



Systematic Review

Trends of Early Marriage in Developing Countries: A Systematic Review

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ABSTRACT

Background: Early marriage is being increasingly recognized globally as a fundamental violation of human rights and a major obstacle to sustainable development. Early marriage occurs globally to varying degrees, especially in developing countries. The purpose of this article was to identify the determinants and impact of early marriage in developing countries.

Method: A systematic search for studies published from 2014 up to 2019 was conducted via Scopus, Proquest, Elsevier, Science Direct, Sage Journal, SpringerLink and EBSCO. A total of 10 studies met the inclusion criteria. These were independently extracted by two reviewers.

Result: Education and place of residence were the most commonly studied determinants of early marriage. Only a few of them reported results concerning the age difference between the spouses, access to media information and self-efficiency. Early marriage has a relationship with both the mother's and child's health. However, the significance of these associations was often small or inconsistent.

Conclusion: This review summarizes the best available evidence for local policymakers and public health practitioners so then they can consider incorporating these findings into the development of intervention protocols for the prevention of early marriage.

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INTRODUCTION

Globally, nearly 15 million girls under age 18 are married every year (Antarini, Rhadiyah, Permata, Marcely, & Montovani, 2016). Around 750 million women alive today were married in childhood, and unless progress is accelerated, that number will remain at least as high through to 2030. This shows that early marriage is a human rights violation on a vast scale and a major obstacle to sustainable development (Berliana et al., 2018). The violation was outlined in the 1989 Convention on the Rights of the Child (CRC). The right was included not to be separated from their parents against their will (Article 9), the right to freedom of expression (Article 13), the right to education (Articles 28 and 29), the right to rest and leisure and engagement in play and recreational activities (Article 31) and the right to protection from sexual exploitation and abuse (Article 34) (Efevbera, Bhabha, Farmer, & Fink, 2017).

Early marriage have been reported and is a trend among adolescent women to varying degrees across many countries, especially in developing countries like Indonesia, Egypt, Pakistan, Turkey, Viet Nam, India, Bangladesh and countries in Sub-Saharan Africa (Goli, Rammohan, & Singh, 2015; Hamed & Yousef, 2018; Hong Le, Tran, Nguyen, & Fisher, 2014; Sanjaya et al., 2018; Shaud & Asad, 2018; Uddin, 2015; UNICEF-UNFPA, 2017; United Nations, 1989; Wells, 2017; Yuksel-Kaptanoglu & Ergocmen, 2014). The age at first marriage varies from one area to another in the world. However, there are many women who have married before 18 years in developing countries. Marriage before this age is called 'child', or more commonly, 'early marriage' (Sanjaya et al., 2018). Although many countries have decided on a legal minimum age of marriage of 18, some countries are struggling to change their policy, like Indonesia (Goli et al., 2015).

Marriage, for many people, is the most enduring and intimate bond of all close relationships (Hamed & Yousef, 2018). High quality marriages amplify

psychological functioning and problematic marriages can take a toll on one's emotional and psychological health (Hamed & Yousef, 2018). One of the many aspects that can affect quality of marriage, and subsequently psychological functioning, is the timing of matrimony (Hamed & Yousef, 2018). Women married before 18 years are more exposed to physical, psychological and sexual violence than those married after 18 years (Hamed & Yousef, 2018; Sanjaya et al., 2018; United Nations, 1989).

Adolescent pregnancy at a time when women are not biologically mature increases the risk of damaging the reproductive tract and pregnancy-related complications such as anemia, pregnancy-induced hypertension, preterm labor, cephalo-pelvic disproportion (CPD), maternal mortality, perinatal and neonatal mortality, low birth weight and stunting (Hong Le et al., 2014; Wells, 2017). Additionally, available evidence from developing countries has shown that early marriage and childbearing affects a women's nutritional status both directly and indirectly (Hong Le et al., 2014). Adolescent pregnant girls do not gain weight during pregnancy and lactation, but rather, they lose weight (Hong Le et al., 2014).

A number of researchers have reported the factors associated with early marriage in the global context (Shaud & Asad, 2018). Lower socio-economic attainment, i.e. a lower educational degree and income degree (Sanjaya et al., 2018; Shaud & Asad, 2018; Uddin, 2015; United Nations, 1989; Yuksel-Kaptanoglu & Ergocmen, 2014). Considering the numerous maternal and child health risks associated with early marriage, this issue is worth studying. Therefore, this study will enrich the current situation on early marriage in developing countries. The purpose of this article was to identify the determinants of early marriage in developing countries. In addition, this review will also look into the impact of early marriage on maternal and child health.

MATERIALS AND METHODS

Our systematic review followed a defined protocol to reduce bias and ensure replicability. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) was used to search for concepts in the literature and to increase its integrity. Our simplified PRISMA flow diagram has been included in Figure 1.

Data Sources

One reviewer implemented the search strategy to search for relevant articles published from 2014 up to 2019 in Scopus, Proquest, Elsevier, Science Direct, Sage Journal, SpringerLink and EBSCO. One reviewer then independently screened the identified studies against the inclusion criteria before extracting the data. The search strategy was inclusive and concentrated on the keywords "early marriage".

Study Selection

This systematic review included studies using any quantitative methodologies so long as they met the other criteria. The analysis of the systematic reviews was required. The inclusion criteria were: (i) reported on the determinants of early marriage and/or reported on the impact of early marriage; (ii) involved women who were early married and/or children born to mothers with an early marriage and (iii) the place of study in developing countries. The studies were excluded based on the following criteria: (i) articles that were only abstracts and (ii) where the outcome not the determinants and/or impact of early marriage.

One reviewer identified the appropriate studies. All of the titles and the abstracts were retrieved through the database searches. Then an initial screening of the title and abstract were conducted by two reviewers against the above mentioned exclusion criteria. Next, an evaluation of the full text of the articles was conducted by the two reviewers to refine the results based on the inclusion criteria. Disagreements between the reviewers were resolved through a discussion. Among the 32 studies that were initially captured, 22 studies were excluded because they reported on the abstract only, the outcome did not include the determinants and/or impact of early marriage and where the place of research was not a developing country.

Data Extraction

The quality assessment was carried out using a structured format which drew on the recommendations of the modified Newcastle-Ottawa Scale for both cohort and cross-sectional studies. It was developed to assess the quality of studies in three domains related to the selection of the study groups, to boost the comparability of the groups and to assist in the ascertainment of exposure and outcomes. Two reviewers conducted pilot testing of the quality assessment tools independently on the included studies and then completed the evaluation of the quality of the remaining studies independently. Where there were disagreements, the two reviewers discussed the issues until consensus was achieved. The studies were determined as being good, fair or poor. Good quality studies consisted three or four stars in the selection domain, one or two stars in the comparability domain and two or three stars in the outcomes domain. Fair quality consisted of two stars in the selection domain, one or two stars in the comparability domain and two or three stars in the outcomes domain. Poor quality consisted of zero or one stars in the selection domain, zero stars in the comparability domain, and zero or one stars in the outcomes domain [14]. The data was extracted by the two reviewers in Excel with characteristics like the author, the year of publication, sample size, the participant's demographics (e.g. age, country) and the outcomes. The association significantly assessed the p-value compilation in this study, which was <0.05. Only the bivariate and multivariate results were

accessed in this review. There was an initial agreement rate of over 95%.

RESULT

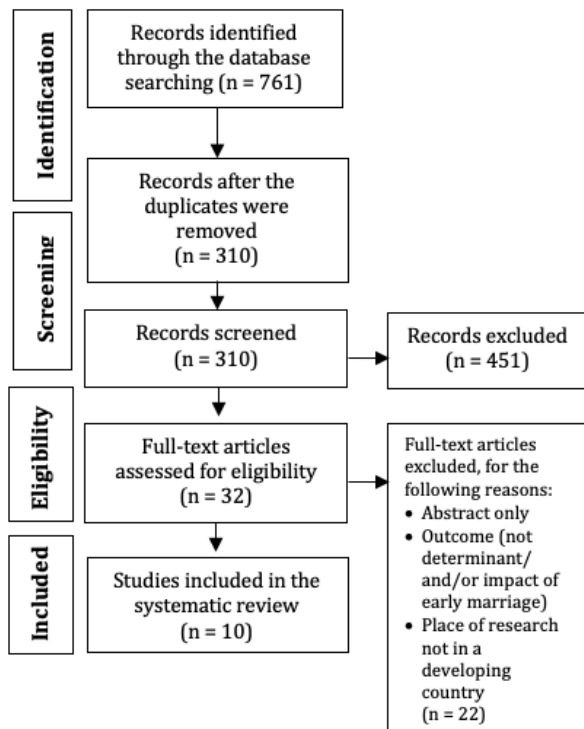


Figure 1. Flow diagram of the literature search used to identify the determinants and impacts of early marriage in developing countries

The initial search of the database resulted in a total of 761 items of literature without the help of searching the other sources. From this, 10 were included in the systematic review (Figure 1).

Figure 1 provides a summary of each study. From the table, it can be seen that the sample sizes of the studies ranged from 164 - 339 respondents. Duplicate literature items were deleted, after which there were 310 remaining literature items. Only the abstracts were excluded, if the results were not determinants, where the impact of early marriage was excluded and where the place of research in developed countries was excluded. The results of the review found 10 literature items from a total of 761 literature items originally found.

This review was conducted in 22 developing countries, including Indonesia (n=3), Pakistan (n=1), India (n=1), Egypt (n=1), Turkey (n=1), Vietnam (n=1), Bangladesh (n=1) and developing countries in Sub-Africa (n=16). Where the determinant was measured, this was done using questionnaires that included BPS's classifications (n = 1), the Household questionnaire (n=1), an Individual questionnaire (n=1) and a Questionnaire designed by the author (n=1). As for impact, this was determined using the z-score (n=2), DDST II (n=1), Demographic information sheet (n=1), Short marital adjustment test (n=1), Convergence communication scale (n=1), Kessler

psychological distress scale (n=1), BMI (n=1), and early childhood development index (n=1). The rest of the studies (n=3) did not specify the questionnaire used. One of the studies used the hb level in a decilitre of blood. Based on the quality assessment criteria, only one study was rated as good (Wells, 2017) while the others were rated as being of fair quality (Table 1).

Determinants of Early Marriage

Table 2 summarizes the associations between early marriage and the determinants of early marriage. The factors related to early marriage were investigated in 6 studies. The outcomes were grouped into 10 categories: age difference between the spouses, place of residence, region, religion, education, economy, access to media information, ethnicity and self-efficiency. Education and place of residence were the most commonly assessed determinants of early marriage.

Age Difference Between the Spouses.

Only one study investigated the significant correlation of there being an age difference between the spouses in which the component was the husband being older by 5-9 years or the husband being older by 10+ years. Age difference between the spouses is an important indicator of power relations and it is significantly related to being married at an early age. The risk of being a child bride is much higher for women whose husbands are older than themselves by 5-10 years or more (Uddin, 2015).

Place of Residence.

Five studies investigated the association between early marriage and place of residence. This was significantly higher among rural adolescents compared to their urban counterparts (Sanjaya et al., 2018; Shaud & Asad, 2018; Uddin, 2015). One study showed that place of residence was significantly higher matrilineal residential pattern (Yuksel-Kaptanoglu & Ergocmen, 2014). There was only one study that showed there to be no significant relationship between early marriage and place of residence, include rural and urban (United Nations, 1989).

Education.

Five studies examined the association between early marriage and education, in which the components were less than secondary, secondary or more, illiterate, literate, junior high school primary and incomplete primary were found to have a significant association (Sanjaya et al., 2018; Shaud & Asad, 2018; Uddin, 2015; United Nations, 1989; Yuksel-Kaptanoglu & Ergocmen, 2014).

Religion.

Two studies investigated the association between early marriage and religion and found it to be a non-significant correlate, including Islam, Christianity, Buddhism, no religion and other (Sanjaya et al., 2018; United Nations, 1989).

Economy.

Two studies examined the association between early marriage and economy level. It was found to be a significant correlate, including low income, middle income, the poorest 20%, 21%-40%, 41%-60% and 61%-80% and the highest 20% (Shaud & Asad, 2018; United Nations, 1989).

Access to media information.

Only one study examined the association between early marriage and access to media information, and found it to be a significant correlate, including radio and newspaper/magazines. However, there was no association between early marriage and access to media information for the television (Shaud & Asad, 2018).

Ethnicity.

Two studies examined the associations between early marriage and ethnicity. One study showed a significant correlate among Santal and Muslim (Yuksel-Kaptanoglu & Ergocmen, 2014). One study showed a significant correlate with Kinh. However, there was no association between early marriage and any other ethnicities (United Nations, 1989).

Region.

Only one study examined the associations between early marriage and region. However, there was no significant correlate between early marriage and region in Turkey (1978 and 2008), including the South, Central, North and East (Uddin, 2015).

Self-efficiency.

Only one study examined the association between early marriage and self-efficiency, including vicarious experience and emotional arousal. The analytical results obtained that there was a very weak negative correlation between vicarious experiences and the emotional arousals factor with early marriage (UNICEF-UNFPA, 2017).

Impact of Early Marriage

Table 3 summarizes the associations between early marriage and the impact of early marriage. The impacts related to early marriage were investigated in 5 studies. The impacts of early marriage were grouped into 2 categories: the mother's health and the child's health.

Mother's Health.

Three studies examined the association between early marriage and the mother's health as a significant correlate in which the components of psychological distress (early vs. late) and the mother's nutritional status (thin, anemia and risk of experiencing IPV) came into play (Hamed & Yousef, 2018; Shaud & Asad, 2018; United Nations, 1989).

Child's Health.

Two studies examined the associations between early marriage and the child's health, including child development and the child's nutritional status. Two studies showed a significant correlate between early

marriage and child development (Goli et al., 2015; Wells, 2017). However, 1 study showed as being a non-significant correlate with the child's nutritional status (Goli et al., 2015), and one study showed a significant correlate with the child's nutritional status if there was stunting (Wells, 2017).

DISCUSSION

This systematic review identified 10 studies for the determinants of early marriage and the impacts of early marriage in developing countries. This review clearly demonstrates that for many of the variables, the evidence is insufficient and this is mainly due to the limited number of studies conducted. This review found that most of the early marriage determinants focused on education and place of residence, but place of residence was still a gap. Only a few of them reported results concerning the economy, ethnicity, the age difference between the spouses, access to media information and self-efficiency. The most common impact of early marriage identified by this review was child development. Only a few of them reported results concerning the mother's health: psychological distress, thin, anemia and risk of experiencing IPV and the child's health: child's nutrition. It was not possible to establish any strong relationships between some of the significant associated factors of the mother's health because these were evaluated in only 1 study. It was also not possible to examine the child's nutrition because these were significant only in 1 study too.

The studies focused on (Sanjaya et al., 2018; Shaud & Asad, 2018; Uddin, 2015; United Nations, 1989; Yuksel-Kaptanoglu & Ergocmen, 2014) five developing countries reported that female education is an important determinant of early marriage. The study in Egypt showed that women with secondary or higher education had a lower prevalence than those with less than secondary education (Sanjaya et al., 2018). This relationship might be reciprocal in that young women who have little education might view marriage as a pathway to adult privileges that cannot be reached through formal education and conversely that early marriage reduces the opportunities to complete their schooling (United Nations, 1989). This indicates the importance of female education in reducing early marriage.

In this study, the prevalence was lower in urban than in rural areas (Sanjaya et al., 2018; Shaud & Asad, 2018; Uddin, 2015; Yuksel-Kaptanoglu & Ergocmen, 2014). This is in contrast with the data from Vietnam (United Nations, 1989) which showed that no relation was present between early marriage and the place of residence, including rural and urban. High early marriage in rural areas was reported in many studies from different developing countries, included Indonesian, Bangladesh, Egypt and Turkey (Sanjaya et al., 2018; Shaud & Asad, 2018; Uddin, 2015; Yuksel-Kaptanoglu & Ergocmen, 2014). Early marriage is associated with the lower wealth, lower education levels, and higher labor force participation that are

more common in rural areas (Sanjaya et al., 2018). Living in rural areas where access to public information and prevention programs is much more limited may lead adolescents to be married early (Sanjaya et al., 2018; Shaud & Asad, 2018; Uddin, 2015; Yuksel-Kaptanoglu & Ergocmen, 2014). Improved educational levels among urban females increased the age of first marriage (Shaud & Asad, 2018). This indicates the importance of female education, of female employment and of prevention programs in both rural and urban areas.

In Pakistan, the study results showed that age at marriage (early vs. late), marital adjustment and convergent communication patterns together explained the significant variance for psychological distress while low marital adjustment and the greater use of interpersonal deference communication styles emerged as significant predictors of psychological distress. Research evidence indicates that women with an early marriage mostly got married to much older men and this age difference affects the level of mutual understanding, the level of communication and their social status within a family. Women who marry young find their husbands to be more controlling and dominating. Depressive symptoms are more commonly found among women with early marriages. An undeveloped girl who is still struggling to comprehend her own body structure is forced to make marital relations. This often leads to psychological distress and despair due to her insufficient role performance and the handling of domestic chores (Hamed & Yousef, 2018). Early marriage is likely to have adverse consequences on the health of women.

Our study (Hong Le et al., 2014) suggests there to be a large adverse effect from early marriage on the nutritional status of women in India. A large proportion of women who were married before the legal age and who were consequently exposed to early pregnancy were found to be undernourished (thin) relative to the women who were married at a later age. The analyses also show that across all of our models, women who married at 25 years and above had the highest likelihood of having a normal nutritional status. Similar results were also found with regard to the prevalence of anemia among women. Thin and anemic women were typically from rural areas, and they were also commonly illiterate and from poor economic status households.

The study in Vietnam (United Nations, 1989) showed that all of the large proportion of the young women who had experienced sexual violence perpetrated by their intimate partner did not consider this to be a type of sexual abuse. This revealed a lack of awareness about and the limited nomenclature for these experiences among young people. Young women who were married before the age of 18 in Vietnam were nearly twice as likely to experience IPV compared with those who did not. Family background, in which children witnessed IPV between their parents, or who were affected by their parents' traditional gender role stereotypes, may

magnify the belief among adolescent brides that IPV is a part of marriage in Vietnam.

The studies in Indonesian and Sub-Saharan Africa (Goli et al., 2015; Wells, 2017) showed that children born to women who marry before they are aged 18 had significantly higher developmental disorders than those whose mothers married later. Importantly, contextual factors including the mother's completion of primary education and geographic location, which may create enabling environments for early marriage, explained most of this relationship and it may also explain the differences observed by country. Lower levels of maternal education and living in a rural setting have been associated with a higher likelihood of early marriage. Living in an urban setting may result in the increased availability of health facilities, antenatal and postnatal care and early education opportunities, all of which can positively influence child development.

Our review also found evidence in Sub-Saharan Africa that a small part of the relationship between early marriage and child stunting was explained by early childbearing (Wells, 2017). This is in contrast with the data from Indonesian that showed that there to be no relation between early marriage and the child's nutritional status (Goli et al., 2015). This may be the result of a young mother's physiological immaturity.

However, some issues and limitations should be considered when interpreting the findings. First, the majority of studies relied on self-reported data and it was therefore difficult to judge the validity and reliability of the determinants and impacts of early marriage that were used to collect the data because this information was not reported in several of the studies. In addition, the literature reviewed presented very heterogeneous and inconsistent results with regard to the correlates of the determinants and impacts of early marriage. Furthermore, this inconsistency remained even when the results of the previous reviews were compared with those of this review. Additionally, many studies used samples that were non-representative or that were only representative of a limited geographical area. The majority of studies focused on specific countries such as Indonesia, Egypt, Pakistan, Turkey, Vietnam, India, Bangladesh and countries in Sub-Saharan Africa. This indicates that the development of scientific research on the determinants and affects of early marriage in developing countries has yet to cover all regions of the developing countries. We recommend that future research make better use of a wider range of methods to understand the dynamics of the determinants and impacts of early marriage on maternal and child health.

CONCLUSION

This systematic review was conducted first to summarize the determinants and impacts of early marriage in developing countries. Education and place of residence were the most commonly studied

correlates of the determinants of early marriage. Additionally, child development disorder was the most commonly studied correlate that was an impact of early marriage. However, the significance of these associations was often small or inconsistent. This review highlights that there is a lack of research to support the causal role of the specific factors in improving early marriage and the impact of early marriage in developing countries. This review summarizes the best available evidence for local policymakers and public health practitioners so then they can consider incorporating these findings into the development of an intervention for the prevention of early marriage.

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