Meta-synthesis and meta-analysis of evidence on child marriage in South Asia
Executive summary

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Introduction

This executive summary presents findings from a meta-synthesis and meta-analysis of evidence on child marriage interventions in South Asia, commissioned by UNICEF South Asia, to provide a synthesis of evidence relating to the effectiveness of interventions aiming to prevent child marriage in the region. The overarching purpose of the study is to enhance learning, support evidence-based decision-making to improve the design of future interventions in South Asia, and support the overall performance of UNICEF and partners in their efforts to end child marriage. The findings will also contribute to UNICEF and UNFPA's joint efforts in implementing Phase III of the Global Programme to End Child Marriage (GPECM) (2024-30).

The objectives of this meta-synthesis and meta-analysis include:

1. To comprehensively and rigorously collate, assess and present evidence (using both peer-reviewed and grey literature) on interventions with an impact on ending child marriage (ECM) in South Asia;

2. To critically appraise the literature with regard to effectiveness (and, where possible, sustainability and scalability), identifying patterns of results as well as evidence and knowledge gaps;

3. To provide an estimate of average effect size of specified selected interventions, based on available data.

Methodology

The following research questions were developed to guide the meta-synthesis and meta-analysis.

- What is the current state of evidence related to interventions aimed at ending child marriage in the South Asia region?

- What type of interventions are effective in reducing child marriage incidence among girls ages 10-18 years or delaying age at marriage in South Asia? In what contexts and conditions are they effective? What is the mechanism through which they influence child marriage?

- What is the average effect size of specific interventions seeking to reduce or with an impact on reducing child marriage in South Asia? (specific to the meta-analysis)

- To what extent have the outcomes of UNICEF-UNFPA's Ending Child Marriage interventions been sustained and/or scaled up after the intervention period has ended?[1]

[1] This question was only answered where evidence on sustainability and scalability was available within evaluation reports.

The meta-synthesis and meta-analysis comprised interventions which included preventing child marriage as a primary or secondary outcome; peer reviewed articles and grey literature published from 2010 onwards; interventions in Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka; and all programme contexts where UNICEF and UNFPA operate in South Asia. The eligibility criteria for inclusion can be found in the full report. The approach was guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines.[2] Four comprehensive steps were taken to implement the meta-analysis and meta-synthesis methodology: identification of evidence, screening of evidence, data extraction and data analysis.

Findings

State of evidence of child marriage interventions: screening results

To our knowledge, this synthesis includes the largest number of studies relating to the effectiveness of child marriage interventions in South Asia covering the time period of 2010-2024. In total, 65 studies were identified as eligible for inclusion in the meta-synthesis. Of these, 29 studies (i.e. 45 per cent) were included in the meta-analysis. The vast majority (82 per cent) of studies examined interventions in India and Bangladesh (28 and 25 studies, respectively), likely reflecting a concentration of interventions and high prevalence of child marriage in these countries. Studies were categorised into six typologies, including social norms change, income and economic strengthening, education, empowerment, sexual and reproductive health, and law and policy reform, in line with definitions within GPECM programme documentation and wider literature. Many interventions were multi-component interventions incorporating multiple typologies. Findings are presented according to each typology.

Effectiveness of child marriage interventions

Meta-analysis findings present quantifiable effect sizes (and statistical significance, or p value) of specific typologies or combinations of typologies (i.e. the percentage difference in child marriage rates between the intervention group and the control group). Meta-synthesis findings discuss factors impacting the effectiveness of each intervention typology, particular modalities that can be effective, and barriers to effectiveness. The small number of studies included within certain meta-analyses, high variability in interventions and high study heterogeneity mean that results should be interpreted with caution. The sub-sections below present findings from the meta-analysis and meta-synthesis according to intervention typology.

Cross-cutting findings

Although studies rarely took an experimental approach to assessing differential impacts of interventions on child marriage outcomes in different contexts, some studies indicated that the effectiveness of interventions might vary based on household income, location, age, and intervention duration and intensity. However, there was insufficient evidence to determine the exact contexts in which specific intervention typologies are, or are not, effective. Findings highlight issues with assuming a 'one size fits all' approach to implementing interventions. There is insufficient evidence on the sustainability of interventions, though there were examples of interventions considering sustainability in their design (e.g. stakeholder capacity building, establishing safe spaces, supporting girls' long-term employment), and of evaluations considering the potential sustainability of interventions (e.g. cost-benefit analyses or cost forecasting).

Social norms change

Meta-analysis findings: Social norms interventions can have a significant effect on reducing child marriage rates, both as standalone interventions (by 4.5 per cent, at $p < .001$) and when combined with other typologies (by 3.35 per cent, at $p < .001$). The effect of these interventions appears to increase when they are combined with empowerment and sexual and reproductive health components, with this combination seeing a 6.45 per cent reduction in child marriage ($p < .001$).

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[2] *BMJ, The PRISMA 2020 statement: an updated guideline for reporting systematic reviews, 2021.*

Meta-synthesis findings: Interventions targeting norms related to education appear to be particularly effective, because they can be adopted without significantly challenging more ingrained norms around gender roles and relations. By contrast, attitudes relating to gender roles and relations were found to be much harder to shift, reflecting the degree to which gender inequality is ingrained in communities where child marriage is practiced. Norms change interventions appear to be more effective when they implement multiple modalities (media, community mobilisation, training, etc.) and target a diverse range of stakeholders. Evidence shows that perceived effects of norms change interventions may appear stronger due to respondents reporting learned norms messaging, which may not represent authentic attitudes and meaningful change in views. Evidence demonstrates the importance of: 1) considering the complexity in decision-making dynamics when developing social norms programmes and including both males and females; 2) context-sensitive approaches to ensure community receptiveness, whilst taking effort to prevent interventions being overly shaped by existing local norms structures and community hierarchies, and; 3) sustained programming to support long-term changes in social norms and child marriage practices.

Income and economic strengthening

Meta-analysis findings: Income and economic strengthening interventions (such as conditional cash transfers [CCTs] and interventions supporting girls' labour force participation) can significantly reduce child marriage rates. CCTs were shown to reduce child marriage by 4.7 per cent (p < .05). However, notably, CCTs that do not have a marriage-delay condition (rather, only have a condition for girls to remain in education), did not significantly reduce child marriage. Non-CCT income and economic strengthening interventions *might* increase child marriage rates.[3]

Meta-synthesis findings: The interplay of economic pressures and other drivers of child marriage (particularly social norms) are complex and multi-faceted, and these factors play a role in the effectiveness of economic strengthening interventions on child marriage outcomes. The income and economic strengthening interventions that demonstrate the most success are those that are able to increase girls' human capital, such as through improving the acceptability of girls' participation in the labour market, building vocational skills and financial literacy, and attaching girl-centred conditions to cash transfer receipts. In certain contexts, the alleviation of financial hardship through cash transfers may lead to unintended consequences related to persisting child marriage, such as more readily accessible dowry. Income and economic strengthening interventions may be more effective when they also address social norms, target dowry practices, include child marriage prevention conditions for receipt of financial support, and seek to ensure that the value of girls and their real or potential capital is recognised by families and the wider community.

Education

Meta-analysis findings: Education interventions provide a significant contribution to the prevention of child marriage; all interventions with an education component reduced child marriage rates by 1.78 per cent (p < .05), while standalone education interventions reduced child marriage rates by 4.44 per cent (p < .01). Findings suggest that combining education interventions with other typologies might not increase their effectiveness.

Meta-synthesis findings: It was difficult to draw out the unique contributions of education elements of multi-component interventions to child marriage prevention. In addition, the narrative of how and why education interventions reduce child marriage was limited within the included studies; rather, a link between education and marriage prevention is often an implicit justification for intervention development. However, available findings suggest that, while participation in education *can* impact child marriage, effects may be stronger if interventions successfully increase girls' academic attainment and learning outcomes. Interventions appear to be particularly effective in preventing child marriage where education leads to increased economic opportunities for girls. Some evidence

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[3] Based on a meta-analysis of three studies, meaning conclusions should be interpreted with caution.

also indicates that education interventions may support more general empowerment and agency of girls, which supports them to raise their voice against child marriage. The provision of material support and efforts to improve the learning environment appear to be important elements of interventions to support girls' attendance in school, while tutoring and non-formal education support girls' academic outcomes; there were examples of each of these modes of intervention leading to the successful prevention of child marriages. Prevailing harmful social norms appear to be a key barrier to successful implementation, improvements in education outcomes and the prevention of child marriage.

Girls' (youth) empowerment

Meta-analysis findings: Empowerment interventions have a significant effect on reducing child marriage rates, with a 2.7 per cent reduction in child marriage rates for all interventions with an empowerment component (p <.001). Multi-component interventions which combine empowerment programming with other typologies were found to have a larger effect on reducing child marriage than standalone empowerment interventions, particularly those with social norms and SRH components.

Meta-synthesis findings: The success of empowerment interventions is somewhat dependent on others' receptiveness towards girls' empowered behaviours. This relates particularly to individuals making the decisions regarding marriage timing, including parents (especially fathers), but also the wider community. Restrictive social norms are a key barrier to the success of empowerment interventions. Available evidence suggests that interventions that increase girls' integration and engagement in the community can be effective, such as through the establishment of safe spaces and girl mentors / girl leaders, as well as interventions which provide life skills and strengthen girls' economic empowerment.

Adolescent sexual and reproductive health

Meta-analysis findings: Too few studies were identified to calculate a pooled effect size for standalone SRH interventions. However, meta-analysis findings showed that interventions with an SRH component, combined with other typologies, can reduce child marriage by 2.73 per cent (p < .05), indicating that SRH interventions can contribute to preventing child marriage. Findings from the meta-analysis indicate that the inclusion of SRH components can strengthen the effectiveness of social norms and empowerment programming, with this combination seeing the highest reduction in child marriage, at 6.45 per cent.

Meta-synthesis findings: Interventions aimed at improving adolescents' knowledge and awareness on SRH issues tend to have high success rates, though this does not always lead to reduced child marriage. The sensitivity of the subject of SRH can limit community receptiveness to such interventions, which can be a barrier to effectiveness. This emphasises the importance of targeting parents, service providers and broader communities in order to ensure that SRH interventions are implemented, supported by stakeholders, and lead to delayed marriage outcomes (for instance, through social norms programming). Furthermore, incorporating SRH components into empowerment programming may help mitigate community resistance to such interventions.

Law and policy

Meta-analysis findings: Available evidence indicates law and policy interventions alone are ineffective, with findings showing a non-significant reduction in child marriage of 0.7 per cent.

Meta-synthesis findings: The limited number of studies and varied results offers little explanation as to why law and policy interventions have not proven hugely successful at substantively reducing child marriage practices in South Asia, though evidence points towards the need for interventions to focus on enforcement of laws and accountability, including through addressing underlying social, economic, and cultural factors contributing to child marriage. Further research and investigation is required to gather a more definitive understanding of the effectiveness of law and policy interventions.

Recommendations and implications for future programming

The full report provides detailed recommendations for strengthening evidence and programming implications for each typology. A summary is provided below.

- **Filling research gaps**, including: conducting rigorous research for intervention typologies lacking in evidence (for example, education); carrying out longitudinal follow-up studies; embedding sustainability within evaluation frameworks; developing clear Theories of Change for all individual interventions; and understanding the impact of key population characteristics on intervention outcomes.

- **Strengthening monitoring and evaluation to improve evidence generation**, including: conducting rigorous, quantitative, baseline, midline and endline assessments; incorporating comparison /control locations; including quantitative measures of implementation, exposure, child marriage outcome and confounding variables; triangulating quantitative data with qualitative data; and including rigorous mixed-methods MEL frameworks in evaluations.

- **Recognising the value of economic strengthening** interventions such as CCTs and interventions that increase girls' human capital, remove labour market barriers, and support norms change to increase acceptability of girls' labour market participation, whilst mitigating potential unintended consequences of unconditional cash transfers through addressing social norms and other key drivers.

- **Strengthening the link between education and delayed marriage** through: promoting educational outcomes beyond school retention and attendance; focusing on academic achievements and skills acquisition; supporting girls' access to economic opportunities; combining educational interventions with empowerment and SRH components; and addressing norms change to ensure community and parental acceptance.

- **Engaging decision makers and empowering girls,** targeting key stakeholders, embedding norms change in interventions, and recognising girls as key advocates for changing marriage outcomes.

- **Creating an enabling environment through community engagement and social norms change,** maximising exposure and involving diverse stakeholders, whilst minimising the risk of unintended negative consequences and ensuring adequate safeguarding measures.

- **Recognising the advantages of an integrated approach to adolescent SRH programming,** embedding SRH within broader programmes, and including social norms and empowerment components to SRH interventions.

- **Recognising the limitations of law and policy interventions as a standalone approach,** and establishing clear legal frameworks and enforcement mechanisms, complementing other programmatic efforts.

- **Widespread and sustainable programming,** through piloting interventions across diverse contexts, strengthening data collection in existing contexts, and embedding sustainability by incorporating cost-benefit analyses, designing long-lasting intervention components, emphasising long-term evaluations, and securing government and stakeholder buy-in.

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