

Overview Review

Cite this article: Mootz JJ, Fennig M, Giusto A, Mumei A, Greene CM and Wainberg ML (2023). Interventions addressing family violence and mental illness or substance use in low- and middle-income countries: A systematic review. *Cambridge Prisms: Global Mental Health*, 10, e71, 1–16 <https://doi.org/10.1017/gmh.2023.62>

Received: 16 March 2023
Revised: 20 September 2023
Accepted: 06 October 2023

Keywords:

domestic violence; child maltreatment;
substance use; mental illness; intervention;
low- and middle-income countries



Corresponding author:

Jennifer J. Mootz;
Email: Jennifer.mootz@nyspi.columbia.edu

© The Author(s), 2023. Published by Cambridge University Press. This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted re-use, distribution and reproduction, provided the original article is properly cited.



Interventions addressing family violence and mental illness or substance use in low- and middle-income countries: A systematic review

Jennifer J. Mootz^{1,2} , Molly Fennig³, Ali Giusto^{1,2}, Audrey Mumei⁴,
Claire M. Greene⁵  and Milton L. Wainberg^{1,2}

¹Department of Psychiatry, Columbia University, New York, USA; ²New York State Psychiatric Institute, New York, USA; ³Department of Psychiatry, Washington University in St. Louis, St. Louis, USA; ⁴Department of Psychology, Columbia University, New York, USA and ⁵Mailman School of Public Health, Columbia University, New York, USA

Abstract

Most family violence research has been conducted in high-income countries, although family violence rates are higher in low- and middle-income countries (LMICs), and outcomes more severe. Given the strong associations of family violence with substance use and mental illness, the aim of this systematic review was to examine interventions that targeted familial violence and at least one other condition of substance use or mental illness to determine effective treatments in LMICs. We conducted a systematic review of interventions that addressed family violence and mental illness or substance use. A committee of three researchers independently screened titles and abstracts and conducted full-text eligibility assessments. Two researchers conducted a risk of bias assessment. Data were extracted using a structured spreadsheet and narratively synthesized. Our search identified 29 articles produced from 19 studies conducted in 13 LMICs. Most ($n = 15$) studies randomized to study condition. Lack of blinding was the most common threat. The external validity of studies was generally poor. Fourteen studies had a primary intervention target of family violence, mental health, substance use, economic improvement, or HIV. None of the studies showed improvements in all intervention areas. Child maltreatment was less likely to be addressed than intimate partner violence (IPV). Targeted interventions for substance and mental health mostly improved primary outcomes, although they were less effective in reducing IPV. Evidence-based treatments must be rigorously evaluated before innovations in implementation can occur. Interventions overwhelmingly addressed IPV victimization and should consider how to work with couples and include men and children.

Impact statement

Family violence affects between 15% and 71% of women and 75% of children worldwide and is a pervasive global health problem with a cascade of physical, psychological, and social consequences. While family violence has strong associations with substance use and mental illness, interventions that comprehensively address these related problems are lacking. Further, most family violence research has been conducted in high-income countries, although family violence rates are higher in low- and middle-income countries (LMICs), and outcomes are more severe. Despite the elevated need for LMICs, these settings have fewer resources to respond to family violence, and there is a paucity of trained mental health professionals in LMICs that contribute to large gaps in treatment. This systematic review of interventions that addressed family violence and mental illness or substance use in LMICs identified 29 articles from 19 studies conducted in 13 LMICs. The number of studies found shows that these co-occurring problems are being increasingly addressed in diverse global settings. Moreover, 15 of the studies were RCTs, demonstrating an overall low selection bias and an expansion in the rigorous study of these co-occurring problems. Despite these advances, several gaps remain. Most studies were underpowered and did not blind to conditions reducing the quality of the evidence. None of the studies showed improvements in all intervention areas. Child maltreatment was less likely to be addressed than IPV, and few studies targeted IPV perpetration. Interventions that targeted substance and mental health mostly improved primary outcomes, but they were less effective in reducing IPV. This review shows that much work is needed for the continued development and evaluation of integrated evidence-based treatments that address family violence and related substance use and mental health problems before innovations in implementation or scale-up efforts in LMICs can occur.

Introduction

Violence is a pervasive global health problem with a cascade of physical, psychological, and social consequences accounting for 26 million disability-adjusted life years—years of life lost to illness, death, or disability (Kyu *et al.*, 2018). Family violence consists of physical, sexual, or psychological abuse perpetrated by one person in the household against another (United Nations General Assembly, 1993; Asghar *et al.*, 2017) and affects between 15% and 71% of women (Garcia-Moreno *et al.*, 2006) and 75% of children worldwide (World Health Organization, 2019). Two common forms of family violence include intimate partner violence (IPV; violence between partners) and child maltreatment—violence or neglect perpetrated by adults against children (Krug *et al.*, 2002).

Most family violence research has been conducted in high-income countries (HICs), although overall family violence rates are higher in low- and middle-income countries (LMICs) with over 90% of violence-related deaths occurring in LMICs (Matzopoulos *et al.*, 2008). There are multiple drivers of family violence, such as inter-related inequitable gender norms pervasive in patriarchal contexts and poverty (Coll *et al.*, 2020; Gilbert *et al.*, 2022). Poverty is a risk factor for IPV perpetration and child maltreatment (Skeen and Tomlinson, 2013; Coll *et al.*, 2020), and food insecurity increases odds of being exposed to family violence (Gibbs *et al.*, 2018). Female death rates from violence increase as country income decreases (World Health Organization, 2019), and two-thirds of child deaths occur in LMICs (UNICEF, 2014). Additionally, consequences of family violence are more severe in low LMICs as compared to HICs (Garcia-Moreno *et al.*, 2006; Sardinha *et al.*, 2013). In LMICs, IPV is more likely to cause physical harm and involve sexual violence as compared to HICs (Garcia-Moreno *et al.*, 2006). Thus, it may be especially important to examine interventions that reduce family violence in LMICs.

Family violence, mental health conditions, and substance use

Given the multiple, intersecting levels in which family violence can occur, it is unsurprising that the relations among violence, mental illness, and substance misuse are dynamic with complex impacts on family systems. Exposure to family violence has been tied to mental illness, substance use, and risk for suicide (Dutton *et al.*, 2017; Izaguirre and Calvete, 2018) across cultures (Vizcarra *et al.*, 2010; Devries *et al.*, 2011). IPV is one of the leading risk factors for common mental health conditions among women of reproductive age (Golding, 1999; Krug *et al.*, 2002; Trevillion *et al.*, 2012). IPV impacts child mental health and substance use outcomes *via* the direct effect of witnessing IPV and the indirect effect of poor maternal mental health (Herba *et al.*, 2016; Stewart *et al.*, 2016). Perpetration of IPV commonly co-occurs with violence against children. Child victims of violence are more likely to experience common mental conditions (depression, anxiety, and posttraumatic stress disorder [PTSD]) and substance use conditions as compared to non-exposed youth (Panyayong *et al.*, 2018). Childhood abuse survivors or children who have witnessed IPV have been shown to be more likely to experience and perpetrate IPV themselves, placing their offspring at higher risk (Kimber *et al.*, 2018). Finally, harmful substance use is a consequence of, and risk factor for, IPV (Foran and O'Leary, 2008; McCloskey *et al.*, 2016).

Present study

Family violence has strong bidirectional associations with mental illness and substance use, and integrated intervention strategies are

needed to sustainably reduce family violence and associated psychosocial sequelae. Yet, there is a lack of effectiveness research on integrated interventions that simultaneously address these problems. Despite the elevated need for LMICs, these settings have fewer resources to respond to family violence and related mental health and substance use conditions. Protection, such as shelters, and violence prevention resources are scarce, and violence and mental health services are typically siloed, if available. Further, there is a paucity of trained mental health professionals in LMICs that contribute to large gaps in treatment (Saraceno *et al.*, 2007; Bruckner *et al.*, 2011). Given this reality, it is critical to consider how to treat co-occurring problems concurrently most efficiently and effectively. Therefore, this paper aims to systematically review interventions in LMICs that targeted familial violence and at least one other condition of harmful substance use or mental illness to determine effective treatments. To achieve this aim, we had two objectives: (1) describe the existing treatment evidence base and (2) identify gaps in the existing evidence.

Method

Inclusion and exclusion criteria

We registered the protocol (CRD42018085229) with PROSPERO in 2018. We included studies if they described any intervention examining at least one form of familial violence and at least one mental health and/or one substance use outcome among adults or families. Interventions were operationalized as including both behavioral health psychotherapies as well as interventions that have been shown to improve mental health outcomes irrespective of specific conditions (e.g., education or financial enhancement interventions; England *et al.*, 2015). Next, interventions must have been implemented in an LMIC, as defined by the World Bank (2021). Finally, we included studies that had conducted a quantitative pre- and post-assessment of outcomes, at minimum. We excluded studies that evaluated interventions targeting only children under age 18 to review studies that focused on adult perpetration of violence against partners or children, used exclusively qualitative methods, and were not published in English.

Search strategy and data extraction

Studies were identified by searching six electronic databases in 2018–2019 with no time parameters: Cochrane Central Register of Controlled Trials, EBSCO-SOC Index, EMBASE, Medline/Pubmed, Ovid/PsychINFO, and PILOTS. We also searched gray literature (Edlis, Mental Health Innovation Network, mhpps.net, OpenGrey, UNICEF, and WHO Global Index), reviewed the references of key reviews, and consulted with experts for recommendations.

Standardized search terms were applied in a stepped approach. Search syntax included terms and keywords related to the following: (a) each LMIC and setting type; (b) intervention; (c) mental health or substance use condition; and (d) family violence. English language filters were applied to searches. (See online [Supplementary Table 1](#) for a full list of search terms.)

We used a multi-step process with Rayyan's online software database to compile and screen resulting titles and abstracts. First, three independent researchers reviewed the titles and abstracts for eligibility based on the predetermined criteria. Second, for the remaining articles, two independent researchers reviewed the full texts to determine eligibility. Discrepancies were resolved through

discussion and consensus following independent screening. Third, we extracted the relevant data into a spreadsheet developed to document setting, sample, methods, intervention, measures, outcomes, and limitations. Authors were contacted for any missing or incomplete data.

Quality assessment

Study quality was evaluated using the Downs and Black (1998) and rated on four domains: Reporting (11 items), external validity (3 items), internal validity (14 items), and power (1 item). We reported on the following criteria: (1) clear reporting; (2) randomization; (3) allocation concealment; (4) blinding of participants and personnel; (5) blinding of outcome assessors; (6) appropriate analysis; (7) valid outcome measures; (8) adequate power; (9) external validity of the sample; and (10) external validity of intervention. Two independent reviewers assessed study quality. Discrepancies were resolved through discussion with a third reviewer.

Results

Our search of six databases and gray literature resulted in 1514 non-duplicate articles. (See Figure 1 for the PRISMA flow chart). Out of those articles, 41 were identified as potentially relevant through the title and abstract screening and proceeded to full-text review. We identified four additional articles through citation tracking and contact with authors. The full-text screen of 45 articles resulted in 13 articles being excluded. Another three were excluded during data extraction. In the end, 29 articles from 19 studies in 13 LMICs were included.

Characteristics of included studies

An overview of the included 19 studies can be found in Supplementary Table 2. Published between 2006 and 2019, studies were conducted in 13 countries across three continents (Africa = 11, Asia = 6, and South America = 2). Fifteen studies (79%) were randomized controlled trials. Two were pre/post without control and two were quasi-experimental.

Participants

Four studies (21%) intervened with families, either through parent-child dyads (3, 16%) or couples (1, 5%). Three studies (16%) recruited adolescents (15 and over) and adults. The remaining 12 studies targeted female adults ($n = 7$, 37%), male adults (2, 11%), or both (3, 16%). Sample sizes ranged from 22 to 2,776. Counting families/dyads as one participant, 15 studies (79%) had over 100 participants.

Quality assessment

All studies adequately reported details of the study objectives, procedures, and results (see Table 1). Regarding internal validity, 15 of the 19 included studies randomly allocated participants to the study conditions, reducing the risk of selection bias. However, only four studies reported whether the allocation process was concealed from participants and personnel. Lack of blinding, particularly of study participants and personnel, was the most common threat to the internal validity across studies. All studies appeared to apply appropriate statistical procedures and most reported using valid assessment tools to evaluate outcomes. Yet approximately half of the studies were underpowered or did not provide a power calculation. The external validity of the studies was generally poor. Apart from one study that screened all eligible women in the source population, participants who were recruited and/or those who were enrolled were not representative of the source population. Similarly, none of these studies evaluated interventions that are representative of services available to the source population, further limiting the external validity. We were unable to determine the external validity of the participants and/or interventions in 11 studies.

Intervention description and outcomes

Most of the interventions ($n = 14$) had targeted primary outcomes aimed to reduce family violence, mental health, substance use, or improve participants' economic or HIV outcomes. These studies routinely measured reductions in symptoms on the other co-occurring problems. The remaining studies ($n = 5$) tested integrated interventions that explicitly addressed more than one outcome. See Supplementary Table 1 for a summary of interventions

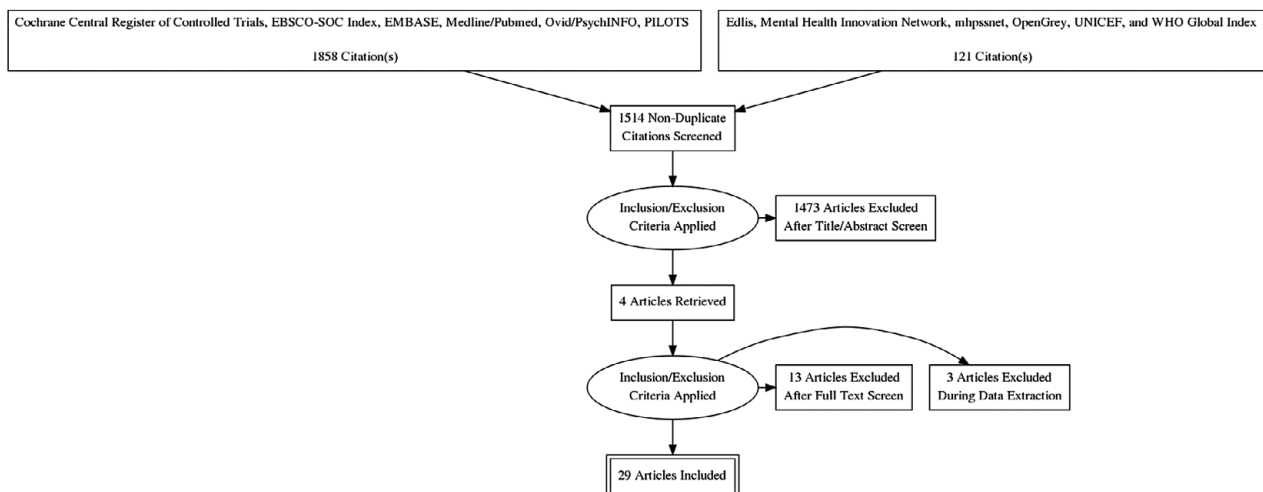


Figure 1. PRISMA flow chart

Table 1. Quality assessment

Authors, Year	Clear Reporting	Randomized to Treatment	Allocation concealment	Blinding participants/ personnel	Blinding outcome assessment	Appropriate Analysis	Valid Outcome Measures	Adequate Power	External validity (sample)	External validity (intervention)
Meffert <i>et al.</i> , 2014	Y	Y	N	N	N	Y	Y	Un	N	N
Mutisya <i>et al.</i> , 2017	Y	N	N	Un	Un	Y	Y	Y	N	Un
Tiwari <i>et al.</i> , 2010	Y	Y	Y	Un	Y	Y	Y	Y	N	N
Gilbert <i>et al.</i> , 2017	Y	N	N	N	N	Y	Y	Un	N	Un
Jones <i>et al.</i> , 2014	Y	N	N	N	N	Y	N	Un	N	Un
Satyanarayana <i>et al.</i> , 2016	Y	Y	N	N	Y	Y	Y	Un	Un	N
Glass <i>et al.</i> , 2017	Y	Y	N	N	Un	Y	Y	Y	N	N
Lachman <i>et al.</i> , 2017	Y	Y	Y	N	Y	Y	Y	Y	N	Un
Witte <i>et al.</i> , 2011 Carlson <i>et al.</i> , 2012	Y	Y	N	N	Y	Y	Y	Un	Un	Un
Tankard <i>et al.</i> , 2019,	Y	Y	Un	N	Un	Y	N	Un	Un	N
Jewkes <i>et al.</i> , 2014	Y	N	N	N	N	Y	Y	N	Un	N
Patel <i>et al.</i> , 2017 Weobong <i>et al.</i> , 2017	Y	Y	Y	Un	Y	Y	Y	Y	Un	Un
Nadkarni <i>et al.</i> , 2017a Nadkarni <i>et al.</i> , 2017b	Y	Y	Y	Y	Y	Y	Y	Y	N	Un
Jewkes <i>et al.</i> , 2006 Jewkes <i>et al.</i> , 2008	Y	Y	N	N	N	Y	Y	Y	N	Un
Cluver <i>et al.</i> , 2016 Cluver <i>et al.</i> , 2018	Y	Y	N	N	N	Y	Y	Y	N	N
Hidrobo <i>et al.</i> , 2016 Buller <i>et al.</i> , 2016	Y	Y	Un	Un	Un	Y	Y	Un	N	N
Gupta <i>et al.</i> , 2013 Annan <i>et al.</i> , 2017	Y	Y	N	N	N	Y	Y	N	N	N
Parcesepe, 2015 Parcesepe <i>et al.</i> , 2016	Y	Y	Un	Un	Un	Y	Y	Y	N	N
Chaudhury <i>et al.</i> , 2016 Betancourt <i>et al.</i> , 2017	Y	Y	Un	Un	Y	Y	Y	Un	N	N

Note: Green/Y=Yes; Red/N=No; Gray/Un = Unable to Determine.

(narratively described below), Table 2 for a summary of intervention outcomes of interest, and Table 3 for a description of intervention outcomes.

Targeted family violence interventions

Three interventions focused on family violence. Most authors analyzed IPV items with a version of the Conflict Tactics Scale. The only study to focus primarily on reducing IPV and gender-based violence (GBV), Gilbert *et al.* (2017) implemented a two-session “Women Initiating New Goals of Safety” (WINGS) intervention with 66 women in Kyrgyzstan who reported using illicit drugs or binge drinking. WINGS is an SBIRT intervention (Screening, Brief Intervention, Referral to Treatment) that incorporates IPV and GBV screening, brief intervention, and referral to treatment. The authors conducted a within-group analysis of pre/post assessments and observed changes in verbal and physical IPV, physical GBV, and linkage to IPV and GBV services. Reductions in sexual IPV and GBV did not occur, and verbal GBV worsened. They found significant improvements in illicit and injection drug use, but not binge drinking.

Two of the 19 studies targeted child maltreatment through parenting programs—Sinovuyo Teen (Cluver *et al.*, 2016, 2018) and Sinovuyo Caring Families (Lachman *et al.*, 2017)—delivered in South Africa. Both studies used standardized measures to analyze child maltreatment continuously post-treatment. Sinovuyo Teen, a 14-session program with 552 caregiver-adolescent dyads to prevent adolescent abuse, was compared to a one-day hygiene program in a cluster RCT. The program focused on improving the caregiver-adolescent relationship through time together, mutual praise, emotion management, problem-solving, and conflict management. They found reductions in abuse as reported on by youth and caregivers 1-month posttreatment and lower caregiver-reported abuse at 5- to 9-month follow-up. Five to nine months posttreatment they also showed improvements in parenting practices, caregiver depression, parenting stress, and social support, as well as caregiver and adolescent substance use. No significant changes were observed for neglect, adolescent mental health, or adolescent social support. Sinovuyo Caring Families, a 12-session, group-based program for reducing child maltreatment risk with low-income parents in Cape Town with children 3–8 years ($n = 68$ parent-child dyads), was compared to a waitlist control in an RCT. Sinovuyo Caring Families used behavioral parent management components to reduce maltreatment through improved parent-child relationships. No significant differences in child maltreatment were found but improvements in positive parenting were observed. Caregiver depression, parenting distress, and social support did not differ significantly across groups, nor were positive changes seen in observed and caregiver-reported child problem or positive behavior.

Targeted substance use interventions

Two interventions had substance use as their primary target. L’Engle *et al.* (2014), Parcesepe (2015), and Parcesepe *et al.* (2016) conducted a multisite RCT to test a six-session alcohol harm reduction (one, 20-min session a month for 6 months) intervention against a control nutrition seminar with 818 adult female sex workers who were moderate-risk drinkers in Kenya. Facilitators were nurse counselors who received training in Motivational Interviewing. Improved reductions in alcohol use consumption frequency and in binge drinking episodes were evident in the intervention group at both the 6-month and 12-month follow-up

timepoints. The intervention also showed stronger reductions in verbal, physical, and sexual abuse and being robbed by clients paying for sex work services. However, there were no differences between the intervention and control in improving physical and sexual violence with non-paying (*i.e.*, intimate) partners.

In India, Nadkarni *et al.* (2017a) and Nadkarni *et al.* (2017b) examined outcomes between Counseling for Alcohol Problems (CAP), an intervention that uses a Motivational Interviewing approach and cognitive and behavioral skills for relapse prevention, and enhanced usual care. Lay counselors facilitated CAP in three phases for four weekly 30- to 45-min sessions with 377 male adults who presented at primary healthcare centers and had harmful drinking behaviors. CAP outperformed enhanced usual care in alcohol use outcomes of remission of harmful alcohol use (AUDIT < 8) and abstinence from alcohol, although not in problems related to alcohol or drug use. No differences between the intervention and usual care manifested in physical IPV and having made a suicide attempt in the past month.

Targeted mental health interventions

Three RCTs studied the effects of interventions targeted toward mental health, showing mixed results. Most studies measured depression using structured and standardized surveys. (Chaudhury *et al.*, 2016) and (Betancourt *et al.*, 2017) reported findings from an RCT that examined differences between the Family Strengthening Intervention compared to social work support (treatment as usual) for HIV-positive caregivers and school-aged children ages 7–17 ($n = 82$ families) in Rwanda. The intervention consisted of six modules over the course of 6 months to reduce alcohol use and IPV among HIV-affected families. The authors measured IPV victimization and perpetration and alcohol use among adult caregivers (Chaudhury *et al.*, 2016) and mental health outcomes in children (Betancourt *et al.*, 2017). Both analyses found significant reductions of caregiver exposure to and perpetration of IPV, caregiver alcohol use, and youth and adult depression at the three-month follow-up (but not post-intervention). No differences between conditions existed for parenting, family connectedness, conduct, or functional impairment.

Patel *et al.* (2017) and (Weobong *et al.*, 2017) conducted an RCT in India testing the Healthy Activity Programme with enhanced usual care against enhanced usual care only to reduce moderately severe to severe depression in 495 adults in primary care settings. Those randomized to the Healthy Activity Programme received 30–40-min, weekly individual sessions over 6–8 weeks consisting of behavioral activation, problem-solving, and activation of social networks facilitated by lay counselors with secondary education. Those who participated in the Healthy Activity Programme saw improved reductions in symptoms and remission of depression. Three months after enrollment, participants who received the Healthy Activity Programme reported less female victimization of physical IPV than those receiving usual care. Differences between the intervention and usual care arm in physical IPV subsided at the 12-month assessment timepoint. There were no differences in psychological/emotional IPV, combined physical and psychological/emotional IPV, or male victimization of IPV.

In Egypt, Meffert *et al.* (2014) tested the ability of Interpersonal Psychotherapy with 22 adult Sudanese refugees to reduce PTSD symptoms when compared to refugees in a waitlist control condition through an RCT. Nonspecialized Sudanese community therapists facilitated the therapy in a group modality twice a week for 3 weeks, adapted from the more standard 12-week duration for

Table 2. Summary of study intervention outcomes of interest

Authors, Year	Intimate partner violence				Mental health					Substance use	
	Physical	Sexual	Psychological	Economic	CM	Depression	Anxiety	PTSD	Other	Alcohol	Drugs
Buller <i>et al.</i> , 2016; Hidrobo <i>et al.</i> , 2016											
Chaudhury <i>et al.</i> , 2016; Betancourt <i>et al.</i> , 2017											
Glass <i>et al.</i> , 2017											
Gupta <i>et al.</i> , 2013; Annan <i>et al.</i> , 2017											
Jewkes <i>et al.</i> , 2006, 2008											
Jones <i>et al.</i> , 2014 (HIV)											
L'Engle <i>et al.</i> , 2014; Parcesepe, 2015; Parcesepe <i>et al.</i> , 2016											
Meffert <i>et al.</i> , 2014	Violence towards household										
Mutisya <i>et al.</i> , 2017											
Nadkarni <i>et al.</i> , 2017a,b											
Patel <i>et al.</i> , 2017; Weobong <i>et al.</i> , 2017											
Satyanarayana <i>et al.</i> , 2016											
Tankard <i>et al.</i> , 2019	IPV not differentiated										
Tiwari <i>et al.</i> , 2010											
Gilbert <i>et al.</i> , 2017											
Jewkes <i>et al.</i> , 2014											
Witte <i>et al.</i> , 2011; Carlson <i>et al.</i> , 2012											
Cluver <i>et al.</i> , 2016; Cluver <i>et al.</i> , 2018											
Lachman <i>et al.</i> , 2017											

Notes: = primary outcome of interest; = measured secondarily; = not measured as intervention outcome; CM = Child Maltreatment.

feasibility in a public health care and community delivery setting. Compared to the waitlist control, refugees who received Interpersonal Psychotherapy exhibited greater reductions in PTSD and state anger. There were no differences between the intervention and waitlist conditions regarding depression symptom and violence towards the household, although both were improved in the intervention condition. Differences between conditions in trait anger also did not evidence.

Targeted economic interventions

Four of the interventions aimed to improve economic outcomes. Buller *et al.* (2016) and Hidrobo *et al.* (2016) evaluated an economic intervention through the World Food Programme with a cluster RCT. The program allotted aid in the form of cash, food, or food vouchers equaling the amount of \$40 to 1,226 adolescent girls and women in urban settings once monthly over the course of 6 months. They found reductions in participants' experience of intimate partners' controlling behaviors and physical and/or sexual violence, but no significant change in emotional violence. In addition to IPV, the authors measured internal locus of control and happiness but found no change in these mental health constructs.

In the Democratic Republic of Congo, Glass *et al.* (2017) conducted an RCT with 833 adolescents/adults over age 16 that studied the effect of Pigs for Peace, a livestock asset transfer intervention, on victimization (girls/women) and perpetration (boys/men) of IPV, PTSD, anxiety, and depression. While they found significant

reductions in anxiety and PTSD symptoms, they observed no strong changes in victimization or perpetration of IPV or depression symptoms.

Annan *et al.* (2017) and Gupta *et al.* (2013) studied an intervention with 934 women to improve economic development and gender equity and reduce IPV and PTSD symptoms with an RCT in rural Côte d'Ivoire. The two-armed study compared (1) a weekly Village Savings and Loans Association economic empowerment program (group of women who collectively contribute to a shared fund that individual members can borrow from with interest) only with (2) the same enhanced with an eight-session gender dialog group that additionally met biweekly over the course of 4 months. The gender dialog groups were conducted with women and their male partners to reduce gender inequalities in households. Groups were co-facilitated by mixed-gender field agents who were specialists in gender-based violence and economic empowerment. The intervention arm showed a better ability to reduce economic abuse. For couples who had high adherence to the intervention (>75% meeting attendance), the enhanced intervention arm showed significantly better reductions in physical IPV and PTSD symptoms. No differences were observed for sexual IPV.

Finally, Tankard (2016) conducted an RCT with 1,800 women that examined the effects of assisting partnered women in urban settings in Colombia by opening an incentivized savings account. The intervention consisted of three free health checkups that included serology and a family planning consultation in addition to the option of opening a savings account with a contribution of

Table 3. Synthesis of study outcomes

Authors, Year	Intervention category and population	Measure(s) used	Target
Between-group analysis			
Buller <i>et al.</i> , 2016; Hidrobo <i>et al.</i> , 2016	Targeted: Economic stability Colombian refugees and poor Ecuadorian women in Northern Ecuador	Family violence (primary): <i>WHO Violence Against Women Instrument</i>	Aid given as cash, food, food vouchers vs control Aid significantly improved victimization of controlling behaviors (PTE = -0.07) and physical and/or sexual violence (PTE = -0.06) versus the control. There was no difference between aid and control for victimization of emotional violence (PTE = -0.04).
		Mental health (secondary): Internal locus of control, 3 items; Happiness, 2 items	No differences were found for locus of control and happiness.
Chaudhury <i>et al.</i> , 2016; Betancourt <i>et al.</i> , 2017	Targeted: Mental Health At least one HIV+ caregiver in rural Rwanda and at least one school-aged child; willing to discuss HIV status with children	Family violence (secondary): <i>Conflict Tactics Scale 22-item</i>	Family strengthening intervention for HIV vs treatment as usual No differences were found for victimization and perpetration of emotional, physical, and sexual IPV at post-intervention. At 3-month follow-up, the Family Strengthening Intervention showed significant improvements over treatment as usual (effect size not reported).
		Mental health (primary): <i>Center for Epidemiological Studies Depression Scale for Children; locally developed Conduct Problems scale; WHO Disability Assessment Schedule for Children</i>	For depression, no differences were found for youth or adults at post-intervention; at 3-month follow-up, the intervention showed improvements over treatment as usual for depression among youth (event ratio = 0.781) and adults (event ratio = 0.840). No differences were found in child conduct or functional impairment for youth or adults at post-intervention or 3-month follow up.
		Substance use (SU) (secondary): <i>Alcohol Use Disorders Identification Test</i>	No differences were found at post-intervention in caregiver alcohol use. The intervention showed significant improvements over treatment as usual at the 3-month follow-up (effect size not reported).
Glass <i>et al.</i> , 2017	Targeted: Economic stability Village households in Eastern Democratic Republic of Congo	Family violence (secondary): IPV questionnaire	Pigs for peace livestock vs delayed control No differences were found for victimization among women or perpetration among men in physical, sexual, psychological IPV
		Mental health (primary): <i>Harvard Trauma Questionnaire, past 7 days; Hopkins Symptom Checklist, past month</i>	The intervention showed significant improvements in PTSD (ES = 0.21) and anxiety (ES = 0.15) over the control. No differences were found for depression (ES = 0.11).
Gupta <i>et al.</i> , 2013; Annan <i>et al.</i> , 2017	Targeted: Economic empowerment/gender inequity Women with partners in Côte d'Ivoire	Family violence (primary): Items from the WHO Multi-country study on Women's health and domestic violence	Village savings and loans association (VSLA) economic empowerment and savings program only vs VSLA + gender dialog group (VSLA + GDG) No differences were found for victimization of physical and/or sexual IPV overall (OR = 0.92), in high adherence (both partners attended more than 75% of meetings; effect size not reported), or low adherence (both partners attended less than 75% of meetings; effect size not reported); in victimization of physical IPV overall (effect size not reported) and in the low adherence condition (aOR = 0.93); in victimization of sexual IPV overall (effect size not reported), in the high adherence condition (aOR = 0.54), and in the low adherence condition (aOR = 0.85). The intervention (economic empowerment + gender dialog) showed significant improvements over economic empowerment only in the high adherence condition for victimization of physical IPV (aOR = 0.45), victimization of economic abuse overall and the high (OR = 0.47) and low (OR = 0.31) adherence conditions of economic abuse
		Mental health (secondary): <i>Harvard Trauma Questionnaire – PTSD section</i>	In a sample of 1,110, the intervention (economic empowerment + gender dialog) showed significant improvements in probable PTSD overall (OR = 0.61) and the high adherence condition (OR = 0.40). No differences were found in the low adherence condition (effect size not reported). For women who reported experiencing IPV at baseline (N = 202), there were no differences between study arms (OR = 0.72).

(Continued)

Table 3. (Continued)

Authors, Year	Intervention category and population	Measure(s) used	Target
Jewkes et al., 2006, 2008	Targeted: HIV Adolescents, men, and women (ages 15-26) in South Africa	Family violence (secondary): 9-question structured questionnaire about IPV	Stepping stones for sexual health vs control session on HIV and safer sex No differences were found for men's perpetration or women's victimization of physical or sexual IPV at the 12-month (aOR = 0.73; 0.87) or 24-month (aOR = 0.62; 1.14) follow-up, respectively.
		Mental health (secondary): <i>Center for Epidemiologic Studies Depression Scale</i>	No differences were found between the intervention and control for men's or women's depressive symptoms at the 12-month (aOR = 1.14; 1.32) or 24-month (aOR = 0.52; 0.76) follow-up, respectively.
		Substance use (secondary): <i>Alcohol Use Disorders Identification Test</i> ; Ever used marijuana, mandrax, injectable drugs, substances that were sniffed, or other substances, 1 item	The intervention performed better than the control for male problem drinking at the 12-month follow-up (aOR = 0.68). Differences were not found for male problem drinking at the 24-month follow-up (aOR = 1.10), female problem drinking at the 12-month (aOR = 0.94) or 24-month (aOR = 1.40) follow-up, male misuse of drugs at the 12-month (aOR = 1.07) or 24-month (aOR = 0.50) follow-up, or women reporting misuse of drugs for their male partners at the 12-month (aOR = 0.60) or 24-month (aOR = 1.20) follow-up.
Jones et al., 2014	Targeted: HIV Couples in Zambia with at least one member HIV+	Family violence (secondary): <i>Conflict Tactics Scale</i> , past month IPV	The partner project-HIV couples, community health center staff-led vs research-staff-led vs control No differences were found among conditions for violence at the 6-month follow-up or extreme violence at the 6-month or 12-month follow-up (effect sizes not reported). No differences were found between community staff-led and research staff led arms at the 12-month follow-up for violence. However, both community staff led and research staff led arms performed better than the control condition for violence at the 12-month follow-up (effect size not reported).
		Substance use (secondary): 5-item questionnaire about alcohol, past week	No differences were found among conditions for binge drinking (>5 drinks) at the 6-month or 12-month follow-up (effect sizes not reported).
L'Engle et al., 2014; Parcesepe, 2015; Parcesepe et al., 2016	Targeted: Substance Use Female sex workers in Mombasa who were moderate-risk drinkers and negative for STIs except HIV	Family violence (secondary): Self-reported, yes/no for "experienced" in past 30 days, 6-months post-intervention	Alcohol harm reduction intervention vs control nutrition seminar No differences were found for victimization of physical or sexual violence by a non-paying partner at post-intervention (physical violence OR = 0.64), 6-month (physical OR = 0.57; sexual aOR = 0.92), or 12-month (sexual aOR = 0.76) follow-up.
		Substance use (primary): <i>Alcohol Use Disorders Identification Test</i>	The intervention performed better than the control condition for alcohol use frequency and binge drinking at the 6-month (aOR = 0.20; 0.13) and 12-month (aOR = 0.25; 0.18) follow-up, respectively.
Meffert et al., 2014	Targeted: Mental Health Sudanese Refugees in Cairo with PTSD symptoms	Family violence (secondary): <i>Conflict Tactics Scale (CTS)</i>	Interpersonal therapy (IPT) vs Waitlist control No differences were found between Interpersonal Therapy and the waitlist control in violence towards the household (ES = -0.84)
		Mental health (primary): <i>Harvard Trauma Questionnaire (HTQ)</i> ; <i>Beck Depression Inventory II (BDI-II)</i> , past 2 weeks; <i>State-Trait Anger Expression Inventory (STAXI)</i>	Interpersonal Therapy performed better than the control in reducing trauma and PTSD (ES IPT = -2.52) and state anger (ES IPT = -1.21). No differences were found in depression symptoms (ES IPT = -2.38) or trait anger (ES IPT = -1.43).
Mutisya et al., 2017	Integrated: Mental Health + IPV Pregnant women in Kenya	Family violence (primary): <i>Composite Abuse Scale</i>	Psychosocial intervention vs antenatal treatment as usual The psychosocial intervention performed better than treatment as usual for victimization of total IPV ($\eta^2 = 0.196$), physical violence ($\eta^2 = 0.305$), severe combined violence ($\eta^2 = 0.046$), emotional violence ($\eta^2 = 0.078$), and harassment ($\eta^2 = 0.086$).
		Mental health (secondary): <i>Edinburgh Postnatal Depression Scale</i> , past 7 days	The intervention performed better than treatment as usual for postnatal depression ($\eta^2 = 0.500$).

(Continued)

Table 3. (Continued)

Authors, Year	Intervention category and population	Measure(s) used	Target
Nadkarni <i>et al.</i> , 2017a, Nadkarni <i>et al.</i> , 2017b	Targeted: Substance Use Men with harmful drinking (AUDIT: 12-19) in India	Family violence (secondary): Single-item violence, past 3 months	Counseling for alcohol problems with enhanced usual care vs enhanced usual care No differences were found for perpetration of physical IPV at 3-month (aOR = 0.81) or 12-month (aOR = 0.63) follow-up.
		Mental health (secondary): Suicide attempt, past month, yes/no	No differences were found for having made a suicide attempt at 3-month (aPR = 1.8) or 12-month (aPR = 1.31) follow-up.
		Substance use (primary): <i>Alcohol Use Disorders Identification Test</i> , past 14 days at 3-mo follow-up; <i>Short Inventory of Problems (SIP)</i>	The intervention condition performed better for remission of alcohol use (AUDIT<8) and no alcohol consumption at 3-month (aPR = 1.50; 1.71) and 12-month (aOR = 3.00; 1.92) follow-up, respectively. No differences were found for alcohol consumption among drinkers or reporting alcohol/drug use-related problems at 3-month (count ratio = 1.08; 0.99) and 12-month (AMD = -0.03; -0.40) follow-up, respectively.
Patel <i>et al.</i> , 2017; Weobong <i>et al.</i> , 2017	Targeted: Mental Health Adults in primary care with moderately severe to severe depression in India	Family violence (secondary): 2-item IPV questionnaire	Enhanced usual care with healthy activity programme vs enhanced usual care The Healthy Activity Programme performed better than enhanced usual care for women's victimization of Physical IPV at the 3-month follow-up (PR = 0.53). No differences were found for the 12-month follow-up (PR = 0.60). No differences were found for women's victimization of psychological or emotional IPV at the 3-month (PR = 0.76) or 12-month (PR = 0.75) follow-up. No differences were found for men's victimization of physical, psychological, or emotional IPV at 3-month (PR = 0.00 physical IPV; 0.67 psychological/ emotional IPV) or 12-month follow-up (PR = 0.82).
		Mental health (primary): <i>Patient health questionnaire (PHQ-9)</i> ; <i>Beck Depression Inventory-II</i>	The intervention performed better than enhanced usual care for depression remission and reduction of depression symptom mean at 3-month (aPR = 1.61; ES = 0.48) and 12-month (aPR = 1.36; ES = 0.23) follow-up, respectively.
Satyanarayana <i>et al.</i> , 2016	Integrated: IPV + Substance Use Alcohol dependent, inpatient men who screened positive for IPV perpetration in the past 6 months in South India	Family violence (primary): <i>Index of Spouse Abuse</i>	Integrated cognitive-behavioral intervention vs treatment as usual The intervention performed better than treatment as usual for Severity of physical and non-physical IPV victimization among female spouses at 1-month (ES = 0.17) and 3-month (ES = 0.24) follow-up.
		Mental health (secondary): <i>Depression, Anxiety and Stress Scale (DASS-21)</i> , female partner; <i>Strengths and Difficulties Questionnaire (SDQ)</i> , female partner	The intervention performed better than treatment as usual for depression (ES = 0.17), anxiety (ES = 0.15), and stress (ES = 0.07) among female spouses at 1-month and 3-month follow-up. No differences were found for child emotional/behavioral problems at 1-month or 3-month follow-up (effect sizes not reported).
		Substance use (primary): <i>Severity of Alcohol Dependence Questionnaire (SADQ)</i> , male participant	No differences were found for male alcohol use at 1-month or 3-month follow-up (effect sizes not reported).
Tankard <i>et al.</i> , 2019	Targeted: Economic stability Colombian adult women with a male partner and an interest in opening a savings account	Family violence (secondary): IPV questionnaire based on WHO Violence Against Women study	Savings account plus health visits vs control of no savings No differences were found for victimization of IPV (effect size not reported).
		Mental health (secondary): <i>Stress, 4 items; Depression, 4 items; Anxiety, 4 items</i>	No differences were found in perceived stress or anxiety. The intervention performed better for depression (effect sizes not reported).
Tiwari <i>et al.</i> , 2010	Integrated: Mental Health + IPV Chinese women with histories of IPV	Family violence (secondary): <i>Chinese Conflict Tactics Scale^V</i>	Advocacy intervention vs Control The advocacy intervention performed better than the control condition in reducing psychological IPV (Est. Difference = -1.87). No differences were found for physical (Est. Difference = -0.35) or sexual (Est. Difference = -0.12) IPV.
		Mental health (primary): <i>Chinese Beck Depression Inventory (C-BDI-II)</i> , past 2 weeks; <i>Interpersonal Support Evaluation List (ISEL)</i>	The intervention performed better than the control condition in reducing depressive symptoms (Est. Difference = -2.66) and improving perceptions of social support (Est. Difference = 2.18).

(Continued)

Table 3. (Continued)

Authors, Year	Intervention category and population	Measure(s) used	Target
Within-group analysis			
Gilbert et al., 2017	Targeted: IPV Women who used illicit drugs or binge drank in past 6 months in Kyrgyzstan	Family violence (primary): <i>Revised Conflict Tactics Scale (CTS-R)</i> , past 90 days; One-item receipt of IPV/GBV services, past 90 days	WINGS: Women initiating new goals of safety Wings showed significant improvements in victimization of verbal (aIRR = 0.79) and physical (aIRR = 0.41) IPV, verbal (aIRR = 1.34) and physical (aIRR = 0.73) GBV, and linkage to IPV/GBV services (aOR = 12.3). No significant improvements found for victimization of sexual IPV (aIRR = 0.94) or GBV (aIRR = 0.89).
		Substance use (secondary): <i>Risk Behavior Assessment</i> , past 90 days	WINGS showed significant reductions in any illicit drug use (aOR = 0.35) and any injection drug use (aOR = 0.39) in the past 30 days. No significant improvements found for reduction of binge drinking (aOR = 0.50) in the past 90 days.
Jewkes et al., 2014	Integrated: Economic Empowerment + HIV + IPV Young men and women in urban informal settlements in South Africa	Family violence (primary): IPV Self-report questionnaire	Stepping stones + Creating futures Significant improvements found for reductions in women’s victimization of sexual IPV. No significant reductions found for men’s perpetration of physical or sexual IPV or women’s victimization of physical IPV (effect sizes not reported).
		Mental health (primary): <i>Center for Epidemiological Studies Depression Scale</i> ; Suicidal thoughts	Significant reductions found for men’s depressive symptoms and suicidal thoughts in the past four weeks. No significant improvements found for women’s depressive symptoms or suicidal thoughts (effect sizes not reported).
		Substance use (secondary): Adapted <i>Alcohol Use Disorder Identification test</i>	Women’s alcohol use significantly worsened. No changes were found in men’s alcohol use (effect sizes not reported).
Witte et al., 2011; Carlson et al., 2012	Integrated: IPV + Substance Use Female sex workers in Mongolia	Family violence (primary): <i>Revised Conflict Tactics Scale</i> , past 90 days, paying and non-paying partners	HIV sexual risk reduction vs HIV-sexual risk reduction + motivational interviewing vs control Results reported for individual study arms. Significant improvements in victimization of physical (HIV risk reduction + motivational interviewing OR = 0.29; HIV risk reduction OR = 0.11; control OR = 0.15), sexual (HIV risk reduction + motivational interviewing OR = 0.15; HIV risk reduction OR = 0.06; control OR = .05), and physical or sexual (HIV risk reduction + motivational interviewing OR = 0.20; HIV risk reduction OR = 0.14; control OR = 0.46) IPV were found in all three arms.
		Substance use (primary): <i>Alcohol Use Disorders Identification Test</i>	Significant improvements found for harmful drinking in all three study arms (HIV risk reduction + motivational interviewing RRR = 0.60; HIV risk reduction RRR = 0.60; control RRR = 0.54).
Child maltreatment studies			
Cluver et al., 2016; Cluver et al., 2018	Targeted: Child Maltreatment Adolescents (10-18 years) and caregivers in South Africa	Family violence (primary): <i>International Society for Prevention of Child Abuse and Neglect Screening Tool for Trials (ICAST-Trial) & Alabama Parenting Questionnaire</i>	Sinovuyu teen programme (STP) vs. Hygiene control (C) The Sinovuyu Teen Programme performed better than the control condition in reducing physical and emotional abuse at 1-month as reported by adults (IRR = 0.39) and youth (IRR = 0.71) and at the 5–9 month follow-up, as reported by adults (IRR = 0.55). No differences were found between conditions at the 5-9 month follow-up as reported by youth (IRR = 0.90). Also, no differences were found for neglect, as reported by adults (IRR = 0.31) and youth (IRR = 1.46). The intervention performed better than the control condition in reducing corporal punishment, as reported by adults (IRR = 0.55). However, according to youth reporting, no differences in corporal punishment were evident (IRR = 1.05).
		Mental health (secondary): <i>Child Behavior Checklist</i> , rule-breaking and aggression subscales; <i>Parental Stress Scale</i> ; <i>Children’s Depression Inventory/Mini International Neuropsychiatric Interview-Kid</i> ; <i>Centre for</i>	No differences between conditions were found for adolescent externalizing behavior, as reported by youth (d = 0.12) and adults (d = -0.16), and youth-reported depression/suicidality (IRR = 1.02), or youth-reported increased social support at 5-9 month follow-up (d = -0.04). The intervention performed better than the control among caregivers for reducing parenting stress (d = -0.37), depression, (d = -0.33), and increasing social support (d = 0.31).

(Continued)

Table 3. (Continued)

Authors, Year	Intervention category and population	Measure(s) used	Target
Lachman <i>et al.</i> , 2017	Targeted: Child Maltreatment Low-income parent-child (3-8 years) dyads in South Africa	Epidemiologic Studies Depression Scale; Medical Outcomes Study Social Support Survey Substance use (secondary): Alcohol Use Disorder Identification test; WHO Global School-based Health Survey Family violence (primary): Parent-Child Conflict Tactics Scale; Parenting Young Children Scale; Sinovuyo Observational Coding System Mental health (secondary): Parenting Stress Index-Short Form; Beck Depression Inventory-II; Eyberg Child Behavior Inventory; Sinovuyo Observational Coding System; Multidimensional Scale of Perceived Social Support (MSPSS)	The intervention performed better than the control in reducing alcohol and drug use among adults (IRR = 0.67) and youth (IRR = 0.55). Sinovuyo caring families program for young children (SCFP) vs. waitlist control (C) The intervention performed better than the waitlist control in self-report of positive parenting (dX = 0.63). No differences were found between conditions for self-report of harsh parenting (dX = 0.02) and observed negative (dX = -0.34) and positive (dX = 0.13) parenting. No differences between conditions were found in parenting stress (dX = -0.23), parental depression (dX = 0.12), child problem behavior (dX = -0.11), observed child negative behavior (dX = 0.30), and perceived parental social support (dX = 0.27). The intervention performed worse than the control in observed child positive behavior (dX = -0.56).

Intervention Category: integrated = treatment focused on reduction of violence and mental health or substance use; Targeted = focused intervention to address one outcome.

Measure(s) used: primary = measured as a primary outcome of interest; secondary = measured as a secondary outcome of interest.

Target: AMD = adjusted means difference; aPR = adjusted prevalence ratio; OR = odds ratio; eOR = estimated odds ratio; RCS = residualized change score; dX = bias correct Cohen's d; PTE = pooled treatment effect; ES = effect size not specified; NR = Not reported.

10,000 pesos (\$5) and matched savings. The control condition included health checkups without the savings account option. Assessments were given at pre-intervention and nine- and 18-months post-baseline. The only difference between conditions occurred with the reduction of depression symptoms. Other mental health constructs and IPV victimization showed no differences between conditions.

Targeted HIV interventions

Two interventions targeted HIV prevention and response. Jewkes *et al.* (2006, 2008) conducted a cluster RCT with 232 young adults in South Africa, comparing the intervention Stepping Stones to a control group session. Stepping Stones was comprised of 17 three-hour group sessions conducted over the course of 3–12 weeks. The intervention aimed to improve sexual health with a focus on gender-equitable relationships and communication through education about sexual health, sexually transmitted infections, gender-based violence, and relationships. They found that the intervention showed stronger improvements in male problem drinking at the 12-month follow-up timepoint. Other areas—physical and sexual IPV, depression, female problem drinking and drug misuse—showed no differences between the intervention and control.

Jones *et al.* (2014) facilitated a couple-based intervention called The Partner Project with 394 couples in Zambia where at least one partner had HIV. They compared intervention arms to see if there were differences according to the specialization level of facilitator. Groups led by research staff were compared to a second arm facilitated by nonspecialized community workers and a third arm that served as a control. The intervention consisted of four gender-specific group sessions that provided focused on sexual risk prevention through training and psychoeducation on negotiation and communication strategies. They found that both the researcher and community-led intervention arms outperformed the control arm in reductions of past-month IPV at the 12-month follow-up assessment. They observed no differences in extreme violence or binge drinking.

Integrated family violence, mental health, and substance use interventions and outcomes

Two interventions targeted both family violence and mental health. Both interventions reduced mental health symptoms and one improved IPV. In Kenya, Mutisya *et al.* (2017) conducted a quasi-experimental study with 283 pregnant women in their first and second trimester who sought antenatal services in primary healthcare settings and reported experiencing any form of IPV. The psychosocial intervention consisted of psychoeducation about IPV and its effects on the pregnancy, empathic listening, and referrals for gender-based violence resources. The intervention was delivered in three 30-min sessions over the course of 5 months. Its comparison, treatment as usual, consisted of antenatal services with a list of GBV services. Benefits of the psychosocial intervention evidenced in all forms of IPV, although total and physical IPV showed the strongest effect sizes. The psychosocial intervention also demonstrated better improvements in severe combined IPV, emotional violence, and harassment than usual care. However, the effect sizes were negligible. The intervention also showed significantly stronger reductions in depressive symptoms.

In China, Tiwari *et al.* (2010) conducted an RCT with 200 women who had histories of IPV. The advocacy intervention consisted of empowerment (decision-making, problem-solving,

and protection) and telephone social support. To improve decision-making, facilitators provided information on cycles of violence, legal matters, and community resources so women can better recognize escalating violence to enact safety planning. The empowerment component was one 30-min session and social support entailed 12 weekly calls from a research assistant. Intervention recipients had access to the community center's childcare, health care, and recreational services. Women in the control group received community center services without specialized violence services. The advocacy intervention had stronger effects in reducing depressive symptoms and psychological IPV and increasing social support. Differences in physical or sexual IPV did not emerge between conditions.

Two studies examined interventions that targeted IPV and alcohol use. Both interventions reduced IPV. However, reductions in alcohol use were mixed. Satyanarayana *et al.* (2016) conducted an RCT in South India to test an Integrated Cognitive Behavioral Intervention (ICBI) to address IPV perpetration and alcohol use among 177 male inpatients diagnosed with Alcohol Dependence Syndrome, had a child under age 16, and had perpetrated some form of IPV in the past 6 months. The facilitators had graduate degrees in clinical psychology and were certified in ICBI. Treatment as usual included psychopharmacology and one session of psychoeducation on alcohol dependence symptoms and treatment options. ICBI encompassed eight 45–60-min sessions that addressed the relation between IPV and alcohol and identification of triggers, consequences, and prevention of IPV and alcohol. Men learned cognitive restructuring, anger management, and relaxation. There were small to medium effects of ICBI in reducing severity of IPV and depression, stress, and anxiety among the participants' wives. Yet, no differences emerged between conditions in male alcohol use and child emotional and behavioral problems.

Witte *et al.* (2011) and Carlson *et al.* (2012) facilitated an RCT that tested an intervention aimed to reduce sexual risk behaviors, harmful drinking, and IPV victimization among 166 female sex workers in Mongolia. The two active treatment arms were relationship-focused and consisted of (1) four weekly group sessions that promoted knowledge and skills building for HIV and sexually transmitted illness risk reduction and (2) the first arm enhanced with two additional sessions of Motivational Interviewing. These treatments were compared to a third control wellness promotion group. All conditions effectively reduced harmful alcohol consumption (Witte *et al.*, 2011) and physical and sexual IPV (Carlson *et al.*, 2012). However, no differences were observed between the intervention arms and the control condition.

Finally, Jewkes *et al.* (2014) targeted economic empowerment, HIV, and IPV by combining Stepping Stones (described under targeted HIV interventions) and Creating Futures, a same-sex group livelihoods intervention. Their quasi-experimental interrupted time series study occurred in two urban informal settlements in South Africa with 232 young adults aged 18 to 34. Stepping Stones was adapted to focus on HIV and violence prevention and delivered in 10 three-hour group sessions to improve communication and develop gender-equitable relationships. Creating Futures was conducted over 11 three-hour sessions and included participatory learning activities to critically reflect on current resources and how to build them. No reductions were observed in men's perpetration of physical or sexual IPV, although women reported less sexual IPV victimization. Men showed improvements in depressive symptoms and suicidal ideation. However, women did not report similar gains in mental health, although they showed

reductions in alcohol use. Men's alcohol use, in contrast, did not significantly reduce.

Discussion

The objective of this systematic review was to examine interventions that targeted familial violence and at least one other condition of harmful substance use or mental illness to determine effective treatments in LMICs by describing the evidence base and identifying gaps. Nineteen studies (29 articles) out of a potential 1,514 articles from 13 LMICs met the inclusion criteria. A recent review of mental health interventions' effects on IPV found seven studies all from middle-income countries and noted lack of representativeness of low-income countries as a critical gap (Tol *et al.*, 2019). Thus, it appears that these co-occurring problems are being increasingly addressed in diverse settings. Moreover, 15 of the studies were RCTs, demonstrating an overall low selection bias and an expansion in the rigorous study of these co-occurring problems in LMICs.

The most substantial concerns regarding the quality of the studies were that many studies were underpowered or did not report a power calculation, lacked blinding to condition, and were not representative of the source population. In behavioral interventions, having a placebo control may not be ethical and a placebo may be more difficult to replicate with more complex behavioral interventions (Friedberg *et al.*, 2010; Monaghan *et al.*, 2021). Likely for this reason, most of the studies in this review had usual care control arms in which blinding participants could be particularly difficult. Providers of behavioral interventions oftentimes cannot be blinded when the outcome of interest, such as symptom change, informs the course of the intervention. Blinding of outcome assessors is possibly the most critical for curbing bias since expectations can influence evaluation and inflate effect sizes. A review of 252 trials found that out of the 125 trials that assessed outcomes, only 26% reported using blinding. The use of blinding was largely dependent on use of an independent assessor (Kahan *et al.*, 2015). All these challenges are augmented in LMICs where of a lack of human resources and weak behavioral health infrastructures may be a local reality. Funding may not cover the costs of hiring an independent assessor. Office spaces are often shared, and to streamline human resources, study team meetings might consist of many team members, including research assistants who are involved in several aspects of the study, such as assessing eligibility criteria, performing outcome assessments, and randomizing participants to study arms. Where possible, it is recommended to hire an independent assessor to conduct outcome evaluations and avoid sharing study hypotheses and specific outcomes of interest, including in online study descriptions (Friedberg *et al.*, 2010).

Interventions and measurement of outcomes varied widely. Interventions differed in duration (three weeks to two years), dose, and modality. Most studies ($n = 15$) had a singular intervention target. Still, there was no consistent trend of effectiveness across interventions. While implementation of evidence-based treatments with standardized follow-up timepoints and treatment durations could facilitate comparison across studies in future research, a common assertion in global mental health scale-up efforts (Bemme and D'souza, 2014), there are numerous challenges to standardization. The first issue is relevance and acceptability, as local cultural contexts shape how mental health conditions are conceptualized and expressed symptomatically (Mendenhall *et al.*, 2016). In this review of studies, most interventions were

theoretically informed and locally developed or adapted, which may explain the heterogeneity of outcomes regarding effectiveness. Other challenges to standardization of measurement across LMICs are that adopting and implementing new measures is costly and establishing expert consensus is difficult (Liao and Quintana, 2021). None of the studies showed improvements in all three areas of family violence, mental health, or substance use. Future intervention development should focus on strengthening theoretical explanations for how family violence, mental health, and substance use relate to one another and identifying core mechanisms of therapeutic action. While several authors assessed outcomes at multiple time points and follow-up, efforts were placed on understanding effect sizes rather than mediational effects. Use of path analyses in future studies could help untangle these associations further. Moreover, conducting meta-analyses to synthesize effectiveness and look more closely at factors such as intervention length and dose of sessions will be an important next step.

Outcomes for family violence also varied with few interventions improving all family violence domains. Many studies measured IPV perpetration. However, it was often unclear how interventions specifically were adapted to, or targeted, men's perpetration of IPV. Only one study (Patel *et al.*, 2017; Weobong *et al.*, 2017) assessed IPV victimization among men. Globally, there is a lack of evidence-based treatments shown to be effective for reducing IPV perpetration. Research in high-income settings has shown that situational IPV—discord and conflict in couples that escalates to mild or moderate physical violence—is often bidirectional (Langhinrichsen-Rohling *et al.*, 2012). Our research in Uganda has shown that approximately 35% of women reported perpetrating IPV towards their male partners and that perpetration was associated with victimization (authors blinded). Couple-based interventions to reduce conflict have been shown to be effective (Stith and McCollum, 2011) and are needed. Only one study (Jones *et al.*, 2014) in this review used a couple-based intervention to improve HIV outcomes. Interventions that work with the couple system are needed and may hold higher cultural relevance, given emphasis on family unity and stigma about separation (authors blinded). While many researchers employed standardized measures to assess violence, if researchers elected not to use a full standardized instrument, the rationale for selecting certain IPV items was sometimes unclear.

Child maltreatment was less likely to be addressed than IPV. Two studies (Cluver *et al.*, 2016; Lachman *et al.*, 2017) in South Africa specifically aimed at reducing child maltreatment. Only one study (Meffert *et al.*, 2014) more broadly measured violence towards the household, although there is a known association between perpetration of IPV and child maltreatment (Namy *et al.*, 2017; Mootz *et al.*, 2019). Based on the available data presented in this review, it is difficult to make conclusive takeaways about how family violence and mental health or substance use program impact youth mental health. While the developmental literature suggests these factors—violence, maltreatment, and caregiver mental health conditions—influence the development of youth mental health conditions, the studies on IPV did not often include measures of child mental health. It is possible that if they did, improvements in child mental health would be seen. Qualitative research in Kenya has shown that intervening to reduce fathers' alcohol use provided mental health benefits to their families (Giusto *et al.*, 2021). Future research should examine downstream effects of reducing IPV and adult mental health and substance use on children. On the other hand, child maltreatment studies did include measures of youth mental health yet results on mental health were mixed even with observed changes in caregiver violence. It is

possible that a longer follow-up period is needed to capture potential improvements in children's mental health. In other words, changes in the family system may take longer to influence youth mental health. Consideration of whether family-level interventions outperform couple or individual modalities could help mobilize the few resources available for mental health in low-resource settings.

Several studies in this review targeted substance use or mental health. The substance use interventions (L'Engle *et al.*, 2014; Parcesepe *et al.*, 2016; Nadkarni *et al.*, 2017b) outperformed control conditions in reductions in alcohol use. However, no differences between conditions in IPV transpired in either intervention. Integrated substance use and IPV interventions, in contrast, showed reductions in IPV. However, one integrated intervention (Satyanarayana *et al.*, 2016) did not observe the same reductions in alcohol use. This latter finding is surprising given that experts have concurred that there are many implementation benefits to dually addressing IPV along with comorbid alcohol misuse that include streamlined services for patients, prevention of relapse, and benefits for families and children (Mootz *et al.*, 2022). While the findings of this review suggest that integrated substance use and IPV interventions show trends of also reducing IPV, more effectiveness research is needed.

Targeted and integrated mental health interventions for the most part showed improvements in mental health outcomes. About half of these interventions also improved IPV. Most mental health studies focused on reduction and measurement of depression symptoms as a primary outcome of interest, although only one study emphasized meeting criteria for depression as being necessary for eligibility to participate in the study (Patel *et al.*, 2017; Weobong *et al.*, 2017). It was more common to explicitly include alcohol use, HIV status, or IPV as eligibility criteria and assess depression within those specialized populations. We suggest that future studies not only include their primary outcomes of interest as eligibility criteria but also consider expanding measurement and the focus of treatment to be transdiagnostic and include all common mental conditions (depression, anxiety, and PTSD). These conditions are frequently comorbid (Yatham *et al.*, 2018) and all have strong bidirectional associations with family violence (Trevillion *et al.*, 2012).

Moreover, studies tended to emphasize intervention effects with less systematic evaluation of implementation factors, such as scalability and sustainability. Several studies, however, implemented task-shifting, having nonspecialized providers deliver mental health care, in settings outside the traditional mental health outpatient clinic. Task-shifting can improve scale-up efforts through nonspecialized delivery of care (Sijbrandij *et al.*, 2017). It can be challenging, however, to establish a proof of concept and simultaneously assess scalability and sustainability, especially for more complex, integrated interventions (Zamboni *et al.*, 2019). Going forward, hybrid implementation-effectiveness trials can evaluate both longitudinally given that a one-time scalability and sustainability assessment conducted at the beginning of a study is not recommended (Zamboni *et al.*, 2019). Continued consideration of how to adapt interventions to be relevant for co-occurring mental health conditions and family violence is recommended. An example of such an approach is the Common Elements Treatment Approach, a unified intervention designed for implementation in LMICs and based on evidence-based treatments for common mental conditions and substance use (Murray *et al.*, 2014).

Several limitations to this systematic review should be considered. While one of our main objectives was to identify effective interventions that addressed family violence and mental health

and/or substance use, our search strategy did not include other related problems, such as HIV prevention and response programming, that are related and relevant in low-income settings. While the intervention terms used should have identified most studies, it is possible that our inclusion criteria of pre- and post-measurement may have inadvertently occluded violence prevention studies that focused on implementation at the community level. Next, we only included studies with abstracts in English. Finally, although we identified studies from 13 LMICs, most of these studies were concentrated in sub-Saharan Africa.

Conclusion

This systematic review of interventions that measured effects on family violence, mental health, and/or substance use included 19 studies (29 articles) located in 13 LMICs across three continents. Most of the studies were RCTs, were underpowered and did not blind to condition reducing the quality of the evidence. Most interventions focused on reduction of one problem (family violence, mental health, or substance use) and there was significant heterogeneity across studies. Most family violence studies focused on reducing IPV (rather than child maltreatment), and few interventions targeted IPV perpetration. Integrated substance use and IPV interventions had better success in reducing IPV than those that targeted substance use alone. About half of interventions that involved a mental health focus (mostly targeting depression) improved IPV. Future work should develop understanding of theoretical mechanisms that explain connections among these problems so that interventions can be adapted for a more comprehensive effect.

Open peer review. To view the open peer review materials for this article, please visit <http://doi.org/10.1017/gmh.2023.62>.

Supplementary material. The supplementary material for this article can be found at <http://doi.org/10.1017/gmh.2023.62>.

Data availability statement. The data that support the findings of this study are available on request from the corresponding author, J.M.

Author contribution. J.M.—Conceptualization, data extraction, review of articles, original draft writing; M.F.—data extraction, table construction, original draft writing; A.G.—original draft writing, risk of bias assessment; A.M.—literature search, original draft writing; C.G.—original draft writing, risk of bias assessment; M.W.—reviewing and editing.

Financial support. This project was supported by the National Institute of Mental Health K23 MH122661 and T32 MH096724, Global Mental Health Research Fellowship: Interventions That Make a Difference.

Competing interest. The authors declare no competing interests exist.

References

- Annan J, Falb K, Kpebo D, Hossain M and Gupta J (2017) Reducing PTSD symptoms through a gender norms and economic empowerment intervention to reduce intimate partner violence: A randomized controlled pilot study in Côte D'Ivoire. *Global Mental Health* 4, e22.
- Asghar K, Rubenstein B and Stark L (2017) *Preventing household violence: Promising strategies for humanitarian settings. In The Alliance for Child Protection in Humanitarian Action, CPC Learning Network, UNICEF, United Nations Children's Fund, USAID, US Agency for International Development*, pp. 1–96. <https://doi.org/10.13140/RG.2.2.19235.04642>
- Bemme D and D'souza NA (2014) Global mental health and its discontents: An inquiry into the making of global and local scale. *Article Transcultural Psychiatry* 51(6), 850. <https://doi.org/10.1177/1363461514539830>
- Betancourt TS, Ng LC, Kirk CM, Brennan RT, Beardslee WR, Stulac S, Mushashi C, Nduwimana E, Mukunzi S, Nyirandagijimana B, Kalisa G, Rwabukwisi CF and Nyirandagijimana B (2017) Family-based promotion of mental health in children affected by HIV: A pilot randomized controlled trial. *Journal of Child Psychology and Psychiatry* 58(8), 922–930.
- Bruckner T, Scheffler R, Shen G, Yoon J, Chisholm D, Morris J, Fulton BD, Dal Poz MR and Saxena S (2011) The mental health workforce gap in low- and middle-income countries: A needs-based approach. *Bulletin of the World Health Organization* 89, 184–194.
- Buller AM, Hidrobo M, Peterman A and Heise L (2016) The way to a man's heart is through his stomach?: A mixed methods study on causal mechanisms through which cash and in-kind food transfers decreased intimate partner violence. *BMC Public Health* 16, 1–13.
- Carlson CE, Chen J, Chang M, Batsukh A, Toivgoon A, Riedel M and Witte SS (2012) Reducing intimate and paying partner violence against women who exchange sex in Mongolia: Results from a randomized clinical trial. *Journal of Interpersonal Violence* 27(10), 1911–1931.
- Chaudhury S, Brown FL, Kirk CM, Mukunzi S, Nyirandagijimana B, Mukandanga J, Ukundineza C, Godfrey K, Ng LC, Brennan RT and Betancourt TS (2016) Exploring the potential of a family-based prevention intervention to reduce alcohol use and violence within HIV-affected families in Rwanda. *AIDS Care* 28(sup2), 118–129.
- Cluver L, Meinck F, Steinert JI, Shenderovich Y, Doubt J, Romero RH, Lombard CJ, Redfern A, Ward CL, Tsoanyane S, Nzima D, Sibanda N, Wittesaele C, De Stone S, Boyes ME, Catanho R, McLaren Lachman J, Salah N, Nocuza M and Gardner F (2018) Parenting for lifelong health: A pragmatic cluster randomised controlled trial of a non-commercialised parenting programme for adolescents and their families in South Africa. *BMJ Global Health* 3(1), e000539.
- Cluver L, Meinck F, Yakubovich A, Doubt J, Redfern A, Ward C, Salah N, De Stone S, Petersen T, Mpimpilashé P, Romero RH, Ncobo L, Lachman J, Tsoanyane S, Shenderovich Y, Loening H, Byrne J, Sherr L, Kaplan L and Gardner F (2016) Reducing child abuse amongst adolescents in low- and middle-income countries: A pre-post trial in South Africa. *BMC Public Health* 16, 1–11.
- Coll CV, Ewerling F, García-Moreno C, Hellwig F and Barros AJ (2020) Intimate partner violence in 46 low-income and middle-income countries: An appraisal of the most vulnerable groups of women using national health surveys. *BMJ Global Health* 5(1), e002208.
- Devries K, Watts C, Yoshihama M, Kiss L, Schraiber LB, Deyessa N, Heise L, Durand J, Mbwapo J, Jansen H, Berhane Y, Ellsberg M, Garcia-Moreno C and WHO Multi-Country Study Team (2011) Violence against women is strongly associated with suicide attempts: Evidence from the WHO multi-country study on women's health and domestic violence against women. *Social Science & Medicine* 73(1), 79–86. <https://doi.org/10.1016/J.SOCS.2011.05.006>
- Downs SH and Black N (1998) The feasibility of creating a checklist for the assessment of the methodological quality both of randomised and non-randomised studies of health care interventions. *Journal of Epidemiology and Community Health* 52(6), 377–384. <https://doi.org/10.1136/JECH.52.6.377>
- Dutton DG, Tetreault C and White KR (2017) Violence in the family. In Sturme P (ed.), *The Wiley Handbook of Violence and Aggression*. Hoboken, NJ: Wiley, pp. 1–13. <https://doi.org/10.1002/9781119057574.WHBVA008>
- England MJ, Butler AS and Gonzalez ML (2015) *Committee on developing evidence-based standards for psychosocial interventions for mental disorders. Nationalacademies.Org*.
- Foran HM and O'Leary KD (2008) Alcohol and intimate partner violence: A meta-analytic review. *Clinical Psychology Review* 28(7), 1222–1234. <https://doi.org/10.1016/J.CPR.2008.05.001>
- Friedberg JP, Lipsitz SR and Natarajan S (2010) Challenges and recommendations for blinding in behavioral interventions illustrated using a case study of a behavioral intervention to lower blood pressure. *Patient Education and Counseling* 78(1), 5–11.
- García-Moreno C, Jansen HA, Ellsberg M, Heise L and Watts CH (2006) Prevalence of intimate partner violence: Findings from the WHO multi-

- country study on women's health and domestic violence. *Lancet* 368(9543), 1260–1269. [https://doi.org/10.1016/S0140-6736\(06\)9523-8](https://doi.org/10.1016/S0140-6736(06)9523-8)
- Gibbs A, Jewkes R, Willan S and Washington L** (2018) Associations between poverty, mental health and substance use, gender power, and intimate partner violence amongst young (18–30) women and men in urban informal settlements in South Africa: A cross-sectional study and structural equation model. *PLoS One* 13(10), e0204956. <https://doi.org/10.1371/JOURNAL.PONE.0204956>
- Gilbert L, Jiwatram-Negron T, Nikitin D, Rychkova O, McCrimmon T, Ermolaeva I, Sharonova N, Mukambetov A and Hunt T** (2017) Feasibility and preliminary effects of a screening, brief intervention and referral to treatment model to address gender-based violence among women who use drugs in Kyrgyzstan: Project WINGS (women initiating new goals of safety). *Drug and Alcohol Review* 36(1), 125–133.
- Gilbert LK, Annor FB and Kress H** (2022) Associations between endorsement of inequitable gender norms and intimate partner violence and sexual risk behaviors among youth in Nigeria: Violence against children survey, 2014. *Journal of Interpersonal Violence* 37(11–12), NP8507–NP8533.
- Giusto A, Mootz JJ, Korir M, Jaguga F, Mellins CA, Wainberg ML and Puffer ES** (2021) When my children see their father is sober, they are happy: A qualitative exploration of family system impacts following men's engagement in an alcohol misuse intervention in Peri-Urban Kenya. *SSM-Mental Health* 1, 100019.
- Glass N, Perrin NA, Kohli A, Campbell J and Remy MM** (2017) Randomised controlled trial of a livestock productive asset transfer programme to improve economic and health outcomes and reduce intimate partner violence in a postconflict setting. *BMJ Global Health* 2(1), e000165.
- Golding JM** (1999) Intimate partner violence as a risk factor for mental disorders: A meta-analysis. *Journal of Family Violence* 14(2), 99–132. <https://doi.org/10.1023/A:1022079418229>
- Gupta J, Falb KL, Lehmann H, Kpebo D, Xuan Z, Hossain M, Zimmerman C, Watts C and Annan J** (2013) Gender norms and economic empowerment intervention to reduce intimate partner violence against women in rural Côte d'Ivoire: A randomized controlled pilot study. *BMC International Health and Human Rights* 13, 1–12.
- Herba C, Glover V, Ramchandani P and Rondon M** (2016) Maternal depression and mental health in early childhood: An examination of underlying mechanisms in low-income and middle-income countries. *The Lancet Psychiatry* 3(10), 983–992.
- Hidrobo M, Peterman A and Heise L** (2016) The effect of cash, vouchers, and food transfers on intimate partner violence: Evidence from a randomized experiment in Northern Ecuador. *American Economic Journal: Applied Economics* 8(3), 284–303.
- Izaguirre A and Calvete E** (2018) Exposure to family violence and internalizing and externalizing problems among Spanish adolescents. *Violence and Victims* 33(2), 368–382.
- Jewkes R, Dunkle K, Koss MP, Levin JB, Nduna M, Jama N and Sikweyiya Y** (2006) Rape perpetration by young, rural South African men: Prevalence, patterns and risk factors. *Social Science & Medicine* 63(11), 2949–2961.
- Jewkes R, Gibbs A, Jama-Shai N, Willan S, Misselhorn A, Mushinga M, Washington L, Mbatha N and Skiweyiya Y** (2014) Stepping stones and creating futures intervention: Shortened interrupted time series evaluation of a behavioural and structural health promotion and violence prevention intervention for young people in informal settlements in Durban, South Africa. *BMC Public Health* 14, 1–10.
- Jewkes R, Nduna M, Levin J, Jama N, Dunkle K, Puren A and Duvvury N** (2008) Impact of stepping stones on incidence of HIV and HSV-2 and sexual behaviour in rural South Africa: Cluster randomised controlled trial. *BMJ* 337, a506.
- Jones D, Weiss SM, Arheart K, Cook R and Chitalu N** (2014) Implementation of HIV prevention interventions in resource limited settings: The partner project. *Journal of Community Health* 39, 151–158.
- Kahan BC, Rehal S and Cro S** (2015) Blinded outcome assessment was infrequently used and poorly reported in open trials. *PLoS One* 10(6), e0131926.
- Kimber M, Adham S, Gill S, McTavish J and MacMillan H** (2018) The association between child exposure to intimate partner violence (IPV) and perpetration of IPV in adulthood—A systematic review. *Child Abuse & Neglect* 76, 273–286.
- Krug E, Mercy J, Dahlberg L and Zwi A** (2002) The world report on violence and health. *Lancet* 360(9339), 1083–1088.
- Kyu HH, Abate D, Abate KH, Abay SM, Abbafati C, Abbasi N, Abbastabar H, Abd-Allah F, Abdela J, Abdelalim A, Abdollahpour I, Abdulkader RS, Abebe M, Abebe Z, Abil OZ, Aboyans V, Abrham AR, Abu-Raddad LJ, Abu-Rmeileh NME, Accrombessi MMK, Acharya D, Acharya P, Ackerman IN, Adamu AA, Adebayo OM, Adekanmbi V, Ademi Z, Adetokunboh OO, Adib MG, Adsuar JC, Afanvi KA, Afarideh M, Afshin A, Agarwal G, Agesa KM, Aggarwal R, Aghayan SA, Agrawal A, Ahmadi A, Ahmadi M, Ahmadi H, Ahmed MB, Hoek HW, Khan MA, Nguyen HT, Nguyen HT, Nguyen SH and Vos T** (2018) Global, regional, and national disability-adjusted life-years (DALYs) for 359 diseases and injuries and healthy life expectancy (HALE) for 195 countries and territories, 1990–2017: A systematic analysis for the global burden of disease study 2017. *Lancet* 392(10159), 1859–1922. [https://doi.org/10.1016/S0140-6736\(18\)32335-3/ATTACHMENT/6BA1CA06-C438-44C5-94CA-D9DF2AC5E584/MMC2.PDF](https://doi.org/10.1016/S0140-6736(18)32335-3/ATTACHMENT/6BA1CA06-C438-44C5-94CA-D9DF2AC5E584/MMC2.PDF)
- L'Engle KL, Mwarogo P, Kingola N, Sinkele W and Weiner DH** (2014) A randomized controlled trial of a brief intervention to reduce alcohol use among female sex workers in Mombasa, Kenya. *JAIDS Journal of Acquired Immune Deficiency Syndromes* 67(4), 446–453.
- Lachman JM, Cluver L, Ward CL, Hutchings J, Mlotshwa S, Wessels I and Gardner F** (2017) Randomized controlled trial of a parenting program to reduce the risk of child maltreatment in South Africa. *Child Abuse & Neglect* 72, 338–351.
- Langhinrichsen-Rohling J, Misra TA, Selwyn C and Rohling ML** (2012) Rates of bidirectional versus unidirectional intimate partner violence across samples, sexual orientations, and race/ethnicities: A comprehensive review. *Partner Abuse* 3(2), 199–230.
- Liao Z and Quintana Y** (2021) Challenges to global standardization of outcome measures. *AMIA Summits on Translational Science Proceedings* 2021, 404.
- Matzopoulos R, Bowman B, Butchart A and Mercy JA** (2008) The impact of violence on health in low- to middle-income countries. *International Journal of Injury Control and Safety Promotion* 15(4), 177–187. <https://doi.org/10.1080/17457300802396487>
- McCloskey LA, Boonzaier F, Steinbrenner SY and Hunter T** (2016) Determinants of intimate partner violence in Sub-Saharan Africa: A review of prevention and intervention programs. *Partner Abuse* 7(3), 277–315. <https://doi.org/10.1891/1946-6560.7.3.277>
- Meffert SM, Abdo AO, Alla OAA, Elmakki YOM, Metzler TJ and Marmar CR** (2014) A pilot randomized controlled trial of interpersonal psychotherapy for Sudanese refugees in Cairo, Egypt. *Psychological Trauma: Theory, Research, Practice, and Policy* 6(3), 240.
- Mendenhall E, Yarris K and Kohrt BA** (2016) Utilization of standardized mental health assessments in anthropological research: Possibilities and pitfalls. *Culture, Medicine and Psychiatry* 40(4), 726. <https://doi.org/10.1007/S11013-016-9502-Y>
- Monaghan TF, Agudelo CW, Rahman SN, Wein AJ, Lazar JM, Everaert K and Mdochowski RR** (2021) Blinding in clinical trials: Seeing the big picture. *Medicina* 57(7), 647.
- Mootz JJ, Fennig M and Wainberg ML** (2022) Barriers and facilitators of implementing integrated interventions for alcohol misuse and intimate partner violence: A qualitative examination with diverse experts. *Journal of Substance Abuse Treatment* 137, 108694.
- Mootz JJ, Stark L, Meyer E, Asghar K, Roa AH, Potts A, Poulton C, Marsh M, Ritterbusch A and Bennouna C** (2019) Examining intersections between violence against women and violence against children: Perspectives of adolescents and adults in displaced Colombian communities. *Conflict and Health* 13(1), 1–12.
- Murray LK, Dorsey S, Haroz E, Lee C, Alsiary MM, Haydary A, Weiss WM and Bolton P** (2014) A common elements treatment approach for adult mental health problems in low- and middle-income countries. *Cognitive and Behavioral Practice* 21(2), 111. <https://doi.org/10.1016/J.CBPRA.2013.06.005>
- Mutisya RK, Ngure K and Mwachari C** (2017) A psychosocial intervention to reduce gender-based violence and antepartum depressive symptoms in pregnant women in Kisumu County, Kenya: A quasi-experimental study. *Pan African Medical Journal* 29(1), 1–9.
- Nadkarni A, Weiss HA, Weobong B, McDaid D, Singla DR, Park A-L, Bhat B, Katti B, McCambridge J, Murthy P, King M, Wilson GT, Kirkwood B,**

- Fairburn CG, Velleman R and Patel V (2017a) Sustained effectiveness and cost-effectiveness of counselling for alcohol problems, a brief psychological treatment for harmful drinking in men, delivered by lay counsellors in primary care: 12-month follow-up of a randomised controlled trial. *PLoS Medicine* **14**(9), e1002386.
- Nadkarni A, Weobong B, Weiss HA, McCambridge J, Bhat B, Katti B, Murthy P, King M, McDaid D, Park A-L, Wilson GT, Kirkwood B, Fairburn CG, Velleman R and Patel V (2017b) Counselling for alcohol problems (CAP), a lay counsellor-delivered brief psychological treatment for harmful drinking in men, in primary care in India: A randomised controlled trial. *Lancet* **389**(10065), 186–195.
- Namy S, Carlson C, O'Hara K, Nakuti J, Bukuluki P, Lwanyaaga J, Namakula J, Nanyunja B, Wainberg ML, Naker D and Michau L (2017) Towards a feminist understanding of intersecting violence against women and children in the family. *Social Science & Medicine* **184**, 40–48.
- Panyayong B, Tantirangsee N and Bogoian III R (2018) Long-term mental health consequences of child maltreatment: A result from Thai National Mental Health Survey 2013. *Journal of the Medical Association of Thailand* **101**(10), 1375–1384.
- Parcesepe A (2015) Interpersonal violence and HIV sexual risk behaviors: The influence of alcohol harm reduction and early initiation of sex work among female sex workers in Mombasa, Kenya.
- Parcesepe AM, Kelly LL, Martin SL, Green S, Sinkele W, Suchindran C, Speizer IS, Mwarogo P and Kingola N (2016) The impact of an alcohol harm reduction intervention on interpersonal violence and engagement in sex work among female sex workers in Mombasa, Kenya: Results from a randomized controlled trial. *Drug and Alcohol Dependence* **161**, 21–28. Available from: <http://doi.org/10.1016/j.drugalcdep.2015.12.0371>
- Patel V, Weobong B, Weiss HA, Anand A, Bhat B, Katti B, Dimidjian S, Araya R, Hollon SD, King M, Vijayakumar L, Park AL, McDaid D, Wilson T, Velleman R, Kirkwood BR and Fairburn CG (2017) The healthy activity program (HAP), a lay counsellor-delivered brief psychological treatment for severe depression, in primary care in India: A randomised controlled trial. *Lancet* **389**(10065), 176–185.
- Saraceno B, van Ommeren M, Batniji R, Cohen A, Gureje O, Mahoney J, Sridhar D and Underhill C (2007) Barriers to improvement of mental health services in low-income and middle-income countries. *Lancet* **370**(9593), 1164–1174.
- Sardinha L, Maheu-Giroux M, Stöckl H, Meyer SR, Garcia-Moreno C (2022) Global, regional, and national prevalence estimates of physical or sexual, or both, intimate partner violence against women in 2018. *Lancet* **399**(10327), 803–813. [https://doi.org/10.1016/S0140-6736\(21\)02664-7](https://doi.org/10.1016/S0140-6736(21)02664-7)
- Satyanarayana VA, Nattala P, Selvam S, Pradeep J, Hebbani S, Hegde S and Srinivasan K (2016) Integrated cognitive behavioral intervention reduces intimate partner violence among alcohol dependent men, and improves mental health outcomes in their spouses: A clinic based randomized controlled trial from South India. *Journal of Substance Abuse Treatment* **64**, 29–34.
- Sijbrandij M, Acarturk C, Bird M, Bryant RA, Burchert S, Carswell K, de Jong J, Dinesen C, Dawson KS, El Chammay R, van Ittersum L, Jordans M, Knaevelsrud C, McDaid D, Miller K, Morina N, Park A-L, Roberts B, van Son Y, Sondorp E, Pfaltz MC, Ruttenberg L, Schick M, Schnyder U, van Ommeren M, Ventevogel P, Weissbecker I, Weitz E, Wiedemann N, Whitney C and Cuijpers P (2017) Strengthening mental health care systems for Syrian refugees in Europe and the Middle East: Integrating scalable psychological interventions in eight countries. *European Journal of Psychotraumatology* **8**(sup2), 1388102.
- Skeen S and Tomlinson M (2013) A public health approach to preventing child abuse in low-and middle-income countries: A call for action. *International Journal of Psychology* **48**(2), 108–116.
- Stewart DE, Vigod S and Riazantseva E (2016) New developments in intimate partner violence and management of its mental health sequelae. *Current Psychiatry Reports* **18**(1), 1–7. <https://doi.org/10.1007/S11920-015-0644-3>
- Stith SM and McCollum EE (2011) Conjoint treatment of couples who have experienced intimate partner violence. *Aggression and Violent Behavior* **16**(4), 312–318.
- Tankard M (2016) *Saving Money on your Own or in Solidarity: An Experiment on Women's Empowerment and Intimate-Partner Violence in Colombia*. Princeton, NJ: Princeton University.
- Tankard ME, Paluck EL, Prentice DA (2019) The effect of a savings intervention on women's intimate partner violence victimization: Heterogeneous findings from a randomized controlled trial in Colombia. *BMC Women's Health* **19**(1), 1–11. Available from: <https://link.springer.com/articles/10.1186/s12905-019-0717-2>
- Tiwari A, Fong DYT, Yuen KH, Yuk H, Pang P, Humphreys J and Bullock L (2010) Effect of an advocacy intervention on mental health in Chinese women survivors of intimate partner violence: A randomized controlled trial. *JAMA* **304**(5), 536–543.
- Tol WA, Murray SM, Lund C, Bolton P, Murray LK, Davies T, Haushofer J, Orkin K, Witte M, Salama L, Patel V, Thornicroft G and Bass JK (2019) Can mental health treatments help prevent or reduce intimate partner violence in low- and middle-income countries? A systematic review. *BMC Women's Health* **19**, 1–15.
- Trevillion K, Oram S, Feder G and Howard LM (2012) Experiences of domestic violence and mental disorders: A systematic review and meta-analysis. *PLoS One* **7**(12), e51740. <https://doi.org/10.1371/JOURNAL.PONE.0051740>
- UNICEF (2014) Children in danger: Act to end violence against children. New York. Available at https://www.unicef.org.uk/wp-content/uploads/2014/10/Unicef_ChildreninDanger_ViolencereportW.pdf
- United Nations General Assembly (1993) Declaration on the elimination of violence against Women. Available at <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N94/095/05/PDF/N9409505.pdf?OpenElement>
- Vizcarra B, Hassan F, Hunter WM, Muñoz SR, Ramiro L and De Paula CS (2010) Partner violence as a risk factor for mental health among women from communities in the Philippines, Egypt, Chile, and India. *Injury Control and Safety Promotion* **11**(2), 125–129. <https://doi.org/10.1080/15660970412331292351>
- Weobong B, Weiss HA, McDaid D, Singla DR, Hollon SD, Nadkarni A, Park A-L, Bhat B, Katti B, Anand A, Dimidjian S, Araya R, King M, Vijayakumar L, Wilson GT, Velleman R, Kirkwood BR, Fairburn CG and Patel V (2017) Sustained effectiveness and cost-effectiveness of the healthy activity programme, a brief psychological treatment for depression delivered by lay counsellors in primary care: 12-month follow-up of a randomised controlled trial. *PLoS Medicine* **14**(9), e1002385.
- Witte SS, Altantsetseg B, Aira T, Riedel M, Chen J, Potocnik K, El-Bassel N, Wu E, Gilbert L, Carlson C and Yao H (2011) Reducing sexual HIV/STI risk and harmful alcohol use among female sex workers in Mongolia: A randomized clinical trial. *AIDS and Behavior* **15**, 1785–1794.
- World Bank (2021) World development report 2021: Data for better lives. The World Bank.
- World Health Organization (2019) World health statistics overview 2019: Monitoring health for the SDGs, sustainable development goals. Available at <https://iris.world.health.int/bitstream/handle/10665/324835/9789241565707-eng.pdf?sequence=9>
- Yatham S, Sivathasan S, Yoon R, da Silva TL and Ravindran AV (2018) Depression, anxiety, and post-traumatic stress disorder among youth in low and middle income countries: A review of prevalence and treatment interventions. *Asian Journal of Psychiatry* **38**, 78–91.
- Zamboni K, Schellenberg J, Hanson C, Betran AP and Dumont A (2019) Assessing scalability of an intervention: Why, how and who? *Health Policy and Planning* **34**(7), 544–552.