SOCIAL SCIENCES & HUMANITIES

Early Marriage and Its Implications on Educational Continuity in Indonesia: An Analysis of Family and School Environments Influence

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ABSTRACT

Early marriage poses significant challenges to educational continuity in Indonesia, particularly in regions such as Ponorogo, where cultural and socioeconomic factors contribute to its prevalence. Framed within Ecological Theory, this study examined how family and school environments, as part of the microsystem, influence early marriage and its implications for educational continuity while considering broader societal norms as the macrosystem and community resources as the exosystem. Using a survey method, data were collected from 161 junior and senior high schools selected among 309 institutions through area sampling procedures. Questionnaires were used as the primary data collection instrument, with schools serving as the unit of analysis. The data were analyzed using Structural Equation Modeling (SEM) with SmartPLS. The results showed that family and school environments significantly enhanced educational continuity, with path coefficients of -0.568 and -0.175 and *P*-values of 0.000 and 0.010, respectively. The analysis revealed that early marriage did not significantly affect educational continuity, highlighting the crucial role of supportive family and school environments. It fills the literature gap with empirical evidence from Indonesia,

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emphasizing the role of microsystem, macrosystem, and exosystem factors in shaping educational outcomes, offering actionable insight for policymakers and educators.

Keywords: Early marriage, educational continuity, family environment, school environment

INTRODUCTION

Early marriage is a global challenge, particularly in developing countries (Jensen & Thornton, 2003; Mensch et al., 2006). According to recent data from the United Nations Children's Fund, early marriage affects around 650 million girls worldwide. Girls who marry early are experiencing various educational challenges, such as low school attendance (United Nations Children's Funds [UNICEF], 2022), academic achievement issues (Abdulkadir et al., 2021), and a lack of motivation to complete their education (Raj et al., 2019). Early marriage is influenced by various factors, with certain societal groups viewing it as a traditional practice passed down through generations from the ancestors (Paul, 2019). Additionally, some religious groups view it as a means to prevent children from engaging in sinful acts of adultery during the transition into adulthood (Subramanee et al., 2022). From a socioeconomic perspective, school dropout, poverty, and ethical conflicts act as catalysts for early marriage (UNICEF, 2018).

Despite concerted efforts among the Association of Southeast Asian Nations (ASEAN) with UNICEF, United Nations Population Fund (UNFPA), and Plan International to reduce and eliminate early marriage, the practice still persists in several ASEAN countries, including Indonesia (*Efforts to End Child*, 2019). Recent UNICEF statistics have put this country at the fourth highest prevalence in the world, only preceded by India, Bangladesh, and China (UNICEF, 2023). According to Indonesia's 2018 Susenas data, approximately 11.21% of girls between the ages of 20–24 were married before the age of 18, amounting to 1.2 million girls (Amalia, 2022). Additionally, 59,000 cases of marriage dispensation were filed in religious courts in Indonesia in 2022. The factors contributing to this have been gender inequality, household poverty, sexual behavior control, and local tradition (Nabila et al., 2022). The widespread occurrence of early marriage underscores the urgency and significance of addressing the issue to avert profound social repercussions.

The Indonesian government is deeply concerned with the problem of early marriage, as stated by the agreements of regional and international organizations, including ASEAN and UNICEF, through many agencies (Statistics Indonesia, 2017). The following have been suggested as ways of preventing the development of such a practice, including enhancing access to learning, reinforcing family education, introducing gender mainstreaming actions, empowering communities through skill and entrepreneurship training, as well as providing sex education for children. The

most successful intermediate strategy is considered to be the implementation of the guarantee of the education of children, especially girls (The World Bank, 2017).

Many studies have explored early marriage, tending toward three main issues: factors influencing early marriage, the impact of early marriage, and efforts to prevent early marriage (Ahinkorah et al., 2024; Andriani et al., 2024; Kanji et al., 2024). However, the research trend has not explained the family and school environmental factors related to early marriage and educational continuity. Therefore, this study determines the state of the family and school environments toward early marriage and educational continuity.

The questions include (1) How does the family environment influence early marriage, (2) What is the impact of the school environment on early marriage, (3) How does the family environment affect educational continuity, (4) How does the school environment influence educational continuity, and (5) What is the impact of early marriage on educational continuity. Answering the question, this study uses Bronfenbrenner's (1979) ecological theory, which states that various environmental systems interact with individuals, including the family and school environments. The result will serve as a reference for further investigation on early marriage and educational continuity.

LITERATURE REVIEW

Early Marriage

In the Indonesian context, early marriage, according to the law, is a marriage entered

into by a man or woman who marries under the age of 19 (*Undang-Undang Nomor 16*, 2019). Early marriage was considered a violation of human rights because children who entered such unions often lost or were deprived of their fundamental rights (UNICEF, 2018). This practice was viewed as a social phenomenon caused by factors such as poverty, culture, tradition, religious beliefs, family encouragement, and gender inequality (Kohno et al., 2020, 2021; Nabila et al., 2022; Psaki et al., 2021). Early marriage resulted in low levels of education due to school dropouts, which widened the gender gap in the education sector, particularly in developing countries (Nguyen & Wodon, 2014). Girls were mostly affected by early marriage and dropping out of school because of the social and economic obligations that came with being a wife and mother. Therefore, early marriage could worsen the cycle of intergenerational poverty and increase girls' social vulnerability.

Previous research has explored early marriage in three main areas. First, studies examined the factors that influence early marriage, such as economic background, parental education, age, ethnicity, education level, family size, culture, region, problem-solving solutions, and voluntary early marriage (Ahinkorah et al., 2024; Hosseini & Asadisarvestani, 2022; Judiasih et al., 2020). Second, studies examine the impact of early marriage on reproductive health, life satisfaction, educational attainment, and physiological and psychological well-being (Kanji et al., 2024; Sovianti et al., 2024;

Wardani, 2021). Third, research focuses on efforts to prevent early marriage (Andriani et al., 2024; Iwan et al., 2024). The research trend does not explain the factors of the family and school environment related to early marriage and educational continuity. Bronfenbrenner's Ecological Theory emphasizes the significant influence of the microsystem on children's and adolescents' experiences and decisions (Bronfenbrenner, 1979, 2024). Therefore, this study aims to analyze how family environment and school environment factors contribute to early marriage.

Family Environment

The family environment was crucial since it was the first and primary setting where the education of a child began. Within the family, children receive basic education, become educated (Hasbullah, 2017), and acquire social skills that have a significant impact on their character and future behavior (Gunarsa, 1991). The position of the family as the first and foremost environment establishes its connection to the behavior of children in the community and social settings (Cernkovich & Giordano, 1987). In the family environment, early marriage was influenced by several factors, including parental education, knowledge, occupation, economic status, culture, social interactions, and mass media (Hermambang et al., 2021). These factors could be categorized into two groups: family-related and environmental variables. Family-related variables included parental education, knowledge, occupation, and economic status, while environmental variables consisted of culture, social interactions, and mass media (Pohan, 2022).

The family environment had a significant influence on children's decision to pursue their education. Some of the factors that influenced educational continuity included emotional support and motivation, socioeconomic status, parental expectations, parental engagement in education, and family norms and values (Fan & Williams, 2010; Jeynes, 2007; Kaplan et al., 2001; McLoyd, 1998; Spera, 2005).

School Environment

The school environment was described as a collection of internal features that distinguished one academy from another and influenced the behavior of the institute stakeholders and children (Sobri et al., 2019). Some investigations considered the school environment as part of the academic climate (Bradshaw et al., 2014; Rezapour et al., 2020; Tapia-Fonllem et al., 2020). The school environment consisted of four dimensions, namely rules, support, and disruptions (Bradshaw et al., 2014; Rezapour et al., 2020), with physical comfort, which was excluded in this study as it was presumed to have less influence on early marriage. School rules consisted of broader regulations that extended beyond the classroom. These represented guidelines sanctioned by teachers on how to conduct oneself in school, establishing the standards by which behavior was considered appropriate, correct, and desirable or inappropriate, wrong, and prohibited (Thornberg, 2008).

In this study, the school rules referred to the enforcement of regulations designed to prevent children from entering into early marriage, such as addressing some sexual issues, particularly pornography, dating, and premarital sex. Support and disruptions were examined to evaluate the forms of counseling that prevent early marriage and disorder in the school environment.

The school environment plays an important role in determining the continuation of children's education. Poor treatment at school, such as bullying, a lack of support from teachers, and a lack of a conducive and inclusive learning environment, might have an impact on children's ability to continue their education (Hong & Espelage, 2012; Lessard et al., 2010; Wang & Degol, 2016). At the same time, the school environment had a significant impact on motivation and learning results (Kurniawan et al., 2018). Children with high motivation were more likely to continue their education.

Educational Continuity

Continuity of educational continuity was one of the major measures characterizing the ability of the institutions to maintain and increase children's interest in learning. This type of continuity was divided into two categories: horizontal and vertical continuation of education (Shuinshina et al., 2019). Horizontal continuity involves a process of improvement at the same level, while the vertical aspect involves an improvement on a different level. In the Indonesian context, the level of education commences with preschool, followed by primary school, junior high school, senior high school, and higher institutions. In this study, educational continuity is concerned with a process through which children are able to progress in their education horizontally and vertically.

METHOD

This study employed a quantitative survey method and was conducted in Ponorogo Regency, East Java Province, Indonesia. The region was selected based on the significant media attention to early marriage cases in 2023, which generated discussions on early marriage among children and its implications on educational continuity.

Sampling Methods

The selected population comprised 309 junior and senior high schools, both public and private, in Ponorogo Regency. The sample size was determined based on the rules developed by Isaac and Michael, with a 5% error tolerance (Sugiyono, 2022). A random number generator was adopted to ensure the random selection of schools. Approximately 161 schools were randomly selected as the units of analysis, as shown in Table 1.

Five children from each school were selected as data sources using a systematic random sampling method, resulting in 805 children. A list of children was obtained from each school and randomly picked to ensure unbiased representation.

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Table 1
School population and sample

School	Total	Population		Sample		
		State	Private	State	Private	Total
Junior High School and Equivalent	177	62	115	32	59	91
Senior High School and Equivalent	132	26	106	14	56	70
Total	309	88	221	46	115	161

Variables: Exogenous and Endogenous

This study connected two latent variables, including exogenous and endogenous. The exogenous latent variables consisted of family environment ($_1$) and school environment ($_2$), while the endogenous factors comprised early marriage (η_1) and educational continuity (η_2). Family environment elements ($_1$) were manifested through economic and social status, household structure, parenting style, and religious affiliation, while school environment Variables ($_2$) were expressed through rules, support, and disruptions. Early marriage was observed through children's promiscuity and forced or voluntary marriages, while educational continuity was examined through the desire and access to sustainable education practices and family support.

Instrument

The instrument used was a Likert-scale attitude questionnaire subjected to both validity and reliability testing. The questionnaire was designed to address several key aspects with a series of questions, including Family Environment (33 questions), School Environment (15 questions), Early Marriage (11 questions), and Educational Continuity (14 questions). The Likert scale was from 1 (strongly disagree) to 4 (strongly agree). A pilot test of 50 children verified the validity and reliability of the instrument, with coefficients ranging from 84.8% to 95.8%.

Hypothesis

Based on the previous review, this study proposed the following hypotheses.

Hypothesis 1: Family environment significantly impacts early marriage.

Hypothesis 2: School environment significantly impacts early marriage.

Hypothesis 3: Family environment significantly impacts educational continuity.

Hypothesis 4: School environment significantly impacts educational continuity.

Hypothesis 5: Early marriage has a significant negative impact on educational continuity.

Data Analysis

Analyses were done using Structural Equation Modeling (SEM) based on the Partial Least Squares method (SmartPLS 3.3.9). SEM was employed because of its applicability in the analysis of multi-relationships between observable and latent variables as a way of examining the effects of family environment, school environment, and early marriage on educational continuity. Furthermore, the study used PLS since it was suitable for medium-sized samples and models with multiple measures of constructs.

RESULT

Data from 805 participants across 161 schools, which served as a unit of analysis, showed that family environment ranged from 2.503 to 4.000, with an average score of 3.316 and a standard deviation of 0.269. Furthermore, school environment scores ranged from 2.533 to 4.000, with an average score of 3.325 and a standard deviation of 0.270. Early Marriage fell from 1.000 to 2.182, with an average score of 1.466 and a standard deviation of 0.275. Moreover, educational continuity ranged from 2.143 to 3.957, with an average score of 3.518

and a standard deviation of 0.261. Table 2 presents a detailed descriptive analysis of the study variables.

This study reported strong relationships between the latent variables of family environment, school environment, early marriage, and educational continuity. Figure 1 presents the relationships between such latent variables and their relevant indicators.

Figure 1 provided the study's analytical framework, which connected the latent variables: family environment, school environment, early marriage, and educational continuity. Each of the latent variables was mapped using relevant indicators. This study adopted the SEM method with the SmartPLS program to generate path diagrams and examine the causal relationships between the variables.

The analysis revealed that the family environment had 33 indicators that were highly correlated with a factor loading of between 0.70 and 0.83. Additionally, the school environment included 15 indicators with factor loadings ranging from 0.71 to 0.80, representing the latent variable well. Early marriage contained 11 indicators, and the factor loadings periodically ranged from 0.906 to 0.909, meaning that the indicators strongly reflect the measurement

Table 2
Description of study variables

Variable	Average	Standard Deviation	Minimal	Maximal
Family Environment	3.316	0.269	2.503	4.000
School Environment	3.325	0.270	2.533	4.000
Early Marriage	1.466	0.275	1.000	2.182
Educational Continuity	3.518	0.261	2.143	3.957

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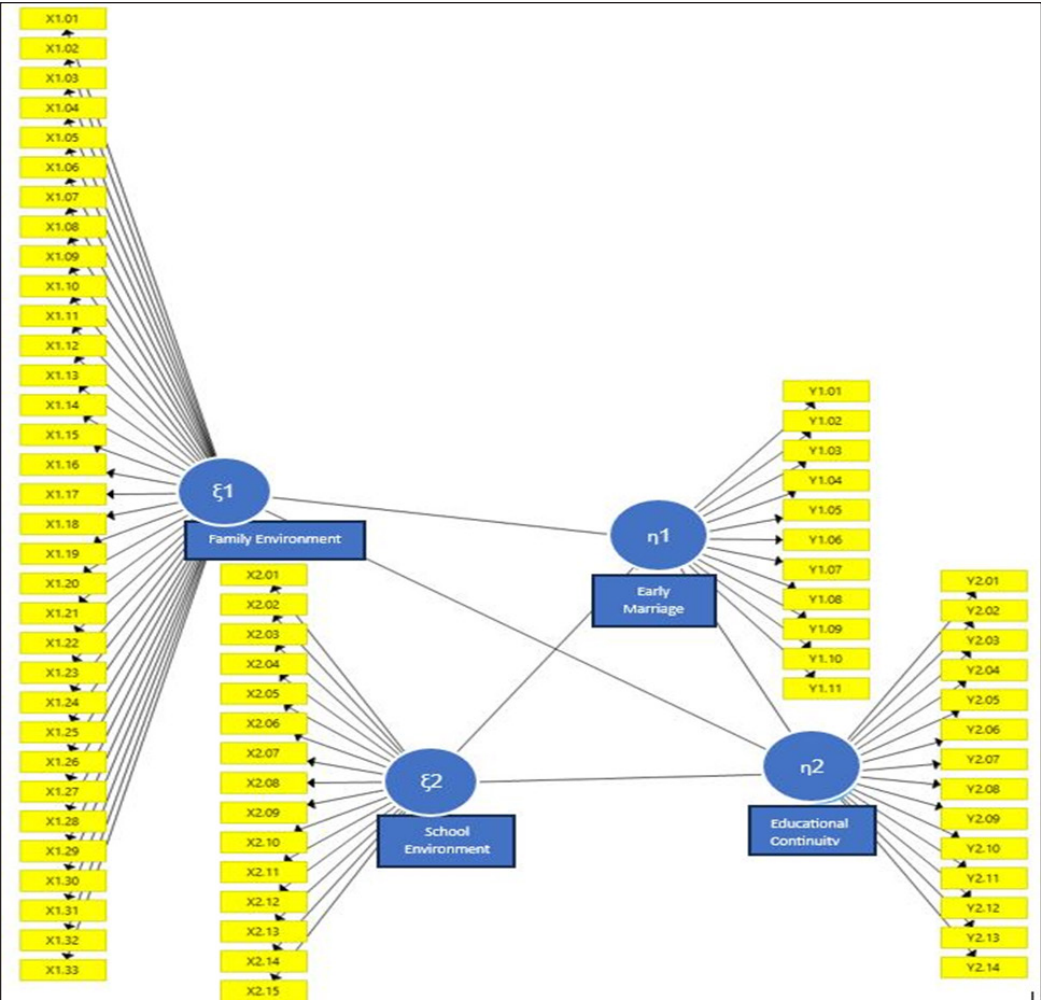
Figure 1. Analytical framework of study

of the underlying construct. For educational continuity, 14 indicators were highly correlated to the variable, with factor loadings ranging from 0.857 to 0.877.

In summary, most indicators had factor loadings above 0.7, confirming a strong and significant relationship with the latent variables, as provided in Table 3.

Table 3
Structural equations modeling

Endogenous Variables	Equality
Early marriage	$\gamma_{1.1}$School environment + $\gamma_{1.2}$family environment + ζ_1
Educational continuity	$\gamma_{2.1}$School environment + $\gamma_{2.2}$family environment + $\beta_{2.1}$Early − age arriage + ζ_2

Path Coefficients (β) and Structural Equation Modeling

The path coefficient value indicates how strongly a variable influences others (Wong, 2013). According to Hanseler et al. (2015), the path coefficient (β) value was standardized within the range of -1 to +1. The coefficients closer to +1 indicated a strong positive relationship, while those approaching -1 showed a negative relationship.

As presented in Table 4, the results of calculating the path coefficient showed that family and school environments had a negative impact on early marriage. Conversely, the coefficient value for the influence of both variables on educational continuity was positive. The coefficient value for the influence of early marriage on educational continuity was negative. The SEM was derived from the path coefficient value calculation results.

In addition to understanding which variables influenced the dependent factor, differences in path coefficients were used to rank elements according to their greatest impact. The values in Table 5 clearly show that the family environment had the most significant influence on early marriage. Furthermore, the school environment was the most influential determinant of educational continuity. Figure 2 provides a visualization of the relationships among the variables.

Hypothesis Test

As shown in Table 6, five hypotheses were tested, and each was accepted when the t-statistics exceeded 1.96 and the path coefficient was greater than 0.05 (Ghozali, 2014).

Table 4
Path coefficient value

Path	Path Coefficient
Family Environment -> Early Marriage	-0.568
School Environment -> Early Marriage	-0.175
Family Environment -> Educational Continuity	0.168
School Environment -> Educational Continuity	0.382
Early Marriage -> Educational sustainability	-0.126

Table 5
Structural Equation Modeling

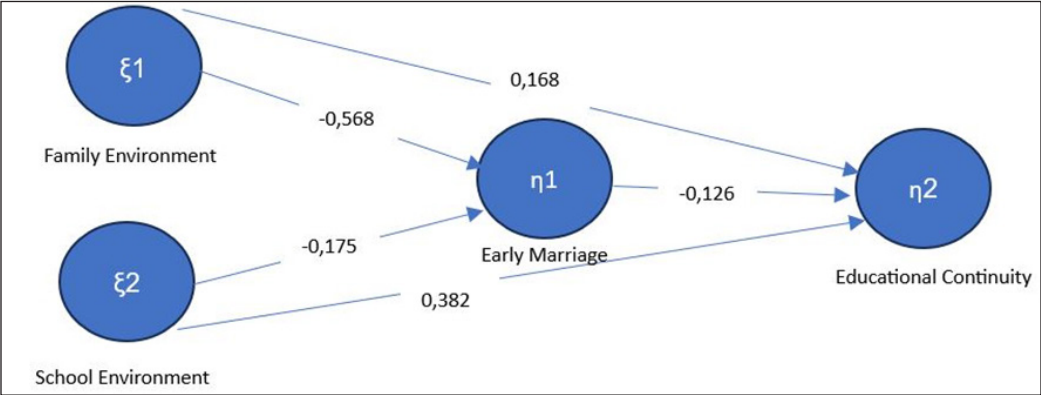| Endogenous Variables	Equality
Early marriage	$-0.568 * \text{family environment} - 0.175 * \text{School environment}$
Educational Continuity	$0.168 * \text{family environment} + 0.382 * \text{School environment} - 0.126 * \text{Early marriage}$

Figure 2. Results of the PLS Algorithm and Path Model

Table 6
Testing the direct effect hypothesis

Hypothesis	Path	Path Coefficient	*t*-statistics	*p*-value	Conclusion
H1	Family Environment -> Early Marriage	-0.568	9.595	0.000	Significant
H2	School Environment -> Early Marriage	-0.175	2.573	0.010	Significant
H3	Family Environment -> Educational continuity	0.168	2.106	0.036	Significant
H4	School Environment -> Educational continuity	0.382	5.944	0.000	Significant
H5	Early Marriage -> Educational continuity	-0.126	1.475	0.141	Not Significant

The Influence of Family Environment on Early Marriage

According to Table 6, the path coefficient value of family environment on early marriage was -0.568, signifying a negative impact of 56.8%. Furthermore, the *p*-value for family environment in early marriage was 0.000, which was less than 0.05. This showed that H1 was supported, indicating that the "family environment had a negative effect on early marriage". Therefore, enhancing the quality of the family environment could reduce early marriage by 56.8%.

The Influence of School Environment on Early Marriage

The path coefficient value of school environment on early marriage was -0.175, indicating a negative effect of 17.5%. Additionally, the *p*-value for school environment in early marriage was 0.010, which was less than 0.05. This showed that H2 was supported, indicating that "the

school environment had a negative effect on early marriage". Therefore, improving the school environment can reduce early marriage by 17.5%.

The Influence of Family Environment on Educational Continuity

According to Table 6, the path coefficient value of family environment on educational continuity was 0.168, signifying a positive impact of 16.8%. Additionally, the *p*-value for the family environment in educational continuity was 0.036, which was less than 0.05. This showed that H3 was accepted, indicating that "family environment had a positive effect on educational continuity." Therefore, improving the family environment could increase educational continuity by 16.8%.

The Influence of School Environment on Educational Continuity

The path coefficient value of the school environment on educational continuity was 0.382, indicating a positive impact of 38.2%. Additionally, the p-value for the school environment in educational continuity was 0.000, which was less than 0.05. This showed that H4 was accepted, suggesting that "the school environment had a positive effect on educational continuity." Therefore, improving the quality of the school environment could increase educational continuity by 29.0%.

The Influence of Early Marriage on Educational Continuity

According to Table 6, the path coefficient value of early marriage on educational continuity was -0.126, signifying a negative effect of 12.6%. Additionally, the *p*-value for the relationship between early marriage and educational continuity was 0.141, exceeding the threshold of 0.05. This showed that H5 was rejected, indicating that "early marriage had a significant effect on educational continuity." Therefore, an increase in early marriage did not directly impact educational continuity.

DISCUSSION

The Role of Family Environment

The hypothesis testing regarding the family environment in early marriage and educational continuity showed the family role as the primary social unit in nurturing and shaping children's behavior. This role was shown through various factors, including parenting patterns, family completeness, knowledge (particularly regarding sex education), religiosity, and supervision. Parenting patterns significantly impact early marriage, with democratic patterns being the most effective. This method promoted open communication between parents and children (Choi, 2010), facilitating the effective transmission of parental values and guidance. Children raised in democratic parenting patterns also developed strong self-identities, making them less susceptible to peer pressure (Fatchurahman, 2012).

This study showed the family's critical role in shaping children's behavior, particularly in preventing early marriage and supporting educational continuity. Parents with higher education believed in

freedom of speech and greatly emphasized education (Choi, 2010; Psaki et al., 2021). A family with stable economic conditions also offered more educational opportunities, reducing the need for early marriage (Paul, 2019). Additionally, progressive cultural values in a democratic family prioritize education over traditional practices such as early marriage (Kohno et al., 2020). Parental knowledge and the application of sexual education within the family further played an important role in preventing such traditional practices. Despite being a taboo topic in Indonesian society, proper sexual education provided by parents significantly reduced early marriage, discouraging behaviors that lead to the practice (Djamal et al., 2020).

The analysis results showed that family completeness had a significant influence on early marriage. Previous investigations suggested family cohesion had a negative impact on children's delinquency, particularly behaviors such as premarital sex, which was associated with early marriage (Andrew, 1976). In this context, family completeness extended beyond physical presence to include role completeness (Brener et al., 2003). Children raised by a single parent who fulfilled both roles received full support, while those raised by two parents who lacked active care were classified as incomplete families. Therefore, this study concluded that active engagement from both parents was crucial in preventing early marriage.

Religiosity and parental supervision instill values in a child's behavior. Previous investigations suggested that religiosity and parental supervision had a negative relationship with sexual behavior (Alfita et al., 2021; Izazy, 2017), impacting early marriage among children. During maturation, children sought freedom to explore and shape their identities, which needed to be balanced with responsibility and religious values. This study verified this, showing that family-guided children stay committed to learning, and the loss of a parent might increase the risk of early marriage.

The Role of School Environment

The hypothesis testing regarding the influence of school environment quality on the incidence of early marriage and educational continuity showed the role of school in shaping children's behavior and values, complementing the influence of the family. As detailed in the theoretical framework section, the quality of the school environment was assessed based on established rules, the availability of supportive elements such as educational facilities, and factors that could disrupt the learning process (Bradshaw et al., 2014; Rezapour et al., 2020). All three of these dimensions were found to have a significant impact on early marriage behavior. Schools with well-defined rules greatly supported reducing early marriage among children. For instance, strict rules against pornography contributed significantly to the prevention of such traditional practices. This was because pornography was identified as a factor that led children to become pregnant out of

wedlock and subsequently enter into early marriage (Nabugoomu et al., 2020; Rahman et al., 2017). Therefore, schools needed to rigorously enforce rules prohibiting pornography and provide comprehensive education about the impact of such behavior.

A positive school environment plays a crucial role in supporting children's pursuit of academic performance, while a negative learning environment could act as a hindrance to their academic success (Wang & Holcombe, 2010). As a result, the stakeholders at the school had to focus on developing a positive environment that could foster young achievers. Clear rules and teachers' support, particularly in higher institutions, were very crucial in preventing early marriage. The results of the present study have indicated that teachers' support has a positive impact on children's learning achievements (Brandisauskiene et al., 2021), specifically among senior high schools (Tao et al., 2022). Children who wanted to excel and continue their education at higher levels were less likely to marry at a tender age. Furthermore, teachers needed to consistently motivate children to strive for excellence and pursue higher levels of education, indicating the importance of strict rules and teachers' support.

Relationship of Early Marriage Toward Educational Continuity

The hypothesis testing regarding the influence of early marriage on educational continuity showed the critical impact of marriage timing on children's academic persistence. As discussed in previous investigations, early marriage was often associated with school dropout due to various factors such as increased domestic responsibilities, societal expectations, and childbearing (Mbamba et al., 2023). However, this study indicated that such traditional practices did not significantly affect educational continuity without strong institutional support. Educational continuity was not solely determined by marriage timing but also by the support provided by higher institutions. Schools that offered flexible learning arrangements, such as distance education and remedial programs, could help mitigate the negative effects of early marriage on children's academic progression (Arthur et al., 2018).

Teachers' support played an important role in motivating children who married early to complete their education. Active support from teachers, regardless of marital status, significantly improved academic success (Arthur et al., 2018). In environments that prioritize education, students are more likely to persist in their education after marriage. Therefore, teachers and administrators need to establish a supportive environment to prevent early marriage and provide resources to enable married children to reach their educational goals.

In Indonesia, particularly Ponorogo Regency, non-formal education served as an essential solution for out-of-school teenagers, including those who marry early (Rasyad et al., 2023). This initiative made education accessible to everyone, even those facing societal pressures from early marriage (Yasunaga, 2014).

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CONCLUSION

In conclusion, this study showed that family and school environments were effective in preventing early marriage and enhancing educational continuity. Strong support from families and schools could significantly reduce the risk of early marriage and support educational continuity. The most integral protective factors for such traditional practices were democratic parenting patterns, family comprehensiveness, provision of knowledge about sex, instilling values, and family supervision. Concurrently, schools played an essential role by enforcing strict rules against pornography and supporting teachers to advise children to pursue higher education. The result of this analysis supported the existing theory of controllable effect, which claimed that children's behavior could be influenced by either family or school environments.

Implications of the Study

Preventing early marriage requires collaboration between families and schools within the microsystem to create supportive environments. Policymakers should enhance the quality of formal and non-formal education in the exosystem, while cultural intervention programs in the macrosystem can shift societal norms and strengthen family support.

This study proposes four strategies to address early marriage among students: fostering family-school collaboration to support education, improving the family environment through parental and sex education, enforcing school rules and offering non-formal education, and promoting cultural and community programs to shift traditional values and strengthen families.

Limitations and Recommendations for Future Research

The reliance on quantitative methods presented a limitation, as the methods in this research did not capture the qualitative dimensions of early marriage or its broader impact on education. Future investigations should incorporate qualitative methods to explore such dynamics from individual and cultural perspectives. Additionally, future studies could analyze the impact of early marriage on education across different regions to uncover potential variations and context-specific factors.

ACKNOWLEDGEMENT

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