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## Introduction

Intimate partner violence (IPV) is estimated to affect hundreds of millions of women worldwide, and is the most common form of physical and sexual abuse in women's lives. There is strong evidence to support a correlation between alcohol consumption and violent behavior and an abundance of qualitative data substantiating this claim. Many studies and meta-analyses have also demonstrated a correlation between heavy drinking and perpetration of IPV, even when controlling for other indicators of marital health and well-being.<sup>i</sup>

Given these and other negative consequences of alcohol abuse,<sup>ii</sup> researchers and organizations have developed and tested interventions to decrease alcohol use with the hope of reducing its negative consequences. A subset of these measure the effect of decreasing alcohol use on IPV. In this review, we outline the evidence on the effectiveness of interventions aimed at reducing alcohol use and more specifically, their effect on the incidence of IPV. Given the large disparity in the number of studies carried out in developing countries as compared to developed countries, the evidence in developing country settings is described in more detail than evidence from developed countries. We also suggest areas for further research and intervention design.

## I. Alcohol use and IPV

### 1.1 The Link: Alcohol, Violent Behavior and IPV

There is experimental and correlational evidence of an association between consuming alcohol and violent behavior, although alcohol has not been shown to have a causal role in violent behavior.<sup>iii</sup> Correlations between IPV and alcohol use have shown the following:

- Lipsey et al. (1997) reported an effect size of 0.22, meaning the top 50% of drinkers had twice the risk of violence as the bottom half.
- The relationship between IPV and alcohol use holds even after controlling for hostility and antisocial behavior<sup>iv</sup> and norms surrounding aggression.<sup>v</sup>
- Most of the above-listed studies also controlled for marital satisfaction and relationship discord and still found evidence of a significant relationship between alcohol and marital violence.<sup>vi</sup>
- Longitudinal studies report that drinking patterns are predictive of subsequent IPV over time,<sup>vii</sup> even while controlling for previous domestic violence.<sup>viii</sup>

As summarized by Stuart et al. (2009), within out-patient and in-patient samples of men receiving treatment for alcohol use:

- The incidence of IPV was 5-6 times higher among alcoholic men in the study relative to a demographically-matched nationally-representative sample.<sup>ix</sup>
- Prevalence of male-to-female IPV was over 50% for alcoholic men. The prevalence ranged from 58% to 85% within in-patient men, 54% to 71% within a mixed sample of in-patient and out-patient men, and 54% to 66% in out-patient samples.<sup>x</sup>

In addition, a number of studies establish a link between alcohol availability and violence rates, with most focusing on the effect of alcohol outlet density on violence.<sup>xi</sup> Though limited, there is also evidence supporting the correlation between alcohol availability and IPV. Specifically, it suggests that a higher density of alcohol outlets is associated with increased rates of IPV. Pricing policies have not been shown to have an effect on IPV.<sup>xii</sup>

### 1.3 The Alcohol Myopia Model

The Alcohol Myopia Model (AAM) provides "a guiding framework for the prevention of alcohol-related violence,"<sup>xiii</sup> and lends itself to behavioral interventions. The model contends that alcohol has a "myopic" effect on attention, meaning intoxicated individuals will focus on the most salient cues in a situation. In a hostile situation, the most salient cues are often violence-promoting. Thus, alcohol facilitates violence in hostile situations because it focuses intoxicated individuals' attention onto the more salient provocative cues, rather than the less salient inhibitory cues.<sup>xiv</sup>

Studies support this model and suggest a number of potential interventions for reducing alcohol-related aggression. For example, one experimental study suggests that exposing intoxicated men in hostile situations to violence-inhibiting cues, like distractions, can reduce aggression. In the experiment, intoxicated men either administered shocks to or received shocks from an opponent. The intensity and duration of the shocks administered by the intoxicated men were used as a measure of their

aggression. Researchers found that alcohol produced the most aggression (i.e. longer or more intense shocks) when participants were asked to focus on the pain they expected their opponents to experience, which served as a violence-promoting cue. Alcohol produced the lowest levels of aggression when participants were given a violence-inhibiting cue, or a distraction. Of note is the fact that distracted intoxicated participants were as aggressive as a sober group of participants, suggesting that the distraction mediated the aggression-inducing effects of alcohol because it focused participants' attention away from violence-promoting cues. Thus, the Alcohol Myopia Model suggests that interventions focusing intoxicated individuals' away from violence-promoting cues could be an effective intervention for reducing alcohol-related violence.

For example, Purvis et al. (2016) found that exposure to self-awareness cues reduced alcohol-related aggression by intoxicated men for those who reported an internal locus of control. Similarly, Giancola et al. (2010) describe a two-part approach for AMM-informed interventions designed for domestic settings. In the first part, individual, couple, or family therapy could be used to help men develop aggression-reducing skills. In the second part, men could develop plans for themselves in which they employ physical cues of nonviolence and even partners or family members to focus their attention away from violence-promoting cues. In addition, recent research has found that dispositional mindfulness, or an awareness of one's thoughts and feelings, can mediate the relationship between alcohol and intimate partner violence by providing men with the tools to shift their attention away from aggressive cues. Thus Giancola et al. suggest drawing on therapeutic techniques of acceptance and commitment therapy, which increase dispositional mindfulness.

## II. Alcohol-related interventions in developed countries

### 2.1 Summary of Interventions in developed countries

There is an abundance of research on the association between the accessibility of alcohol and violence in the developed world. This research uses policy-level interventions like changing permitted alcohol sales times, decreasing the density of alcohol retail outlets, increasing alcohol prices, targeting advertisement, and more generally reducing the availability of alcohol, to demonstrate that reduced access to alcohol outlets reduces violence and aggression. While informative, few non-governmental organizations have the power or resources to implement such large-scale efforts.

Consequently, the following sections focus on alcohol interventions targeting individuals and couples. According to The Evidence-based Practices Substance Abuse Database at the University of the Washington's Alcohol & Drug Abuse Institute, there are only a handful of evidence-based interventions for alcohol abuse. The available interventions for individual and group formats include: 12-Step Facilitation Therapy, Brief Interventions, Contingency Management, pharmacological interventions, and a number of Behavioral Interventions ranging from Cognitive Behavioral Therapy to Relapse Prevention Therapy and Motivational Enhancement Therapy. According to this same database, Behavioral Couples Therapy is the only evidence-based practice for addressing alcohol abuse in the couple or family format.<sup>xv</sup>

Instead of reviewing all of the intervention types listed in the database, we focus on five types of individual interventions used to reduce alcohol consumption, and in some cases violence. We also review two types of couples-based interventions, which measure both alcohol consumption and violence. The lack of couples-based interventions may be attributable to controversy over couple's therapy, particularly with violent couples. Other community-based interventions are not reviewed in this section, as they are more commonly seen in developing countries.<sup>xvi</sup>

### 2.2 Individual interventions

#### Brief Interventions

Brief interventions, particularly motivational interviewing, and interventions aimed at simultaneously reducing alcohol and IPV (referred to below as "Combined Alcohol and IPV Interventions") have the most evidence supporting their effectiveness.<sup>xvii</sup> Face-to-face brief interventions in primary care settings have been found consistently effective at reducing excessive drinking on average. These interventions are generally provided by practitioners and include an initial screening process, personalized feedback on alcohol use and harms, the identification of high-risk situations and coping strategies, as well as suggestions to increase motivation for positive behavior change. These conversations can last between 5 and 45 minutes and can also include developing a plan to reduce drinking.<sup>xviii</sup>

While one study found no effect of a brief motivational phone call on alcohol abuse,<sup>xix</sup> Vasilaki et al.'s (2006) meta-analytic review suggests that overall, brief motivational interviewing is a particularly effective brief intervention for reducing drinking.

Most of the research done on brief motivational interviewing focuses on reducing drinking amongst college students. Of note, Murphy et al. (2013) found that a session increasing the rewards associated with substance-free activities, in addition to brief motivational interviewing itself, can enhance its effects. In this case, the session focused on increasing engagement in activities other than drinking, increasing the salience of the student's academic and career goals, and drawing attention to the negative effect drinking could have on those goals.

### Emergency Department Interventions

In their systematic review, Landy et al. (2016) conclude that brief interventions delivered in hospital Emergency Departments may not be effective in reducing alcohol consumption or subsequent hospitalizations.

### Online Interventions

The evidence on online interventions is mixed. Enggasser et al. (2014) find that returning US Veterans participating in a web-based alcohol intervention showed improvements in their drinking. However, in a review on the effectiveness of online alcohol interventions at reducing alcohol consumption, intimate partner violence and sexual violence, Tait and Lenson (2013) find that there is insufficient data to evaluate the effectiveness of such interventions on either outcome. However, there was some evidence of short-term improvements in the outcomes.

### Combined Alcohol and IPV Interventions

Stuart et al. (2003) assessed the impact of an intensive individually-based treatment for alcohol dependence on alcohol use, marital violence, psychological abuse, and marital satisfaction. The intervention reduced alcohol use and IPV perpetration. However, the study was not a randomized controlled trial (RCT) and had a small sample. More recently, Stuart et al. (2013) found that hazardous drinking men in batterer intervention programs who also received an alcohol intervention showed reduced alcohol and violence use – but these improvements faded by 12 months.

There is some evidence that individual Cognitive Behavioral Therapy (CBT) effectively reduces alcohol consumption and violence. For example, Easton et al. (2007) found that violent, alcohol-dependent men reported using alcohol on significantly fewer days after attending a twelve-session group CBT program. In addition, these men saw reductions in the frequency of violent episodes across time.

## 2.3 Couple Interventions

### Behavioral Couple's Therapy (BCT)

Most reviews suggest that Couple's Behavioral Therapy is more effective than individual cognitive behavioral therapy (see above) for reducing alcohol use and IPV in unison. For example, four methodologically rigorous studies by Fals-Stewart and colleagues found that behavioral couple's therapy reduced intimate partner violence more than individual counseling for substance misuse.<sup>xx</sup>

O'Farrell and Fals-Stewart (2000) published an early review on Behavioral Couple's Therapy (BCT) for alcoholism and drug abuse. Research supported the conclusion that: "BCT for both alcoholism and drug abuse produces more abstinence and fewer substance-related problems, happier relationships, fewer couple separations and lower risk of divorce than does individual-based treatment." They also note the cost-effectiveness of these interventions, and the substantial reduction in IPV following BCT for alcoholism. Later studies support their conclusions.

For example, in Fals-Stewart et al. (2002) couples with husbands who enter treatment for substance abuse benefitted more from behavioral couple's therapy (BCT) than individual behavioral therapy (IBT). They showed greater reductions in substance abuse, and a greater proportion of them showed improvements in relationship quality.<sup>xxi</sup> In addition, they found that the prevalence of IPV was reduced by more than half, as compared to the rates the year before receiving BCT. Those in IBT did not report significant reductions in IPV in the year after treatment compared to the year before treatment.

A more recent meta-analysis of 12 randomized controlled BCT trials also supports O'Farrell and Fals-Stewart's conclusions (Powers et al., 2008). They found that behavioral couple's therapy outperformed control conditions across time and outcome variables (including frequency of substance use, consequences of substance use, and relationship satisfaction) as early as three months after treatment. The authors also note that previous studies have shown shorter versions of BCT are equally effective as longer treatments.

Most recently, O'Farrell et al. (2016) demonstrated that standard delivery of BCT (one couple at a time) has more lasting benefits for reduced substance abuse and improved relationships than group formats that include more than one couple per session.

### Skills-Building Interventions

While many of the interventions described throughout this literature review arguably include skills-building components, none evaluate the effectiveness of the skills-building component alone. McCabe et al. (2015) ran a randomized controlled trial (RCT) on the effects of SEPA, a culturally-specific, community-based HIV prevention program for Hispanic women, on alcohol intoxication and IPV. Specifically, the program had five sessions on STI/HIV prevention, negotiation and communication with romantic partners, IPV, and substance abuse. The study found that SEPA reduced IPV and alcohol intoxication, and improved partner communication.

## III. Alcohol-related interventions in developing countries

### 3.1 Summary of interventions in developing countries

A collection of recent interventions that reduced alcohol use are summarized below. The interventions range from interventions focused on reducing alcohol consumption to those focused on other issues, including depression and anger. Broadly, the following examples include clinic-based interventions, cognitive behavioral interventions, economic interventions, and community-level interventions.

### 3.2 Existing evidence

#### Economic Interventions

Angelucci et al. (2008) evaluated a conditional cash transfer program in Rural Mexico where an estimated 1 in 4 cases of IPV involved alcohol abuse in 2003. The cash transfer was conditional on recipients sending their children to school, allowing health visits, and attending nutrition and health classes. The program increased the sample's joint spousal income by about 28%, although different treatment groups received different sized transfers. The cash was handed to women, and raised their share of total household income from 3% to 38%.

Cash transfers decreased average husband's alcohol abuse by 15% regardless of the size of the transfer. However, violence was differentially affected by the size of the transfer. Small cash transfers decreased husband's violence by 37% while larger transfers led to increased levels of violence. This difference in effect is consistent with the dictator model,<sup>1</sup> especially since larger transfers were given to women in households with the lowest levels of income education. The authors suggest the conditional cash transfer worked by 1) increasing household income, which increased happiness and reduced the need for frustration relief; 2) decreasing share of income earned by husband, and 3) making use of violence less acceptable in communities.

#### Health-focused Interventions (through clinics and peer networks)

Rotheram-Borus et al. (2015) conducted an RCT to evaluate a mother and child health intervention in Cape Town, South Africa. The intervention consisted of prenatal and postnatal visits by community health workers that focused on general maternal and child health, HIV/TB, alcohol use and nutrition. The sample included ~1250 women from 24 neighborhoods. The intervention reduced depression, but not IPV or alcohol use. The authors suggest that future interventions should maintain frequent visits, instead of decreasing visit frequency after 6 months.

Kalichman et al. (2007) recruited 143 STI clinic patients in Cape Town, South Africa to randomly receive an experimental 60-minute HIV and alcohol risk reduction skills intervention or a 20-minute HIV education condition. The researchers found that the intervention led to a 25% increase in condom use and 65% reduction in unprotected intercourse. Alcohol use in sexual contexts and expectations that alcohol enhances sexual experiences were found to be lower at 3-month follow up, but not at 6-month follow up. This suggests that skills-building interventions can affect alcohol consumption and interpersonal behavior, even if temporarily.

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<sup>1</sup> The dictator model posits that husband's utility is a function of their spouse's relative income. Thus, increasing a spouse's relative income reduces husband's utility and can instigate violence.

In a subsequent randomized trial in Cape Town, Kalichman et al (2008) recruited 117 men and 236 women to receive either a 3 hour theory-based behavioral HIV-alcohol, risk-reduction intervention which included skills training on sexual negotiation and condom use or a 1 hour HIV-alcohol education session (control group). The intervention group showed significantly less unprotected sex, alcohol use before sex, number of sexual partners, partners met at drinking establishments and greater condom use. Lighter drinkers demonstrated more intervention gains than heavy drinkers. However, researchers found that the effects dissipated by the 6-month follow-up.

### Psychological Therapy Intervention (CBT and Talk Therapy)

Satyanarayana et al. (2016) evaluated an integrated cognitive behavioral intervention with 177 alcohol dependent male in-patients in South India. The intervention included eight cognitive behavioral sessions that addressed the relationship between IPV and alcohol use, triggers for alcohol use and IPV, consequences of IPV and prevention of IPV. These sessions were delivered face-to-face and lasted 45-60 minutes. Patients were taught techniques like relaxation, anger management, assertiveness training and cognitive restructuring. In order to be eligible for the study, participants had to screen positive for IPV in the 6 month preceding the evaluation. Participants were randomly assigned to receive the integrated cognitive behavioral intervention that addressed alcohol use and IPV. Men attended sessions alone and were followed up with over 3 months. Patients in integrated cognitive behavioral intervention group reported significantly lower IPV perpetration, although alcohol use was not significantly different between groups. Note that a population-based study from Bangalore showed nearly 23% of alcohol users had been violent towards their wives (Gururaj, Girish & Bengal, 2006).

Blattman et al. (2015) conducted an RCT to evaluate a CBT-based intervention for violent youth in Liberia. Participants were randomized to receive 8 weeks of CBT to foster self-control skills including anger management, self-discipline, noncriminal self-image and values, or no intervention. A subset of the participants was also randomly selected to receive a \$200 grant. The evaluation showed that the CBT was more effective than the cash transfer. It increased self-control and noncriminal values and decreased crime and violence. There was also a small short-term decline in alcohol and drug use.

Patel et al. (2014) are currently conducting an RCT to evaluate an intervention, PREMIUM, that implements psychological treatments, specifically talk therapy, through lay counselors working in primary health care settings. The RCT is being conducted through eight publicly funded primary health centers in Goa, India. The talk therapy targets depression and alcohol use disorders. The authors note that in other settings, brief interventions to reduce drinking are twice as successful as no intervention. The current evaluation will compare the effectiveness of talk therapy and brief interventions through a parallel arm RCT. The criteria for selection of lay counselors are as follows: must be members of the local community, above 18 years old, have completed at least high school education, have an expressed desire to help people with mental health problems, and cannot have professional mental health training. Trainee counselors were recruited by placing advertisements in newspapers and through word of mouth, and selected based on their performance in a structured interview and role-play. Post-selection, the trainees underwent a three-week participatory workshop on psychological treatment.

Lund et al. (2012) are currently implementing and evaluating the PRIME in South Africa, Uganda, Nepal, India and Ethiopia. PRIME aims to integrate mental disorder care into routine primary and maternal health care in low-resource settings. Results forthcoming.

### Group-based Intervention/Couple's Therapy

Wechsberg et al. (2016) conducted an RCT in 30 neighborhoods in South Africa. The RCT had 3 arms, including a couple's health coop (CHC), women's health coop/men's health coop (WHC/MHC), and a control group. The CHC intervention arm aimed to reinforce positive dimensions of couples' relationship with skill-building exercises around communication and sexual expectation. It also made use of a handbook, which included a commitment pledge and take-home activities for couples to complete together. The MHC was a model used by Engender health and IPPF to engage men in reducing gender-based violence by challenging attitudes, values and behaviors and promoting positive sexual health. The researchers recruited 290 men and their wives to participate. Results show that men in the CHC were less likely to report heavy drinking than men in control group. The HIV incidence was also lower for women in CHC than WHC/MHC arm. One interesting finding was that drinking amongst women increased.

Fritz et al. (2011) evaluated a peer network-based sexual risk reduction intervention for men in beer halls in Zimbabwe. The program they were evaluating, Sahwira HIV Prevention Program, was a male-focused, peer-based intervention that encouraged men to assist their friends in avoiding the risky sexual behavior often associated with alcohol consumption. Researchers evaluated the intervention with an RCT involving 24 beer halls. In the intervention, 20% of patrons (~400 men)

were trained to assist male peers within their networks through one-on-one interactions, small group discussions and educational events. The intervention did not decrease alcohol use, but did decrease risky sexual behavior.

### Community-level Norms Intervention

Schensul et al. (2010) evaluated RISHTA, a community-level HIV/STI intervention in urban India. Three communities received educational events and activities including: 1) street dramas consisting of over 200 performances with 3 scripts, 2) community meetings – held the day after street dramas to collect reactions, answer questions, etc., 3) poster sessions using posters designed by students that emphasized HIV/STI prevention, 4) banner presentations, 5) videos/movies on HIV/STI and IPV, 6) printed materials, and 7) interpersonal communications between RISHTA staff and men. The researchers randomly selected men to survey, including 2408 at the baseline and 2722 at the follow up. They found a significant reduction in use of alcohol (33%) and an increase in equitable attitudes concerning gender.

## IV. Summary

The range of research and interventions covered in this literature review provide impetus to continue testing and evaluating interventions aimed at reducing alcohol use and more specifically, their effect on the incidence of IPV. Studies demonstrate that cost-effective interventions can reduce alcohol abuse. Brief interventions, particularly motivational interviewing, and the evidence that a behavioral economic component can enhance brief motivational interviewing, makes the brief intervention format a compelling option as a base for innovative interventions. Additionally, research in developed countries suggests that Behavioral Couples Therapy is a promising intervention for alcohol-related intimate partner violence.

Research from developing countries is sparse but increasing. There is evidence that health workers and community members with minimal training can facilitate individual-level interventions targeting alcohol use reduction and violence reduction. There is also strong evidence to support the effectiveness of community-level interventions to shift social norms related to the acceptability of alcohol use.

## V. Potential areas for research and intervention design

We've identified the gaps in research as follows:

- Few studies exist on the effectiveness of individual-level interventions, such as cognitive-based therapy, at reducing alcohol use in developing countries.
- No evidence supports the effectiveness of couples-based therapy in developing countries, although results from O'Farrell and Fals-Stewart (2000) and Powers et al. (2008) suggest that involving both men and women can be effective for jointly improving alcohol-related and relationship outcomes, even over short periods.
- There is also limited evidence on nudge-type interventions for reducing alcohol use in developing countries. Such interventions would affect behavior through small tweaks to environments.

Types of interventions ripe for exploration include, but are not limited to:

- Financial incentives for abstaining from alcohol use, such as cash transfer programs, lotteries, and commitment savings devices
- Nudge interventions for abstaining from alcohol use, including self-affirmation interventions, commitment devices, decision aids, and non-financial incentives.<sup>2</sup>
- CBT-informed interventions to increase self-discipline, decrease alcohol use, improve anger management, etc.
- Couples behavioral therapy interventions to increase communication, decrease alcohol use, etc.
- Community-level interventions aimed at shifting norms related to the acceptability of alcohol use

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## Appendix 1: Table of literature included in review

Authors	Year	Low v high income country	Population	Sample size	Study type	Level of intervention
Angelucci, M	2008	LIC	Recipients of Oportunidades	12,700 households	Secondary analysis of an RCT	Community
Appiah-Brempong et al	2014	HIC	College students	13 experimental, quasi-experimental, and nonexperimental studies	Systematic review	Individual
Blattman et al	2015	LIC	Criminally-engaged Liberian men	999 men	Experimental evidence	Group
Campbell et al.	2009	HIC	World Bank High-Income Economy residents	<88 articles or books	Review	Community/policy
Cunradi, C.B., et al.	2011	HIC	California residents	17 observational studies	Ecological analysis	Community/Ecology
Easton et al	2007	HIC	Alcohol-dependent males who were arrested for domestic violence within the past year.	85 men	Pilot	Individual
Enggasser et al.	2014	HIC	Returning veterans	305 veterans	Clinical trial	Individual
Fals-Stewart et al.,	2002	HIC	Couples with husbands entering treatment for substance abuse at one of two community-based out-patient clinics	80 couples	Secondary analysis of an RCT	Couples
Fritz, Kathrine, et al.	2011	LIC	Beer hall patrons	1284 patrons	RCT	Community/peer-based
Giancola, P. et al.	2011	HIC	Intoxicated male social drinkers	16 men	Pilot	Individual
Giancola, P. et al.	2010	HIC	Intoxicated participants	Not specified	Review	Individual
Gruenewald and Remer	2006	HIC	California residents	581 zip code regions	Longitudinal data	Community/Policy
Kalichman et al.	2008	LIC	Men and women drinking at informal alcohol serving establishments	117 men 236 women	RCT	Community
Kalichman et al.	2007	LIC	STI clinic patients	143 patients	RCT	Individual
Kaufman Kantor and Straus	1990	HIC	American families	8,145 families	Survey data	Community/norms
Kearns et al.	2015	HIC	USA, Australia, Brazil, Sweden, and Finland residents	18 longitudinal studies	Review	Community/policy

Landy et al	2016	HIC	Individuals seeking treatment for alcohol-related consequences in emergency departments	26 to 737 patients	Systematic review	Individual
Leonard, K.	2009	HIC	Couples with a violent substance-abusing partner	cross-sectional and longitudinal surveys, experimental studies	Review	Multiple
Lipsey et al	1997	HIC	Multiple	52 experimental studies, 130+ correlational studies	Review	Multiple
Lund et al	2012	LIC	Populations in Ethiopia, India, Nepal, South Africa, Uganda	Ongoing	RCT	Individual/Community
McCabe et al.	2015	HIC	Hispanic women in South Florida	548 women	RCT	Group/Individual/women
McKenry et al	1995	HIC	Married men	102 men	Qualitative	Individual
McKinney, et al.	2009	HIC	US residents	1,597 couples	Cross-sectional	Community/policy
Mello et al	2015	HIC	Emergency Department patients screening positive for alcohol misuse	730 patients	RCT	Individual
Moore et al.	2015	HIC	Latino day laborers.	29 men	RCT	Individual
Murphy et al	2016	HIC	First-year college students who reported 2 or more past-month heavy drinking episodes	82 students	RCT	Individual
O'Farrell and Fals-Stewart	2000	HIC	Couples with one substance-abusing partner	Not specified	Review	Couples
O'Farrell et al	2016	HIC	Patients with alcohol dependence and their heterosexual partner without substance abuse disorder	101 couples	RCT	Couples
Patel et al	2014	LIC	Men with depression or harmful drinking	900 participants	RCT	Individual
Powers et al	2008	HIC	Couples with one substance-abusing partner	12 RCTs (n=654)	Meta-analysis	Couples
Purvis et al	2016	HIC	Intoxicated male heavy drinkers	102 men	RCT	Individual
Reid et al	2003	HIC	Residents of Kansas City, Missouri	89 inner-city census tracts	Cross-sectional	Community/policy

Reider et al	1988	HIC	Working class couples with a substance abusing husband and male preschool-age child	75 couples	Cross-sectional and qualitative	
Rotheram-Borus et al	2015	LIC	Pregnant South African women	594 mothers in standard care condition, 644 mothers in home-visit condition	RCT	Community/ Individual
Satyanarayanan et al	2016	LIC	Alcohol dependent in-patient males who screened positive for IPV perpetration in the last 6 months	177 men	RCT	Individual
Schensul et al.	2010	LIC	Poor urban communities in Mumbai	~700,000 individuals	Longitudinal data	Community-level
Stuart et al.	2009	HIC	Couples with one substance-abusing partner	Not specified	Review	
Stuart et al.	2003	HIC	Heterosexual male patients and their partners	24 couples	Review	Multiple
Stuart et al.	2013	HIC	Hazardous drinking men in batterer intervention programs	252 men	Clinical trial	Individual
Tait and Lenton	2015	HIC	College students, emergency department patients, adolescence	From 262 to 17,332	Systematic review	Individual
Tanner-Smith and Lipsey	2014	HIC	Adolescents and young adults	185 studies	Systematic review and meta-analysis	Individual
Vasilaki, E et al	2006	HIC	Mild, abusive and dependent drinkers	15 studies	Meta-analytic review	Individual
Wechsberg et al.	2016	LIC	Residents of a South African township	290 men	RCT	Individual

<sup>i</sup> See Leonard 2001 or Heise, 2011 for a review

<sup>ii</sup> For more on the health and social consequences of alcohol, see WHO "Global Status Report on Alcohol 2004"

<sup>iii</sup> Lipsey et al. 1997

<sup>iv</sup> e.g. Leonard & Senchak 1993; Reider et al. 1988

<sup>v</sup> Kaufman Kantor & Straus 1990

<sup>vi</sup> e.g. Leonard & Senchak 1993; McKenry, Julian & Gavazzi 1995; see Leonard 2001 for a review

<sup>vii</sup> Leonard & Senchak 1996; Leonard & Quigley 1999

<sup>viii</sup> Leonard 2005

<sup>ix</sup> O'Farrell & Murphy 1995

<sup>x</sup> Bennett et al. 1994; Brown et al. 1998; Chermack et al. 2000; Chermack et al. 2001; Chermack & Blow, 2002; Gondolf & Foster, 1991; Murphy & O'Farrell, 1994; Murphy et al. 2001; Maiden, 1997; Stith et al. 1991; Stuart et al. 2003

<sup>xi</sup> Campbell, C.A. et al. 2009; Lipton, R. & P. Gruenewald, 2002; Reid, R. J. Hughey, & N. Peterson, 2003; Gruenewald, P. & L. Remer, 2006

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- xii Kearns, M. et al. 2015; McKinney, C. et al. 2009; Cunradi, C.B., et al. 2011
- xiii Steele & Josephs, 1990
- xiv Giancola et al. 2011
- xv To access the database, go to: <http://adai.uw.edu/ebp/>
- xvi WHO (2010b), WHO (2010a), and Heise (2011) provide a thorough overview of the impact of structural and community-based interventions.
- xvii Tanner-Smith et al. 2014; Appiah-Brempong et al. 2014; Moore et al. 2015
- xviii Kaner et al. 2015
- xix Mello et al. 2015
- xx Stuart et al. 2009
- xxi Stuart et al. 2003