



Literature Review: The Impact of Early Marriage on the Growth and Development of Toddlers

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Abstract. Early marriage represents a pervasive public health and social challenge that transcends national boundaries, cultural traditions, and religious frameworks, while simultaneously undermining progress toward the Sustainable Development Goals, particularly those related to health and well-being (SDG 3) and gender equality (SDG 5). Of particular relevance is Target 5.3, which calls for the eradication of harmful practices, including child marriage. Existing evidence demonstrates that pregnancies occurring during adolescence are closely linked to impaired fetal growth and developmental trajectories, thereby elevating the risk of childhood nutritional deficiencies such as wasting and underweight. Against this backdrop, the present study aims to investigate the influence of early marriage on the physical growth and developmental status of toddlers. A systematic review was undertaken following the PRISMA guidelines, involving sequential screening of titles, abstracts, full texts, and methodological rigor using the search terms “Impact of Early Marriage,” “Growth,” and “Development of Toddlers.” Relevant literature was retrieved from multiple electronic databases, namely ScienceDirect, PubMed, Sci-Hub, ProQuest, and Google Scholar, and comprised peer-reviewed qualitative and quantitative studies published between 2016 and 2025. Synthesis of the reviewed evidence consistently reveals that early marriage is associated with detrimental effects on toddlers’ growth and developmental outcomes, highlighting the urgent need for integrated, multisectoral strategies to prevent early marriage and reduce its adverse implications for child health and development.

Keywords: Early Marriage, Growth, Development, Toddlers

1 Introduction

Early marriage constitutes a widespread global issue that cuts across national, cultural, and religious boundaries and continues to impede progress toward the attainment of the Sustainable Development Goals. This study seeks to analyze the consequences of early marriage for toddlers’ physical growth and developmental trajectories (Efevbera et al.,

2017); (Lidia et al., 2025). A systematic review of the literature was carried out in line with PRISMA guidelines, employing the search terms “Impact of Early Marriage” and “Growth and Development of Toddlers” across major electronic databases, including ScienceDirect, PubMed, and Google Scholar. The synthesized evidence demonstrates that early marriage is consistently associated with adverse outcomes in toddlers’ growth and development, thereby emphasizing the importance of comprehensive, multisectoral approaches to prevent early marriage and mitigate its detrimental effects on early childhood health and development (Masse et al., 2025).

A broad and systematic search of the literature was undertaken to identify relevant studies published between 2016 and March 2025 through the PubMed and Google Scholar databases. The review encompassed peer-reviewed articles written in English that specifically examined the relationship between early marriage and outcomes related to toddlers’ growth and developmental status.

All studies published in English that explored the influence of early marriage on toddlers’ growth and developmental outcomes were assessed for eligibility. Inclusion was limited to articles presenting quantitative evidence that analyzed the effects of early marriage on physical growth indicators and developmental measures in early childhood.

The primary constructs—early marriage, toddlers’ growth and development, and the effects of early marriage—were systematically broadened to include related thematic areas such as child and maternal health, education, poverty, and gender equality. These domains informed the incorporation of additional medical and social terminology, including child marriage, adolescent pregnancy, child growth, child development, and reproductive health, thereby strengthening the breadth and sensitivity of the search strategy.

Structured searches using controlled subject headings and unstructured free-text keywords were performed independently in PubMed and Google Scholar, after which the results were integrated through the application of Boolean operators (OR and AND). The search strategy employed composite expressions, for example, (“early marriage” OR “child marriage”) AND (“growth and development of toddlers” OR “impact of early marriage”). To further enhance the completeness of the review, supplementary studies were identified through manual examination of reference lists from eligible articles, relevant review papers, and citation tracing procedures, thereby ensuring a more exhaustive coverage of the existing literature.

2 Study Selection

An extensive review of the literature was carried out to identify studies published between 2016 and 2025 that examined the relationship between early marriage and toddlers’ growth and developmental outcomes, drawing on the PubMed and Google Scholar databases. Only studies written in English were included, and eligibility was restricted to articles presenting quantitative evidence on the effects of early marriage on indicators of physical growth and early childhood development.

Central themes encompassing early marriage, toddlers’ growth and development, and the consequences of early marriage—alongside related areas such as child and maternal health, education, poverty, and gender equality—were systematically elaborated to identify supplementary medical and social terms. This process yielded additional keywords, including child marriage, adolescent pregnancy, child growth, and child development, to strengthen the scope of the search strategy.

Controlled vocabulary searches and free-text keyword searches were carried out separately in the PubMed and Google Scholar databases and were later integrated through the application of the Boolean operators OR and AND. The search strategy employed combined expressions such as (“early marriage” OR “child marriage”) AND (“toddler growth and development” OR “impact of early marriage”) to capture relevant studies.

Further pertinent publications and supplementary sources were identified by manually reviewing the reference lists of eligible studies, along with selected review articles that were not included in the final analytical synthesis.

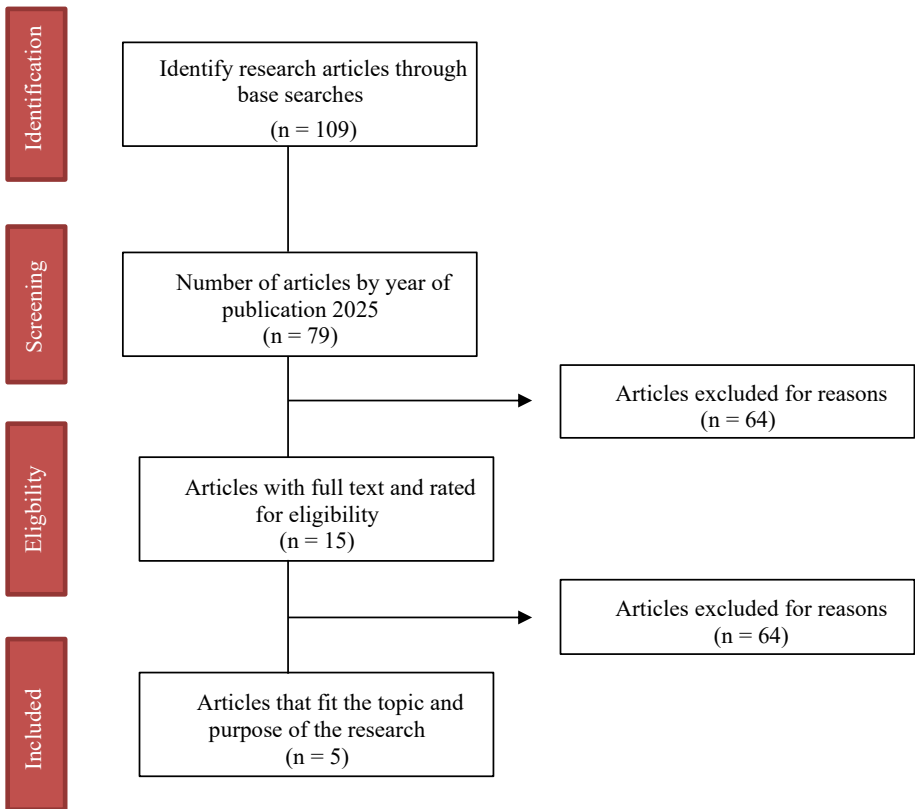


Fig. 1. Flow Literature Review Diagram based on PRISMA

2.1 Inclusion Criteria

Studies were considered eligible if they investigated the effects of early marriage on child growth and developmental outcomes, involved child or adolescent populations, and were published in English. Additional inclusion criteria encompassed research conducted across various geographical contexts, including India and other countries, the use of quantitative and/or qualitative research designs, and publication within the period from 2016 to 2025.

2.2 Exclusion Criteria

The exclusion criteria in the article are:

Studies were excluded if they did not directly assess the relationship between early marriage and child growth or developmental outcomes, focused primarily on adult or older populations, or did not employ quantitative or qualitative research methodologies. Articles published prior to 2016 or written in languages other than English were also omitted. Additional exclusion criteria encompassed research conducted outside family- or child-centered contexts, studies with inadequate or incomplete data, case reports, case series, and previously published review articles. Qualitative studies that discussed early marriage without reporting child-related outcome measures were likewise excluded. Furthermore, studies conducted in low- or high-income settings that were not relevant to Indonesia or comparable contexts were not considered.

2.3 Data Extraction and Synthesis

Data extraction was conducted with attention to essential study attributes, including the first author and country of origin, year of publication, research design, sampling methods, sample size, participant age range, and documented evidence concerning the effects of early marriage. Outcome data further covered measures of toddlers' growth and developmental status, relevant signs and symptoms, identified risk factors, screening methods, as well as attitudes and practices related to the prevention and management of early marriage. After duplicate records were removed, data from all eligible studies were systematically organized using Microsoft Excel, while narrative syntheses were prepared in Microsoft Word. The literature search and citation screening processes were independently undertaken by two reviewers, followed by full-text assessment against predetermined inclusion and exclusion criteria. Statistical analyses were carried out using SPSS software (version 23)..

3 Results

A total of five studies met the established inclusion criteria and were therefore included in the review. Collectively, these investigations encompassed diverse populations, including 2,112 children under the age of five in India; 3,044 married women aged 18–24 years in Niger and Ethiopia; 1,354 married women aged 15–49 years in Ethiopia;

and 1,050 girls aged 10–19 years in Ethiopia. The selected studies primarily employed community- and hospital-based cross-sectional designs and were predominantly conducted in settings such as India, Niger, and Ethiopia. Across these studies, the study populations largely comprised women and children affected by child marriage, with notable variations in levels of educational attainment and psychological health.

Table 1. Summary of Previous Studies on child marriage

Author	Study Design	Year of study	Sample Size	State Population	Characteristics	Results
Prevalence and factors associated with child marriage,	a systematic review	(2023)	N/A	Global	Women and child marriage	The results show that child marriage is still common in many countries and is related to various factors.
Girl child marriage as a risk factor for early childhood development and stunting	Cross-sectional Study	(2017)	1,112	India	Children under 5 years old	studies show that girls ' marriage is associated with poor child development and stunting.
Child marriage and psychological well-being in Niger and Ethiopia	studi cross-sectional	(2019)	3.044	Niger and Ethiopia	wanita yang menikah berusia 18-24 tahun di Niger dan Ethiopia.	The results show that child marriage is linked to poor psychological well-being.
Early marriage and its determinants among married reproductive age group women in Amhara Regional	multi-level analysis	(2021)	1.354	Ethiopia.	wanita yang menikah berusia 15-49 tahun	The results showed that early marriage was linked to a variety of determinants, including education and wealth.

Author	Study Design	Year of study	Sample Size	State Population	Characteristics	Results
State, Ethiopia: a multi-level analysis						
Determinants of early marriage among female children in Amhara region, Ethiopia	studi cross-sectional	(2020)	1.050	Ethiopia.	anak perempuan berusia 10-19 tahun	The results showed that early marriage was linked to a variety of determinants, including education and family income.

The synthesized evidence from the reviewed studies demonstrates that child marriage continues to be a widespread global phenomenon shaped by a range of interrelated determinants, notably educational level, socioeconomic circumstances, and psychological well-being. The findings consistently show that child marriage is associated with unfavorable developmental outcomes in children, including heightened risks of stunting and negative psychological effects. Factors most strongly linked to the prevalence of child marriage include age, educational attainment, and household economic status. These results underscore the need for integrated strategies that strengthen public education and awareness about the long-term consequences of child marriage and promote effective prevention measures, while simultaneously expanding access to education and improving socioeconomic conditions for women and children.

4 Discussion

Child marriage remains a significant global concern shaped by a complex interplay of factors such as levels of education, socioeconomic conditions, and psychological well-being. The body of evidence synthesized from the reviewed studies consistently demonstrates that child marriage is linked to unfavorable developmental outcomes in children, including a higher likelihood of stunting and detrimental psychological consequences.

Determinants associated with the persistence of child marriage include age, educational attainment, and household economic status. In response, focused interventions are needed to enhance public awareness and understanding of the consequences of child marriage and viable prevention approaches, alongside initiatives aimed at broadening educational access and improving economic opportunities for women and children (Pourtaheri et al., 2023); (Paul, 2019); (Rumble et al., 2018).

The results further indicate that child marriage occurs more frequently in contexts characterized by limited educational attainment and lower levels of economic development. Therefore, long-term strategies aimed at strengthening education systems and improving economic conditions in these settings are critical to decreasing the incidence of child marriage (Lebni et al., 2020).

Within the Indonesian context, there is a pressing need to strengthen educational initiatives and raise public awareness regarding the consequences of child marriage. Interventions aimed at mitigating its impacts should emphasize the adoption of effective preventive measures while simultaneously expanding educational access and economic opportunities for women and children. Moreover, coordinated efforts between governmental bodies and community-based organizations are crucial for enhancing public understanding and reducing the prevalence of child marriage across Indonesia.

5 Conclusion

In summary, the integrated findings from the five reviewed studies reveal that child marriage persists as a global concern shaped by a range of interrelated factors, notably educational level, socioeconomic conditions, and psychological well-being. The evidence also clearly indicates that child marriage is associated with detrimental effects on child development, a heightened risk of stunting, and adverse psychological outcomes.

Accordingly, comprehensive and sustained actions are necessary to reinforce public education and awareness of the consequences of child marriage and to promote effective prevention measures. These efforts should be accompanied by initiatives that expand educational access and economic opportunities for women and children. Moreover, close collaboration between governmental authorities and community-based organizations is vital to strengthening public awareness and reducing the incidence of child marriage, both in Indonesia and worldwide.

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