



The Mediating Role of Parent-Child Attachment in The Relationship between Parenting Stress and Social-Emotional Development among Dual-Career Families in Indonesia

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ABSTRACT

This study examined the mediating role of parent-child attachment in the relationship between parenting stress and early childhood social-emotional development among dual-career families in Indonesia. The phenomenon of dual-career families has increased rapidly, with more than 70% of Indonesian families having both parents working. Time constraints and job demands often lead to parenting stress, which may compromise the quality of parent-child interaction and attachment. Despite extensive research on these variables separately, limited studies have integrated them into a comprehensive mediation model, particularly in non-Western contexts. This study employed a sequential explanatory mixed-method design. A quantitative survey involved 250 dual-career parents with children aged 3-6 years from SD Muhammadiyah Tonggalan Klaten and SD IT Al Furqoon Klaten, followed by in-depth interviews with 20 participants. Instruments included the Parenting Stress Index (PSI), Attachment Style Questionnaire (ASQ), and Devereux Early Childhood Assessment (DECA). Results showed that 68% of dual-career parents experienced moderate to high parenting stress. Parenting stress was significantly negatively correlated with secure parent-child attachment ($r = -0.52, p < 0.01$) and children's social-emotional development ($r = -0.48, p < 0.01$). Mediation analysis revealed that parent-child attachment partially mediated this relationship (indirect effect = -0.23 , 95% CI $[-0.31, -0.15]$), with 46% of the total effect occurring through reduced attachment quality. Qualitative findings supported these results, demonstrating that parental exhaustion led to reduced responsiveness and insecure attachment. These findings contribute to attachment theory by empirically demonstrating the mediation mechanism in a non-Western context. Implications include the need for family-based interventions and family-friendly school policies.

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1. Introduction

The phenomenon of dual-career families, where both parents engage in full-time employment outside the home, has become increasingly prevalent in Indonesia over the past two decades. According to data from the [Indonesian Central Bureau of Statistics](https://www.bps.go.id/) (2020), more than 70% of families in Indonesia now have both parents working, representing a



significant shift from traditional family structures where mothers typically remained in the home as primary caregivers. This increase is driven by multiple interrelated factors, including rising economic demands in an increasingly competitive global economy, individual needs for social interaction and professional fulfillment, and growing opportunities for women's workforce participation (Higgins, 1992, as cited in Anjani et al., 2024). Within this dynamic context, dual-career parents face unique and often formidable challenges in fulfilling their dual roles as workers and primary caregivers, navigating the complex interface between professional responsibilities and family obligations.

One of the most significant challenges confronting dual-career parents is parenting stress, defined as the psychological distress arising from the demands of the parenting role (Abidin, 1995). Parenting stress frequently emerges from difficulties in dividing limited time and energy between work demands and childcare responsibilities, which can lead to physical and emotional exhaustion that negatively impacts the quality of parenting practices (Ferreira, 2017; Sari et al., 2023; Nurhaffzah et al., 2023). This condition becomes particularly complex for dual-career parents because they must navigate not only competing job demands but also sociocultural pressures that continue to position mothers as primary caregivers while simultaneously expecting fathers to serve as main breadwinners (Rizal & Fikri, 2023). These conflicting expectations create a double bind that intensifies stress and undermines parental well-being.

Field observations conducted by the research team at SD Muhammadiyah Tonggalan Klaten and SD IT Al Furqoon Klaten revealed concerning patterns regarding parent-child interaction among dual-career families. It is important to note that while the research setting is described as elementary schools, both institutions include early childhood education programs specifically serving children aged 3-6 years, which constituted the focal population of this study. Most dual-career parents reported severely limited quality time with their children, with average direct interaction of only 2-3 hours per day—substantially below the recommended minimum of 5-6 hours daily necessary for building secure attachment relationships (Bowlby, 1982). This time deficit is exacerbated by work-family conflict experienced simultaneously by both parents, creating a cumulative stress burden that affects family functioning. Research by Orellana et al. (2022) revealed that the level of stress and psychological pressure experienced by parents in dual-career families significantly affects couple satisfaction and overall family dynamics, creating a cascade of negative effects throughout the family system.

Furthermore, observations indicated that children from dual-career families at both schools were frequently cared for by external caregivers, including daycare centers, grandparents, or babysitters, during substantial portions of the day. While third-party care arrangements may be necessary, they substantially limit direct parent-child interaction, potentially hindering the formation of secure attachment relationships. A study by Izzati et al. (2024) confirmed that in dual-earner families, mothers' roles in developing children's social-emotional development must be complemented by support from other caregivers. However, the quality of third-party care varies enormously and often cannot optimally replace the parents' role in providing consistent, sensitive, and responsive caregiving essential for healthy social-emotional development.

The relationship between parenting stress and child development has been extensively examined in the literature through various theoretical lenses. Research conducted by Ward & Lee (2020) on 1,173 low-income families demonstrated that parenting stress was significantly negatively associated with parental responsiveness, and that responsiveness was positively associated with children's cognitive development and prosocial behavior. This finding indicates that parenting stress can fundamentally hinder parents' capacity to

respond sensitively to children's needs, which in turn affects multiple aspects of child development across developmental domains.

A longitudinal study by [Yu et al. \(2025\)](#) with a sample of 3,166 parents of preschool children in China revealed that parenting stress negatively predicted preschool children's social-emotional competence. Furthermore, this study found that parental reflective functioning and parent-child relationships served as chain mediators in the relationship between parenting stress and children's social-emotional competence, suggesting a complex pathway through which stress affects child outcomes. Research in Chile by [Santelices et al. \(2021\)](#) similarly confirmed that higher levels of depressive symptoms and parenting stress in mothers were associated with greater difficulties in the social-emotional development of preschool children, indicating cross-cultural consistency in these relationships.

In the specific context of dual-career families, the dynamics of parent-child attachment emerge as a central issue with significant implications for child development. Research by [Ju et al. \(2023\)](#) using a sample of dual-earner families in the United States found a direct negative association between mothers' job and financial dissatisfaction and children's social-emotional competence. Additionally, fathers' job dissatisfaction negatively impacted children's social-emotional competence, which was partially explained by reduced fathers' participation in family dinnertime routines. This finding highlights the importance of fathers' involvement in family routines as a protective mechanism shielding children from the negative effects of parental work stress and underscores the need for family-level interventions.

Research by [Lang et al. \(2014\)](#) on patterns of parental involvement in dual-earner families showed that although fathers spent significantly less time engaged with their infants compared to mothers, both parents increased their involvement over time at relatively similar rates. This finding indicates the potential for positive changes in parenting dynamics in dual-career families that can be leveraged for intervention purposes. Meanwhile, research by [Tan \(2024\)](#) on gender differences in parental involvement in Malaysia demonstrated that mothers showed significantly greater involvement across all six parenting domains compared to fathers, confirming the persistence of gender inequality in parenting responsibilities even in dual-career families.

Although numerous studies have separately examined the relationships between parenting stress and child development, as well as between dual-career family status and parent-child attachment, significant gaps remain in the existing literature that this study seeks to address. Most previous studies have focused on only one aspect of this dynamic without integrating all three variables—parenting stress, attachment, and child social-emotional development—into a comprehensive analytical model. Research specifically examining the role of attachment as a mediator in the relationship between dual-career parents' parenting stress and early childhood social-emotional development remains exceptionally limited, representing a critical gap in understanding the mechanisms through which stress affects child outcomes. The overwhelming majority of studies have been conducted in Western contexts, whereas the sociocultural characteristics of dual-career families in Indonesia possess unique features, such as strong collectivist values and persistent traditional gender roles, that may moderate these relationships ([Rizal & Fikri, 2023](#)).

The research locations at SD Muhammadiyah Tonggalan Klaten and SD IT Al Furqoon Klaten provide a specific sociocultural context that has never been previously studied in relation to these variables. Klaten regency, situated as a buffer zone between the major urban centers of Yogyakarta and Solo, presents unique economic and social characteristics, including high mobility patterns and diverse employment sectors, that may influence family dynamics in ways not captured by previous research conducted in other contexts.

The novelty of this study lies in the integration of three key variables—dual-career parents' parenting stress, parent-child attachment, and early childhood social-emotional development—into a comprehensive analytical model that examines both direct and indirect pathways of influence. This study empirically tests the mediating role of attachment in the relationship between parenting stress and children's social-emotional development, an investigation that has rarely been conducted previously, especially within the Indonesian context. Furthermore, the study employs a sequential explanatory mixed-method design that provides both quantitative evidence of statistical relationships and qualitative understanding of the lived experiences of dual-career parents, offering methodological depth that enriches the findings.

The theoretical contribution of this study extends existing knowledge by testing and refining attachment theory (Bowlby, 1982) and ecological systems theory (Bronfenbrenner, 1979) within a non-Western, collectivist cultural context. By demonstrating the mediation mechanism through which parenting stress affects child development via attachment quality, the study provides empirical support for theoretical models and expands their applicability across cultural contexts. Additionally, the research contributes to understanding how exosystem factors (parents' workplace conditions) interact with microsystem factors (parent-child relationships) to influence child development outcomes.

Based on the theoretical framework and identified research gaps, this study addressed the following research questions. What is the level of parenting stress experienced by dual-career parents at SD Muhammadiyah Tonggalan Klaten and SD IT Al Furqoon Klaten? What is the relationship between parenting stress, parent-child attachment, and children's social-emotional development among dual-career families? Does parent-child attachment mediate the relationship between parenting stress and children's social-emotional development? The following hypotheses were tested in this study. Parenting stress is negatively associated with secure parent-child attachment. Parenting stress is negatively associated with children's social-emotional development. Secure parent-child attachment is positively associated with children's social-emotional development. Parent-child attachment mediates the relationship between parenting stress and children's social-emotional development.

2. Method

This study employed a mixed-method approach with a sequential explanatory design, which involved quantitative data collection and analysis first, followed by qualitative data collection and analysis to deepen and explain the quantitative findings (Creswell, 2018). This design was specifically chosen because it allows researchers not only to measure statistical relationships between variables but also to develop a deep, contextualized understanding of the meanings behind these findings from the participants' perspectives. This approach aligns with Creswell's (2018) recommendation that mixed methods are particularly valuable for researching complex, multifaceted phenomena such as dual-career family dynamics in early childhood education environments. The sequential design enabled the researchers to use quantitative findings to purposively select qualitative participants who could provide rich information about the mechanisms underlying observed statistical relationships.

The population of this study comprised dual-career parents with children aged 3-6 years attending early childhood education programs at SD Muhammadiyah Tonggalan Klaten and SD IT Al Furqoon Klaten. It is important to clarify that while the research setting includes elementary schools, both institutions operate early childhood education units serving children aged 3-6 years, which was the specific focus of this investigation. Purposive sampling was employed with the following inclusion criteria: both parents worked at least

35 hours per week in formal employment; they had a child aged 3-6 years without severe disabilities requiring specialized care; they lived in a nuclear family structure without co-residence with parents or grandparents; and they voluntarily provided informed consent to participate in the study. These criteria were designed to ensure a relatively homogeneous sample of dual-career families facing similar structural constraints.

Based on G*Power calculations for multiple regression analysis ($\alpha = 0.05$, power = 0.80, medium effect size $f^2 = 0.15$), the minimum required sample size was 160 participants. To anticipate potential dropout and maximize statistical power, researchers recruited 250 parents (125 couples) from both schools. For the qualitative phase, 20 participants were purposefully selected using maximum variation sampling based on varying levels of parenting stress (low, moderate, high) identified from the quantitative survey. This purposive sampling strategy ensured that qualitative data captured the full range of experiences and perspectives across the stress continuum.

This study used three main validated instruments, all of which had been adapted into Indonesian through a rigorous translation and back-translation process. The Parenting Stress Index (PSI) Short Form (Abidin, 1995) consists of 36 items with three subscales: Parental Distress (12 items), Parent-Child Dysfunctional Interaction (12 items), and Difficult Child (12 items). Items are rated on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree." The PSI has been extensively validated across diverse populations and cultural contexts. The reliability of this instrument in the present study was $\alpha = 0.89$, indicating excellent internal consistency.

The Attachment Style Questionnaire (ASQ) (Feeney, Noller, & Hanrahan, 1994) was adapted to measure parent-child attachment across five dimensions with 40 items. The instrument assesses secure attachment as well as anxious and avoidant attachment patterns. Items are rated on a 6-point Likert scale. For this study, the reliability coefficient was $\alpha = 0.87$, demonstrating good internal consistency. The Devereux Early Childhood Assessment (DECA) (LeBuffe & Naglieri, 1999) was used to measure children's social-emotional development, completed by parents. The instrument includes 27 items with three scales: Initiative (9 items), Self-Control (9 items), and Attachment (9 items). Items are rated on a 5-point frequency scale. The reliability coefficient in this study was $\alpha = 0.91$, indicating excellent internal consistency.

All instruments were pilot-tested on 30 respondents outside the research sample to verify comprehension, establish construct validity through exploratory factor analysis, and confirm reliability coefficients. The pilot testing also allowed for cultural adaptation of item wording to ensure appropriateness for the Indonesian context. The factor analysis confirmed that all three instruments demonstrated adequate construct validity, with factor loadings exceeding 0.40 for all items and appropriate fit indices for each measurement model.

Quantitative data collection was conducted through a combination of online delivery via Google Forms and offline administration through home visits during March-August 2025. Each participant received a comprehensive explanation of the research objectives, procedures, confidentiality protections, and voluntary participation rights before signing an informed consent form. Participants completed the questionnaire independently, with research assistants available to clarify any items if needed. For parents who preferred offline participation, research assistants visited homes at mutually convenient times to administer the questionnaires.

Qualitative data were collected through semi-structured in-depth interviews conducted with 20 participants selected from the quantitative sample. Interview guides were developed based on quantitative findings to explore underlying mechanisms, contextual factors, and lived experiences in greater depth. Interviews were conducted in person at locations chosen

by participants (home or school), lasted 45-90 minutes, were audio-recorded with permission, and subsequently transcribed verbatim in Indonesian.

Quantitative data were analyzed using SPSS version 26 and PROCESS macro version 4.0 (Hayes, 2018) for mediation analysis. Statistical analyses included descriptive statistics to characterize participant demographics and variable distributions; Pearson correlation tests to examine bivariate relationships between variables; multiple regression analysis to examine predictors of children's social-emotional development while controlling for covariates; and mediation analysis using bootstrap procedures with 5,000 resamples to estimate indirect effects and 95% confidence intervals. Covariates included parent gender, child age, and family income, selected based on theoretical relevance and previous research findings.

Qualitative data were analyzed using thematic analysis following the six-phase approach outlined by Braun & Clarke (2021). The analysis involved familiarization with the data through repeated reading of transcripts; generating initial codes; searching for themes; reviewing themes; defining and naming themes; and producing the report. NVivo 12 software facilitated systematic coding and theme development. To enhance trustworthiness, researchers employed member checking, peer debriefing, and reflexive journaling throughout the analytical process.

3. Result and Discussion

3.1 Demographic Characteristics

Table 1 presents the demographic characteristics of the 250 participants. The sample was balanced by gender, with 125 mothers and 125 fathers (50% each). The majority of participants (71.6%) were between 31-40 years of age, reflecting the typical age range for parents of young children. Educational attainment was relatively high, with 62.4% holding a diploma or bachelor's degree and 25.2% holding a master's or doctoral degree, consistent with the dual-career nature of the sample. Weekly work hours were substantial, with 43.2% working 41-45 hours and 21.2% exceeding 45 hours per week. Monthly income distribution showed that 63.2% of families earned above 10 million IDR per month. Participants were approximately equally distributed between SD Muhammadiyah Tonggalan (52%) and SD IT Al Furqoon Klaten (48%), allowing for comparative analysis between the two school settings.

Table 1. Demographic Characteristics of Participants (N = 250 parents)

Characteristic	Category	Frequency (n)	Percentage (%)
Gender	Mother	125	50.0
	Father	125	50.0
Age	25-30 years	48	19.2
	31-35 years	112	44.8
	36-40 years	67	26.8
	>40 years	23	9.2
Education	High school equivalent	31	12.4
	Diploma/Bachelor's	156	62.4
	Master's/Doctorate	63	25.2
Weekly Work Hours	35-40 hours	89	35.6
	41-45 hours	108	43.2
	>45 hours	53	21.2
Monthly Income	<5 million IDR	24	9.6
	5-10 million IDR	68	27.2
	10-15 million IDR	87	34.8

Characteristic	Category	Frequency (n)	Percentage (%)
School Origin	>15 million IDR	71	28.4
	SD Muhammadiyah Tonggalan	130	52.0
	SD IT Al Furqoon Klaten	120	48.0

3.2 Research Model and Mediation Paths

The conceptual model examined the direct relationship between dual-career parents' parenting stress (X) and early childhood social-emotional development (Y), as well as the mediating role of parent-child attachment (M). As illustrated in Figure 1, path analysis results showed that parenting stress had a significant negative direct effect on children's social-emotional development ($c' = -0.27, p < 0.01$) and a negative effect on parent-child attachment ($a = -0.52, p < 0.01$). Furthermore, attachment had a positive effect on children's social-emotional development ($b = 0.44, p < 0.01$). The indirect effect of parenting stress on children's social-emotional development through attachment was $ab = (-0.52) \times (0.44) = -0.23$ (95% CI = -0.31, -0.15), confirming a significant mediation effect.

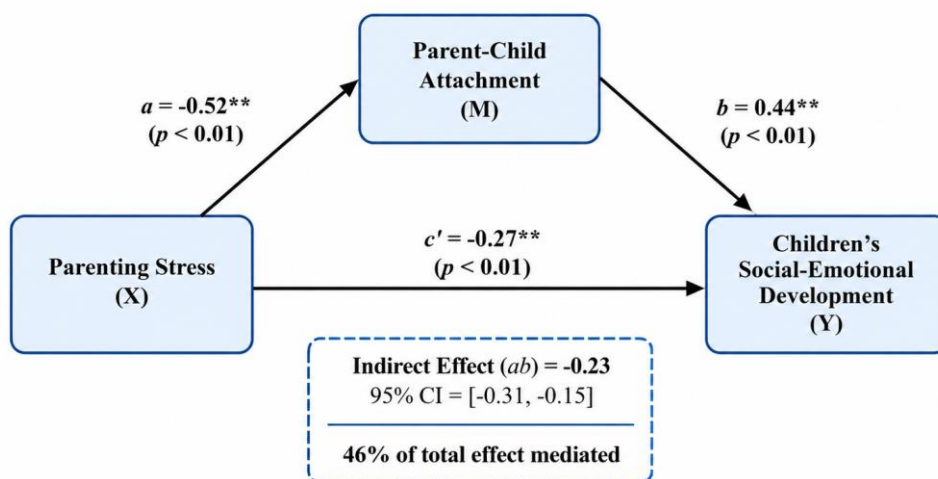


Figure 1. Research Model with Mediation Paths

The proportion of mediation (ratio of indirect to total effect) was $0.23/0.50 = 46\%$, meaning nearly half of the effect of parenting stress on children's social-emotional development occurs through the reduction in quality of parent-child attachment. This finding provides strong empirical support for the theoretical mechanism proposed in the research model.

3.3 Descriptive Statistics

Descriptive analysis revealed substantial variation in parenting stress levels among dual-career parents at both schools. A total of 32% of parents (80 out of 250) experienced low parenting stress (PSI score < 70), 45% (112 parents) experienced moderate stress (PSI score 70-90), and 23% (58 parents) experienced high stress (PSI score > 90). The mean total PSI score was 82.4 (SD = 15.3), which falls within the moderate stress range. Among the three PSI subscales, Parental Distress had the highest score ($M = 29.7$, SD = 6.2), followed by Parent-Child Dysfunctional Interaction ($M = 27.4$, SD = 5.8), and Difficult Child ($M = 25.3$, SD = 5.5). There was no significant difference in parenting stress levels between parents from SD Muhammadiyah Tonggalan and SD IT Al Furqoon Klaten ($t(248) = 1.24, p > 0.05$), suggesting that parenting stress is a widespread phenomenon across diverse educational settings.

Table 2. Distribution of Parenting Stress Levels (N = 250)

Stress Level	Score Range	Frequency	Percentage (%)
Low	<70	80	32.0
Moderate	70-90	112	44.8
High	>90	58	23.2
Total		250	100.0

The social-emotional development of children from dual-career families at both schools also varied substantially. Based on parental assessment using the DECA, 34% of children (85 children) had good social-emotional development (DECA score > 60), 48% (120 children) had moderate development (score 50-60), and 18% (45 children) had low development (score < 50). The mean total DECA score was 54.8 (SD = 10.2), indicating moderate overall development. On the Initiative dimension, the mean score was 18.2 (SD = 3.8); on Self-Control, the mean was 17.9 (SD = 4.1); and on Attachment, the mean was 18.7 (SD = 3.9). For parent-child attachment measured by the ASQ, it was found that 41% of parents (102 parents) had secure attachment, 35% (88 parents) had anxious/ambivalent attachment, and 24% (60 parents) had avoidant attachment. The mean secure attachment score was 52.3 (SD = 9.7) on a scale of 0-100, indicating moderate levels of secure attachment overall.

3.4 Correlational Analysis

Pearson correlation tests revealed that all research variables had significant interrelationships at $p < 0.01$. As shown in Table 3, parenting stress was negatively correlated with secure attachment ($r = -0.52$) and with children's social-emotional development ($r = -0.48$). Conversely, secure attachment was positively correlated with children's social-emotional development ($r = 0.58$). The correlation between parenting stress and anxious attachment was positive ($r = 0.49$), and between parenting stress and avoidant attachment was also positive ($r = 0.44$). These findings provide preliminary support for all three hypotheses and suggest that attachment plays a significant role in the relationship between parenting stress and child development outcomes.

Table 3. Correlation Matrix Among Variables (N = 250)

Variables	1	2	3	4	5
1. Parenting Stress	1.00				
2. Secure Attachment	-0.52**	1.00			
3. Anxious Attachment	0.49**	-0.61**	1.00		
4. Avoidant Attachment	0.44**	-0.58**	0.53**	1.00	
5. Social-Emotional Development	-0.48**	0.58**	-0.46**	-0.42**	1.00

** $p < 0.01$

3.5 Regression Analysis

Multiple regression analysis showed that parenting stress significantly predicted children's social-emotional development after controlling for parent gender, child age, and family income ($R^2 = 0.32$, $F(4,245) = 28.76$, $p < 0.001$). Each one standard deviation increase in parenting stress score was associated with a 0.48 standard deviation decrease in children's social-emotional development score ($\beta = -0.48$, $t = -8.45$, $p < 0.001$). Among the control variables, only child age showed a significant independent effect on social-emotional development ($\beta = 0.15$, $p < 0.05$), with older children demonstrating somewhat higher social-emotional competence.

3.6 Mediation Analysis

Mediation analysis using PROCESS macro (Model 4) with 5,000 bootstrap samples revealed that attachment significantly mediated the relationship between parenting stress and children's social-emotional development, as shown in Table 4. The total effect (c) of parenting stress on social-emotional development was -0.50 ($p < 0.001$). When attachment was entered as a mediator, the direct effect (c') became -0.27 ($p < 0.01$), indicating that the relationship was partially mediated. The indirect effect (ab) through attachment was -0.23 with a 95% bootstrap confidence interval that did not include zero (LLCI = -0.31, ULCI = -0.15), confirming a significant mediation effect. The proportion of mediation was 46%, indicating that attachment partially explains the pathway through which parenting stress affects children's social-emotional development.

Table 4. Mediation Analysis Results (N = 250)

Effect	Coefficient	SE	t	p	95% CI
Total Effect (c)	-0.50	0.08	-6.25	<0.001	[-0.66, -0.34]
Direct Effect (c')	-0.27	0.09	-3.00	<0.01	[-0.45, -0.09]
Indirect Effect (ab)	-0.23	0.04	-	-	[-0.31, -0.15]

3.7 Qualitative Findings

Qualitative findings from in-depth interviews provided rich contextual understanding that reinforced and extended the quantitative results. Five major themes emerged from the thematic analysis: Role Overload and Time Scarcity; Emotional Exhaustion and Reduced Responsiveness; The Impact on Attachment Quality; Children's Emotional and Behavioral Responses; and Protective Factors and Coping Strategies.

Role Overload and Time Scarcity: Parents consistently described feeling overwhelmed by competing demands, with a typical day leaving minimal time for meaningful interaction with children. A mother participant from SD Muhammadiyah Tonggalan (Mrs. R, 34 years old, private employee) stated: "Every day feels like a race against time. I wake up at 5 AM to prepare breakfast, drop my child at school, rush to the office, work until 5 PM, then pick my child up, cook dinner, and handle bath time. By the time we sit down, it's already 8 PM, and I'm exhausted. My child wants to play, but I have no energy left. I often find myself just telling her to watch TV because I can't engage." This experience was echoed by multiple participants across both schools, who described feeling trapped in a cycle of constant activity with insufficient time for quality parenting. Many noted that weekends, rather than providing respite, often became catch-up periods for household tasks, further limiting restorative family time.

Emotional Exhaustion and Reduced Responsiveness: Participants reported that parenting stress manifested as emotional exhaustion that directly interfered with their capacity to respond sensitively to children's needs. A father participant from SD IT Al Furqoon Klaten (Mr. A, 37 years old, civil servant) explained: "I love my son, but when I come home after a long day at the office, I feel completely drained. I don't have the patience to deal with his questions or requests. I get irritated quickly, and sometimes I raise my voice at him for things that really aren't his fault. I can see the hurt in his eyes when I do that, but in that moment, I can't control myself." This emotional dysregulation was a common theme, with parents describing a cycle of frustration, guilt, and continued stress that compromised their parenting quality. Several participants acknowledged that their capacity for emotional availability diminished proportionally with increasing work demands, creating a palpable gap between their desired parenting ideals and their daily reality.

The Impact on Attachment Quality: Parents who reported high stress levels described patterns of interaction that aligned with insecure attachment. A mother participant (Mrs. S, 35 years old, banking employee) stated: "When I'm stressed, I notice I become less affectionate with my child. I respond to him mechanically, without the warmth I used to have. I think he can feel that distance because he starts clinging more and becoming anxious when I'm not around. He's afraid I might leave him or not come back, even when I just go to the kitchen. It breaks my heart because I know I'm the cause of that insecurity." This pattern of over-clinging as a response to parental emotional withdrawal reflects the behavioral manifestations of anxious attachment described in attachment theory. Other parents described children who became increasingly avoidant, withdrawing from interaction as a protective response to unpredictable parental responsiveness.

Children's Emotional and Behavioral Responses: Children's responses to parenting stress and reduced attachment quality were described by parents as including increased tearfulness, withdrawal, and behavior problems. A mother participant from SD Muhammadiyah Tonggalan (Mrs. Y, 33 years old, teacher) explained: "I have two children, and the younger one has become very sensitive. When I'm stressed and irritable, she cries at the smallest things and withdraws from me. She used to be a happy, outgoing child, but now she's becoming timider. I worry that my stress is changing her personality." This observation was supported by teachers at both schools who noted that children from high-stress dual-career families often displayed lower social competence and more difficulty with peer relationships in classroom settings. Teachers described these children as less likely to initiate play, more prone to emotional outbursts, and more dependent on adult reassurance compared to their peers from lower-stress families.

Protective Factors and Coping Strategies: Despite the challenges, some parents identified strategies that helped maintain attachment quality despite stress. These included partner collaboration in sharing parenting tasks and providing emotional support, extended family support through grandparents providing reliable childcare, workplace flexibility allowing flexible hours or occasional remote work, and intentional quality time designating specific times for focused child interaction without distractions. A father participant (Mr. D, 39 years old, entrepreneur) described: "My wife and I have a system. We try to divide responsibilities so neither of us is overwhelmed. In the evenings, we put away phones and spend at least one hour with our children, just talking, playing, or reading together. It's not easy, and sometimes we fail, but we try to be intentional about that time. That connection helps us feel close even when work is stressful." This finding suggests that active, deliberate coping strategies can partially buffer the negative effects of parenting stress on attachment quality.

4. Discussion

4.1 Prevalence of Parenting Stress in Dual-Career Families

The main finding of this study indicates that parenting stress among dual-career parents at SD Muhammadiyah Tonggalan Klaten and SD IT Al Furqoon Klaten was at moderate to high levels for 68% of participants, with only 32% experiencing low levels of stress. This prevalence rate is consistent with and extends findings from [Dias et al. \(2026\)](#), who documented that work-family conflict (WFC) is a common stressor for working parents and is associated with children's adjustment difficulties. The high level of parenting stress among dual-career parents in Klaten can be understood within the framework of Conservation of Resources theory ([Hobfoll, 1989](#)), which proposes that individuals strive to protect existing resources and acquire new ones, and that stress occurs when resources are threatened, lost, or inadequate to meet demands. In this context, simultaneous work and

family demands deplete parents' physical and psychological resources, thereby triggering stress (Schnettler et al., 2025).

The geographical condition of Klaten as a buffer zone between Yogyakarta and Solo with high mobility further exacerbates work-family conflict for many families. Daily commuting to these larger urban centers adds 1-2 hours of travel time to an already demanding work schedule, effectively reducing time available for family interaction and increasing physical exhaustion. This finding highlights the importance of considering geographic and commuting factors in understanding parenting stress in dual-career families, an aspect that has been relatively underexplored in previous research conducted predominantly in urban settings where parents may not face the same transportation challenges.

4.2 Parenting Stress and Children's Social-Emotional Development

This study found a significant negative relationship between parenting stress and children's social-emotional development ($r = -0.48$), confirming the second hypothesis and replicating findings from previous research. This finding confirms the results of Santelices et al. (2021) in Chile, which showed that higher levels of depressive symptoms and parenting stress in mothers were associated with greater difficulties in preschool children's social-emotional development. In other words, the higher the stress parents experience in caregiving, the lower the child's social-emotional competence. This relationship was robust even after controlling for parent gender, child age, and family income, suggesting that parenting stress has a consistent negative effect on child outcomes regardless of these demographic factors.

This relationship can be explained through the spillover mechanism, where negative emotions and fatigue from work and parenting domains "spill over" into parent-child interactions, reducing the quality and sensitivity of parenting. At both partner schools, this phenomenon was evident in children who tended to be more withdrawn and showed less initiative in group activities. Teachers at both institutions informally reported that children from dual-career families with high parenting stress often struggled with peer relationships, had difficulty managing emotions, and showed less self-confidence in classroom activities. These observations align with research by Pan et al. (2025), who found that paternal parenting stress and parenting styles significantly influence early childhood development through the mediating role of parent-child relationships.

4.3 The Mediating Role of Attachment

The finding regarding the mediating role of attachment is the most significant contribution of this study and provides strong support for the fourth hypothesis. Mediation analysis demonstrated that attachment partially mediated the relationship between parenting stress and children's social-emotional development, with a mediation proportion of 46%. This means that nearly half of the negative impact of parenting stress on children's social-emotional development occurs because parenting stress damages the quality of parent-child attachment. This finding extends previous research by identifying the specific mechanism through which parenting stress affects child outcomes, moving beyond simple correlational findings to demonstrate a pathway of influence.

This finding aligns with Yu et al. (2025), who found that parental reflective functioning and parent-child relationships chain-mediated the relationship between parenting stress and children's social-emotional competence. The present study extends this finding by focusing specifically on attachment as a mediator and demonstrating its significant role in the Indonesian context. At SD IT Al Furqoon Klaten, for example, children whose parents had secure attachment demonstrated better emotion regulation abilities, indicating that

attachment quality serves as a protective factor that buffers children from the negative effects of parental stress.

The mediating role of attachment supports [Bowlby's \(1982\)](#) theoretical proposition that attachment relationships provide a secure base for children's exploration and development. When parenting stress compromises the caregiver's ability to provide sensitive, responsive care, the attachment relationship becomes less secure, and children lose the secure base they need to develop social-emotional competence. This finding is also consistent with [Jarvis & Creasey's \(1991\)](#) research showing that parenting stress was significantly associated with insecure attachment in infants, and extends this finding to demonstrate the downstream effects on children's social-emotional development. The longitudinal nature of Jarvis and Creasey's work complements the present cross-sectional findings, suggesting that the mediating role of attachment may persist across developmental stages.

4.4 Subscale Analysis of Parenting Stress

This study identified that the Parental Distress dimension was the largest contributor to parenting stress among dual-career parents, with mean scores on this subscale substantially higher than on the other subscales. This indicates that psychological aspects of parents, such as feelings of being overwhelmed, lack of social support, perceived competence, and role conflict, are more dominant contributors to stress than aspects related to a difficult child or dysfunctional parent-child interaction. This finding is particularly noteworthy because it suggests that interventions targeting parental psychological well-being and social support may be more effective than interventions focused solely on child behavior or parent-child interaction skills.

This finding supports research by [Gemmano et al. \(2023\)](#), which documented that the COVID-19 pandemic worsened work-family conflict and parenting stress in dual-earner families due to the blurring of work-family boundaries. In the Klaten context, many parents work in the industrial and trade sectors or commute to Yogyakarta and Solo, which adds significant travel burden to their daily responsibilities. The psychological impact of this lifestyle, combined with limited social support in the nuclear family structure, appears to be a primary driver of parenting stress. The qualitative interviews reinforced this interpretation, with parents repeatedly emphasizing feelings of isolation and lack of community support as exacerbating their stress.

4.5 Gender Dynamics in Dual-Career Parenting

In the Indonesian context, this dynamic is further complicated by traditional gender norms that continue to position mothers as primary caregivers, as articulated by [Rizal & Fikri \(2023\)](#). Interview results showed that dual-career mothers at both schools experienced a heavier double burden than fathers because they were still expected to manage household chores and children even though they also worked full-time. This aligns with [Tan's \(2024\)](#) finding that mothers demonstrate significantly greater involvement across all six parenting domains compared to fathers, confirming persistent gender inequality in parenting responsibilities. At SD Muhammadiyah Tonggalan, several mothers admitted that they had to wake up earlier to prepare children's needs before going to work, creating a pattern of cumulative disadvantage where they had less sleep and more daily responsibilities than their partners.

Research by [Blanch & Solé \(2023\)](#) also confirmed that the presence of children at home, rather than gender alone, triggers a stronger relationship between WFC and individual well-being. In other words, dual-career parents with young children face greater challenges than those without children, and these challenges are not equally distributed between genders. This finding is highly relevant to the Klaten context, where most families at both schools have young children who still require intensive caregiving. Children aged 3-6 years are in a

sensitive period of social-emotional development that is highly influenced by the quality of interaction with parents, making the gender disparity in parenting particularly consequential.

However, the study also found that several fathers at both schools were actively involved in parenting, and their engagement appeared to be associated with better child outcomes and lower maternal stress. At SD Muhammadiyah Tonggalan, several fathers who were actively involved in taking and picking up their children from school reported that their children were more confident and had better social skills. This finding suggests that increasing father involvement in parenting could serve as a buffer against the negative effects of parenting stress and promote healthier family dynamics. Research by [Ju et al. \(2023\)](#) similarly highlighted the importance of fathers' involvement in family routines, such as shared family dinnertime, which plays an important role in children's social-emotional competence.

4.6 Attachment Patterns and Child Outcomes

This study found that secure attachment (41% of participants) was positively correlated with children's social-emotional development ($r = 0.58$), while insecure attachment (anxious and avoidant) was negatively correlated. This finding reinforces [Bowlby's \(1982\)](#) attachment theory, which states that secure attachment provides a secure base for children to explore the environment and develop social-emotional competence. Children with secure attachment demonstrated higher scores on all three DECA subscales: Initiative, Self-Control, and Attachment. This suggests that secure attachment supports children's capacity to take initiative in social situations, regulate their emotions and behaviors, and maintain positive relationships with others.

[Izzati et al. \(2024\)](#) emphasized that sensitive parenting is the foundation for secure attachment relationships and positive social-emotional development in children, especially in dual-earner families where mothers need support from other caregivers such as daycare staff. This finding is particularly relevant for the Klaten context, where many families rely on external caregivers for substantial portions of the day. The quality of these alternative care arrangements appears to play a significant role in child outcomes, highlighting the need for high-quality early childhood education and care services. At SD IT Al Furqoon Klaten, parenting education programs need to be enhanced to help parents build secure attachment, particularly for parents who are experiencing high levels of stress.

4.7 Theoretical Contributions

Theoretically, this study contributes to the development of [Bronfenbrenner's \(1979\)](#) ecological systems theory by empirically demonstrating that the exosystem (parents' workplace) and the microsystem (family) interact to influence child development. Parental work stress (exosystem) affects parenting quality and attachment (microsystem), which in turn impacts child social-emotional development (ontosystem). This multi-level perspective highlights the importance of interventions at multiple ecological levels to support dual-career families effectively. This model is also supported by research by [Kamra \(2025\)](#), which used Attachment Theory and Ecological Systems Theory to explain the impact of dual-income parenting on emotional and behavioral development of children aged 0-6 years in India. The Klaten context, with two different school characteristics (Muhammadiyah and Islamic Integrated School), provides variation that enriches the ecological analysis and demonstrates that these patterns are consistent across different institutional settings.

This study also enriches understanding of the mediation mechanism in the parenting stress-child development relationship. Unlike previous studies that tended to focus on direct effects, this study empirically tested and confirmed the role of attachment as a partial mediator. This finding supports the model proposed by [Yu et al. \(2025\)](#) regarding the chain mediating role of parental reflective functioning and parent-child relationships, while also

demonstrating that attachment alone accounts for a substantial proportion of the relationship. Furthermore, this study provides empirical evidence from a non-Western context that remains rarely studied, extending the generalizability of theoretical models beyond WEIRD (Western, Educated, Industrialized, Rich, Democratic) societies. Research by [Adenika & Kaloeti \(2024\)](#) showed that family resilience contributes to psychological well-being in dual-career families from the child's perspective, indicating the importance of cultural factors in understanding these dynamics.

4.8 Practical Implications

The practical implications of this study are highly relevant for various stakeholders, particularly at SD Muhammadiyah Tonggalan Klaten and SD IT Al Furqoon Klaten. For dual-career parents, it is important to recognize that parenting stress affects not only their own well-being but also their children's social-emotional development through reduced attachment quality. Therefore, efforts to manage stress, such as sharing parenting tasks with partners, seeking social support, and allocating quality time with children even if brief, need to be prioritized. A study by [Anjani et al. \(2024\)](#) recommends comprehensive strategies involving supportive policies, community roles, technology use, and government interventions to support dual-career families. Parents may benefit from psychoeducation about stress management techniques, mindfulness practices, and the importance of maintaining consistent bedtime routines and family rituals that foster secure attachment.

For policymakers and schools, these findings highlight the need for family-friendly policies in the workplace, such as flexible working hours, adequate parental leave, and on-site daycare facilities. Research by [Schnettler et al. \(2025\)](#) emphasizes the need to reduce workload and WFC to increase parental job satisfaction and family satisfaction. Schools can serve as advocates for these policies, partnering with local businesses to create supportive environments for dual-career parents. The establishment of parent support groups, provision of on-site counseling services, and implementation of family engagement programs that accommodate working parents' schedules represent concrete steps that schools can take.

For child and family psychology practitioners, attachment-based interventions aimed at increasing parental sensitivity and reducing parenting stress can be effective strategies. Schools can act as facilitators by offering parenting classes, psychological consultations, and peer support groups for dual-career parents. The qualitative findings suggest that interventions should focus not only on reducing stress but also on enhancing specific parenting behaviors that promote secure attachment, such as sensitive responsiveness, emotional availability, and appropriate limit-setting. Programs such as the Circle of Security, Attachment and Biobehavioral Catch-up, and Parent-Child Interaction Therapy could be adapted to the Indonesian context and offered through schools or community settings. Additionally, interventions that target the couple relationship, such as communication and conflict resolution training, could be beneficial because marital satisfaction influences parenting stress and attachment quality.

4.9 Alternative Explanations and Critical Analysis

While the mediation model demonstrated good fit and significant indirect effects, several alternative explanations for the observed relationships should be considered. The cross-sectional design cannot definitively establish causality, and it is possible that the direction of causation is reversed: children's social-emotional difficulties may cause parenting stress, particularly if children are experiencing developmental or behavioral challenges. Longitudinal research is needed to examine the direction of effects over time and to rule out reciprocal causation. The theoretical model assumes that parenting stress precedes attachment disruption, which precedes child developmental outcomes, but bidirectional relationships are plausible and should be investigated in future longitudinal studies.

The relationship between parenting stress, attachment, and child development may also be influenced by unmeasured third variables. For example, parental personality characteristics such as neuroticism or agreeableness, mental health status including depression or anxiety, or social support networks may explain variance in all three variables. While this study controlled for demographic characteristics, it did not assess these psychological and social factors that could serve as confounders. Future research should incorporate these variables to more precisely estimate the unique contribution of parenting stress to child outcomes. Additionally, the quality of the marital relationship may serve as both a cause and consequence of parenting stress, potentially creating a complex web of relationships that future studies should disentangle.

The mediation model assumes a linear, additive relationship between variables, but it is possible that the relationship between parenting stress and attachment quality is non-linear or that buffering factors moderate the strength of the relationship. For example, high-quality alternative care arrangements, strong co-parenting relationships, or high levels of social support might attenuate the negative effects of parenting stress on attachment. Future research should explore these potential moderators to identify groups at highest risk and protective factors that can be enhanced through intervention. Furthermore, the sample was limited to two schools in Klaten, limiting generalizability to the wider Indonesian population and other cultural contexts. Future research should examine these dynamics across diverse geographic and socioeconomic contexts within Indonesia.

4.10 Integration of Quantitative and Qualitative Findings

The mixed-method design of this study allowed for meaningful integration of quantitative and qualitative findings, enhancing the validity and depth of the conclusions. The qualitative findings provided rich contextual information about the mechanisms underlying the statistical relationships, illuminating the lived experiences of dual-career parents and the processes through which stress affects attachment and child development. For example, the quantitative finding that the Parental Distress subscale was the strongest predictor of parenting stress was reinforced by qualitative themes describing emotional exhaustion, role overload, and reduced responsiveness as central features of the parenting experience.

The qualitative data also revealed factors that may moderate the relationship between stress and child outcomes, such as partner support, workplace flexibility, and intentional parenting strategies. These factors were not measured in the quantitative survey but emerged organically from participants' narratives, suggesting new variables for future research. The combination of methods also allowed for identification of discrepancies between quantitative and qualitative findings. While the quantitative data showed no significant difference in parenting stress between the two partner schools, the qualitative interviews suggested subtle differences in the types of stress experienced by parents at SD Muhammadiyah Tonggalan (more traditional, community-oriented setting) versus SD IT Al Furqoon Klaten (more modern, Islamic integrated setting), pointing to the need for nuanced, culturally sensitive interventions. This complementary finding highlights the value of mixed-methods approaches in capturing both the broad patterns and the contextual nuances of complex social phenomena.

5. Conclusion

This study concludes that parenting stress is a prevalent phenomenon experienced by dual-career parents at SD Muhammadiyah Tonggalan Klaten and SD IT Al Furqoon Klaten, with 68% of participants experiencing moderate to high stress levels. Parenting stress demonstrated a significant negative relationship with both secure parent-child attachment and early childhood social-emotional development. The most important finding is that

parent-child attachment partially mediates this relationship, accounting for 46% of the total effect, indicating that the negative impact of parenting stress on children's social-emotional development operates largely through diminished attachment quality. This dynamic did not differ significantly between the two partner schools, suggesting that similar challenges are faced by dual-career families across the Klaten region. Theoretically, this study provides empirical support for attachment theory by identifying parenting stress as a key antecedent of insecure attachment in preschool-aged children, while also contributing to ecological systems theory by demonstrating how exosystem factors (work demands) influence microsystem processes (parent-child interaction) and ontosystem outcomes (child development). The evidence from this non-Western, collectivist context largely confirms patterns found in Western research, suggesting universal mechanisms while highlighting cultural variations that warrant further investigation. The mediation model advances understanding of causal pathways, demonstrating that attachment serves as a crucial intermediary mechanism, though the partial mediation finding indicates other mechanisms likely operate alongside attachment.

Practically, dual-career parents are advised to proactively manage parenting stress through partner collaboration, building social support networks, and consistently allocating quality time with children even when limited. Schools should implement parenting education programs focusing on stress management and attachment-building strategies, while policymakers and employers should establish family-friendly policies including flexible working hours, adequate parental leave, and on-site daycare facilities. Child and family psychology practitioners should offer attachment-based interventions adapted to the Indonesian context. However, several limitations must be acknowledged: the cross-sectional design precludes strong causal inferences, reliance on parental self-report may introduce bias, the sample was limited to two schools in Klaten restricting generalizability, and the study did not assess child temperament or alternative care arrangements that may moderate these relationships. Future research should employ longitudinal designs, multi-informant approaches, and more geographically diverse samples, while exploring multiple mediators simultaneously and testing whether interventions targeting attachment quality can effectively buffer children from the negative effects of parenting stress. This study contributes meaningfully to understanding dual-career family dynamics in Indonesia, highlighting the critical importance of supporting parents to manage stress and maintain attachment quality to promote positive social-emotional development in young children, with the integration of quantitative and qualitative methods providing a comprehensive foundation for future research and evidence-based practice in this vital area of child development.

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