

# BMJ Open Scope, range and effectiveness of interventions to address social norms to prevent and delay child marriage and empower adolescent girls: a systematic review

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## ABSTRACT

**Objectives** Harmful gender and social norms prescribe divergent opportunities for girls and boys and drive child marriage. This systematic review examines the scope, range and effectiveness of interventions to change social norms and delay child marriage.

**Design** We systematically assess the contributions made by interventions that work to shift norms to prevent child marriage or to limit its harmful consequences. Our analysis classifies each study's quality in evaluation and implementation design regarding shifting norms.

**Data sources** We conducted a search of electronic databases (PubMed, PsycINFO, Embase, CINAHL Plus, Popline, Web of Science and Cochrane Library) and grey literature (targeted hand-searches of 15 key organisations and Google Scholar).

**Eligibility criteria** Included interventions sought to change norms related to child marriage, were evaluated in experimental or quasi-experimental evaluations, collected data on age at marriage and norms/attitudes, and were published in English from January 2000 to September 2021.

**Data extraction and synthesis** We used a standardised form to extract data from all eligible studies, and double-screened to validate coding and reporting. We classified the studies by low, medium and high quality for evaluation and risk of bias, and separately by the extent to which they addressed social norms.

**Results** Our assessment of the 12 eligible studies identified revealed little evidence of a systematic relationship between social norms related to marriage and changes in child marriage behaviours. We found stronger evidence of programme effect on child marriage outcomes than on social norms, though only a minority of studies found an effect for either. Studies that appeared effective in changing child marriage norms varied greatly in scale and extent of programming, and few attempted to identify the appropriate reference groups for measuring social norms.

**Conclusion** The studies evaluated by our review provide only weak evidence on the impact of interventions on norms, and on the link between shifts in norms and marriage behaviour.

## STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ Our study is a systematic review that was preceded by a broader scoping review focused on research on child marriage more broadly.
- ⇒ While the study followed guidelines for the conduct and reporting of systematic reviews, it was not based on a prespecified protocol.
- ⇒ The two-stage approach (with a broader scoping review followed by more focused systematic review) prolonged the timeline for this study, since the scoping data collection effort took place first, followed by a systematic selection based on programmes addressing social norms.
- ⇒ The substantial heterogeneity of the reviewed studies regarding their methodological quality, programme components and strategies, outcome measures and level of detail poses challenges to comparative analysis.
- ⇒ Our review included only experimental study designs for the evidence they provide on programme effectiveness; studies with other designs and a more qualitative approach could offer insights into the mechanisms of norm-change programming specifically.

## INTRODUCTION

Child, early and forced marriage and unions (CEFMU), defined by the United Nations as marriage or informal union before the age of 18, is a global problem that violates the rights of children, curtails their schooling, harms their health and constrains their futures.<sup>1</sup> Prevalence among girls ranges from 2.5 times higher than for boys in East Asia and the Pacific to 10 times higher in West and Central Africa.<sup>2</sup> The great majority (90%) of CEFMU takes place in low- and middle-income countries (LMICs), with the highest prevalence in sub-Saharan Africa and South Asia.<sup>3</sup>

The past 10 years have seen an increased focus on the development of policy and



programmatic efforts to end child marriage, reflecting the inclusion of the elimination of child marriage as Target 5.3 of the Sustainable Development Goals.<sup>4</sup> While initially much of this attention centred on the development of laws and policies that establish 18 as the minimum age at marriage, the limitations of this approach have increasingly come into focus.<sup>5</sup> Current research reflects an interest in identifying and addressing the root causes and drivers of CEFMU, including the norms that reinforce girls and women's low value in society, regulate their sexuality and limit their autonomy.<sup>6</sup>

Norms related to child marriage are fundamentally about gender and power.<sup>7</sup> A large body of research has now established the importance of social norms in shaping child marriage<sup>7,8</sup>, particularly those related to gender and power, sexuality and life aspirations.<sup>9</sup> Discriminatory norms perpetuate the view of marriage as the only viable alternative for girls, so working to transform inequitable gender norms and provide education and employment opportunities for girls can improve child marriage outcomes.<sup>10</sup> As a result, addressing norms is a logical and relevant approach to preventing and mitigating child marriage. Norms are relevant in every region, for example, in Latin America<sup>11</sup> and in South Asia and sub-Saharan Africa.<sup>12</sup> Preventing CEFMU and mitigating its effects requires interventions that address these root causes by challenging norms and unequal power relations within families, communities and institutions.

Norms interventions in the child marriage space typically work to shift social expectations, transforming how girls think about themselves, how family members and communities think about girls and how institutions treat girls. The norms that drive child marriage are not always explicitly about child marriage but include concerns about safety, worry about girls walking unaccompanied to school, whether school is a valuable investment for girls given that they will grow up to be wives and mothers, gendered expectations about domestic and public roles, and the 'ruin' that can come to girls as a result of any sexual activity before marriage.<sup>13</sup> Consequently, programmatic approaches to this work are very diverse.

Some interventions target education, showing the role that extending access to schooling can play in shifting the norms that uphold and sustain child marriage in Nigeria and Uganda.<sup>14</sup> Norms regarding sexuality and access to contraception rather than child marriage per se seem especially important in Southern Malawi, which has the lowest median age of first marriage in the country<sup>15</sup>; and in Zambia, where the government, civil society partners and young people are working together to challenge norms related to sexuality, limited sexual and reproductive health information and services and limited future aspirations and create opportunities.<sup>16</sup> A study in LMICs of parenting programmes designed to prevent violence against adolescents found that those aiming to prevent sexual violence or child marriage generally focused on challenging prevailing norms (while those aiming to prevent physical and emotional

violence emphasised information sharing and communication skills).<sup>17</sup>

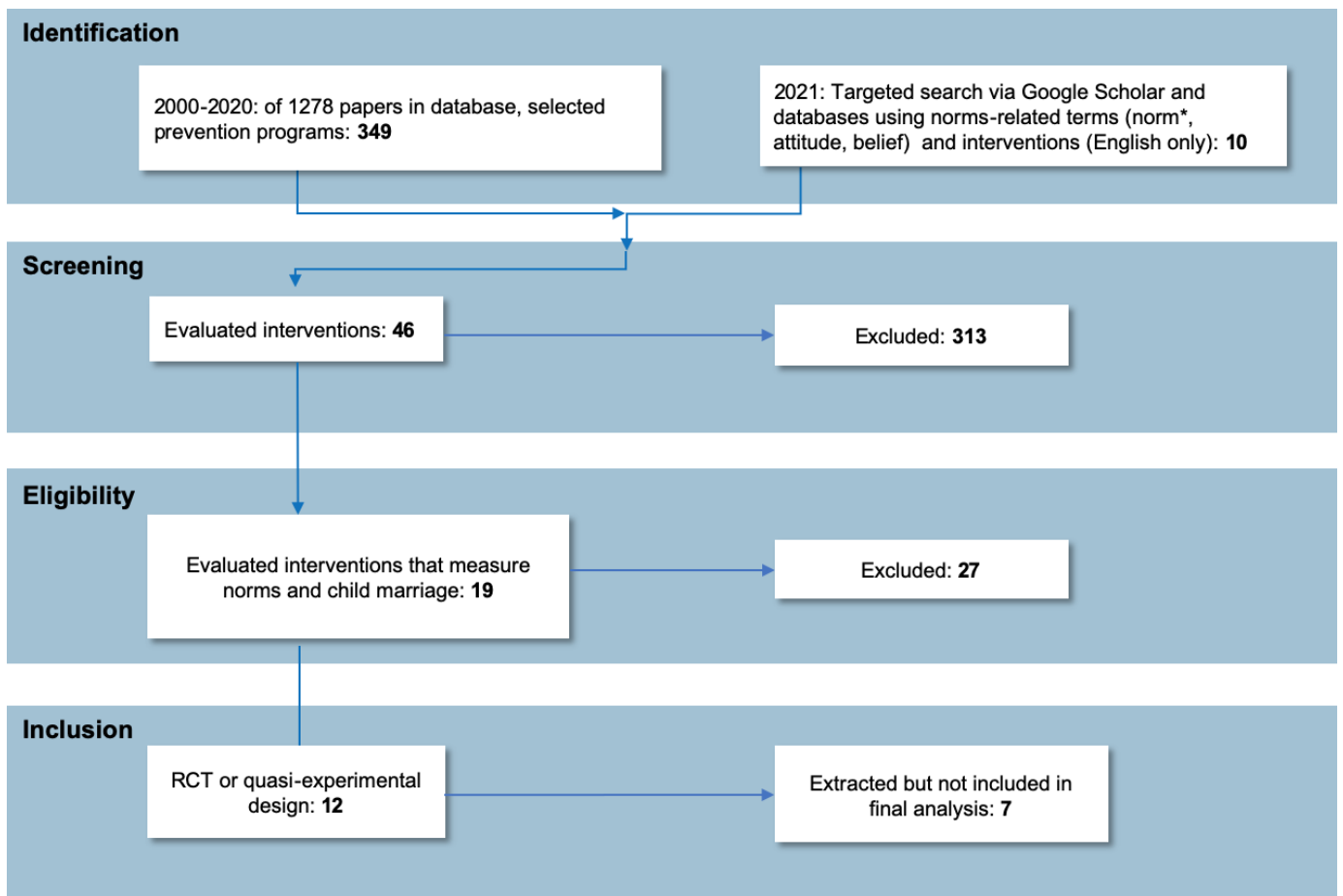
This lack of consensus has made assessing the overall impact of intervention approaches focused on social norms on child marriage extremely challenging, particularly as these are often packaged together with activities aimed at shifting other behavioural or health outcomes. This systematic review seeks to address this gap by exploring the contribution interventions that work specifically to shift norms make to preventing child marriage. Our research assesses the scope, range and effectiveness of interventions that work to shift norms to prevent child marriage. We analyse intervention characteristics of programmes and highlight key characteristics of success. Based on our findings, we present a range of recommendations for practice and future research.

## METHODS

### Search strategy and selection criteria

The study design follows established policies and guidelines for conducting systematic reviews and used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses for reporting.<sup>18</sup> This systematic review builds on an earlier, broader scoping review of child marriage evidence,<sup>4</sup> for which the detailed methodology is published elsewhere and was registered with Open Science Framework (<https://osf.io/awh8v>).<sup>19</sup> The scoping review was designed to act as a precursor for a series of systematic reviews that address specific questions related to interventions focusing on child marriage, of which study is one (others will focus on interventions focused specifically on meeting the needs of married girls and interventions in specific geographical regions).

Briefly, the broader scoping review involved searching 18 academic databases and included articles with a focus on child marriage from all geographical settings and in four languages (English, Spanish, French and Portuguese) for the period January 2000 to December 2019. Research produced prior to 2000 was not included for three main reasons. First, child marriage was not commonly regarded as a human rights issue before 2000, nor did many interventions focus on the practice. Second, the field's understanding of both child marriage and social norms has evolved significantly over the past two decades with regard to the conceptualisation, measurement and types of interventions that have been implemented to change either outcome. Finally, the number and rigour of evaluations of both child marriage and social norm change programming has dramatically improved over the past two decades, meaning that relatively few studies on these topics from the period before 2000 would meet the criteria established for quality in evidence generation today. As a result, including research conducted before 2000 would reflect a different and outdated general approach to CEFMU, social norm change programming and evaluation approaches.



**Figure 1** Study selection process. RCT, randomised controlled trial.

The initial database searches for publications in English were conducted in January 2020. The English-language database searches included PubMed, PsycINFO, Embase, CINAHL Plus, Popline, Web of Science and Cochrane Library. To identify the grey literature, we conducted targeted hand-searches of the websites of 15 organisations engaged in work to prevent child marriage. To expand our database to cover the literature published after January 2020, we replicated the searches of the academic database in English through September 2021. We restricted this search to English because the intervention literature was not well represented in languages other than English. In September 2021, we also conducted a final targeted search using the terms ‘child marriage’, ‘prevention’, ‘norms’ and ‘intervention’ in Google Scholar to identify recent norms-related interventions designed to prevent child marriage (see online supplemental table S1A–C for the search strategies and databases used). The targeted English-language update and Google Scholar searching initially yielded 10 studies (figure 1). The use of Google Scholar was meant to address the reality that many norms-related interventions are relatively recent and have yet to be published in peer-reviewed journals.

In a departure from other reviews, we included high-quality evaluations published in non-peer-reviewed reports. We employed this strategy also because the

longer format of project reports often provides more detail on programme implementation. We supplemented the publications identified through our systematic review with additional documentation when it was available, for example, using information from a midline report to help flesh out information that may have been unclear in a final publication. The broader database of child marriage evidence published in English, Spanish, French and Portuguese included 1278 records. After reducing this to publications in English only that described child marriage prevention programmes, we were left with 349 studies. We independently screened this pool of studies identified through the database and targeted searching by title and abstract first (conducted by MEG and MS), and then by full-text (conducted by MEG and JE) to include only those publications that evaluated interventions. In cases where two authors could not reach consensus on a study, the third author contributed to making the final decision. This process of screening for studies with evaluated child marriage interventions yielded 46 records. Finally, we assessed the eligibility of these papers by including only those evaluated interventions that measured social norms and child marriage.

We included papers that highlighted norms in describing their theories of change and indicated their intention to address norms in their programmatic

**Table 1** Characteristics of included studies addressing norms to prevent child marriage (N=12)

Lead author and year	Country/ countries	Main participant characteristics	Evaluation design	Evaluation quality	Norm change programming scale
Amin <i>et al</i> , 2018 <sup>28</sup>	Bangladesh	F 12–18	Cluster RCT	Medium/high	Little/none
Austrian <i>et al</i> , 2018 <sup>42</sup>	Zambia	F 10–19	Cluster RCT, mixed methods	High	Little/none
Buchmann <i>et al</i> , 2017 <sup>29</sup>	Bangladesh	F 10–19 and 15–17	Cluster RCT, subsample follow-up interviews	High	Little/none
Erulkar <i>et al</i> , 2017b <sup>39</sup>	Burkina Faso	F 12–17	Quasi-experimental, mixed methods	Medium/high	Limited
IFS, 2018 <sup>24</sup>	India	F 12–19	Cluster RCT, pre-eval and post-eval data	Medium/high	Comprehensive
Melnikas <i>et al</i> , 2021 <sup>25</sup>	India, Malawi, Mali and Niger	F 12–19	Experimental (India/Malawi), quasi-experimental (Mali/Niger), mixed methods	High	Limited
Munthali <i>et al</i> , 2021 <sup>30</sup>	Malawi	F and M 15–24	Quasi-experimental, mixed methods	Medium	Comprehensive
Nanda <i>et al</i> , 2016 <sup>26</sup>	India	F 0–18	Quasi-experimental, mixed methods	High	Little/none
Sieverding and Elbadawy, 2016 <sup>38</sup>	Egypt	F 11–15	Quasi-experimental, mixed methods	Low/Medium	Comprehensive
Sivasankaran <i>et al</i> , 2014 <sup>27</sup>	India	F, unspecified age	Natural experiment, mixed methods	High	Little/none
Stark <i>et al</i> , 2018 <sup>40</sup>	Democratic Republic of the Congo	F 10–14 and caregivers	Cluster RCT	High	Limited
Stark <i>et al</i> , 2018 <sup>41</sup>	Ethiopia	F 13–19 and caregivers	Cluster RCT	High	Limited

F, female; M, male; RCT, randomised controlled trial.

activities. Following the approach of Watson,<sup>20</sup> and in keeping with the broader literature on what works to delay marriage, we elected to focus not only on interventions intended only to delay marriage, but also included those that would drive change in how girls might be viewed or would transform the life choices open to them and measured the impact on the timing of marriage. We identified 19 studies that measured both norms and child marriage outcomes.

This group of studies was then further restricted to those using randomised controlled trials (RCTs) or quasi-experimental study designs, resulting in a final group of 12 studies featuring high-quality study evaluation designs and measuring both norms-related and child marriage-related outcomes (see [figure 1](#) and [table 1](#)). Established guidelines for the inclusion of quasi-experimental studies (particularly those related to internal validity, such as the use of a valid comparison group) were followed. Online supplemental table S1A–C present the databases and search terms used at the two stages of our search. Online supplemental table S2 summarises the inclusion/exclusion criteria we applied, and online supplemental tables S3 and S4 provide further detail on how evaluation and programmatic quality were assessed.

### Assessing methodological and conceptual quality and rigour

The methodological and conceptual quality and rigour of each study was assessed through a combination of a scoring system, where studies received ‘scores’ based on pre-established criteria (see below), and the expert judgement of reviewers. This approach was necessitated by the diversity of evaluation designs and implementation approaches used across the included studies, meaning that the scoring criteria and approach at times did not fully match the independent assessment of the reviewers. In these cases, the inclusion of ‘real-world’ assessments on the part of reviewers allowed a more accurate and holistic assessment of quality while retaining the scoring system as the foundation for classifying studies. In sum, this mixed-method approach allowed for the use of a greater range of information in classifying studies while using standard approaches to attempt to minimise reviewer biases. A detailed description of this process for individual studies is provided in the documentation accompanying (online supplemental table S3).

The methodological quality and risk of bias for each study was assessed by building on the approach used by Kennedy *et al*<sup>21</sup> and Malhotra and Elnakib,<sup>22</sup> using seven specific criteria across five domains of methodological rigour:

1. Study design, attrition and sample size;

2. Selection bias, measurement of exposure, spillover/contamination;
3. Estimation techniques and confounding;
4. Measurement of sustainability of impact; and
5. Outcome measurement and clarity of reporting.

Scores for individual items were summed, resulting in a scale potentially ranging between 0 and 7, though in practice the scores assigned to the selected studies ranged between 3 and 6. Using these scores, studies were initially assigned to three categories: low (score between 0 and 3), medium (score of 4–5) and high (score of 6 or above) quality. Two evaluators independently (JE and MEG) assessed each study across each domain, with discrepancies or conflicts resolved through discussion. As a result of these discussions, two additional categories were assigned: medium/high and low/medium, reflecting the nuances of interpretation between reviewers and inconsistencies in reporting. This resulted in two studies being reclassified (see online supplemental table S3 for further detail).

In addition to assessing the methodological rigour associated with the evaluation of programmes or policy in the included studies, we assessed the conceptual rigour of the implementation approaches each study employed in seeking to address child marriage through changing related social norms. This step is intended to help clarify *how* the programme tried to shift norms, aid in explaining any effect each may have had on norms and provides an additional assessment of internal validity for each included study. Because these programmes typically viewed changing norms around child marriage as crucial prerequisite for changes in child marriage behaviour, examining the rigour of the activities they employed to change norms is key to understanding the causal pathway between programme intervention and effect. Building on the definition of social norm change programming developed by the PASSAGES project,<sup>23</sup> we weighed each programmatic or policy approach according to the degree to which they met the following criteria:

1. Accurately identified, assessed and targeted specific norms driving child marriage.
2. Sought to achieve community-level change beyond the individuals directly targeted by programming or policy.
3. Engaged people at multiple social levels of the society.
4. Sought to confront power imbalances, particularly related to gender.
5. Actively created safe spaces for critical reflection by community members.
6. Aimed to create positive new norms or reinforce existing norms that protect against child marriage.

Based on each of these attributes, we developed a simplified scoring system for ranking studies by the degree to which their underlying programme or policy reflected a broader norms-driven theory of change. It should be noted that while we attempted to use a range of sources to identify and describe programmatic activities that could be seen as designed to shift norms, we had to rely on the programme descriptions provided by the included studies. This scoring system is based on three

specific criteria (see online supplemental table S4 for further detail):

1. Did programme norm-change activities include immediate influencers (family members (parents, guardians, grandparents, siblings) or peers)? 1=yes, 0=no.
2. Did programme norm-change activities include a broad range of members of the wider community? 1=yes, 0=no.
3. Did programme norm-change activities substantially include community groups beyond youth themselves? 1=yes, 0=no.

Studies were given a score ranging from 1 to 3 and subsequently classified into 'Little/None' (score of 0 or 1), 'Limited' (score of 2) and 'Comprehensive' (score of 3) quality. Two of the authors independently assessed the quality of each study, with discrepancies or conflicts resolved through discussion among the reviewers.

While the primary focus of this study was the effectiveness of norms-related interventions, the included studies were analysed based on their evaluation and intervention characteristics, with the goal of better understanding the degree to which the activities included in the intervention deliberately and feasibly sought to change social norms around child marriage. The information extracted from each study included the evaluation methodology, period covered by the evaluation and by implementation and also the intervention location, implementing organisation(s), the purpose/goals of the programme, implementation activities, target populations for the intervention/study, outcome measures capturing CEFMU and related social norms, results and the direction of the findings.

As the focus of this review is on the effect of programmes on the social norms that underpin child marriage, we grouped studies by their focus on social norm change, based on their score on the conceptual quality/fidelity measure. This resulted in our creation of three groups: (1) Little/no intentional norm change programming; (2) Limited intentional norm change programming; and (3) Comprehensive intentional norm change programming. The variation in the outcome measures, particularly in social norm change, precluded an assessment using common measures. Consequently, the impact of each intervention on both sets of outcomes is assessed in broad terms where studies were determined to have positive, negative, mixed or null effects. Only results that were statistically significant ( $p < 0.05$ ) are included. The grouping of studies by conceptual quality/fidelity allows us to examine whether programme impact varies across groups in ways that suggest particular approaches are more impactful than others.

### Patient and public involvement

None.

### RESULTS

We begin by describing study characteristics of the studies included in this review (12) that intended to address child



marriage norms and evaluated impact for both child marriage and social norms outcomes (online supplemental table S5 includes those 12 as well as another 7 studies that were programmatically or conceptually interesting and were initially included but did not make the cut with regard to their evaluation methodology). These studies stated their intention to measure the following outcomes: preventing or delaying marriage before age 18, participation in the marriage decision, norms/attitudes related to child marriage. Collectively, these provide a more complete picture of the types of programmes being conducted in this area and appear at the end of online supplemental table S5. We mention the 19 studies because the disconnect between study aims and measurement is an important finding of our analysis. The 12 included studies were concentrated in India,<sup>4 24–27</sup> Bangladesh<sup>2 28 29</sup> and Malawi,<sup>2 25 30</sup> with the remaining studies distributed across other countries. The seven additional studies not included in this review<sup>31–37</sup> (described in online supplemental table S5) were similarly concentrated in three countries: Bangladesh,<sup>2 35 37</sup> Tanzania<sup>2 34 35</sup> and Mozambique,<sup>2 31 35</sup> with the remaining studies focused on other settings.

The norms and attitudes the 19 studies aimed to address were disparate, as were programme activities and normative outcomes measured, which may reflect a lack of consensus in the field about which norms matter for CEFM and how best to measure outcomes. The intervention activities of these programmes are presented in online supplemental table S5. While every study included activities for girls, only two included activities that worked directly with boys<sup>30 38</sup> and only three worked directly with family members.<sup>39–41</sup> After girls, the second most common group on which activities worked was the community overall, with five programmes combining this work with their focus on girls.<sup>24 25 30 38 39</sup>

Although all of the included interventions indicated their intention to address norms in their programmatic activities, they diverged across every dimension of our analysis. First, the norms and attitudes they aimed to address were quite disparate, describing efforts to shift norms and attitudes related to decision-making, gender roles (girls' and caregivers' attitudes), schooling, the right to refuse an arranged marriage, ideal age at marriage for girls and boys, appropriate age at first birth, aspirations for daughters to study beyond secondary school and levels of empowerment. Of the seven studies that were ultimately excluded, six included community members or caregivers and could therefore be considered to be aiming to change broader social norms (as opposed to individual attitudes) but failed to measure both norms-related and child marriage-related outcomes.

Similarly, the approaches and activities in which interventions were engaged were highly variable. Safe spaces where girls could meet and talk with peers was an approach used by several interventions,<sup>38 41 42</sup> though the link of these activities to broader community or social norms was often poorly described. Other programmes were

explicit in their engagement with family and community members, including health workers, seeking to change their attitudes toward adolescent pregnancy and early marriage and build their understanding of girls' needs and desires.<sup>24 28 30 38–40</sup> For example, the programme described in Egypt by Sieverding and Elbadawy reinforced safe spaces for girls with a curriculum for boys on gender roles and rights.<sup>38</sup> The IFS study in India, for example, explored the benefits of including parents and other community members to influence their attitudes regarding CEFMU, sexual and reproductive health and education.<sup>24</sup>

Just as the norms-related programmatic activities are diverse, so too are the normative outcomes on which the programmes focused. Table 2 presents the key outcomes related to social norms related to CEFMU and CEFMU itself that were measured and reported in each of the 12 studies included in the final group for this analysis.

Only 5 of the 12 studies measured attitudes or norms held by individuals other than the participant girls themselves, including caregivers and other family members<sup>24 26 38 40</sup> from specific groups of women.<sup>27</sup> Five studies measured gender attitudes,<sup>24–26 40 42</sup> predominantly among girls who participated in the programme themselves, while a further two studies measured overall empowerment.<sup>27 29</sup> Four studies specifically measured attitudes or knowledge around age at marriage, either among participant girls,<sup>25</sup> among other family members<sup>38 41</sup> or a specific group of women.<sup>27</sup> Two of the studies did not report any quantitative normative outcomes related to child marriage, although the programme descriptions emphasised norm change to a significant extent.<sup>28 39</sup>

Variability in the normative outcomes, programmatic activities and measurement of impact makes it challenging to compare these norm-change programmes. We therefore created two classification systems that considered evaluation quality and normative engagement. For the 12 studies for which evaluation quality assessment was possible, 7 programmes were categorised as 'High',<sup>25–27 29 40–42</sup> 3 as 'Medium High',<sup>24 28 39</sup> 1 as 'Medium',<sup>30</sup> and 1 as 'Medium Low'.<sup>38</sup> The most used evaluation design was a cluster RCT using multiple arms to explore the effect of different combinations of activities, which six studies used exclusively.<sup>24 28 29 40–42</sup> Quasi-experimental designs were exclusively used in three studies,<sup>30 38 39</sup> and two studies relied on natural experiments for their evaluation.<sup>26 27</sup> The one multi-country study included in our analysis used a mixture of different methods, varying by country.<sup>25</sup> Seven studies used a mixed method approach,<sup>25–27 30 38 39 42</sup> usually supplementing the quantitative findings with additional qualitative analyses.

For these same studies for which the extent of norm change programming was possible to measure, we classified them into 'Comprehensive', 'Limited', and 'Little/None'. As described above, comprehensive programmes were characterised across six factors, including a commitment to working with individuals at multiple levels beyond the individual 'beneficiaries', found ways to challenge

**Table 2** Key outcomes measured and results, ordered by level of norm change programming (N=12)

Lead author and year measure(s)	Evaluation social norm	Result	Evaluation CM outcome measure(s)	Result
Comprehensive intentional norm change programming				
IFS, 2018 <sup>24</sup>	Gender attitudes of participant girls. Gender attitudes of caregivers.	No stat. sig. effect /negative. Girl only arm: 0.113 (0.056).*** Integrated arm: -0.079 (0.065). Girl only arm: 0.068 (0.066). Integrated arm: -0.040 (0.072).	Marriage by EL.	No stat. sig. effect. Girl only arm: -0.176 (0.124). Integrated arm: -0.105 (0.125).
Munthali <i>et al</i> , 2021 <sup>30</sup>	Odds of girls 15–24 at EL: ▶ Reporting they can decide for themselves who to date. ▶ Agreeing it is appropriate for a girl to propose using a condom.	Mixed. Univariate results suggest a positive relationship (odds ↑ by 29%) but not when controlling for other factors. Univariate results suggest a positive relationship (odds ↑ by 60%) but not sig. when controlling for other factors.	16–24 years old married before age 16 at EL. 18–24 years old married before age 18 at EL.	Positive. Multivariate OR: 0.39 (0.17 to 0.89).** Multivariate OR: 0.83 (0.52 to 1.33).**
Sieverding <i>et al</i> , 2016 <sup>38</sup>	Mother/brother agrees appropriate age at marriage is 18+: ▶ Mother. ▶ Brother.	No stat. sig. effect. 0.025. 0.106.	Girl agrees appropriate age at marriage is 18+.	Positive. 0.111.**
Limited intentional norm change programming				
Erukar <i>et al</i> , 2017 <sup>39</sup>	None presented.	None presented.	aRR for girls ages 15–17 having ever been married at EL: ▶ Community sensitisation arm. ▶ Education promotion arm. ▶ Comprehensive arm.	Mixed. 0.33 (0.19 to 0.60).*** 0.99 (0.66 to 1.49). 0.77 (0.52 to 1.15).

Continued

Table 2 Continued

Lead author and year	Evaluation social norm measure(s)	Result	Evaluation CM outcome measure(s)	Result
Melinikas <i>et al</i> , 2021 <sup>25</sup>	India. Agree boys have right to refuse arranged marriage (BRRAM). Agree girls have right to refuse arranged marriage (GRRAM).	Mixed. All states: -2 PP; Bihar: 7 PP; Jharkhand: 6 PP; Odisha: -12 PP; Rajasthan: -10 PP. All states: Not presented; Bihar: -26 PP*; Jharkhand: 3 PP; Odisha: -8 PP; Rajasthan: 4 PP.	India. Currently married (15–19).	Positive. All states: -13 PP.*** Bihar: -12 PP; Jharkhand: -17 PP*; Odisha: -10 PP**; Rajasthan: -13 PP.***
	Malawi. Ideal age at first marriage. Agree BRRAM. Agree GRRAM.	No stat. sig. effect. 0.251 years. 0.072 PP. 0.074 PP.	Malawi. Mean age at first marriage. Ever married.	No stat. sig. effect. 0.251 years. -0.001 PP.
	Mali. Ideal age at first marriage. Agree BRRAM. Agree GRRAM.	Negative/no stat. sig. effect. 0.141 years. -0.089 PP. -0.105 PP.**	Mali. Mean age at first marriage. Ever married.	Positive. 0.855 years.* 0.045 PP.
	Niger. Ideal age at first marriage. Agree BRRAM. Agree GRRAM.	No stat. sig. effect. -0.691. -0.014. 0.004.	Niger. Mean age at first marriage. Ever married.	No stat. sig. effect/negative. 1.512 years. 0.134 PP.*
Stark <i>et al</i> , 2018 <sup>40</sup>	Caregiver attitudes towards gender inequitable norms.	No stat. sig. effect. -0.10 (-0.61 to 0.40)	Ages 13–14 currently married.	No stat. sig. effect. 1.24 (0.38 to 4.00).
Stark <i>et al</i> , 2018 <sup>41</sup>	Among girls: ▲ Appropriate age of marriage. ▲ Appropriate age at first birth.	Positive. 1.88 (1.07 to 3.28)*. 2.04 (1.25 to 3.34).**	Marrying or living with someone before age 18 (aOR).	No stat. sig. effect. 0.72 (0.46 to 1.15).
Little/no intentional norm change programming	None presented.	None presented.		
Amin <i>et al</i> , 2018 <sup>28</sup>	None presented.	None presented.	Marriage before age 18 (aHR): ▲ Education arm. ▲ Gender arm. ▲ Livelihood arm.	Positive. 0.75 (0.60 to 0.92).** 0.72 (0.59 to 0.88).** 0.70 (0.56 to 0.87).**
Austrian <i>et al</i> , 2018 <sup>42</sup>	Among participants: ▲ Attitudes towards gender roles in adolescence. ▲ Acceptability of intimate partner violence.	No stat. sig. effect. 0.003 (-0.229 to 0.234). 0.007 (-0.059 to 0.073).	Likelihood of being married/living with partner at EL.	No stat. sig. effect. 0.023 (-0.057 to 0.103).
Buchmann <i>et al</i> , 2017 <sup>29</sup>	Empowerment index (girls aged 15–17 at start of programme).	No stat. sig. effect. Empowerment arm: 0.091 (0.069). Incentive arm: 0.011 (0.046). Combined arm: -0.090 (0.094).	Likelihood of marriage before age 18 for girls ages 15–17 at start of programme (by arm).	Mixed. Empowerment: -0.002 (0.008). Incentive: -0.058 (0.012).*** Combined: -0.026 (0.017).***

Continued



Table 2 Continued

Lead author and year	Evaluation social norm measure(s)	Result	Evaluation CM outcome measure(s)	Result
Nanda <i>et al</i> , 2016 <sup>26</sup>	Gender attitudes (GEM scale). Aspirations to study ↑ 12th grade (adolescent girls). Aspirations for daughter to study ↑ 12th grade (mothers).	No stat. sig. effect. 0.573.*** No stat. sig. effect.	Married at time of survey. Married before age 18.	No stat. sig. effect. No stat. sig. effect.
Sivasankaran <i>et al</i> , 2014 <sup>27</sup>	Among all women: ▲ Empowerment index. ▲ Marriage decisions/attitudes.	Positive. 0.0079 (0.0038).** 0.032 (0.0099).***	Married before age 21. Age of marriage. Ever married at time of survey.	Mixed. -0.00960 (0.00532).* 0.0883 (0.0397).** -0.00227 (0.00569).

Asterisks denote level of statistical significance: \*p<0.10, \*\*p<0.05, \*\*\*p<0.01. SEs in parentheses and 95% CIs in brackets (where available). aHR, adjusted HR; aOR, adjusted OR; aRR, adjusted risk ratio; CM, child marriage; EL, endline; GEM, Gender Equitable Men; PP, percentage points; Stat. sig, statistically significant.

power inequities and promoted critical reflection. Three studies were categorised as comprehensive,<sup>24 30 38</sup> four as limited<sup>25 39–41</sup> and five as little or no norms-change programming.<sup>26–29 42</sup> The studies were varied in their definitions of ‘norms-related’ outcomes and include a wide range of outcomes that could be related to CEFMU (such as attitudes towards sexual or relationship formation behaviour and general measures of empowerment) at multiple levels of the socioecological framework, including views of child marriage and girls’ prospects not just among girls but among family members, community members or at the institutional level.

Table 3 summarises the key findings for each of the groupings by extent of norm change programming.

Overall impact on norms related to child marriage: 2 out of 12 programmes had positive and statistically significant effects; 2 had mixed effects; 6 had no statistically significant effect; and 2 did not report effects on norms.

On child marriage or delaying marriage: 4 out of 12 programmes had positive and statistically significant effects; 3 had mixed effects; and 5 had no statistically significant effect.

As noted above, the included studies all demonstrated greater evidence for the effect of programming on the CEFMU outcomes than for those related to social norms. However, there is little evidence of a systematic relationship between the intensity of the norm change approach used by the evaluated programmes and the associated effects on either social norms related to marriage or CEFMU behaviours. Regarding programmatic impact on norms related to child marriage, 2 out of the 12 programmes had positive and statistically significant effects; 2 had mixed effects; 5 had no statistically significant effects; and 2 did not report effects on norms. Regarding programmatic impact on child marriage or delaying marriage, 4 out of 12 programmes had positive and statistically significant effects; 3 had mixed effects; and 4 had no statistically significant effects.

Three of the programmes were classified as having taken a ‘Comprehensive’ intentional approach to norm change programming.<sup>24 30 38</sup> Of these three, only one had any statistically significant (though mixed) effect on the measured norms,<sup>30</sup> though two had a positive and statistically significant effect on the CEFMU outcomes.<sup>30 38</sup>

Four studies were categorised as having taken a ‘Limited’ approach to norm change programming.<sup>25 39–41</sup> Of these programmes, only one had a positive and statistically significant effect on normative outcomes<sup>41</sup>; one had mixed effects<sup>25</sup>; one had no statistically significant effects<sup>40</sup>; and one did not report effects on norms.<sup>39</sup> With regard to measuring outcomes related to preventing or delaying child marriage, one of the four programmes had a mixed or positive effect<sup>25</sup>; one had mixed effects<sup>39</sup>; and two had no statistically significant effect.<sup>40 41</sup>

Of the five programmes with ‘Little/No’ intentional norm change programming,<sup>26–29 42</sup> one had a positive effect on measured norms,<sup>27</sup> three had no statistically significant effect<sup>26 29 42</sup> and one did not report effects on

**Table 3** Results from evaluated interventions shifting norms to prevent/delay child marriage, by focus of norm change programming (N=12)

Lead author and year	Country/countries	Reference groups	Effect on norms related to child marriage	Effect on child marriage outcomes
Comprehensive intentional norm change programming				
IFS, 2018 <sup>24</sup>	India	Adolescent girls, community members	No stat sig. effect	No stat sig. effect
Munthali <i>et al</i> , 2021 <sup>30</sup>	Malawi	Adolescent girls, adolescent boys, community members	Mixed	Positive
Sieverding <i>et al</i> , 2016 <sup>38</sup>	Egypt	Adolescent girls, adolescent boys, community members	No stat sig. effect	Positive
Limited intentional norm change programming				
Erulkar <i>et al</i> 2017 <sup>39</sup>	Burkina Faso	Adolescent girls, community members, parents	None reported	Mixed
Melnikas <i>et al</i> , 2021 <sup>25</sup>	India, Malawi, Mali and Niger	Adolescent girls, community members,	Mixed	Mixed/ Positive
Stark <i>et al</i> , 2018 <sup>40</sup>	Democratic Rep of the Congo	Adolescent girls, caregivers	No stat sig. effect	No stat sig. effect
Stark <i>et al</i> , 2018 <sup>41</sup>	Ethiopia	Adolescent girls, caregivers	Positive	No stat sig. effect
Little/no intentional norm change programming				
Amin <i>et al</i> , 2018 <sup>28</sup>	Bangladesh	Adolescent girls	None reported	Positive
Austrian <i>et al</i> , 2018 <sup>42</sup>	Zambia	Adolescent girls	No stat sig. effect	No stat sig. effect
Buchmann <i>et al</i> , 2017 <sup>29</sup>	Bangladesh	Adolescent girls, ages 10–19. Special incentive focused on 15–17.	No stat sig. effect	Mixed
Sivasankaran <i>et al</i> , 2014 <sup>27</sup>	India	Women	Positive	Mixed
Nanda <i>et al</i> , 2016 <sup>26</sup>	India	Adolescent girls	No stat. sig. effect	No stat. sig. effect
stat. sig, statistically significant.				

norms.<sup>28</sup> Among these five programmes, three had either a positive or mixed effect on CEFMU outcomes,<sup>27–29</sup> and two had no statistically significant effect.<sup>26 42</sup>

Across all of the 12 studies in our analysis, several themes stood out. First, we observed considerable agreement on measures of CEFMU across the studies, with the majority focusing on the likelihood of participant girls having been married by the time they turned 18<sup>26 28–30 41</sup> or by the end of the study, which often roughly coincided with age 18 or earlier.<sup>24–27 39 40 42</sup> One study reported on whether participating girls agreed on age 18 or older being the appropriate age for marriage.<sup>38</sup>

Second, there was generally stronger evidence of programme effect on the CEFMU outcomes than for social norms/attitudes. Of the 12 included studies, 4 found a positive and statistically significant effect on the CEFMU measure<sup>25 28 30 38</sup> and a further 3 found mixed effects,<sup>27 29 39</sup> compared with 2 positive<sup>27 41</sup> and 2 mixed<sup>25 30</sup> for the social norm outcomes. There was considerable variation across settings in which effects were found, even for programmes that shared common approaches. For example, the *Marriage: No Child's Play* programme showed positive effects in India and Mali but no statistically significant effect in Malawi and Niger.<sup>25</sup>

Third, we identified common elements across the studies that showed mixed or positive impact in changing

child marriage norms. The four studies that achieved this differed markedly in the scale and extent of their normative programming. Three of the four included an economic component as a key activity of their intervention. Melnikas *et al* aimed to offer a holistic community package of interventions implemented at multiple levels and across sectors.<sup>25</sup> This included a focus on enhancing access to economic and income-generating opportunities for girls and their families. Munthali *et al* provided girls with entrepreneurship training and also engaged girls in village saving and loans schemes.<sup>30</sup> And Sivasankaran focused solely on whether girls' and women's tenure in formal sector work influenced the timing of their marriages.<sup>27</sup> While there is insufficient evidence to conclude that economic components are critical to changing norms, their potential is worth further exploration. Two other studies described programmes that offered girls opportunities for savings and found either no statistically significant effects on norms or marriage<sup>42</sup> or effects on child marriage but not on norms-related outcomes.<sup>38</sup>

Fourth, very few of these studies clearly attempt to identify an appropriate reference group among which to measure social norms. As noted above, the majority of the studies collect data only from programme participants themselves (overwhelmingly adolescent girls), with no

effort made to collect data from their peers or other influential members in the community. The exceptions to this are those studies that included measures for other family members,<sup>24 38 40</sup> though some studies measured changes broadly among participant and non-participant adolescents and therefore may offer some insight into broader patterns. There appears to be insufficient acknowledgement that girls themselves are not always the primary decision-makers for their own marriages. Most of the attitude/norm outcomes are about the girls' attitudes, which unfortunately may not have a direct connection to their ages at marriage.

Finally, the results do not point to a definitive relationship between the success of programmes in changing social norms related to marriage and actually delaying CEFMU. Of the seven programmes that found either positive or mixed associations between programme activities and CEFMU outcomes, only three also found positive or mixed associations with change in social norms.<sup>25 27 30</sup> Four studies documented statistically significant change in measured CEFMU outcomes only<sup>28 29 38 39</sup> and one only for social norm outcomes.<sup>41</sup> This relationship might have been stronger if the Erulkar *et al*<sup>39</sup> and Amin *et al*<sup>28</sup> studies had measured and reported on social norm outcomes.

## DISCUSSION

The results of our review suggest an inconsistent relationship between interventions that purport to shift norms and child marriage outcomes. Just over half (7 of 12) of the studies showed any indication of having influenced child marriage outcomes and, among those, there was no clear relationship between the observed changes in child marriage and shifts in measured norms. Our findings echo prior research showing that norm change programming has had more success in shifting individual attitudes than in shifting broader norms and related behaviours.<sup>43</sup> However, given the broad consensus in the field around the importance of social norms as drivers of CEFMU, it is surprising that these studies provide only weak evidence on the impact of these programmes on norms, and on the link between shifts in norms and marriage behaviour. In particular, several studies found significant shifts in marriage-related behaviours with none of the appreciable changes in norms that would be consistent with the broader argument that these norms drive marriage behaviour.<sup>25 27 30 38</sup>

Our analysis suggests several potential explanations for these findings. First, while all of the programmes included here invoked norms as important drivers of CEFMU and indicated their intention to address norms in their effort to delay marriage, they showed a surprising lack of consensus on which norms should be changed, which programmatic activities should be used, and which groups to focus on in programme activities. The field would do well to explore the impact of efforts to shift norms through structural interventions that go beyond social behavioural communications programming.

Several of the studies that dropped out between the original 19 included and the final 12 studies of highest quality reflect labour market, education, legal systems, marriage and family systems, all of which reflect broader structures.

Most of the programmes focused their efforts on adolescent girls themselves, paying comparatively little effort to activities aimed at shifting beliefs and attitudes of other reference groups important in girls' lives, nor measuring normative change among these other groups. Even when programmes worked at multiple levels, such as through engaging influential gatekeepers in the community, parents or siblings, programme activities aimed at groups other than girls themselves were often superficial, did not focus on influential reference groups, and were not explicitly linked to norms that had clearly been identified as important for child marriage. In other words, norm change in some cases appeared to almost be an afterthought rather than a key focus of the programme.

Second, the intention to measure norm change did not always translate into measurement of norms-related outcomes and impacts. The overwhelming majority of these studies did not collect substantial data from anyone other than adolescent girls, typically those participating in the intervention. This is problematic given that an essential aspect of norms is that they are articulated and enforced by entire reference groups, not individuals. Yet only five interventions measured norms among people other than girls themselves. One of the programmes with the most comprehensive norm change approach,<sup>24</sup> for example, did not try to measure change in the broader community, but looked only at girls and caregivers. They referenced resource constraints that limited their measurement of impact to adolescent girls, the primary beneficiaries of the programme. They explicitly stated that they were not, therefore, 'able to measure direct impacts on men/boys or the wider set of community members reached by the programme'.<sup>24</sup>

The varied ways these studies approach social norm change reflects a lack of a clear consensus about what 'social norms' are, how they can be defined and measured and what approaches to use in attempting to shift them. While this confusion is not unique to child marriage programming and research,<sup>44</sup> the presumed—and much referenced—centrality of social norms to child marriage makes this particularly problematic. From a measurement perspective, studies often relied primarily on attempting to measure individual attitudes rather than distinguishing more precisely between descriptive and injunctive norms, those that are perceived or held by the group, or those that have a direct or an indirect effect on child marriage. Furthermore, when the theories of change underpinning these programmes were described, they often approached norm change as a waystation that would lead to behavioural shifts but did not clearly articulate the necessary steps to complete this causal pathway. This 'black box' approach to norms makes it difficult to identify how specific programmatic approaches are expected to work together to change norms or the degree to which

their causal influence on child marriage is mediated by norms. This gap between the rhetoric of norm change, theories of change and programmatic activities and focus, along with the diversity of activities included, makes a full assessment of the impact of norm change programmes on child marriage challenging.

These studies illustrate the challenges of effectively developing programming aimed at shifting child marriage behaviour through shifting norms. CEFMU is likely influenced by a range of structural and social factors, including norms with direct influence, such as those related to the control of sexuality, and those with a broader and potentially less direct influence, such as those related to education, future employment or indeed, gender norms writ large. The diversity of activities included by the programmes in our study exemplify this, ranging from life skills building to vocational skill building to activities intended to improve educational attainment.

As others have pointed out, research and programming on norm change would greatly benefit from shared definitions and consistent terminology for the different types of norms and theories of change that precisely link activities to the specific norms they seek to address.<sup>44</sup> This will require greater efforts to understand the varied normative environments within which programmes are implemented, the specific norms influencing CEFMU, the relevant reference groups and the types of interventions likely to be most effective at bringing about change in the targeted norms.

The one programme that was high quality in its measurement and engaged in comprehensive norms programming reported no significant effects (except on gender attitudes of participating girls).<sup>24</sup> On the other hand, the three programmes that showed impact across both normative and child marriage-related outcomes addressed norms to very differing degrees. These two findings taken together suggest that we have much to learn about the relationship between norms-related activities and measurement. Other factors beyond comprehensive norm-change programming led to programme success. We observe that the programmes that offered economic activity of some kind demonstrated impact across normative and child marriage-related outcomes.<sup>25 27 30</sup> Although the employment 'intervention' described by Sivasankaran was not comprehensive, the impact of formal employment on child marriage merits further exploration.<sup>27</sup>

It is interesting, though perhaps not surprising, that these interventions with an economic component seem most effective in delaying marriage, even when they have no impact on norms. In light of the fact that child marriage is often seen as a 'logical' choice to relieve economic pressure on families, this result could be read as evidence that norms are not important and child marriage is just a practical choice. However, girls are much more likely to be married as children, and when under the same pressures, families do not marry the boys. It suggests that even 'practical' choices are shaped by norms. These normative and practical considerations relate to one another in nuanced

ways: for example, relieving economic pressure may reduce child marriage risk for girls if families are primed to make that decision and see the girl as worth investing in. Such instances may show that the norm has already been 'softened', and what people need is the practical opportunity to make the choices they prefer.

One limitation of this review is the substantial heterogeneity of included studies about their methodological quality, programme components and strategies, outcome measures and level of detail in the reviewed studies; taken together, these factors make comparison more challenging. A second limitation is that our review included experimental study designs because they provide stronger evidence on programme effectiveness. However, studies with other methodological designs and a more qualitative approach could offer more comprehensive insights in this specific research area. For example, studies often presented qualitative data on community-level norm change,<sup>26 31</sup> but these qualitative findings could not be integrated into our assessment of programme impact. Third, our searches may not have identified all relevant literature on social norms programming and child marriage outcomes globally, especially given the exclusion of non-English-language publications and the growth of interest in this topic in the most recent period. And fourth, despite the fact that this review adheres to established policies and guidelines associated with systematic reviews, a separate prespecified protocol was not published for the study as it builds on a preceding scoping review (an acceptable strategy, according to Munn and colleagues).<sup>45</sup> In addition, the timeline is prolonged by this nested approach, since the scoping review takes place and is followed in time by the systematic selection. In a fast-moving field, we may have missed some recent studies, but we hoped to address that by conducting internet searches on the most recent publications, some of which had not yet made it into the academic databases. We are aware of at least one relevant study published since we conducted our analysis.<sup>46</sup>

## Conclusion

Social and gender norms are central to child marriage, and awareness is growing of the potential impact on child marriage of programmes that attempt to shift norms. Yet research and programming on norm change needs shared definitions, terminology and theories of change linking activities to specific norms and reference groups. When norm change is part of a programme's theory of change, then programme activities and their impact on both norms and the outcomes those norms are meant to influence need to be measured. As others have written, norms research is a field in its own adolescence,<sup>44</sup> making it all the more important to learn from successes in other areas including adolescent sexual and reproductive health and the prevention of female genital mutilation.

While momentum has built around better conceptualisation and measurement of norms in preventing child marriage over the past 10 years, greater consensus is

needed on prioritised norms and pathways of change. Ultimately, consensus on how to approach normative change in child marriage programming requires building agreement across a range of stakeholders.<sup>47</sup> Conducting a Delphi study to gain greater clarity could contribute to building agreement on a set of domains, questions and a shared framework for measurement.<sup>48</sup> Our findings underscore, for example, the need to test economic interventions as one element of social norms programming.

To realise the potential of normative programming in ending child marriage, we call on the field to hold itself accountable to greater conceptual clarity, consistent implementation and more complete and rigorous measurement of norms-change work. When norm change is a programme goal and part of its theory of change, then programme activities need to reflect this and programme impact on both norms and the outcomes those norms are meant to influence needs to be measured. What we found, therefore, was not that norms programming will not work, but rather that almost no one is doing it well.

In order to evaluate the range of interventions working to shift norms related to child marriage, the child marriage field needs validated instruments for quantitatively and qualitatively measuring change in social norms. The recent Tipping Point study in Bangladesh moves decisively in the right direction on this,<sup>49 50</sup> pairing a cluster RCT with qualitative data.

Identifying relevant reference groups for girls at risk of child marriage and naming the power-holders and decision-makers in their lives is also essential. Data must be collected from the correct people in girls' lives and should go beyond attitudes to collect data on norms and behaviours, for example, asking about the perceived benefits of delaying child marriage.

The potential sustainability of norm change programming, as witnessed by work in related areas such as female genital mutilation and education, has also contributed to interest in harnessing this approach to address child marriage.<sup>6</sup> If norms are 'upstream' from outcomes, investing in norm change programming should theoretically be able to dislodge support for multiple practices that limit health and well-being. This is aligned with the call from the Sustainable Development Goals to invest in activities that promote synergies. Taken together, these factors make programmes to promote norm change very promising and potentially valuable areas in which to invest.

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