



Child Marriage Prevention: An Integrative Review of Epidemiology, Policy Responses, and Behavioral Theory

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Abstract. Child marriage remains a global public health concern with substantial implications for physical, psychological, and socioeconomic well-being. Although global prevalence has declined, it remains persistently high in several regions, including Indonesia, where sociocultural norms and unregistered marriages continue to perpetuate the practice. This review synthesizes epidemiological evidence, policy developments, and behavioral theory-based interventions from peer-reviewed articles and international reports published between 2021–2025. Systematic searches were conducted through Scopus, PubMed, ScienceDirect, SpringerLink, and Google Scholar using defined keywords. Forty-one eligible publications were thematically analyzed across four domains: prevalence, determinants, consequences, and prevention strategies. Findings reveal that prevalence ranges from 1.8% to 90.85%, influenced primarily by socioeconomic disparities, geographic differences, and entrenched cultural norms. Key determinants include low education, poverty, gender inequality, and weak legal enforcement. Consequences encompass reproductive health risks, mental health problems, educational disruption, and reduced household resilience. Evidence demonstrates that interventions grounded in the *Health Belief Model (HBM)* and the *Theory of Planned Behavior (TPB)* effectively improve adolescents' perceived susceptibility, self-efficacy, subjective norms, and intention to delay marriage. Integrated prevention strategies combining legal reform, educational access, economic empowerment, and behavioral theory-based approaches are essential for reducing child marriage rates.

Keywords: Child marriage, Early marriage, Indonesia, Health Belief Model, Theory of Planned Behavior, Adolescent behavior

1 Introduction

Child marriage defined as marriage before the age of 18 remains one of the most persistent forms of gender-based discrimination and human rights violations. Despite

global commitments through the Sustainable Development Goals (SDG 5.3) to eliminate early and forced marriages, the practice continues to affect millions of adolescents worldwide. UNICEF estimates that although global prevalence declined from 25% to 19% over the last decade, the pace of reduction remains insufficient to meet global elimination targets by 2030 [1]. Several intersecting crises economic downturns, prolonged school closures, and weakened social protection systems have increased vulnerability among at-risk populations, especially in low- and middle-income countries [2].

In Indonesia, legislative progress has been made through Law No. 16/2019, which harmonized the minimum marriage age at 19 for both males and females. Nevertheless, the persistence of religiously sanctioned marriages (*nikah siri*), sociocultural expectations around female chastity, and economic uncertainty have continued to undermine formal legal protection. Statistics Indonesia (BPS) reports that Indonesia remains among the five Southeast Asian countries with the highest prevalence of early marriage, particularly in rural, economically marginalized, and culturally conservative communities [4,5].

Existing research has documented determinants and impacts, yet several gaps remain. First, few studies synthesize epidemiological evidence with behavioral theory. Second, although various programs have been implemented—school-based counseling, peer education, community dialogues—most remain fragmented and insufficiently grounded in behavior change models. Third, adolescents' own perceptions of risk, social pressure, and decision-making autonomy are rarely explored in depth, despite being central to understanding marriage intentions.

Thus, this review provides an integrated synthesis of epidemiological patterns, determinants, and intervention strategies, while emphasizing the theoretical contributions of the Health Belief Model (HBM) and Theory of Planned Behavior (TPB) to early marriage prevention. This approach seeks to bridge the gap between structural policy reforms and individual-level behavior change, highlighting the need for holistic, culturally responsive strategies.

2 Methods

This study employed a systematic literature review guided by the PRISMA framework. Searches were conducted across Scopus, PubMed, ScienceDirect, SpringerLink, and Google Scholar. Keywords included: *child marriage, early marriage, adolescents, Indonesia, HBM, TPB, behavior change, and prevention program*.

2.1 Inclusion criteria:

- a. Published between 2021–2025
- b. Focus on prevalence, determinants, consequences, or prevention
- c. Empirical studies, systematic reviews, or policy reports
- d. Studies applying HBM, TPB, or behavior change interventions
- e. English or Indonesian language

A total of 127 records were identified. After title, abstract, and full-text screening, 41 studies met the eligibility criteria. Data were extracted and categorized into four themes: (1) prevalence, (2) determinants, (3) consequences, and (4) behavioral theory-based interventions.

3 Results

3.1 Prevalence and Recent Trends (Expanded)

Variation in child marriage prevalence across regions reflects underlying socioeconomic and cultural inequalities. Global evidence shows that areas with limited female education, inadequate access to secondary schooling, and entrenched gender norms tend to have significantly higher rates of early marriage [6]. In Indonesia, prevalence tends to cluster in provinces with higher multidimensional poverty indices, limited access to reproductive health services, and strong patriarchal norms, such as West Sulawesi, Gorontalo, and West Nusa Tenggara.

A growing body of literature also documents the increasing shift toward *informal early marriages*, often motivated by attempts to avoid legal restrictions or social stigma. These marriages frequently go unrecorded and thus are absent from official statistics, creating a hidden burden that complicates prevention efforts [5,9]. Studies indicate that adolescents in rural areas often perceive early marriage as a culturally acceptable—or even desirable—path to adulthood, reinforcing generational cycles of early union.

3.2 Determinants

Beyond the four main determinants already identified, several cross-cutting influences emerged:

Gender Power Relations.

Patriarchal norms position girls as subordinate to male decision-making and frequently link a family's honor to a daughter's sexuality, reinforcing the urgency of early marriage as a protective mechanism [4,12].

Digital Vulnerability and Online Interaction.

Recent studies highlight the role of social media relationships, unmonitored communication, and exposure to risky online interactions. Parents with low digital literacy may encourage early marriage as a strategy to prevent perceived moral risks.

Weak Local Governance Mechanisms.

Despite national legislation, enforcement varies widely across districts. In some areas, village or religious leaders continue issuing marriage dispensations, and local monitoring systems remain weak.

These multidimensional determinants underscore that early marriage is not merely a personal decision but a socially produced practice embedded in family dynamics, religious norms, and community expectations.

3.3 Consequences

The consequences of child marriage extend beyond individual health outcomes. Several studies document cumulative and intergenerational effects, including children born to young mothers having lower birth weight, incomplete immunization status, and higher stunting prevalence. Socially, early marriage disrupts adolescents' developmental trajectories, reducing civic participation and limiting their future capacity to contribute meaningfully to community development.

Economic vulnerability also tends to persist across generations: girls who marry early have fewer opportunities to complete education, pursue formal employment, or accumulate financial assets, increasing the risk of long-term poverty for their households [11,17].

3.4 Behavioral Theory-Based Interventions

Recent interventions have expanded into digital platforms, using mobile applications, online counseling, and gamified reproductive health modules that incorporate HBM and TPB constructs. Evidence shows that interactive, adolescent-centered digital learning can significantly improve self-efficacy and perceived behavioral control, especially for adolescents with limited access to in-person programs [21,22].

Community-driven programs that involve parents, religious leaders, and peer educators also demonstrate significant improvements in shifting subjective norms and reducing social pressure for early marriage. Such programs are particularly effective when integrated with economic empowerment initiatives, such as vocational training and microfinance for adolescent girls.

4 Discussion

This study highlights that the persistence of child marriage reflects the interplay between structural inequities and individual-level beliefs. While policy reforms such as raising the legal marriage age establish an important legal framework, they are insufficient when social norms continue to normalize early marriage or when adolescents perceive marriage as a path to security.

HBM provides valuable insights into how adolescents assess vulnerability to negative outcomes—such as reproductive health risks or school dropout—while TPB sheds light on the role of subjective norms and perceived control. Together, these frameworks illuminate why information alone rarely changes behavior: adolescents must not only understand the risks but also perceive that delaying marriage is socially acceptable and personally achievable.

Several implications for practice emerge:

Strengthening Multi-Level Interventions.

Programs must address structural determinants such as poverty and limited educational access while also targeting beliefs, attitudes, and norms at the individual level.

Integrating Digital and Offline Approaches.

Digital interventions can complement community-based programs, particularly in areas with limited school access or restricted mobility for girls.

Engaging Men and Community Gatekeepers.

Most interventions target girls, yet literature highlights the critical role of fathers, male adolescents, religious leaders, and community elders in shaping marriage decisions. Inclusive interventions yield significantly stronger outcomes.

Enhancing Policy Implementation at the Local Level.

Legal reforms need to be supported by strong enforcement mechanisms, monitoring systems, and local regulatory alignment to prevent circumvention through informal marriage channels.

Future Research Needs.

Longitudinal studies are needed to understand how early marriage prevention programs influence behavior over time, as well as evaluations of cost-effectiveness to guide government investments.

5 Conclusion

Child marriage remains a pervasive issue with multidimensional impacts. Integrating HBM and TPB into prevention efforts provides actionable pathways to strengthen adolescents' decision-making and reshape sociocultural norms. Future research should explore longitudinal designs, digital education platforms, and strategies involving male adolescents and community leaders to achieve sustainable prevention outcomes.

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