence parental emotional responses and children's development. This study aims to analyze the impact of education level, occupation, and income on parental motivation and how this motivation subsequently influences the occurrence of temper tantrums in children with special needs. This research employed a quantitative path analysis design with a cross-sectional approach. The study was conducted at a Special Needs Primary School (SDLB) in Situbondo Regency, involving a total of 47 respondents selected through a total sampling technique. Data were collected via validated questionnaires and analyzed using multivariate linear regression to determine the mediating role of parental motivation. The findings reveal that socioeconomic factors significantly influence parental motivation, with path coefficients of 0.896 for education level, 2.062 for occupation, and 2.396 for income. Furthermore, parental motivation was found to have a direct and significant role in addressing temper tantrum issues, with a path coefficient of 0.68. Statistical analysis indicates that education, occupation, and income do not have a significant direct impact on temper tantrums in the absence of parental motivation. Parental motivation acts as a vital mediator between socioeconomic factors and the management of temper tantrums in children with special needs. The study underscores that while socioeconomic status provides a foundation, it is the parent's internal motivation to accept and nurture their child that ultimately determines behavioral outcomes.

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Key Messages:

- Parental motivation serves as a fundamental mediator between socioeconomic status and child behavior; demonstrating that factors such as education, occupation, and income levels do not directly influence the incidence of temper tantrums in children with special needs unless they are reinforced by a strong internal drive for parental acceptance and active developmental monitoring

GRAPHICAL ABSTRACT



INTRODUCTION

Tantrums are a common emotional behaviour in children, which can be influenced by various factors, including family economic conditions and parental motivation in supporting children's emotional development. The proposed conceptual model links socio-economic factors to parental stress levels, which in turn influence parental motivation to deal with tantrum behaviour (1–3). High parental motivation is believed to help children manage their emotions better, despite challenges caused by the family's economic situation. Thus, it is important to understand how parental motivation mediates the relationship between socioeconomic factors and tantrums, as well as its impact on children's behaviour. Essentially, temper tantrums are considered a normal part of development in children aged 2 to 4 years, although some parents may still encounter tantrum behaviors in their children up to the ages of 5 to 6 years (4–6). Children with special educational needs refer to a group of children who have diversity in physical, cognitive, and socio-emotional aspects, where each child faces different challenges and has unique potential and resources. Therefore, they require various levels of support and tailored educational interventions to meet their specific needs. Among children with special needs, 95% experience sensory modulation difficulties, which lead to behavioral problems—particularly in children with autism (7–9).

According to the World Health Organization (WHO) in 2014, children with special needs were estimated to account for approximately 15% of the global population, equivalent to around 1 billion individuals. WHO also reported that 80% of children with special needs live in developing countries. In Indonesia, the Central Bureau of Statistics (Badan Pusat Statistik, BPS) in 2024 stated that 17.88 million children are categorized as having special needs. Based on the 2023 Indonesian Health Survey (Survei Kesehatan Indonesia, SKI), the prevalence of disability cases reported at healthcare facilities (Puskesmas) throughout the country was found to be 79.4% in urban areas and 75.3% in rural areas. When analyzed by economic status, the prevalence was 69.6% among the lowest economic group, 75.1% among lower-middle, 78.6% among middle, 80.3% among upper-middle, and 82.2% among the highest economic group. At the provincial level, the highest number of disability cases was reported in West Java (154,476 cases), followed by East Java (128,796 cases) and Central Java (116,315 cases) (10).

In society, children with special needs often face challenges in emotional and behavioral regulation, including more frequent and intense temper tantrums compared to typically developing children (11). This phenomenon not only affects the children themselves but also causes significant emotional strain on parents (12). Parental motivation in raising children with special needs varies widely,

ranging from intrinsic motivation (such as love and acceptance) to extrinsic factors (such as social pressure or feelings of shame)(13). Parents with positive motivation tend to be more adaptive in managing parenting stress and are more successful in addressing tantrum behaviors in their children (14). These findings underscore the strong association between parenting motivation and child behavior regulation, particularly in the context of children with special needs (15).

Parenting a child with special needs requires a range of interpersonal skills and involves significant emotional demands(16). Parents with higher levels of education tend to differ from those with lower educational backgrounds (17). Higher education is generally associated with increased knowledge and awareness. Nowadays, many mothers choose to return to work after having children for various reasons (1). Non-working mothers may have more time to accompany, care for, and monitor their child's emotional development. However, the amount of time available to non-working mothers does not necessarily result in better parenting outcomes, as their time may be consumed by domestic responsibilities such as cooking, cleaning, and household management (18). Some studies report that working mothers are at a higher risk of having children who experience temper tantrums compared to non-working mothers (19).

Often, mothers work primarily to support the household's financial needs, which can influence their parenting style and their ability to closely monitor their child's emotional development (20). In addition, parental motivation plays an important role in shaping parenting behaviour, which in turn affects the frequency of tantrums in children. Previous studies have shown a significant relationship between family income and parental motivation. Therefore, this study aims to analyse the role of parental motivation as a mediator between socioeconomic factors and the occurrence of tantrums in children.

METHODS

Study Design and Setting

This study employed a quantitative research design using a path analysis framework with a cross-sectional approach, where each subject was observed once during the data collection phase. The research was conducted in August 2024 at a Special Needs Primary School (SDLB) located in Situbondo Regency, East Java, Indonesia. The study population consisted of parents of children with special needs exhibiting developmental, behavioral, emotional, or physical disorders. A total sampling technique was applied, resulting in a final sample of 47 mothers who met the inclusion criteria: being the primary caregiver accompanying the child at school and consenting to participate. Participants were excluded if they had no formal education or resided outside the Situbondo Regency.

Data Collection and Variable Measurement

Data were collected through a structured questionnaire measuring five primary variables: parental education level (X1), occupation (X2), income (X3), parental motivation (Y), and child temper tantrum incidents (Z). The instrument utilized an interval scale and underwent validity and reliability testing using Cronbach's alpha analysis to ensure internal consistency. The specific categorization for each variable was as follows:

- Education Level: Categorized into four levels: Elementary School, Junior High School, Senior High School, and University.
- Occupation: Classified based on employment type, including Housewife/Non-employed, Laborer/Employee, Farmer/Fisherman/Trader, and Civil Servant.
- Income: Measured in Indonesian Rupiah (IDR) across four brackets: <500,000; 500,000 to <1,000,000; 1,000,000 to <2,000,000; and >2,000,000.
- Parental Motivation and Temper Tantrum Issues: Both variables were assessed using a four-tier intensity scale ranging from Very Low to Very High.

Data Analysis

Statistical analysis was performed using multivariate linear regression to execute the path analysis. The analysis was divided into two substructural models:

1. Substructural Model 1: Analyzed the influence of education level, occupation, and income on parental motivation.

2. Substructural Model 2: Evaluated the impact of education, occupation, income, and parental motivation on the occurrence of temper tantrums. The significance of the path coefficients was determined using a p-value threshold of < 0.05

Ethical Considerations

The research protocol was approved by the Ethics Committee of the Faculty of Health, Nurul Jadid University (Approval No: NJ-T06/015/KEPK/F.Kes/06.2024). All respondents were provided with a comprehensive explanation of the study's objectives and signed a written informed consent form before participation. Data confidentiality was strictly maintained throughout the study.

RESULTS

Table 1 delineates the demographic profile and descriptive statistics for the core variables of the 47 respondents participating in the study. Socioeconomically, the sample is predominantly characterized by an intermediate to advanced educational background, with the majority having completed Senior High School (46.8%) or University (34.0%). The dominant occupational sector is comprised of Farmers, Fishermen, and Traders (42.6%), which aligns with the prevalent monthly income bracket of 1,000,000 to less than 2,000,000 IDR (42.6%). Regarding the study's primary psychological constructs, the cohort demonstrates robust parental motivation, as nearly three-quarters report High (46.8%) or Very High (27.7%) motivation levels. Correspondingly, the reported frequency of behavioral challenges indicates that the majority of these children with special needs exhibit Low (55.3%) or Very Low (19.1%) temper tantrum issues. This descriptive baseline establishes the foundational context for subsequent inferential analyses examining how the observed socioeconomic strata influence temper tantrum occurrences through the mediating pathway of parental motivation.

Table 1. Respondent Characteristics (N=47)

Variables	n	%
Education Level		
Elementary School	1	2.1
Junior High School	8	17.0
Senior High School	22	46.8
University	16	34.0
Occupation		
Housewife/Non-employed	7	14.9
Labourer, Employee, etc.	12	25.5
Farmer, Fisherman, Trader	20	42.6
Civil Servant	8	17.0
Income		
<500.000 IDR	8	17.0
>500.000 IDR s/d <1.000.000 IDR	11	23.4
> 1.000.000 s/d IDR < 2.000.000 IDR	20	42.6
> 2.000.000 IDR	8	17.0
Motivation		
Very Low Motivation	1	2.1
Low Motivation	11	23.4
High Motivation	22	46.8
Very Hig Motivation	13	27.7
Temper Tantrum Issues		
Very High Temper Tantrum Issues in Children with Special Needs	1	2.1
High Temper Tantrum Issues in Children with Special Needs	11	23.4
Low Temper Tantrum Issues in Children with Special Needs	26	55.3
Very Low Temper Tantrum Issues in Children with Special Needs	9	19.1

To elucidate the initial stage of the hypothesized mediation model, a multiple regression analysis was conducted to ascertain the direct impact of socioeconomic factors on the mediator variable, parental motivation (Tables 2–4). The overall path test indicates a highly significant model fit, $F(3,43) = 20.499$, $p < .001$, demonstrating that parental education level, occupation, and income collectively account for a substantial 58.9% of the variance in parental motivation ($R^2 = .589$, Adjusted $R^2 = .560$). Furthermore, an examination of the beta coefficients reveals that all three socioeconomic parameters serve as highly

significant independent predictors within the model; specifically, education level ($t = 7.131, p < .001$), occupation ($t = 3.141, p = .003$), and income ($t = -3.589, p = .001$) each uniquely contribute to the fluctuation in parental motivation. Collectively, these findings establish the crucial first path of the mediation framework, confirming that a family's socioeconomic strata robustly dictate parental motivation levels, thereby setting the foundational stage for how these factors subsequently influence the frequency of temper tantrum incidents.

Table 2. Model Summary of Parental Education Level, Occupation, and Income on Parental Motivation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.767 ^a	0.589	0.560	0.518	0.589	20.499	3	43	0.000

a. Predictors: (Constant), Income, Education Level, Occupation

b. Dependent Variable: Parental Motivation

Table 3. Beta Coefficients of Parental Education Level, Occupation, and Income on Parental Motivation

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
		1	(Constant)	.707		
	Education Level	.908	.127	.896	7.131	.000
	Occupation	1.702	.542	2.062	3.141	.003
	Income	-1.927	.537	-2.396	-3.589	.001

a. Dependent Variable: Parental Motivation

Table 4. Overall, Path Test 1: The Relationship Between Parental Education Level, Occupation, and Income on Parental Motivation

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	16.478	3	5.493	20.499	.000 ^b
Residual	11.522	43	0.268		
Total	28.000	46			

a. Dependent Variable: Parental Motivation

b. Predictors: (Constant), Income, Education Level, Occupation

To evaluate the final stage of the proposed mediation framework, a subsequent multiple regression analysis was conducted incorporating both the socioeconomic determinants and the mediator, parental motivation, to predict temper tantrum issues (Tables 5–7). The overall path model proved highly significant, $F(4,42) = 31.880, p < .001$, accounting for a substantial 75.2% of the total variance in temper tantrum incidents ($R^2 = .752$). Crucially, an examination of the beta coefficients reveals a classic pattern of full mediation; upon the simultaneous inclusion of the mediator into the analytical model, the direct predictive effects of the socioeconomic variables—namely education level ($p = .093$), occupation ($p = .162$), and income ($p = .127$)—are rendered statistically insignificant. In stark contrast, parental motivation emerges as the sole robust and significant predictor of temper tantrums within this combined model ($t = 5.737, p < .001$).

Table 5. Model Summary of Parental Education Level, Occupation, and Income on Parental Motivation Impacting Temper Tantrum Issues in Children with Special Needs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
2	.867 ^a	0.752	0.729	0.374	0.752	31.880	4	42	0.000

a. Predictors: (Constant), Parental Motivation, Income, Education Level, Occupation

b. Dependent Variable: Temper Tantrum Issues

Table 6. Coefficients Beta of Parental Education, Occupation, and Income on Parental Motivation Impacting Temper Tantrum Issues in Children with Special Needs

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
2 (Constant)	0.461	0.251		1.838	0.073
Education Level	0.233	0.136	0.250	1.716	0.093
Occupation	0.618	0.434	0.814	1.425	0.162
Income	-0.688	0.442	0.931	-1.558	0.127
Parental Motivation	0.631	0.110	0.687	5.737	0.000

a. Dependent Variable: Temper Tantrum Issues

Table 7. Overall, Path Test 2: The Impact of Parental Education, Occupation, and Income on Parental Motivation Affecting Temper Tantrum Issues in Children with Special Needs

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.798	4	4.449	31.880	.000 ^b
	Residual	5.862	42	0.140		
	Total	23.660	46			

a. Dependent Variable: Temper Tantrum Issues

b. Predictors: (Constant), Parental Motivation, Income, Education Level, Occupation

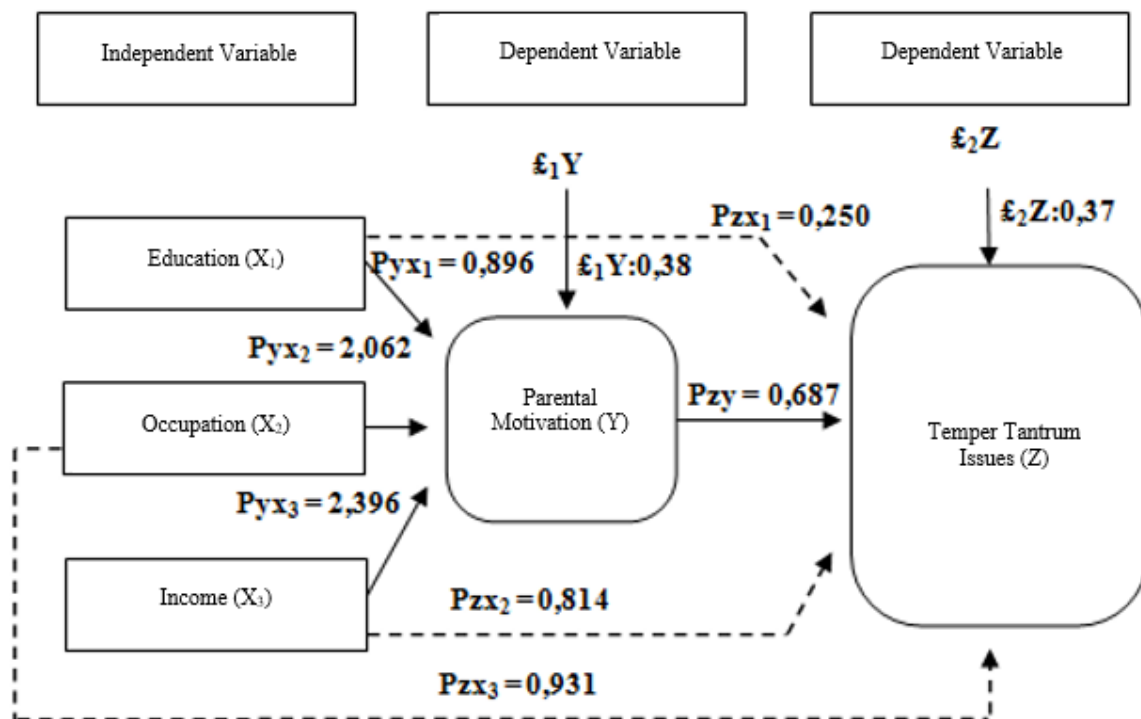


Figure 1: Path Diagram of Path Analysis of the Relationship Between Education, Occupation, and Income on Parental Motivation Impacting Temper Tantrum Issues in Children with Special Needs at SDLB Situbondo District

Figure 1 visually synthesizes the results of the path analysis, illustrating the structural relationships between socioeconomic factors, parental motivation, and temper tantrum issues in children with special needs. The model delineates robust direct pathways from the independent variables to the mediator, showing that education ($P_{yx1} = 0.896$), occupation ($P_{yx2} = 2.062$), and income ($P_{yx3} = 2.396$) exert strong positive influences on parental motivation, with an unexplained variance of $\epsilon_1 = 0.38$. In the subsequent structural model predicting temper tantrum issues, parental motivation demonstrates a substantial direct effect ($P_{zy} = 0.687$). Conversely, the direct pathways from the socioeconomic variables to temper tantrums—depicted by dashed lines—yield coefficients of $P_{zx1} = 0.250$, $P_{zx2} = 0.814$, and P_{zx3}

= 0.931, alongside a residual variance of $\epsilon^2 = 0.37$. Holistically, this path diagram graphically reinforces the mediation framework established in the regression tables, clearly demonstrating that the influence of a family's educational and economic background on a child's temper tantrum incidents is primarily indirect, channeled centrally through the mediating mechanism of parental motivation.

DISCUSSION

The results of the study show that the path coefficient from education level to temper tantrum issues in children with special needs is significant at 0.093, which is > 0.05 , indicating no influence between education level and temper tantrum issues in children with special needs. This finding is consistent with research conducted by (21,22) which shows that education, income, and parenting styles will have a significant impact on the frequency of tantrums (4). Other studies also indicate that caregivers contribute to children's behaviour (23,24). However, in this study, the researcher did not intend to investigate the relationship between education level, but rather the impact of parents' education level on the occurrence of temper tantrums in children with special needs (25). This is related to the parents' acceptance of their child's condition and limitations.

Even though parents have a higher level of education or have attended school, without motivation, they may not be willing to monitor and pay attention to their child's development. This could be due to several factors, including the child not being the one the family expected due to their limitation (26,27).

The significance value for the occupation variable regarding temper tantrums in children with special needs is 0.931, which is > 0.05 . This means that there is no significant relationship between employment and temper tantrums in children with special needs. Currently, many parents, especially mothers, prefer working outside the home for various reasons. A mother who does not work may have more time to accompany, care for, and monitor her child's emotional development. However, the time available for a non-working mother may not always be better than that of a working mother because the time she has is often spent on cooking, cleaning, and household chores (28,29). Therefore, the researcher concludes that any form of employment will not affect the occurrence of temper tantrums in children as long as the parents can dedicate quality time to play with their child and monitor their development. This quality time cannot be achieved without motivation to care for and monitor the emotional development of the child, based on the parents' acceptance of their child's condition and limitations (30,31).

It was also found that the significance value for parental income is 0.814, which is > 0.05 , indicating no relationship between parental income and temper tantrum issues in children with special needs. This finding is consistent with research by Anindita, which showed that parental income does not have a relationship with in toddlers. However, in this study, the researcher did not aim to explore the relationship between parental income but focused on the relationship between parental income and temper tantrums in children with special needs.

The significance value for motivation in relation to temper tantrums is 0.000, which is < 0.05 , indicating that the path coefficient is significant. This shows that there is an effect of motivation on temper tantrum issues. The data shows that 46.8% of parents have very high motivation, which impacts temper tantrum issues in children with special needs, with 55.3% of children categorized as having low temper tantrum problems. With high motivation, parents are better able to accept the limitations their children have. According to Jane Brooks in her book *The Process of Parenting*, several studies have noted a positive relationship between parental support and attention to children's emotional and social development (32). In the United States, paternal support was found to better predict children's social abilities and initiative, while maternal support predicted a reduction in depression. According to the book *Child Development* (2nd edition) (33), one of the factors leading to temper tantrum issues in children is depression. Therefore, maternal support is critical in reducing temper tantrum issues in children with special needs. In essence, children with special needs often have lower emotional happiness levels due to their inherent limitations, which makes them feel inferior because they are different from other typically developing children. Hence, the support and motivation from mothers are essential to help reduce temper tantrum issues caused by excessive depression in children with special needs (34–36).

CONCLUSION

This study concludes that socioeconomic factors, including parental education level, occupation, and income, do not exert a direct influence on the occurrence of temper tantrums in children with special needs. Instead, parental motivation serves as a fundamental mediating variable in this relationship. The findings demonstrate that while socioeconomic status significantly shapes parental motivation, it is this motivation that directly impacts behavioral outcomes. High parental motivation facilitates greater acceptance of the child's limitations and encourages more consistent monitoring of their emotional development, effectively reducing the frequency and intensity of temper tantrums. Ultimately, socioeconomic advantages are insufficient to address these behavioral challenges unless they are accompanied by a strong internal drive for parents to actively nurture and support their children.

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CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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