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A systematic review of microfinance interventions and violence against women: results from low- and middle-income contexts

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ABSTRACT

Background Women's economic empowerment is a longstanding strategy for reducing violence against women and girls (VAWG). Microfinance, the provision of credit and savings opportunities to low-resourced populations, is often delivered in combination with other types of programming, such as gender training, making it hard to assess impact alone and/or in combination with other programming. We assess the effectiveness of diverse forms of microfinance intervention delivery on VAWG.

Methods The systematic review covered nine databases and grey literature sources for articles published between January 2015 and August 2023. Eligible studies were English language experimental and quasi-experimental evaluations of microfinance programming with a VAWG outcome conducted within a low- or middle-income country. Study members reviewed in Covidence and extracted summary data. A parallel qualitative scoping review was conducted.

Results A total of 3288 studies were reviewed, of which 16 were eligible, with an additional nine grey literature sourced studies (n=25). Most assessed group microfinance (n=16) in relation to intimate partner violence (n=20). Across studies, there were 38 trial arm comparisons, of which 30 were from low-bias studies, inclusive of 15 that identified economic impact. Only 24% (n=9) of comparisons assessed impacts of microfinance programming delivered alone; six null and three protective. Impacts of adding supplemental non-economic programming to microfinance (n=14) and delivering microfinance with non-economic programming (n=15) had mixed results. Qualitative synthesis highlighted the benefits and harms of microfinance.

Conclusion Microfinance can reduce VAWG in some cases; however, overall results are mixed with the majority being null results. Several complexities emerged: variability in both microfinance programme delivery, often involving supplementary programming, and measurement of economic impact on the pathway to reducing VAWG. Both reflect the expanded programming underway and must be considered for a nuanced understanding of microfinance's VAWG impact. The review identifies a small but important evidence base of VAWG increasing due to programming. Varied supplemental non-economic programming was not consistently found to enhance the effectiveness of microfinance in reducing VAWG. Actionable gaps for future programmatic and evaluation work include examining differences across supplemental programming, populations, and outcomes.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Past reviews on the relationship of women's economic empowerment (WEE) and violence against women and girls (VAWG) have found mixed results and broadly suggest the addition of gender transformative programming to complement economic programming; such reviews include diverse WEE programmatic approaches, contributing to mixed findings.

WHAT THIS STUDY ADDS

⇒ This current review finds that microfinance can reduce VAWG in certain contexts, with a third of microfinance impacts and a fifth of impacts of microfinance delivered in multifaceted programming showing protective results. However, over half of the 38 trial arm comparisons across the 25 studies showcase null results, with 4 cases of adverse impact. Recent evidence does not suggest that adding supplementary programming to microfinance consistently enhances the potential of microfinance to reduce VAWG.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ Rigorous evaluation of 'microfinance only' continues to be necessary, as are impact evaluation designs that enable understanding of the types of supplemental programming in combination with microfinance that are most effective at reducing VAWG. Given results that the impact of microfinance on violence may differ by target population and programme delivery, the next generation of microfinance evaluations must rigorously assess the role of implementation quality, differences in savings versus loans programming, and variations across supplemental supportive programming to enhance clarity on where and for whom these programmes are successful.

BACKGROUND

Violence against women and girls (VAWG) is defined by the United Nations as any act of gender-based violence that results in physical, sexual or emotional harm to women.[1] VAWG is experienced by approximately one in three women globally and has profound health repercussions.[2–4] Women's economic empowerment is a specific form of empowerment relating to acquiring access to and agency over economic productivity,[5] and associated programming is a diverse group of interventions inclusive of microfinance, cash transfers, asset transfer, and skills or livelihoods/employment programmes.[6] Women's economic empowerment programming has been widely explored as a mechanism to reduce VAWG through improving women's status.

Yet, several reviews over the past 15 years have highlighted mixed results across contexts and populations.[7 8] Dependency theory argues that women who lack economic resources also lack decision-making power and resources to address VAWG; thus, economic empowerment should decrease risk.[9 10] However, relative resource theory posits that economic empowerment can challenge existing power dynamics and norms in women's relationships with spouses, family, communities, etc, thus causing backlash and increased risk of violence.[11–13] Recent reviews, including the What Works 2014 and 2020 review, have highlighted a need to complement women's economic empowerment programming with gender transformative approaches (eg, social norms and behavioural change, couples' programmes to prevent violence) and understand the variation in impact across different types of such supplemental programming.[14–16] The 2020 What Works review further found little evidence of backlash due to economic empowerment interventions. J-PAL investigated economic interventions broadly and found that, overall, improved access to economic resources had mixed effects on women's exposure to violence.[15] Eggers *et al* also investigated economic empowerment interventions broadly, finding overall negative impact on intimate partner violence (IPV), with amplified benefits when gender sensitisation was included.[7]

Among existing recent reviews on the relationship between women's economic empowerment and VAWG, three gaps exist that this systematic review seeks to fill. First, while some reviews do assess evidence through exploring economic pathways, most do not consider programmatic impact on women's economic status or agency *before* assessing whether violence was impacted.[17] Given that the programme's economic success is critical for evaluating theoretical pathways to violence experience, our review fills this gap by assessing programme impact on economic status, our 'mediator' of interest on the pathway to violence reduction. Second, existing reviews have not yet identified supplemental non-economic interventions that consistently support the reduction of violence in correspondence to economic empowerment programming, though some suggest that supplemental gender sensitisation programming is helpful.[15 18] This review helps to fill this gap by discussing types of programming involved in the evidence base since 2015 and the corresponding impact. Third, past reviews on the relationship between women's economic empowerment and VAWG have typically focused on diverse economic empowerment programming inclusive of microfinance, cash transfers, and livelihoods, lending to less clarity on mechanisms and contributing to mixed results. Recent frameworks published by the World Bank emphasise the importance of differentiating microfinance from other forms of economic empowerment programming, such as livelihood support and social protection (online supplemental annex figure 1).[6 19]

The review focuses specifically on microfinance as a unique form of economic empowerment that emerged in the 1970s to provide access to credit to vulnerable groups, often women, who were unable to access financial services through formal banking systems given they were considered high risk due to lack of requisite documents and/or collateral. Microfinance initially started as microcredit, and over the years expanded to include savings/deposits.[20] Microcredit is one of the most common forms of economic empowerment and, initially, was described as a 'silver bullet' for poverty alleviation.[21] Microfinance has been promoted as a financial mechanism that moves away from 'hand-outs' and towards strengthening the borrower's agency and providing sustainable economic solutions. Thus, microfinance has the potential to provide opportunities to foster women's empowerment and challenge gender norms over the long term. However, the literature has found a mixed impact of credit, such as little evidence of improvement in women's control of household spending and behaviour change outcomes,[20] though some evidence suggests its impact depends on the type of delivery.[21] Savings opportunities specifically may have more positive impact on women's economic and social well-being, with fewer risks than that of loan programmes.[20 22] While substantial evidence has highlighted the ability for cash transfers to reduce violence globally for certain subpopulations of women,[17 18 23 24] the relationship between microfinance and VAWG is less clear and requires further synthesis, with an eye to differences in group versus individual programming, credit versus savings, and types of non-economic programme packaging with microfinance. In recent years, microfinance evaluations have more frequently evaluated the joint effect of microfinance and non-economic programming or the impact of adding non-economic programming to microfinance programming, as opposed to 'pure' microfinance effects, with little attention to the differences in information that these types of impacts provide to the field.

Against this backdrop, the aim of this systematic review is to assess the available evidence published since 2015 on the effectiveness of microfinance interventions in preventing and/or reducing VAWG in low- and middle-income countries. To help set an agenda for the next generation of research on the microfinance-VAWG

relationship, we seek to evaluate not only the impact of 'pure' microfinance but also the impact of multifaceted programming that involves microfinance and the impact of adding supplemental non-economic programming to microfinance programming, as reflective of the current evaluation literature in the field. To do this effectively, the review identifies types of trial arm comparisons within and across studies. In this review, a *trial arm comparison* is the comparison of one treatment arm to another treatment arm or a control arm; most studies had more than one trial arm comparison. A trial arm comparison can measure either the (1) impact of microfinance alone ('microfinance impact') that compares those who went through a microfinance programme to those who did not receive the microfinance programming, (2) impact of microfinance delivered with non-economic programming ('combined impact') which compares those who went through a microfinance programme that was delivered with non-microfinance programming to those who did not receive the packaged programming, or (3) impact of delivering a supplemental programme to microfinance participants ('supplemental impact') which compares those who went through a microfinance programme that was delivered with non-economic supplemental programming to those who went through the microfinance programming without the non-economic components. We include the impact of supplementing microfinance with non-economic programming within this analysis due to the increased interest in the field of adding supplemental non-economic programming to microfinance to reduce VAWG. Subaims seek to comprehensively understand the quality of the existing evidence base, including whether studies assessed the economic impact of the programme, and the existing evidence on what types of programmes are working, such as differences in group-based and individual-based delivery of microfinance. Further, through a parallel qualitative scoping review, we explore the mechanisms through which microfinance interventions contribute to the reduction of VAWG or create unintended consequences.

METHODS

The protocol for this review is registered with PROSPERO as CRD42023449617. The review is a systematic review without meta-analysis and includes a complementary qualitative scoping review.

Eligibility criteria

We included all English language experimental and quasi-experimental evaluations published since 2015 of microfinance programming with a VAWG outcome conducted within a low- or middle-income country (World Bank defined). The author team chose 2015 as the cut-off due to changes in evolving tech and economic systems (eg, increased access to mobile banking) in under-resourced areas and recommendations to include supplemental programming to microfinance in the post-2015 period. Cross-sectional and non-randomised studies were included if they had a comparison group and applied strategies to address selection bias that affected exposure to the microfinance intervention. Interventions that involved microfinance, specifically credit/lending schemes or the introduction to savings or formal banking, were included. This includes group-based microfinance, such as self-help groups (SHG) or village savings and loans groups (VSLA), which may be women-only or mixed-gender schemes, and individual-level microfinance, such as individual loans to start a business or access to savings accounts. Cash or asset transfers, gifts, livelihoods training and social empowerment programming were excluded unless complemented by microfinance. In some cases, microfinance is packaged with other economic programming such as business training to complement the microcredit loan. We treat this together as 'microfinance programming', and only non-economic programming is considered supplemental. Eligible studies had at least one outcome on violence against women or girls that was measured after the programme conclusion among both the intervention and a comparison group, inclusive of intimate partner violence (IPV) and non-partner VAWG, such as sexual harassment. Non-gender-specific forms of violence, such as bullying, youth violence and homicides, are excluded. Child marriage, trafficking, female genital cutting, and honour killing were also excluded. Online supplemental annex table 1 outlines the included studies and online supplemental annex table 2 outlines studies included in full-text screening that were excluded with the reason for exclusion.

Information sources and search strategy

Scopus, PubMed, EMBASE, Medline, EconLit, PAIS, Social Services Abstract, Business Source Ultimate and 3ie were searched from 1 January 2015 to 8 August 2023. Citations were downloaded from the databases into EndNote and then uploaded into Covidence; duplicates were removed. Online supplemental appendixIn parallel to the systematic review of peer-reviewed literature, a grey literature search of publications through United Nations system agencies, governments/national authorities research, academic institutions, large non-governmental organisations and Google Scholar was conducted. Sensitivity verification of our search included cross-checking search results with expert-nominated articles and reference lists of other systematic reviews on this topic. Search terms are presented in online supplemental annex figure 2.

Selection process, data extraction and synthesis methods

Using Covidence, two independent reviewers among a team of five screened each title and abstract against eligibility criteria. Subsequently, full articles were reviewed for eligibility. Instances where there was a discrepancy between the two reviewers were resolved by a third reviewer. Extraction of articles was done in a

shared Google spreadsheet, with all entries subsequently reviewed by a second reviewer. The extraction covered project name, location, study population, intervention(s) description, including whether it was a group or individual programme, evaluation study design and follow-up, sample size, and outcome types. Outcome types included physical, sexual and emotional IPV and non-partner violence. Economic empowerment process measures included economic status, resources, or women's economic agency, as defined by the study. Stratified results, as presented by the study authors, were noted by trial arm comparison. The study authors' discussion on components of the intervention driving main effects, implementation successes and barriers, and unintended consequences was extracted. For systematising results across studies, effect estimates were not reported but rather reduction, no reduction, not significant was noted by outcome, by trial arm comparison using a consistent cut-off of p value equal to 0.05.

Results synthesis was organised by trial arm comparisons, rather than by study, since many studies housed more than two trial arms and more than one comparison. We define a trial arm comparison as the impact of one trial arm compared to another trial arm and labelled these comparisons as either impacts of microfinance alone ('microfinance'), microfinance combined with non-economic programming ('combined'), or adding on a non-economic programme to microfinance ('supplemental'). A trial arm comparison assessing a **microfinance impact** compares women receiving microfinance with women not receiving microfinance; this could be microfinance only versus a pure control group, or a combined microfinance programme versus an active control receiving the non-economic pieces of the combined programme. A trial arm comparison assessing a **combined impact** compares women receiving combined microfinance and non-economic programming with women not receiving that combination; this could be a combined microfinance programme group versus a pure control group, or could be a combined microfinance programme versus an active control receiving *part* of the non-economic pieces of the combined programme or some other programme. A trial arm comparison assessing a **supplemental impact** compares women receiving combined microfinance and non-economic programming with women who are receiving microfinance and are not receiving part or all of the non-economic programming. Combined and supplemental programming involved non-economic components. In some cases, a trial arm comparison measured multiple VAWG outcomes and therefore had multiple effects/coefficients. For trial arm comparisons that measured multiple VAWG outcomes, the impact was classified as 'reduced' or 'increased' if at least one of the outcomes was reduced or increased and there were no other outcomes with opposing directionality. For example, a trial arm comparison's impact was labelled as 'increased VAWG' if all effects/outcomes increased or one or more effects/outcomes increased and other outcomes (if applicable) were null. If all outcomes were null, the impact was categorised as null. If some outcomes increased and some decreased, the impact was categorised as mixed.

Methodology risk of bias assessment and trial comparison rigour

The methodological quality of the included studies was assessed using the Evidence Project Risk of Bias Tool, a recently developed yet widely used tool that can be applied to both randomised and non-randomised intervention evaluation studies.[25] This study bias assessment ranged from 0 to 6, with points given if the study had (1) pre/post outcome data; (2) attrition of 20% or less; (3) randomisation to treatment; (4) randomisation to assessment, meaning, avoidance of selection bias during enrolment into the study (if authors use a probability sample to select participants, as in the study has a pre-assessed sampling frame in which people are randomly selected from the specified population, this criterion is met; studies using a non-probability sample, such as self-selected sampling or convenience sampling, do not meet these criteria); (5) balance testing of demographics; and (6) balance testing at baseline of outcome measures. In our review, a score of 5–6 had strong methods, 3–4 had medium methods and <3 had weak methods; studies that were not randomised trials could not be greater than 5 and cross-sectional studies could not be greater than 2. Risk assessment scoring by study using the tool is presented in online supplemental annex table 3. For the purposes of this review, we define a trial arm comparison as rigorous if it came from a study with strong or medium methods. In addition to the methodological quality of the study, we synthesise results uniquely among trial arm comparisons that were from rigorous studies *and* found improvement in women's economic participation, status or agency. The focus on this subgroup of trial arm comparisons stems from these programmes being economically effective, and therefore more likely to affect VAWG. We include economic change assessment for the addition of supplemental, non-economic programming to microfinance programming within this analysis due to our theory of change that supplemental training packages may enhance the economic empowerment effects of the microfinance intervention, thus channelling potential impacts on women's status and, therefore, VAWG.

Qualitative scoping review

Taking advantage of our search strategy, qualitative studies were identified for a complementary qualitative scoping review. While screening abstracts and titles in Covidence, reviewers tagged relevant qualitative or mixed-methods studies. Tagged citations were downloaded from Covidence and screened by two reviewers. Studies were included if they discussed a microfinance programme and if women were asked about how the programme affected violence experience. Extraction was done in Excel with the following fields: (1) What are

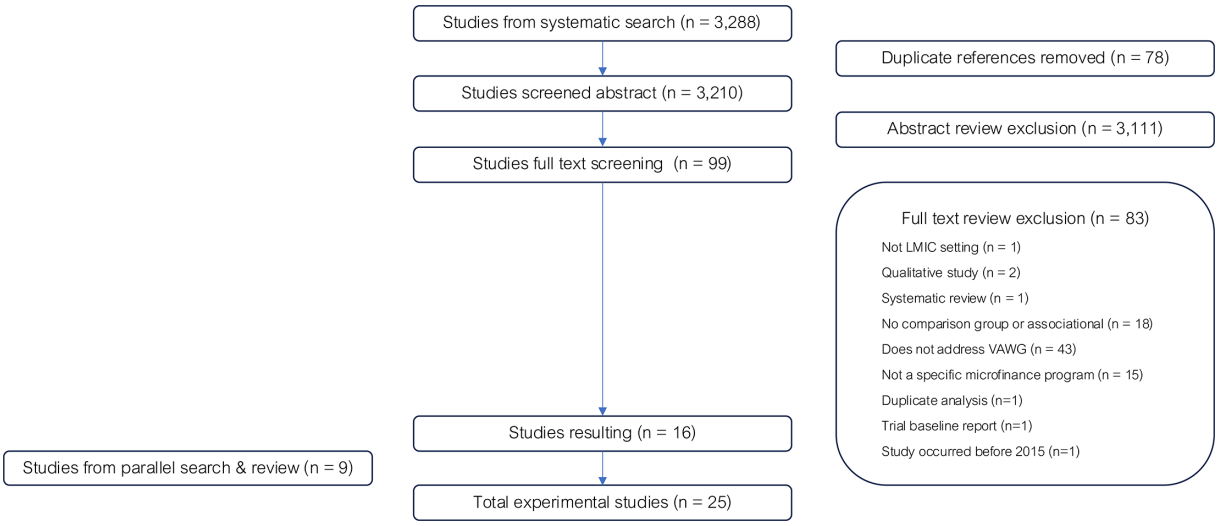

Figure 1 Study flow chart.

the characteristics, components, or principles that make these interventions successful?, (2) How does supplemental support or training on life/soft skills, gender, social cohesion, or social empowerment complement the impacts of microfinance on VAWG?, and (3) What is the role of the broader normative, economic, and gender equity climate on the impact of microfinance on VAWG? While not part of the original study protocol, the qualitative scoping review was added to help explore mechanisms behind evaluated quantitative effects.

Patient and public involvement

It was not appropriate or possible to involve patients or the public in the design, conduct, reporting, dissemination plans of our research.

RESULTS

Study summary

The search criteria generated 3288 studies, resulting in 3210 studies after duplicates were removed. Title and abstract screening resulted in 3111 studies being excluded. In full-text screening, an additional 83 articles were excluded due to issues laid out in figure 1 and online supplemental annex table 2, leaving 16 articles for further evaluation in the data extraction phase. A parallel search and grey literature review yielded 9 additional studies, culminating in a total of 25 studies. More studies were published post 2018 (n=18) than from 2015 to 2018. Figure 1 outlines the flow towards the 25 included studies, inclusive of 38 trial arm comparisons. Included trial arm comparisons and their characteristics, risk of bias rating, and results by outcome are presented in online supplemental annex table 1.

Studies spanned 16 countries in sub-Saharan Africa, South America, South Asia and Central Asia. Most studies (20/25; 80%) assessed impacts on IPV; 4/25 (16%) evaluated any violence by any perpetrator, 2/25 (8%) evaluated violence by a paying partner/client and 2/25 (8%) evaluated harassment (table 1). Among the full set of studies, 17/25 (68%) were randomised controlled trials and 8/25 (32%) were quasi-experimental. Almost double the number of studies explored group microfinance (n=16) as compared with individual microfinance (n=9). Most study populations were ever-partnered women (21/25, 84%), 6 studies focused on vulnerable subpopulations (3 studies focused on youth (girls below age 18), 2 focused on adult sex workers and 1 took place in a conflict-affected setting), and 6 studies focused exclusively on ultra-poor/low-income groups (study author defined). Interventions varied from 3 months to multiple years, though many programmes (such as group village savings and loans associations) were ongoing or dependent on the group. Follow-up periods ranged from less than a year (2/25; 8%) to over 48 months (1/25; 4%), with a quarter (6/25, 24%) having no follow-up due to the cross-sectional study design.

A total of 38 trial arm comparisons existed across the 25 studies; 9/38 (24%) assessed the microfinance impact, 15/38 (39%) assessed the combined impact and 14/38 (37%) assessed the supplemental impact of non-economic programming. Only about a quarter of trial arm comparisons (8/38) were from studies with weak methodology/high risk of bias. Only six trial arm comparisons measuring the impact of microfinance programming on its own were from low-bias studies. Across the 38 trial arm comparisons, about a third (n=14) did not measure impact on economic empowerment (table 1). About a third of trial arm comparisons (37%) were identified for unique focus on violence impact due to having both rigorous study methodology and showing evidence of economic impact: microfinance (n=2), combined (n=9) and supplemental (n=4) (table 1).

Results by trial arm comparison type

Microfinance only trial arm comparisons (impact of microfinance alone)

Among the nine microfinance trial arm comparisons, five focused on individual-level microfinance

Table 1 Studies summary

Violence outcome (not mutually exclusive, studies (n=25))	
Intimate partner violence	20 (80%)
Violence any perpetrator	4 (16%)
Violence from a paying partner/ client	2 (8%)
Harassment	2 (8%)
Study design (mutually exclusive, studies (n=25))	
Randomised controlled trial	17 (68%)
Quasi-experimental	8 (32%)
Microfinance delivery type (mutually exclusive, studies (n=25))	
Group	16 (64%)
Individual	9 (36%)
Populations* (not mutually exclusive, studies (n=25))	
Ever-partnered women	21 (84%)
Vulnerable subpopulations	6 (24%)
Exclusively low-income	6 (24%)
Follow-up period (mutually exclusive, studies (n=25))	
≤12 months	2 (8%)
13–24 months	11 (44%)
25-48 months	5 (20%)
>48 months	1 (4%)
Cross-sectional	6 (24%)
Measurement of economic mediation (mutually exclusive, comparisons (n=38))	
Economic outcome measurement	24 (63%)
Microfinance effect	4
Combined effect	11
Supplemental effect	9
No economic outcome measurement	14 (37%)
Microfinance effect	5
Combined effect	4
Supplemental effect	5
Trial arm comparison rigour† (mutually exclusive, comparisons (n=38))	
Rigorous comparisons†	30 (79%)
Microfinance effect	6
Combined effect	10
Supplemental effect	14
Non-rigorous comparisons	8 (21%)
Microfinance effect	3
Combined effect	5
Supplemental effect	0

Continued

Table 1 Continued

Trial arm comparison rigour† (mutually exclusive, comparisons (n=38))

*Vulnerable subpopulations include youth, adult sex workers and conflict-affected populations. Exclusively low-income defined by study authors
†Rigour defined as originating from studies with strong or medium methods (see online supplemental annex table 3).

programming and four focused on group-level microfinance programming (table 2). The five microfinance comparisons with individual-level microfinance interventions consisted of support with opening savings accounts for girl youth enrolled in schools in Kenya[26] and Ghana;[27] personal savings accounts with matched deposits for urban partnered women in Colombia;[28] and individually matched savings programmes for women who exchange sex combined with a HIV risk reduction (HIVRR) programme in Kazakhstan[29] and Mongolia[30] (which was compared with the HIVRR programme by itself to assess the effect of microfinance alone). The four microfinance comparisons with group-level microfinance interventions consisted of SHGs for adult women in India[31 32] and Bangladesh.[33 34] Across the nine microfinance comparisons, six impacts on VAWG were null and three reduced VAWG (table 2). Results for microfinance were generally the same between individual and group programme delivery. Among interventions that were explicitly savings or credit, two of five savings trial arm comparisons were protective[27 29] (three null[26 28 30]) and the single credit microfinance trial arm comparison was null.[33] Only two microfinance-only comparisons were rigorous and found economic impact (table 1), of which one found decreased IPV due to a group savings and loans programme for adult women[32] and the other found null results of opening savings accounts on the experience of emotional, physical or sexual violence by any male among schoolgirls in Kenya.[26]

Combined trial arm comparisons (impact of microfinance combined with multifaceted programming)

Among the 15 combined microfinance trial arm comparisons, five included an individual-level microfinance programme, and 10 included a group-level microfinance programme. Programmes with a combined individual-level microfinance intervention included a family rural income improvement programme offering individual credit for married women coupled with gender training in Cameroon;[35] an individual savings account start-up programme for girls aged 13–14 combined with a life skills curriculum, caregiver discussion groups and incentives, and health and psychosocial service capacity building in Liberia;[36] an individual savings account start-up programme for girls aged 10–14 combined with violence prevention and broader educational and health curriculum in Kenya;[26] and an individual loan for ultra-poor women combined with life skills training on health,

Table 2 Cross-comparison results summary

	#	Reduced	Increased	Null	Mixed
All trial arm comparisons					
Overall (n=38)					
Microfinance	9	3 (33%)		6 (66%)	
Combined microfinance	15	3 (20%)	2 (13%)	10 (67%)	
Supplemental	14	4 (29%)	1 (7%)	8 (57%)	1 (7%)
Individual microfinance (n=12)					
Microfinance	5	2 (40%)		3 (60%)	
Combined microfinance	5	1 (20%)	1 (20%)	3 (60%)	
Supplemental	2			1 (50%)	1 (50%)
Group microfinance (n=26)					
Microfinance	4	1 (25%)		3 (75%)	
Combined microfinance	10	2 (17%)	1 (8%)	7 (75%)	
Supplemental	12	4 (31%)	1 (8%)	7 (62%)	
Trial arm comparisons from studies with strong or medium study methods					
Overall (n=30)					
Microfinance	6	3 (50%)		3 (50%)	
Combined microfinance	10	2 (20%)		8 (80%)	
Supplemental	14	4 (29%)	1 (7%)	8 (57%)	1 (7%)
Individual microfinance (n=10)					
Microfinance	5	2 (40%)		3 (60%)	
Combined microfinance	3			3 (100%)	
Supplemental	2			1 (50%)	1 (50%)
Group microfinance (n=20)					
Microfinance	1	1 (100%)			
Combined microfinance	7	2 (29%)		5 (71%)	
Supplemental	12	4 (33%)	1 (8%)	7 (58%)	
Trial arm comparisons from strong or medium study methods and evidence of economic impact					
Overall (n=15)					
Microfinance	2	1 (50%)		1 (50%)	
Combined Microfinance	9	2 (22%)		7 (78%)	
Supplemental	4	1 (25%)	1 (25%)	1 (25%)	1 (25%)
Individual microfinance (n=5)					
Microfinance	1			1 (100%)	
Combined microfinance	3			3 (100%)	
Supplemental	1				1 (100%)
Group microfinance (n=10)					
Microfinance	1	1 (100%)			
Combined microfinance	6	2 (33%)		4 (67%)	
Supplemental	3	1 (25%)	1 (25%)	1 (50%)	

For trial arm comparisons that measured multiple violence outcomes, the impact was classified as 'reduced' or 'increased' if at least one of the outcomes was reduced or increased and other outcomes (if applicable) were null. As in, if three different violence outcomes were measured, and one VAWG outcome increased and the other two outcomes were null, the impact was categorised as increased VAWG. If all outcomes were null, the trial arm comparison impact was categorised as null. If some outcomes increased and some decreased, the impact was categorised as mixed, which was the case in one trial arm comparison (Bulte and Lensink[44]).

Significance based on $p<0.05$

business and community mobilisation in Bangladesh.[37] Programmes with a combined group-level microfinance intervention included a VSLA for ultra-poor mothers combined with livelihoods training, cash transfers, and both one-on-one and family coaching in Burkina Faso;[38] a VSLA for poor mothers combined with social analysis and action, nutrition behaviour change, and community-based programming in Ethiopia;[39] a SHG for married couples combined with community activities on education, health and poverty in India;[40] a VSLA for ultra-poor women combined with a cash transfer, livelihoods and life skills training, referrals to health/legal/financial services, safe spaces for women, and men's engagement in DRC;[41] a VSLA for rural women combined with a couple's gender training programme in Uganda;[42] and SHGs for married women combined with legal aid and networking in Bangladesh.[33 43] Across the 15 combined effect comparisons, 10 impacts on VAWG were null, 3 reduced VAWG and 2 increased VAWG (table 2). The two combined trial arm comparisons that increased VAWG were a SHG for married women combined with legal aid and networking in Bangladesh with weak study rigour[33] and an individual credit programme for women coupled with a gender training in Cameroon with weak study rigour.[35] Results for combined trial arm comparisons were generally the same between individual and group microfinance effects. Among interventions that were explicitly savings or credit, all three savings combined trial arm comparisons were null[26 36] and the four credit combined trial arm comparisons were protective (1),[37] risky (2)[33 35] and null (1).[43] Only nine combined trial arm comparisons were rigorous and found economic impact (table 1). Two found decreased VAWG, and seven found null effects. The two with decreased VAWG were from the same study[38] in which a VSLA combined with one-on-one coaching and home visits compared with a pure control reduced emotional IPV. The same programme with the addition of gender-sensitive family coaching intervention also decreased emotional IPV.

Supplemental trial arm comparisons (impact of delivering non-microfinance programming to microfinance participants)

Among the 14 supplemental trial arm comparisons, 2 involved individual-level microfinance programming and 12 involved group-level microfinance programming. The two trial arm comparisons measuring the impact of adding on supplemental programming to individual-level microfinance came from the same study in Vietnam.[44] One of the study's trial arm comparisons measured the impact of adding a gender and entrepreneurship training to an individual loan programme; the second measured the further addition of a male partner engagement programme. Adding non-economic programming to group-level microfinance programming included a couples' gender curriculum added to VSLA programming for married couples in Rwanda;[45] a family coaching curriculum added to VSLA programming that included one-on-one counselling and livelihoods training for ultra-poor married mothers in Burkina Faso;[38] a livelihood and gender training added to a SHG and further additions of a husband masculinity and GBV training for married women in India;[46] a gender violence training added to a VSLA for poor women in Peru;[47] a gender training added to SHG for women in Tanzania;[48] a violence training added to SHGs, with further additions of community-level women's safety audits, and further additions of gender training with men in the community, for women in India;[49] a gender programme for male partners added to a SHG combined with business, IPV and HIV skills training, and further additions of community gender norms engagement for married women in Tanzania;[50] and a men's engagement programme added to a VSLA combined with life skills training and health/legal/financial services for ultra-poor women in the DRC.[41]

Across the 14 supplemental trial arm comparisons, all were from studies with rigorous, low-bias methods (table 1). Eight impacts on VAWG were null, four reduced VAWG, one increased VAWG and one had mixed results in which one violence outcome increased and the other decreased (table 2). The addition of a livelihoods and gender training to a SHG among women in India increased emotional IPV (note: emotional IPV measure in study may be outdated) in a rigorous comparison.[46] The addition of a gender and entrepreneurs training to an individual-level loan programme measuring IPV in Vietnam was found to increase and decrease physical IPV when using an indirect and direct measure of IPV, respectively, suggesting mixed and inconclusive results.[44] Given few studies on individual-level microfinance, there is little ability to compare supplemental effects between individual-level and group-level interventions. The single trial arm comparison that was rigorous, found economic impact due to the supplemental programme, and decreased VAWG was the addition of a couples' gender curriculum to a VSLA programme for married couples in Rwanda.[45]

Results on male engagement, adverse effects and heterogeneity

Male engagement

Across the 25 studies, seven studies explicitly measured the impact of adding supplemental programming that involved male partners or male community member engagement through seven trial arm comparisons. Across the seven, five were null and two protective. The two male engagement programmes that reduced VAWG were the addition of a couples' curriculum to a VSLA programme in Rwanda[45] and the addition of a gender programme for male partners to a VSLA programme in Tanzania.[50] Null effects of male engagement were likely due to implementation challenges, suggesting that the level of male involvement, as well as the quality, influences the potential for positive effects to microfinance interventions. For instance, Bulte and Lensink[44] found that adding an additional intervention component that

involved male spouse participation did not have an impact on IPV reduction, using both an indirect and direct measure of IPV. The authors highlight that there was extensive non-compliance among husbands to the training, with high no-show rates.[44] Similarly, Jejeebhoy *et al* found that adding messaging to husbands on masculinity to a SHG model plus included livelihoods and gender training did not have any effect, predominately due to lack of interest among men to participate.[46] In sum, most effects involving male participation were null but there is evidence of male engagement supporting beneficial impact on VAWG.

Backlash

Across the 38 trial arm comparisons, 4 documented evidence of spousal backlash, or increased IPV: 2 of which were supplemental programming impact and two were combined programming impact. The first case in which a supplemental impact increased IPV was the addition of gender livelihoods training for women who may have increased their personal agency and led to a backlash in the form of emotional IPV (it is important to note that the emotional violence measure in Jejeebhoy *et al*[46] may be an outdated measure).[46] The second was the addition of a gender and entrepreneurs programme to an individual-level loan programme; however, this increase in physical IPV was found when measuring IPV using an indirect measure; the same supplemental effect using a direct measure found decreases in physical IPV.[44] Eze Eze documented increased physical or emotional IPV due to the combined effect of the Familial Rural Income Improvement Program (PAPFAR) in Cameroon, accompanied by a decrease in women's acceptance of violence, which may explain the backlash.[35] De and Christian evaluated different types of lending models across Bangladesh and found that specifically those who also provided other services (combined programming impact), such as legal aid, led to *increased* physical IPV, while the Grameen loan programme, which did not provide additional programming, had null effects.[33]

Impact may vary by study population and baseline violence risk

Ranganathan *et al* found a VSLA for poor mothers combined with social analysis and action, nutrition behaviour change, and community-based programming in Ethiopia to have overall null effects on IPV; however, reductions in physical and sexual IPV were observed among the poorest groups.[51] The one study among severely vulnerable women living in war and conflict settings found overall null effects, likely reflecting the severity of need in these settings for which credit/lending cannot lead to sustainable, structural change.[41] However, there were contrasting results by women's baseline IPV risk: women with low baseline IPV risk had increased IPV due to the combined programme and women with high baseline IPV risk had decreased IPV due to the combined programme.[41] In India, SHGs combined with community activities on health, education and poverty were found to increase IPV 5 years after initiation; however, this was only found among women who married with a dowry, and effects remained null among women without a dowry.[40]

Qualitative scoping review findings on mechanisms

A total of 82 studies were screened for inclusion in the qualitative scoping review, 11 went through extraction/full text review and 8 were included in the below analysis.[11–13 51–55] Included qualitative studies were case studies, assessments and qualitative research on microcredit programming in Peru (one study), Bangladesh (three), Uganda (two), South Africa (one) and Ghana (one).

Microfinance benefits

In some cases, women reported that participation in group microfinance through weekly activities and discussions increased social support, cohesion and self-confidence, and this, in turn, encouraged the sharing of knowledge and resources and enabled members to cooperate in repaying loans.[51] Women reported that by participating in the weekly meetings and being outside their homes/network, they had increased mobility and were meeting different people and gaining experience; they felt empowered by the interactions and learnings.[51] Women also reported improved relationships with their male partner once they started to earn income and contribute income to the household; women noted this was especially important if the partner had been the only income earner in the household or the partner was not currently working.[39] Women described cooperation with their partner over economic decision-making once the partner recognised the benefit of the income the woman was contributing to the household, reducing their scepticism of a woman's ability to successfully manage a business.[51]

Microfinance harms

Included studies highlighted that some women in microfinance programmes reported harms (violence, harassment, shame) and attributed them to programming causing pushback on the prevailing social and gender norms, regardless of the benefits of the additional income to the household.[11] Despite women reporting feeling more confident and a sense of empowerment, they remained constrained by norms of male authority in the family and community.[52] Women reported violence by their husbands (or other male relatives) primarily when women challenged or disagreed with decisions of how the loan would be used, therefore threatening their authority in the household.[12 13] Women noted being at the 'mercy' of their husbands, regardless of their economic contribution, and had decided not to challenge their positions in the household and community.[53] Specifically,

husbands raised concerns about her time away from the household, in terms of neglect of household chores, neglect of children, and potential of meeting men outside the home while operating the business, thus a potential for infidelity.[53] Women also reported violence-related jealousy from the partner, jealousy of the success of the business, and accusations of infidelity because she is out of the home related to the business.[51]

Loan repayment challenges were also found to cause harm. In Bangladesh, there was consensus among focus group participants that the challenge of making weekly payments increased the risk of violence because of the need to ask husbands for money to support repayment.[53] Women reported feeling harassed by loan officers when they came to the home to collect payments, and they could not make payments immediately, creating conflict with their husbands.[54] The inability to make payments was perceived by the husband to damage the family's reputation and could not be tolerated.[54] Women reported that having credit further reduced their mobility in the community, as they could not leave their homes because of shame and fear of harassment from loan officers or police for not paying installments on time.[54] Other microfinance group members can become aggressive or abusive if a woman is not able to make an interest payment, and the other group members will be held responsible for payment.[53] Women also reported a loss of autonomy in the family related to the loan being invested in an unprofitable business, making repayment a challenge for the family, and are often blamed for the lack of success of the business.[53] Further, many women fail to invest the loan in a business to generate income because there are so many demands to meet basic needs for the household, including food, school fees and medicine.[54 55] Thus, using the loan to meet basic needs will likely result in a vicious cycle of indebtedness (needing to borrow from family/friends or moneylenders) that can lead to conflict in the home, shame in the community, and disempowerment.[12 54]

DISCUSSION

This systematic review synthesises the existing VAWG evidence base on microfinance evaluations published since 2015. Exploring and distinguishing different types of trial arm comparisons (microfinance alone, combined and supplemental) across this complex evidence base are a substantial contribution of this study and come at a critical time for understanding whether recent shifts towards multicomponent programming that supplements microfinance with empowerment or gender relations programming have generated the intended results for VAWG prevention. Going beyond exploring only the effect of 'pure' microfinance programming, this review provides a fuller picture with necessary nuance on the evaluation evidence base around microfinance programming and VAWG. This review found that while about 60% of trial arm comparisons had null effects on VAWG, around a third and a fifth of microfinance programmes and microfinance combined with non-economic programmes had at least one VAWG outcome that was reduced. Almost a third of impacts of adding supplemental programming to microfinance had protective effects. Results were similar when looking at only results of low-bias studies. For comparability, a recent systematic review on cash transfers and IPV found 5/11 studies reduced physical and/or sexual intimate partner violence, with the remaining effects null.[23] In this review, there were four cases of increased VAWG: two from a combined programme and two from a supplemental addition to a microfinance programme. This review found variability in the delivery of microfinance and measurement of economic impact on the pathway of change to violence; these complexities must be considered in characterising the overall impact of microfinance on VAWG.

Results should be understood in consideration of limitations. Limitations of the review process include the non-systematic approach to the qualitative portion of the review and the lack of meta-analysis on effect estimates. Gaps exist within the evidence base evaluated in this study. First, there were limitations on types of VAWG assessed; impact evaluations mostly focused on IPV among partnered women. Some studies focused on abuse by any perpetrator, though perpetrator identification is necessary to understand theories of change. Second, most rigorous studies evaluated microfinance embedded into a broader, often very complex, set of interventions, lending to limited knowledge of the microfinance only effect. Last, there is a gap in understanding the mechanisms behind programmatic theories of change across studies.

A deeper understanding of supplementary support to microfinance programming has been an existing gap in the field. Our synthesis suggests that some of this is working, but there is no substantial evidence that, in recent years, adding supplementary programming to microfinance has made a significant difference in the potential of microfinance programming to reduce VAWG. This may be due to implementation challenges in existing supplementary programming and/or the dearth of studies that rigorously compare microfinance combined with non-economic programming to 'pure' microfinance, to a control, which makes it hard to tease out impacts. Multifaceted programming is useful from an efficiency standpoint to deliver programming to underserved populations, but in future evaluation trials, we recommend having an arm that measures the effects of *only* microfinance to have more data on these effects in relation

to effects of microfinance complemented by gender transformative or other non-economic approaches. Further, more data on 'pure' microfinance effects will help us better discern the differences between microfinance programming that is working and that which is not, such as savings versus credit interventions, and for whom. Third, given high rates of null results among microfinance programming combined with larger social programming, we need improved understanding of what types of supplemental programming in combination with microfinance are effective. Interestingly, this review found no substantial differences between group programming and individual programming, though slightly more promise among group interventions. Given many group programmes were a mix of credit and savings, we were limited in our ability to assess differences between these two strains of microfinance. However, generally we find no adverse effects and some promise among savings programmes, and some adverse effects among credit programmes. This is an area in need of further research.

This review identified that programmes need stronger theories of change, specifically on the economic empowerment pathway. Of the seven trial arm comparisons that measured economic outcomes and found no economic resource or agency improvement, all seven found no effect on VAWG, demonstrating the importance of monitoring economic improvements among women and rigorously evaluating these outcomes. There is some evidence of the need for spousal support of women's microfinance participation, but results show that not all male engagement is working. Programming at the family or dyad level is the necessary but more challenging supplemental programming that will build sustainability; this continues to be a deeply important programmatic area. The review identified diverse programming in terms of content, delivery, frequency, duration, study follow-up periods, outcome recall periods, gender inclusivity and responsiveness to cultural and gender dynamics. While recognising the need for contextualisation, future standardisation of programming (content, duration, etc) and evaluation approaches (follow-up periods, outcome measures, etc) is recommended for stronger synthesis.

Last, our review finds that microfinance impacts differ by target population. Heterogenous mechanisms identified in the qualitative review are noteworthy, in which some women experience increased protection due to improved economic status and others experience backlash due to challenging norms or repayment struggles; this may explain the high numbers of null results in the quantitative findings, in which averages mask the nuance. Future studies should focus on specific subpopulations and/or stratify effect estimates as able, such as how Sato *et al*[40] stratified on dowry status and Ranganathan *et al*[39] stratified on wealth, finding differences in effects, and in some cases backlash, across strata. Understanding the cultural and poverty landscape is critical, noting that microfinance programmes often do not transform structural economic and oppressive systems. For the most economically vulnerable, credit and savings programmes may not be successful with certain types of delivery, such as short repayment or low interest savings plans, or in certain settings with poor investment infrastructure and urgency around addressing basic needs, such as conflict settings.[21 56] As microfinancing programming becomes increasingly complex, the next generation of evaluations must rigorously assess where, how, for whom and in what combinations these programmes are successful.

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