



RESEARCH ARTICLE

A theory of change for community interventions to prevent domestic violence against women and girls in Mumbai, India [version 1; peer review: 2 approved with reservations]

Nayreen Daruwalla¹, Surinder Jaswal ², Prakash Fernandes³, Preethi Pinto¹, Ketaki Hate¹, Gauri Ambavkar¹, Bhaskar Kakad¹, Lu Gram ⁴, David Osrin ⁴

¹Program on Prevention of Violence Against Women and Children, SNEHA, Mumbai, Maharashtra, 400017, India

²School of Research Methodology, Centre for Health and Mental Health, School of Social Work, Tata Institute of Social Sciences, Mumbai, Maharashtra, 400088, India

³Independent Researcher, Mumbai, Maharashtra, 400050, India

⁴Institute for Global Health, University College London, London, WC1N 1EH, UK

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Abstract

Background: We describe the development of a theory of change for community mobilisation activities to prevent violence against women and girls. These activities are part of a broader program in urban India that works toward primary, secondary, and tertiary prevention of violence and includes crisis response and counselling and medical, police, and legal assistance.

Methods: The theory of change was developed in five phases, via expert workshops, use of primary data, recurrent team meetings, adjustment at further meetings and workshops, and a review of published theories.

Results: The theory summarises inputs for primary and secondary prevention, consequent changes (positive and negative), and outcomes. It is fully adapted to the program context, was designed through an extended consultative process, emphasises secondary prevention as a pathway to primary prevention, and integrates community activism with referral and counselling interventions.

Conclusions: The theory specifies testable causal pathways to impact and will be evaluated in a controlled trial.

Keywords

Domestic violence, gender-based violence, intimate partner violence, theory of change, India, Mumbai

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1 **Abigail M. Hatcher** , University of California, San Francisco (UCSF), San Francisco, USA
University of the Witwatersrand, Johannesburg, South Africa

2 **Angela Taft** , La Trobe University, Bundoora, Australia

Any reports and responses or comments on the article can be found at the end of the article.

Corresponding author: David Osrin (d.osrin@ucl.ac.uk)

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Introduction

Although its pervasiveness and harms have long been addressed by the women's movement, the importance of violence against women and girls as a public health priority has only been acknowledged relatively recently. The health effects are profound. Violence causes non-fatal or fatal injury: 21% of homicides in southeast Asia are committed by an intimate partner, constituting 60% of all female homicides (compared with 1% of male homicides) (Stöckl *et al.*, 2013). Other harms include sexually transmitted infections, miscarriage, induced abortion, stillbirth, low birth weight, preterm delivery, harmful drug and alcohol use, anxiety and depression, self-harm, suicide, and trans-generational recapitulation of violence (Garcia-Moreno *et al.*, 2015; WHO and London School of Hygiene and Tropical Medicine, 2010; WHO, 2013). Physical and psychological trauma and fear also lead to mental health problems, limited sexual and reproductive control, somatoform conditions (WHO, 2013), difficulties in seeking healthcare, and lost economic productivity (Solotaroff & Pande, 2014).

Some 30% of women have experienced physical or sexual violence by an intimate partner or sexual violence by a non-partner (WHO, 2013). A recent systematic review suggested that 22% of women in India had survived physical abuse in the past year, 22% had suffered psychological abuse, 7% sexual abuse, and 30% multiple forms of violence (Kalokhe *et al.*, 2017). Non-partner sexual violence is reported regularly in the media (Raj & McDougal, 2014), but culturally sanctioned household maltreatment (Silverman *et al.*, 2016) in the form of emotional and economic domestic violence and abuses of power, control, and neglect have been reported as particularly common in India (Kalokhe *et al.*, 2015).

India was one of 189 signatories to the 1980 Convention on the Elimination of All Forms of Discrimination Against Women (United Nations, 1979). The United Nations declared a response imperative in 2006 (UN, 2006), the World Health Organization (WHO) named it a health priority in 2013 (Garcia Moreno *et al.*, 2015), and its elimination is a target of the fifth Sustainable Development Goal. The emphasis of the first wave of interventions—driven largely by feminist activism by the women's movement from the 1960s—was support for survivors of violence, reduction in secondary perpetration, strengthening legal recourse, and advocacy (Ellsberg *et al.*, 2014). This constitutional, rights-based approach led to the consolidation of services such as women's shelters, counselling, legal advice, and, in India, laws such as the Protection of Women from Domestic Violence Act 2005. A second wave of interventions, again led by civil society organisations, emphasized primary prevention and community activism and took a public health position which emphasized population-based, interdisciplinary, and intersectoral interventions (WHO and London School of Hygiene and Tropical Medicine, 2010).

The Society for Nutrition, Education and Health Action (SNEHA) is a non-government organisation addressing the health needs of women and children in the context of urban informal settlements in India. The program on prevention of violence against women and children follows a socio-ecologic model developed

by Heise after the work of Bronfenbrenner (Bronfenbrenner, 1979; Heise, 1998), with an understanding that determinants of violence need to be addressed at a range of levels, within families, communities, and societies. The program aims to develop strategies for primary prevention, ensure survivors' access to protection and justice, empower women to claim their rights, mobilise communities around 'zero tolerance' for violence, and respond to the needs and rights of neglected groups.

The program delivers three sets of activities: community mobilisation, crisis counselling and extended response for survivors of violence, and work with police, medical and legal services. Community mobilisation includes group activities and individual voluntarism. Neighbourhood groups of women, men, and adolescents develop awareness, initiate campaigns and local action to support survivors, and build leadership. An emergent cadre of volunteers identify and support survivors through crisis intervention and case management, linking them with counselling, police, and medical services. This encompasses both primary and secondary prevention. The program runs five community-based and four hospital-based counselling centres. Immediate and longer-term support for survivors of violence is provided by counsellors at each centre. Counsellors take a stepped-care approach to identification, intervention, and referral of survivors of violence with common and severe mental health disorders, including in-house psychologists when required. They also work with medical, legal, and police services, for whom collaborative training programs are regularly conducted. Counsellors collaborate with the police and District Legal Aid Services Authority to assist women in filing legal cases in response to domestic violence, sexual assault and rape, and other matters pertaining to civil and criminal acts.

Our program is comprehensive and aspires to 'community building'. Its characteristics include horizontal complexity (across sectors), vertical complexity (across socio-ecologic levels), community building (participatory efforts to enhance the capacities of individuals and connections between them and outside resources), political, economic, and infrastructural contextual issues with little power to affect them, flexibility over time, and community saturation (clusters rather than individuals) (Auspos & Kubisch, 2004).

After 15 years of cumulative program development, we wanted to understand how the components of the program fit together, think about the sequence of outcomes and indicators that we might measure, and evaluate effectiveness. We contemplated expansion and felt a need to crystallise the program for ourselves, for others, and for protocolised rollout. We felt that the service aspects of the program were intrinsic to a rights-based response in the spirit of the Istanbul Convention (Council of Europe, 2011). Community mobilisation is less defined, despite its potential to prevent violence against women and girls (Ellsberg *et al.*, 2014), and the theory of change focused on it for this reason. A theory of change is a hypothetical explanation of how and why an initiative works (Weiss, 1995). It seeks to understand how program activities might lead to outcomes—desired or undesired—by articulating the connections between them (Stein & Valters, 2012). Each program activity is linked with outcomes

and each outcome is defined and assigned indicators (Taplin *et al.*, 2013). Like a logic model, a theory of change is a kind of program theory (Rogers *et al.*, 2000), or pragmatic framework (De Silva *et al.*, 2014), in which concepts are linked with empirical findings in steps that are potentially examinable and falsifiable. Shaping evaluation around theories of change has been recommended for a variety of social programs (Chen & Rossi, 1980; Chen, 1994). Evaluators in the field of health promotion were early adopters (Birckmayer & Weiss, 2000), and there has been growing interest in evaluating complex public health interventions (De Silva *et al.*, 2014). We were particularly interested in developing a theory of change for the prevention of violence against women that fit our specific context of work among informal settlements in urban India.

We developed a program theory of change informed by general theories of behaviour change (Davidoff *et al.*, 2015; Michie *et al.*, 2011), combined with tacit theory based on experience (Birckmayer & Weiss, 2000; Chen & Rossi, 1980; Mason & Barnes, 2007; Weiss, 1997). Our focus was on two general types of behaviour: stimulation of pro-social action and bystander intervention, and identification, support, and secondary prevention for survivors of domestic violence. In this paper, we aim to describe our theory of change.

Methods

Setting

Informal settlements (slums) are features of urbanization in India and have been described in two-thirds of cities and towns. The most recent estimate is that 41% of Mumbai's households are in such settlements (Chandramouli, 2011). The latest National Family Health Survey (NFHS-4) suggests that 21% of ever-married women in Maharashtra state, the location of our work, have experienced intimate partner violence (IIPS, 2015). Risk factors for both physical and sexual violence include poverty, exposure to parental violence, childhood maltreatment, limited education, unemployment, young adulthood, mental disorder, substance use, individual acceptance of violence, weak community and legal sanctions, and gender and social norms supportive of violence (WHO and London School of Hygiene and Tropical Medicine, 2010). These risk factors meet in Mumbai's urban informal settlements, along with population density and stressful living conditions, and their toll in terms of violence is the reason for our activities. UN-HABITAT characterizes them in terms of overcrowding, insubstantial housing, insufficient water and sanitation, lack of tenure, and hazardous location (Ministry of Housing and Urban Poverty Alleviation, 2010; United Nations Human Settlements Program (UN-Habitat), 2003). Women and girls in these communities lack both financial and social resources and an understanding of the possibility of relief from endemic violence.

Activities

We developed the theory of change in five overlapping phases. In the first phase (July 2015 to November 2016), an external consultant (Fernandes) met with our teams for counselling and community mobilisation, police and hospital liaison, two clinical

psychologists, and a lawyer to understand their experiences, challenges, and perceptions of outcomes. He interviewed seven clients of our crisis and counselling services, six police officers, and five healthcare providers, and conducted focus group discussions with eight members of a community women's group, 15 members of a men's group, 17 members of a youth group, and nine adolescents involved in an education program (report available as extended data (Osrin, 2019)).

To begin the second phase, we convened a three-day research workshop (August 2015) with nine team members and four researchers in the field of violence against women and girls, anthropology, ethics, and public health. The discussions were primarily about outcomes: whether the impact towards which the theory of change would be directed was a reduction in violence against women and girls, gender-based violence, intimate partner violence, domestic violence, or violence perpetrated by others outside the home. The decision, supported by subsequent discussions, was to focus on domestic violence against women and girls.

The third phase, bracketed by workshops at the beginning and end involving members of the core team, data collectors, and SNEHA researchers, interrogated the first draft of the theory of change in terms of program experience and ethics. Participants discussed and refined potential outcomes, how they were related to preventing violence, and how they could be measured. This was accompanied by two activities: an action documentation exercise and a study on gender norms around domestic violence (Daruwalla *et al.*, 2017). The action documentation exercise documented community mobilisation team members' experiences of the kinds of action that community members had undertaken in the past. It yielded 76 actions as a result of community mobilisation, which were then categorised as organisational, group, community, and individual actions or combinations thereof (Table 1). Adverse effects were also documented (although flare-ups in communities might actually suggest that the program was having an effect). Actions are documented as extended data (Osrin, 2019).

The fourth phase involved collective adjustment of the theory of change. The program core team (six SNEHA program and research members and one UCL researcher) met 15 times to work on the theory, for 2-3 hours each time. During these meetings, we used 'backward mapping', in which we started with agreed outcomes and then stepped backwards sequentially to understand the necessary preconditions to meet them. This was accompanied by examination of assumptions and rationales, a strategic weighing of possible interventions, and the development of indicators with which to test the causal sequence (Taplin & Clark, 2012). At the end of this phase, we presented, discussed, and adjusted the emerging theory in four workshops. We invited external activists, academics, and practitioners in Mumbai, our program base (April 2016), Delhi, where policy and advocacy expertise is concentrated (July 2016), and London, our collaborative academic base (July 2016). A summary of these meetings is available as extended data (Osrin, 2019).

Table 1. Examples from action documentation exercise, classified by type of violence, type of action, and intervention function*.

Example	Action type	Intervention function
Domestic physical violence		
<ul style="list-style-type: none"> A community organiser persuaded a survivor of violence to seek help in a situation in which her husband was a local crime lord 	Encouraging disclosure	Education Persuasion Enablement
<ul style="list-style-type: none"> A woman told a community organiser that her neighbour was being beaten and locked in the house by her partner. The community organiser organised campaigns in the area and gathered a group who visited the house repeatedly, heard the woman inside, and got the police to effect entry. The woman and her partner were counselled by our organisation and continue to live together. 	Encouraging disclosure	Education Persuasion Enablement
<ul style="list-style-type: none"> When a community organiser encouraged a woman to attend group meetings, she said that her partner was physically violent and used drugs and alcohol. The group suggested referral to a dependency support program and, although he relapsed, the violence stopped. 	Encouraging disclosure	Education Persuasion Enablement
<ul style="list-style-type: none"> A community volunteer sangini knocked on the door while a father was beating his daughter, but was refused entry. She returned with her women's group and community organiser, but was threatened by the father's relatives. A collective meeting was organised, but the daughter was sent to live elsewhere. 	Collective meeting	Education Persuasion
<ul style="list-style-type: none"> A women's group visited a man who was using alcohol and beating his wife. He responded violently and they called the police, who detained him temporarily. The violence decreased, but did not stop. 	Invoking law enforcement	Education Persuasion Coercion
<ul style="list-style-type: none"> A sangini intervened when a couple were fighting in the street, accompanied by their two young children. They had doused themselves in kerosene and were threatening to set fire to themselves. Other residents appeared and the sangini called the police. The couple returned later to thank the sangini. 	Bystander intervention Invoking law enforcement	Persuasion Coercion
<ul style="list-style-type: none"> A woman fled to her mother's home after her partner hit her, but he came after her and attacked both her and her mother. They shouted for help and other group members detained the man and called the police, who arrested him. The couple are in a counselling program. 	Bystander intervention Invoking law enforcement	Coercion Education
<ul style="list-style-type: none"> A man killed his wife by setting fire to her after a dowry dispute. He locked her in and fled. Women residents found her after seeing the smoke and forcing the door. When the police didn't come, they took her body to the police station in protest. Our organisation became involved in negotiations between community protestors and the police and, after the case was filed, some local women acted as witnesses for the prosecution and went on to form a women's group. 	Campaign Invoking law enforcement	Persuasion Education
<ul style="list-style-type: none"> A man with whom a woman had ended a relationship began to stalk her and eventually stabbed her. Two bystander women took her for medical treatment and to the police. Sanginis gathered a women's group, who arranged counselling and for local men to be vigilant. They identified the perpetrator and called the police, who arrested him. 	Bystander intervention Invoking law enforcement	Persuasion Coercion
Domestic economic violence		
<ul style="list-style-type: none"> A sangini helped a bride-to-be deal with dowry demands from the groom's family by explaining the law and her rights and then discussing them with the family. 	Legal support	Education
<ul style="list-style-type: none"> Counsellors convinced representatives of a community body that a woman who separated from her violent husband could accept alimony without shame. 	Collective meeting	Education Persuasion
Non-intimate partner sexual violence		
<ul style="list-style-type: none"> Community organisers helped women's groups to complain about ration shop vendors who were sexually harassing them. 	Invoking legal rights	Coercion Restriction
<ul style="list-style-type: none"> Community men's and women's groups organised police intervention in an area close to toilets in which women were being sexually harassed. 	Invoking law enforcement	Coercion Restriction
<ul style="list-style-type: none"> A sangini who was helping women complain about sexual violence was assaulted by local gang members. She pointed them out to community organisers and they were arrested by the police. 	Invoking law enforcement	Coercion Restriction
<ul style="list-style-type: none"> A women's group got a salesman who was harassing women to sign a letter committing him to stop. 	Contractual reasoning	Education Persuasion Coercion

Example	Action type	Intervention function
<ul style="list-style-type: none"> After community organisers called the police to intervene swiftly in a case of sexual harassment, word got round that the organisation had connections 'higher up the chain of command'. 	Invoking law enforcement	Persuasion Coercion Modelling
<ul style="list-style-type: none"> A sangini led a women's group to repeatedly confront a group of drug users who were harassing women. The harassment stopped and the sangini became a community leader in a male-dominated area. 	Bystander intervention Invoking law enforcement	Persuasion Modelling
<ul style="list-style-type: none"> Sanginis detained a group of drug users who attempted to rape a woman in a public toilet. 	Bystander intervention	Coercion
Non-intimate partner sexual and physical violence		
<ul style="list-style-type: none"> A young married woman was being harassed by two gang members. When she rejected their advances, they beat her up, set her on fire and locked her in her house. At the public mourning after her death, a large group of relatives and friends banded together and sought help from our organisation to form a group. Our organisation communicated with both the group and the police to make sure that process was followed and the perpetrators were jailed. 	Campaign Invoking law enforcement	Persuasion Coercion
Child sexual abuse		
<ul style="list-style-type: none"> A sangini heard her neighbour's seven-year-old daughter shouting for help when a local man attempted to rape her. She gained access to the house, prevented him from leaving, and called for help. A group of neighbours took him to the police station, where he was arrested. 	Bystander intervention Invoking law enforcement	Coercion
Structural violence		
<ul style="list-style-type: none"> Groups worked together to clean up localities, so successfully that the municipality made an educational video about them. 	Campaigns Lobbying	Modelling
<ul style="list-style-type: none"> Groups collected money from residents to employ a cleaner for public toilets. 	Campaigns Lobbying	Modelling Enabling Persuasion
<ul style="list-style-type: none"> Groups called public meetings and deputations to the municipal corporation in order to have the local water supply fixed. 	Campaigns Lobbying	Modelling Enabling Persuasion
<ul style="list-style-type: none"> Groups wrote letters of complaint about fuel rations being withheld, which led to government intervention. 	Lobbying	Modelling Enabling Persuasion
<ul style="list-style-type: none"> A women's group successfully had an illegal mobile phone tower removed after representatives of the municipal corporation saw a TV news item they had got a local cable operator to make and broadcast. 	Campaigns Lobbying	Modelling Enabling Persuasion
Unintended effects		
<ul style="list-style-type: none"> A women's group member stood out as a leader. She started her own group, which undertook several successful actions, but took community action on herself and would not allow others to lead. Eventually, community members would not buy in to an electricity campaign and when she moved out of the area nobody took her work forward. 	Leadership	Education Modelling
<ul style="list-style-type: none"> After a group session on ration rights, a men's group member called for a violent protest. 	Protest	Education Modelling
<ul style="list-style-type: none"> Ration shopkeepers threatened a sit-in outside our organisation's office because of our help with complaints. This led to more volunteers joining the organisation. 	Protest	

*Education, Persuasion, Enablement, Coercion, Incentivisation, Training, Modelling, Environmental restructuring, Restrictions (Michie *et al.*, 2011)

The fifth phase involved an examination of mechanisms in the literature (PROSPERO [CRD42018093695](https://doi.org/10.1111/CRD4.2018093695); a full review is forthcoming). We carried out a search for theories of change, logic models, or conceptual models of population-based interventions to prevent domestic violence. We included articles in English and excluded studies from high-income settings according to [World Bank classifications](#). We limited the search to articles published between January 1960 and November 2018.

We used Boolean combinations of the terms (“theory of change” OR “logic model” OR “conceptual model”) AND (“intimate partner violence” OR “domestic violence” OR “violence against women” OR “sexual violence” OR “physical violence” OR “economic violence” OR “emotional violence” OR “gender-based violence”) to search for articles on PubMed, Scopus, Web of Science, Google Scholar and Google sites. To limit the scope of the search, we inspected only the first 10 pages of Google Scholar

and Google searches. We also read published impact evaluations listed in existing evidence reviews of interventions seeking to reduce domestic violence (Bourey et al., 2015; Ellsberg et al., 2014; Gibbs et al., 2017; Marshall et al., 2018; Yount et al., 2017).

Ethical approval

Approval for research associated with the development of the theory of change was given by the Ethicos Independent Ethics Committee (ref: 3rd December 2015). Participants in interviews and focus groups provided written consent to use of anonymised information.

Results

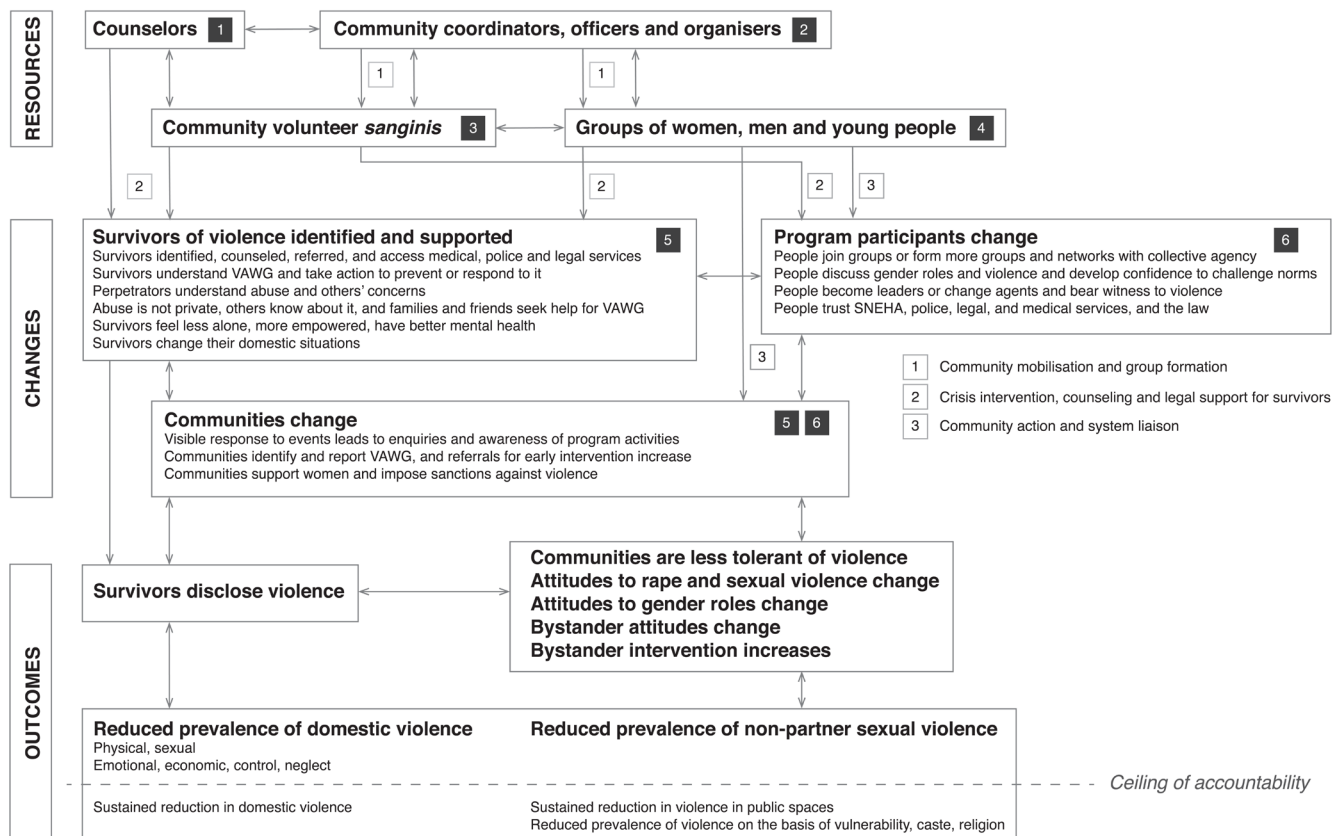
Primary and secondary intervention

Figure 1 summarises the emerging theory of change over a sequence of human resources or inputs, changes or outputs, and outcomes. The assumptions underlying the model are numbered and the activities of people involved are numbered and linked with a summary in Table 2. Raw data from interviews and focus groups are available (Osrin, 2017). Overall, the theory envisages counsellors, community mobilisers, community

volunteers and groups of women, men, and youth working together to bring about collective and individual change with the ultimate aim of reducing domestic violence. The theory suggests that community mobilisation encourages transformation of participants and pro-social action prevents violence against women and girls, as well as bystander intervention, while local support and response, crisis counselling, medical, psychosocial, police and legal support contribute to the identification and support of survivors of violence. Visible instances of support and justice for survivors are thought to encourage greater community activism, thus completing a positive feedback loop between primary prevention (through community mobilisation) and secondary prevention (through institutional support for survivors). The detailed steps are described below.

Resources and interventions

First, the program inputs comprise salaried counsellors, community organisers, community officers, and coordinators, as well as voluntary human resources from women, men, and young people who join groups. Table 2 summarises expected roles for each type of individual, keyed numerically with Figure 1



Assumptions

- 1 Crisis intervention and counseling services remain functional and accessible
Counselors are in post, have been trained, and have knowledge and skills in counseling and crisis intervention
- 2 Community team members are in post, have been trained, and have knowledge and skills in prevention of and intervention against violence against women and girls, group facilitation, and community mobilisation
- 3 Some women volunteers will take on a leadership role requiring them to move around the community, use information technology, address conflict and intervene, and challenge norms
- 4 Some community members are willing to participate in group meetings, events and campaigns, and become volunteers, and have the opportunity to do so
- 5 Opposition to the program from community members can be addressed
- 6 Police and healthcare providers consider violence within their remit, support training initiatives, follow guidelines in responding to violence, and fulfill their responsibilities

Figure 1. Theory of change.

Table 2. Community interventions to prevent violence against women and girls.

1 Community mobilisation and group formation	
Community organisers	<ul style="list-style-type: none"> Identify community members who want to join groups of women, men, and young people
	<ul style="list-style-type: none"> Convene and facilitate groups
	<ul style="list-style-type: none"> Share experiences and deliver modules on gender norms, understanding violence against women and girls, vulnerabilities to it and appropriate responses, rights, and negotiation skills
	<ul style="list-style-type: none"> Identify women who want to become volunteer <i>sanginis</i>
2 Crisis intervention, counselling and legal support for survivors	
Community volunteer <i>sanginis</i>	<ul style="list-style-type: none"> Identify incidences of violence against women
	<ul style="list-style-type: none"> Assess safety, provide initial counselling and information on rights and law to survivors
	<ul style="list-style-type: none"> Record incidents, negotiate action, and intervene to ameliorate conflict
	<ul style="list-style-type: none"> Arrange referral to SNEHA.
	<ul style="list-style-type: none"> Organise temporary shelter and childcare
	<ul style="list-style-type: none"> Support survivors in accessing family interventions and police or health services
	<ul style="list-style-type: none"> Locate perpetrators of violence and negotiate with them and families
	<ul style="list-style-type: none"> Conduct community follow-up
Community organisers, officers, coordinators	<ul style="list-style-type: none"> Support <i>sanginis</i> in their field activities
	<ul style="list-style-type: none"> Provide support to survivors of violence and coordinate family interventions
	<ul style="list-style-type: none"> Arrange referral to SNEHA, police, or health services
	<ul style="list-style-type: none"> Coordinate and undertake community follow-up
	<ul style="list-style-type: none"> Act as main contact between community and counselling teams, and communicate with stakeholder networks
Groups of women, men, and young people	<ul style="list-style-type: none"> Identify incidences of violence and inform <i>sanginis</i> and community officers
	<ul style="list-style-type: none"> Intervene to ameliorate conflict
	<ul style="list-style-type: none"> Arrange referral to SNEHA
	<ul style="list-style-type: none"> Support survivors of violence in accessing family interventions and police or health services
	<ul style="list-style-type: none"> Locate perpetrators of violence and negotiate with them and families
Counsellors	<ul style="list-style-type: none"> Provide crisis counselling and intervention services
	<ul style="list-style-type: none"> Counsel survivors of violence and their families
	<ul style="list-style-type: none"> Make home visits for crisis intervention, family discussions, and follow-up
	<ul style="list-style-type: none"> Organise referral to police, health and legal services and negotiate with them
	<ul style="list-style-type: none"> Assess survivor mental health and refer for therapy
3 Community action and system liaison	
Community organisers, officers, coordinators	<ul style="list-style-type: none"> Organise and participate in community campaigns and support visible collective action
	<ul style="list-style-type: none"> Liaise with police and health providers and negotiate with community bodies
Groups of women, men, and young people	<ul style="list-style-type: none"> Participate in community campaigns and contribute to visible collective action
	<ul style="list-style-type: none"> Liaise with police and health providers and negotiate with community bodies
	<ul style="list-style-type: none"> Negotiate with municipal representatives for infrastructure and entitlements
Community volunteer <i>sanginis</i>	<ul style="list-style-type: none"> Support and participate in community campaigns and contribute to visible collective action
	<ul style="list-style-type: none"> Liaise with police and health providers and negotiate with community bodies

in three categories. Mobilisation is primarily the remit of community organisers who identify potential group members, bring them together, and facilitate a sequence of modules and discussions. They also identify survivors of violence and help group members to respond. Organisers are initiators and points of contact for involvement of counsellors and follow-up with survivors. They facilitate community events and campaigns and liaise with medical, police, and legal services. Counsellors are based close to communities and conduct crisis intervention, counselling, and home visits, as well as providing institutional support. Group members become involved in campaigns and identify and support survivors of violence. After about one year of group activity, individual volunteers with particular leadership potential, called *sanginis*, emerge and are trained to identify and support survivors, as well as in communication and liaison with services. Community organisers work closely with *sanginis* whom they identify and mentor.

Changes

Second, the theory proposes three forms of local change: an increase in identification of and support for survivors of violence, changes in the beliefs and actions of group participants and volunteer *sanginis*, and broader changes in communities. Survivors are able to view their experience in a broader context, get help when they feel they need it, and take action to improve their situation. This visible secondary prevention leads to community awareness, increased identification and consultation, and a broad base of support. Participation in groups leads to changes in members and awareness of gender issues. This yields action in terms of individual and collective efficacy based on precedent, and visibility in the community for groups and individuals who take on leadership and volunteer roles.

Outcomes

Third, group and individual activities, linked with tangible service provision and successful interactions with counsellors, the police, and lawyers, lead to increased disclosure of violence. We believe that changes in attitudes are more likely to follow changes in behaviour than the other way around. Although there is a place for awareness and attitudinal change, our programmatic experience suggests that changes in social norms and attitudes can be accelerated by visible instances of successful response to the needs of survivors of violence. These responses themselves reduce the prevalence of domestic violence through secondary prevention, but the accompanying awareness and belief in rights and recourse is a form of primary prevention. Our main emphasis is on domestic violence, but it is conceivable that changes in community norms and bystander intervention will also reduce the likelihood of non-partner sexual violence outside the home.

Undesirable changes

Finally, the intervention might lead to a number of changes for the worse in homes and communities (Chen & Rossi, 1980). These are based on program experience and have been called 'dark logic' in the context of program theory (Bonell *et al.*, 2015). Community interventions might lead to an increase in violence against women and girls as gender norms are transgressed and people push back against existing controls

on women's behaviour. This could be a short-term negative effect. Conversely, growing opposition to violence might lead to vigilantism and precipitate action and punishment meted out to either survivors or people who were not perpetrators. Awareness of the problem of non-partner sexual violence might lead families to set limits to women's mobility, and awareness of community and legal sanctions might lead perpetrators to modify the kind of violence they use. As concerns surface, it is conceivable that group members, volunteer *sanginis*, community organisers, counsellors, or the families of survivors of violence might face threats or exclusion. The program's focus on personal development and leadership might support people with personal agendas not entirely aligned with its aims, or might lead to favouritism.

Discussion

Our theory of change differs from existing theories of change in a number of ways: it is adapted for the program's context; it was designed through an extended consultative process from 2015 to 2017; it places major emphasis on secondary prevention as a pathway to primary prevention; it integrates community activism with referral and counselling interventions; and it makes explicit specific testable causal pathways to impact, which will be evaluated within the context of an on-going cluster-randomised controlled trial. While some previous theories of change share some of these characteristics, to our knowledge, no previous theory has had them all.

This article describes the theory of change behind a comprehensive community-based intervention to prevent violence against women through primary and secondary prevention. It took 22 months to develop the theory and involved primary data collection with multiple stakeholders, multiple workshops with critical commentators, and many team meetings. This long and careful process of theory building has resulted in a theory that improves on existing theories of change for the prevention of violence against women in a few ways.

First, the theory highlights the interconnectedness of primary and secondary prevention through a positive feedback loop. Community members become mobilised to identify and refer survivors to crisis counselling and institutions; in turn, successful resolution of cases of violence with institutional actors raise awareness and strengthen community members' confidence in their own activism. Community activism still takes place through individual outreach, small group discussion and reflection, or community-wide campaigns, but it is closely linked to institutional support from local counselling and legal support centres. This model contrasts with previous theories of change, which have tended to place their main emphasis on primary prevention through community activism and capacity building to develop awareness of burden, rights, law, and recourse (Abramsky *et al.*, 2016; Falb *et al.*, 2016; Pettifor *et al.*, 2015; Wagman *et al.*, 2015).

Second, the theory was fully adapted to the local context of urban informal settlements in India, while previous theories of change have predominantly been developed for a Sub-Saharan African context (Abramsky *et al.*, 2016;

Falb *et al.*, 2016; Pettifor *et al.*, 2015; Wagman *et al.*, 2015) with the notable exception of a single study in Nepal (Clark *et al.*, 2017). Many elements of the current theory of change reflect previous program experience over the past 15 years of program activity.

Third, the theory provides greater specificity than previous theories. These can broadly be categorised into three types: quasi-linear logic models (Clark *et al.*, 2017; Wagman *et al.*, 2015), stages of change models (Abramsky *et al.*, 2014; Falb *et al.*, 2014; Michau, 2007), and ecological models (Abramsky *et al.*, 2016; Michau *et al.*, 2015). Ecological models tend to see violence reduction as arising from the simultaneous operation of a large number of activities and processes at individual, household, and community levels which interact in unspecified ways. Stages of change models view violence prevention activities as progressing in stages from community entry to awareness-raising to behaviour change, but do not always specify why or how communities progress from one stage to the next. Quasi-linear logic models present intervention processes as a block of activities leading via a block arrow to another block of changes and outputs. Such models often lack clarity on the exact ‘context-mechanism-outcome configurations’ (Pawson & Tilley, 1997) that are expected to occur. The current theory of change lists the pre-conditions that need to be fulfilled for each component of the theory to ‘work’, the causal connections between each component, as well as any adverse effects that may arise.

Theories of change are necessarily provisional, and may not be right, but they still serve useful functions as guides to evaluation (Birckmayer & Weiss, 2000). By providing a theoretical framework for collecting and analysing data, they can help overcome problems intrinsic to “omnibus data” (Auspos & Kubisch, 2004) that are insufficiently directional to test theory (Weiss, 1997). The current theory of change has allowed us to understand our program, consider the necessity of specific components, and be specific about intermediary changes (Birckmayer & Weiss, 2000). It also helped to clearly articulate program objectives across a range of team members—community organisers, qualitative and quantitative evaluators, anthropologists, economists, medical practitioners, psychologists, and legal advisors—with stakes in the program (Mason & Barnes, 2007). In turn, this has helped to draw lessons from experience, conduct strategic planning, communicate the working of SNEHA’s program to other people, and select outcomes and indicators for monitoring and evaluation.

We are currently doing a cluster randomised controlled trial of a scalable set of interventions, specifying components and evaluating effectiveness in direct response to the theory of change. Previous evaluations have presented program theories which were subsequently only partially used for evaluation purposes. For example, many individual proposed mediators of intervention effect remain untested. Changes in policymakers, community leaders, and professionals’ attitudes, knowledge and beliefs about violence against women and girls are often hypothesised as mediators of intervention effect, but they have rarely been measured or reported (Abramsky *et al.*, 2016;

Wagman *et al.*, 2015). Similarly, policy change at national or sub-national levels is often included in the theory of change, but excluded in the intervention impact evaluation (Abramsky *et al.*, 2016; Clark *et al.*, 2017; Wagman *et al.*, 2015). For example, Falb *et al.* (2016) hypothesised that their intervention would increase the human, social, physical, and financial assets of girls, but focused on human and social assets in their outcome evaluation. A recent review of 62 studies of theory-informed evaluation in public health noted that integration of theory into randomised controlled trials was often limited (Breuer *et al.*, 2016). We intend to measure and evaluate all aspects of our theory of change in our cluster randomised controlled trial.

We faced one central challenge to the development and use of our theory of change: understanding how to frame work that has traditionally taken a feminist social position within the developing public health paradigm for complex interventions. Sociologists have proposed that randomised controlled trials could be used hypothetico-deductively to test and refine theories of change for complex public health interventions (Bonell *et al.*, 2018). Coryn and colleagues have proposed five principles for theory-driven evaluation. It should (1) formulate a plausible program theory, (2) formulate and prioritise evaluation questions around the theory, (3), be used to guide planning, design, and execution of the evaluation, (4) measure constructs postulated in the theory, and (5) identify breakdowns and side-effects, determine program effectiveness or efficacy, and explain cause and effect associations between theoretical constructs (Coryn *et al.*, 2011). These principles sometimes fit awkwardly with feminist concerns with building an activist social movement rather than a managerial, professional organisation. We are trying to do both.

Conclusion

20 years ago, Weiss said that, “If theory is taken to mean a set of highly general, logically interrelated propositions that claim to explain the phenomena of interest, theory-based evaluation is presumptuous in its appropriation of the word. The theory involved is much less abstract and more specific, more selective, and directed at only that part of the causal chain of explanation that the program being evaluated is attempting to alter” (Weiss, 1997). This certainly applies to several existing theories for prevention of violence, which include macro concerns such as national development, sectoral issues, organisational aims, or program aims (James, 2011), and whose lack of specificity has made it hard to apply them to the current theory of change.

We are particularly struck by the rapidity with which draft theories are often developed. The field tends to quite quickly adopt new approaches and there is a danger that, if theory of change is seen as something that can be produced after two or three variably attended workshops (Gooding *et al.*, 2018), its undoubted benefits will be seen as a fad. Again, the assumption is that theory will be revisited and amended (Mason & Barnes, 2007), but program realities—and perhaps a lack of time and space to interrogate assumptions (Archibald *et al.*, 2016)—conspire to make this uncommon.

We hope that our theory of change is plausible, feasible, and testable (Kubisch, 1997). In developing it, we had four advantages: sufficient time, 15 years of program activities to examine, evaluators as core team members, and stakeholder involvement (Auspos & Kubisch, 2004). This meant that we were able to ensure that the theory fitted the context and the opinions of diverse contributors (Moore & Evans, 2017). We hope that our theory will become a useful tool for researchers, practitioners and policy-makers working in similar contexts to think through the pathways through which they hope to achieve impact on violence against women.

Data availability

Underlying data

UK Data Service: Changing gender norms in the prevention of violence against women and girls in India. <https://doi.org/10.5255/UKDA-SN-852735> (Osrin, 2017).

This project contains transcripts of focus group discussions and interviews, translated into English. The safeguarded data files are made available to users registered with the [UK Data Service under UK Data Archive End User Licence conditions](#). The data files are not personal, but—given the subject matter of the interviews and focus groups—the data owner and research ethics committee consider there to be a limited residual risk of disclosure.

Extended data

Open Science Framework: A theory of change for community interventions to prevent domestic violence against women and girls in Mumbai, India. <https://doi.org/10.17605/OSF.IO/47JMG> (Osrin, 2019).

This project contains the following extended data:

- Action_documentation_archive.xlsx
- Consultant_report_2016.docx (initial consultancy report)
- Reference_list.docx (reference list for development of theory of change)
- ToC_development_history.pdf (theory of change visual development history)
- ToC_meetings_summary.docx (theory of change meetings summary)

Extended data are available under the terms of the [Creative Commons Attribution 4.0 International license](#) (CC-BY 4.0).

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Angela Taft

Judith Lumley Centre, La Trobe University, Bundoora, Australia

This theory development and the impressive amount of empirical work preceding has the potential to make a substantial contribution to a very limited literature of prevention interventions, as it aims to develop and test a theoretical model of feedback between primary and secondary prevention in a low-income and patriarchal society. It is well written and structured. It is part of an ambitious and impressive set of studies over many years by the team at SNEHA.

I have articulated below where I think your outline could be clarified for improved understanding by readers. My comments echo those of Abigail Hatcher in suggesting that more clarity is needed about the mechanisms of action between all three phases of the model.

Introduction

Excellent and clear rationale for the study and the need for theory in a very challenging environment for an IPV prevention program.

1. I urge you to define how you understand primary and secondary prevention and apply it to your work, especially to clarify your intentions in the penultimate paragraph prior to the Methods section. For example, you mention both in the second paragraph of page 3, but it is not clear to which category the activities you describe belongs.
2. P.3 Second column, second paragraph. You talk about your cadre of volunteers who take on special responsibilities. I suggest you name them as '**sanginis**', as I remained puzzled as to what their responsibilities and roles were until you defined them only in the top paragraph on page 9, which is too late.

Methods

You mostly clearly present the set of strategies used to develop your emerging theory of change.

1. p.4 - 21% of ever-married women have experienced IPV – 'ever' or in previous twelve months?
2. It would be helpful to describe what characterised the actions at each ecological level you describe, and I agree with the first reviewer about the need to understand how these were selected for Table 1.
3. In Table 1, why were your actions not included under these category levels which would have been more useful than below types of violence, given your decision to focus on domestic violence

against women and girls? Why is non intimate partner violence and child abuse included in this table if it is part of your theory building exercise?

4. Ethical approval – can you please provide more information about Ethicos, given that searches for them do not reveal much about their scope and practice.
5. How was the literature review incorporated with your previous work and who had access to its findings. How did it contribute to your findings, given it was your last undertaking?

Results

1. Primary and secondary intervention are now defined for the first time. Again, if you have decided on domestic violence against women and girls only, why is non-partner sexual violence (very important but different) prevalence included in Figure 1 - Theory of change?
2. It is not clear to me how institutions such as the health care system are involved or mobilised, although their crisis responses are critical to the responses. How are they theorised into this model? It is only mentioned in passing on page 9 at the end of the paragraph on outcomes.
3. Please clarify what 'institutional support' means in the first paragraph on Page 9.
4. I also congratulate the investigators for their attention to 'dark logic' - potential adverse effects, but I would like more discussion about how they were predicted and managed, as there are considerable and real dangers to your workers illustrated in Table 1. You address a description of what you found or could anticipate in 'Undesirable changes' on page 9 – but you do not theorise how you might address it in your prevention theory.

Discussion

You argue that the theory has a strong empirical basis in their previous programs of work, is adapted to the South Asian (Indian) context rather than Africa and posits a feedback loop between secondary and primary prevention. This is admirable and indeed innovative and it will be interesting to read the outcomes of the randomised trial that is proposed to 'measure and evaluate all aspects of our theory of change'.

However, you also argue that your current theory 'lists pre-conditions that need to be fulfilled for each component to work'. Without comprehensive process evaluation for the interim stages between the resources – changes – outcomes sections of the theory (for example above of effective training programs or organisational links), the proposition that these demonstrate causal pathways appears very speculative.

Indeed your interim stages of training and building strong and essential individual, team and organisational capacity and these process outcomes or levels of quality are missing stages in the theory development and really need to be better addressed.

Is the work clearly and accurately presented and does it cite the current literature?

Partly

Is the study design appropriate and is the work technically sound?

Yes

Are sufficient details of methods and analysis provided to allow replication by others?

Partly

If applicable, is the statistical analysis and its interpretation appropriate?

Not applicable

Are all the source data underlying the results available to ensure full reproducibility?

Yes

Are the conclusions drawn adequately supported by the results?

Partly

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: I have conducted and published studies in intimate partner/family and gender-based violence for twenty years in both high and low income countries. These include epidemiological, Cochrane systematic reviews and pragmatic randomised controlled trials with process evaluations, co-designed interventions and qualitative exploratory studies.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Author Response 11 Aug 2019

David Osrin, University College London, London, UK

Thanks to both reviewers for their enthusiasm for the paper and very helpful suggestions.

Comment 1

My comments echo those of Abigail Hatcher in suggesting that more clarity is needed about the mechanisms of action between all three phases of the model.

Response

We hope that the additions presented in response to Abigail Hatcher go some way toward clarity.

Comment 2

I urge you to define how you understand primary and secondary prevention and apply it to your work, especially to clarify your intentions in the penultimate paragraph prior to the Methods section. For example, you mention both in the second paragraph of page 3, but it is not clear to which category the activities you describe belongs.

Response

We have added to the text in the Results.

“In this formulation, community mobilisation has two general aims: primary prevention through development of awareness of the importance and iniquity of violence against women, accompanied by knowledge of rights and law, and secondary prevention through increased identification of survivors and individual and collective action to support them. Prevention encompasses a range of interventions aiming to reduce risks or threats to health and wellbeing, grouped into three categories: primary, secondary, and tertiary. We believe that all three – particularly primary and secondary prevention - lead to reduction of violence at individual, relationship, and community levels. Primary prevention is exemplified by previous trials in which interventions have focused on increasing community awareness of violence against women, inequitable gender norms, and women’s rights. Primary prevention not only targets specific causes and risk factors for violence against women and girls, but also aims to promote healthy behaviours, increase knowledge of rights and entitlements, and improve women’s capacity to resist violence.”

“Secondary prevention usually describes interventions to support women survivors of violence in order to prevent it continuing or mitigate it. We see the enactment of these interventions as a means of both highlighting violence in the community and showing that redress and resolution are

possible. In this sense, it speaks to the modelling function within the COM-B framework (a product of education, persuasion and coercion). Visible intervention to support survivors makes people aware of the problem and potential solutions. This helps to foster safe environments that reduce the risk of violence; for instance, through creating networks that offer support to women. Intervening in emergencies and demonstrating action builds trust and confidence, increases awareness and knowledge in communities, and reduces community members' tolerance of violence. Tertiary intervention describes interventions to support women in dealing with the consequences of violence, particularly effects on their mental health. Again, the pathway of support, from community activist to counsellor to psychologist and psychiatrist, sends a message to other women in difficult circumstances.”

Comment 3

P.3 Second column, second paragraph. You talk about your cadre of volunteers who take on special responsibilities. I suggest you name them as 'sanguinis', as I remained puzzled as to what their responsibilities and roles were until you defined them only in the top paragraph on page 9, which is too late.

Response

Thanks. We've done this.

Comment 4

Methods. You mostly clearly present the set of strategies used to develop your emerging theory of change. p.4 - 21% of ever-married women have experienced IPV – 'ever' or in previous twelve months?

Response

It is 'ever' and we have clarified this in the text.

Comment 5

It would be helpful to describe what characterised the actions at each ecological level you describe, and I agree with the first reviewer about the need to understand how these were selected for Table 1. In Table 1, why were your actions not included under these category levels which would have been more useful than below types of violence, given your decision to focus on domestic violence against women and girls? Why is non intimate partner violence and child abuse included in this table if it is part of your theory building exercise?

Response

We have redrafted Table 1, added columns, and added text to the Methods. Please see our response to Abigail Hatcher, and we have added the following to the Methods:

“Although our commitment is to preventing domestic violence, both individual and collective actions often responded to incidents in the neighbourhood. Different kinds of violence – and particularly sexual violence in public spaces – coexist and response to each is both a source of confidence and a step toward a belief in collective efficacy. Likewise, groups often undertook collective action to improve their environment and we see this as contributing to a sense of collective efficacy and community building.”

Comment 6

Ethical approval – can you please provide more information about Ethicos, given that searches for them do not reveal much about their scope and practice.

Response

The Ethicos Independent Ethics Committee is registered with the Central Drugs Standard Control Organization, Directorate General of Health Services, Ministry of Health & Family Welfare, Government of India. It includes physicians, psychologists, and other healthcare professionals. The ethics committee is organised and operates according to the requirements of the Indian Council of Medical Research, Good Clinical Practice, local law, and regulatory requirements.

Comment 7

How was the literature review incorporated with your previous work and who had access to its findings. How did it contribute to your findings, given it was your last undertaking?

Response

Apologies for the lack of clarity. We were reviewing literature throughout the theory building process but did not conduct a formal systematic review until the end. The purpose of the review was in part to uncover theoretical gaps we had not considered in our framework, but we did not find any major gaps.

Comment 8

Results. Primary and secondary intervention are now defined for the first time. Again, if you have decided on domestic violence against women and girls only, why is non-partner sexual violence (very important but different) prevalence included in Figure 1 - Theory of change?

Response

We have added information about our inclusion of non-domestic violence to the Methods (response to Comment 5). Managing community expectations is critical for programs to prevent violence against women. One of the principles of community organisation and mobilisation is to work on issues that community members prioritise. Consciousness raising is an important strategy in our prevention work. Violence against women and girls is pervasive, ubiquitous, and multiform and our program seeks to build a holistic understanding. Although domestic and intimate partner violence are the commonest reasons for consultation at our counselling centres (and are our priority), women face other forms of violence in their communities. For example, during the microplanning process, women consistently report non-partner sexual violence in their families and outside their homes. It is difficult to segregate interventions on different forms of violence when we expect communities to take over and build strategies to prevent it. Moreover, community members are more interested in intervening in non-partner sexual violence as this is not considered to be a private matter and everyone has a stake in it.

Comment 9

It is not clear to me how institutions such as the health care system are involved or mobilised, although their crisis responses are critical to the responses. How are they theorised into this model? It is only mentioned in passing on page 9 at the end of the paragraph on outcomes.

Response

We hope that the revised version makes this clear. Health system responsiveness can be seen on a continuum of prevention and response in addressing violence, including recognition and voicing of the issue, identification of vulnerabilities, facilitating referrals and institutional linkages, and creating an enabling environment. The tertiary initiatives entail counselling and legal service, advocacy for burn survivors and sensitization of staff, referrals, counselling and legal services, and

ensuring deputation for training and provision of space. Tertiary prevention can be enhanced if linkages are built between the health care system and community members to monitor cases of violence, ensure long-term medical treatment in cases of mental ill health and extend support by the community as and when required.

Comment 10

I also congratulate the investigators for their attention to 'dark logic' - potential adverse effects, but I would like more discussion about how they were predicted and managed, as there are considerable and real dangers to your workers illustrated in Table 1. You address a description of what you found or could anticipate in 'Undesirable changes' on page 9 – but you do not theorise how you might address it in your prevention theory.

Response

In restructuring Table 1, we have removed the information on adverse events and placed it in the Results under *undesirable changes*. These were based largely on experience over the years. Although response to each eventuality will differ and it may, as the examples included in the section now show, have an unpredicted positive outcome, it is always based on three principles: the safety of both survivors of violence and team members, organisational support, and adherence to protocols. A range of protocols are in place for response to threat and crisis, and field team members are mandated to call for support from experienced managers in any eventuality. A recent example is an incident in which local individual men became aware that women were discussing violence with our team and immediately called for suspension of activities. Senior managers met with the individuals involved, local women, and the sitting political representative - with support from the police – and the situation was clarified and resolved to the satisfaction of all parties. A second example from some years ago involved our activities being opposed by local community members after assistance for a survivor of child sexual abuse. This was resolved after community discussions with senior managers and program activities have continued in the area to date.

Comment 11

Discussion. You argue that the theory has a strong empirical basis in their previous programs of work, is adapted to the South Asian (Indian) context rather than Africa and posits a feedback loop between secondary and primary prevention. This is admirable and indeed innovative and it will be interesting to read the outcomes of the randomised trial that is proposed to 'measure and evaluate all aspects of our theory of change'.

However, you also argue that your current theory 'lists pre-conditions that need to be fulfilled for each component to work'. Without comprehensive process evaluation for the interim stages between the resources – changes – outcomes sections of the theory (for example above of effective training programs or organisational links), the proposition that these demonstrate causal pathways appears very speculative.

Indeed your interim stages of training and building strong and essential individual, team and organisational capacity and these process outcomes or levels of quality are missing stages in the theory development and really need to be better addressed.

Response: These comments are well taken and we have added material to Results and Discussion sections. Please see our response to Abigail Hatcher.

Competing Interests: The authors have no competing interests

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Abigail M. Hatcher 

¹ Department of Medicine, University of California, San Francisco (UCSF), San Francisco, CA, USA

² School of Public Health, University of the Witwatersrand, Johannesburg, South Africa

This manuscript was a joy to read and addresses an issue sorely under-explored in the violence prevention literature: how to design programs so that the underlying theory is testable. To be fair, the prevention of intimate partner violence is also lacking efficacious interventions (with or without theoretical underpinnings). Yet, if new projects can be developed with strong theories of change articulated alongside them, it is feasible for outcomes to be achieved alongside a consistent advance of the theory. This is laudable and I am grateful for the hard work the authors have led towards this goal.

I have a few comments that may inform future efforts for this team and for others aiming to prevent intimate partner violence.

1. How were the actions detailed in Table 1 chosen from among the 76 total actions documented by the community mobilization team? Were these coded thematically, and was that coding undertaken by a single researcher or multiple team members? How was consensus reached and discrepancies resolved? The “Action type” and “Intervention function” are interesting but these do not map onto the theory of change, as far as I can tell. A better description of these categories and what they mean would be valuable.
2. The theory of change itself in Figure 1 adds considerably to the literature. I am particularly impressed by the assumptions that are articulated. However, I’m concerned that the arrows leading from “Resources” to “Changes” seem to be, in and of themselves, something of a black box. I would like to know (and the IPV field is search for answers to the question of) *how* community volunteers and groups of women and men work together to change participants? Indeed, how do these volunteers and community members take up their work in such a way that communities change overall? Is it through solidarity and group mutual support? Or is it through personal change that leads to an overall community-level benefit (i.e. the whole is greater than the sum of its parts)? The mechanism of action is not identified, which makes it very challenging to test the underlying assumptions of the theory. One suggestion would be to highlight important Theory (as in, sociological or behavioral theory) either within the figure or the accompanying text.
3. The notion of a “ceiling of accountability” is interesting, and I wonder if the authors can discuss how many IPV prevention programs position themselves along these lines. While many programs cite their stated aim is to reduce domestic violence, few projects globally have ever proven that they are able to do this.
4. It would be nice to hear a bit more about how *sanginis* “emerge” (or are chosen by the program to take up this role).
5. The section on “Undesirable changes” is excellent and crucial for the field, though this is the first time I have seen these concerns articulated so thoughtfully.
6. As above, the discussion statement around “makes explicit specific testable causal pathways to impact” is not entirely right, since the pathways themselves are poorly fleshed out. While the ‘context’ and ‘outcome’ configurations are indeed mapped out, I believe the ‘mechanism’ linking the two requires additional thinking.

7. I agree with the authors position that this is among the first projects to meaningfully combine primary and secondary prevention, and this is also crucial for the field.
8. The protocol by Christofides et al (2016)¹ would be important to include in the discussion, given its emphasis on a theory of change for primary prevention of IPV in a similar peri-urban setting. This would be particularly valuable in the sections on the three types of theory and the section about how policy change is incorporated into a theory of change and the concomitant impact evaluation.
9. What methods beyond running a trial are the authors engaged with presently? For example, will they harness path analysis to unpack the mechanisms underlying intervention success? Will they conduct a qualitative process evaluation alongside the trial?
10. While the contradictions between feminist framing and the needs of trials/projects to be managerial in nature is important, I wonder if it could use additional thinking. In particular, this is an area where Theory (capital T) could be brought forward more intentionally, since the authors are clearly drawing from multiple approaches and epistemologies.

References

1. Christofides N, Hatcher A, Pino A, Rebombo D, McBride R, Anderson A, Peacock D: A cluster randomised controlled trial to determine the effect of community mobilisation and advocacy on men's use of violence in periurban South Africa: study protocol. *BMJ Open*. 2018; **8** (3). [Publisher Full Text](#)

Is the work clearly and accurately presented and does it cite the current literature?

Partly

Is the study design appropriate and is the work technically sound?

Yes

Are sufficient details of methods and analysis provided to allow replication by others?

No

If applicable, is the statistical analysis and its interpretation appropriate?

Not applicable

Are all the source data underlying the results available to ensure full reproducibility?

Yes

Are the conclusions drawn adequately supported by the results?

Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Intimate partner violence, randomised control trials, process evaluations, theory of change, gender norms.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Author Response 11 Aug 2019

David Osrin, University College London, London, UK

Thanks to both reviewers for their enthusiasm for the paper and very helpful suggestions.

Comment 1

How were the actions detailed in Table 1 chosen from among the 76 total actions documented by the community mobilization team? Were these coded thematically, and was that coding undertaken by a single researcher or multiple team members? How was consensus reached and discrepancies resolved?

The “Action type” and “Intervention function” are interesting but these do not map onto the theory of change, as far as I can tell. A better description of these categories and what they mean would be valuable.

Response

Both reviewers commented on Table 1, which means that it was not clear enough. In order to understand what kinds of individual and collective action people might take, and therefore to align our expectations in the theory of change with potential reality, we documented previous actions. Table 1 was included simply to give some illustrations through which readers could imagine the situation. We have redrafted it substantially, including columns categorising actions as individual, collective, or individual followed by collective, whether an action was in the home or the neighbourhood, and the type of violence to which it was a response. The core team (Daruwalla, Gram, Osrin) have selected stories purposively to illustrate combinations of these categories: again, to give readers a flavour of the kinds of things that were done. We have retained the column categorising intervention functions in the COM-B model because we think it is educative. We have included more background on all of this in the Methods:

“In order to understand what kinds of individual and collective action people might take, and therefore to align our expectations in the theory of change with potential reality, the action documentation exercise recorded community mobilisation team members’ experiences of the kinds of action that community members had undertaken in the past. It yielded 76 actions, documented as extended data (Osrin, 2019). Adverse effects were also documented (although flare-ups in communities might actually suggest that the program was having an effect).”

“Table 1 provides examples of actions, categorising them as individual, collective, or individual followed by collective, whether an action was in the home or the neighbourhood, and the type of violence to which it was a response. The core team selected stories purposively to illustrate combinations of these categories. Individual action was often backed by the notional and practical security of being a member of a community group and having connections with a supportive organisation, using these connections as action escalated. Apart from help from our own organisation, and from periodic referral for skilled legal help and services for alcohol and drug dependency, the police force was a prominent institutional link. Although our commitment is to preventing domestic violence, both individual and collective actions often responded to incidents in the neighbourhood. Different kinds of violence – and particularly sexual violence in public spaces – coexist and response to each is both a source of confidence and a step toward a belief in collective efficacy. Likewise, groups often undertook collective action to improve their environment and we see this as contributing to a sense of collective efficacy and community building.”

“We also tried to classify behaviour change according to the Capability, Opportunity, and Motivation model (COM-B), a theoretical approach that we will use in subsequent process evaluation. Developed to inform public health programming, the COM-B model specifies nine functions by which an intervention might stimulate change: education, persuasion, incentivisation, coercion, training, restriction, environmental restructuring, modelling, and enablement. The

examples in Table 1 point to education (awareness of the problem of violence and potential approaches to addressing it), persuasion (of either perpetrators or community bodies), coercion (primarily of perpetrators, and often through linkages with the police), and modelling (of exemplary successful actions by individuals and groups) as prominent functions.”

Comment 2

The theory of change itself in Figure 1 adds considerably to the literature. I am particularly impressed by the assumptions that are articulated. However, I'm concerned that the arrows leading from “Resources” to “Changes” seem to be, in and of themselves, something of a black box. I would like to know (and the IPV field is search for answers to the question of) how community volunteers and groups of women and men work together to change participants? Indeed, how do these volunteers and community members take up their work in such a way that communities change overall? Is it through solidarity and group mutual support? Or is it through personal change that leads to an overall community-level benefit (i.e. the whole is greater than the sum of its parts)? The mechanism of action is not identified, which makes it very challenging to test the underlying assumptions of the theory. One suggestion would be to highlight important Theory (as in, sociological or behavioral theory) either within the figure or the accompanying text.

Response

These comments are well taken and we have added material to the Results and Discussion sections. We think that the reviewer's suggestions are both correct: the intervention develops solidarity and group support, along with collective efficacy and action, and also personal change in terms of capability, opportunity, and motivation to take action.

In Results: “The theory of change narrative is that people involved in our intervention take action to help survivors of violence make informed choices, and to increase community awareness of violence against women and girls and the possibility of change. As a result of these activities, survivors and potential perpetrators understand the nature of violence. Survivors make decisions, potential perpetrators think again, and other people understand both the nature of violence and that action is possible. People stand up against violence against women and girls, individually and collectively, and community members think and act to help survivors. Families and communities stop accepting violence and strengthen community structures that support a conviction that it is intolerable. Institutional support from non-government organisations, the police, medical practitioners, and lawyers is accessible and functional and families and communities free themselves of violence against women and girls.”

In Discussion: “A potential criticism of a theory of change is that the connections between specific activities and outcomes are often insufficiently understood, a challenge that we call the *block and arrow* problem. Given our theory's provisional nature, we hope to open up the blocks to understand the ways in which their components ‘work’. This is clearly difficult in a complex system with multiple inputs and emergent phenomena, but can be divided into three projects. The first project involves the stuff of process evaluation: to understand what was delivered, how well, what was received, and by whom. An evaluation framework is in place to address these questions both qualitatively and quantitatively in terms of reach, efficacy, adoption, implementation, and maintenance (the RE-AIM framework (Glasgow, Vogt, & Boles, 1999), which we have used before (Shah More et al., 2013)). The second project is to understand whether each of the components of the three boxes describing change happens. We hope to evaluate this quantitatively through an electronic intervention monitoring system and simultaneous qualitative observation and interview: each of the changes listed in the boxes has been taken as an indicator. For example, we will track bystander intervention quantitatively and through case studies. We will enumerate identification of survivors and their subsequent communication with medical, police, and legal services. We will conduct

qualitative and quantitative assessments of people's understanding of violence and the degree to which it ceases to be thought of as a private family matter. We will follow group membership, actions taken by members, and the development of leadership. And we will document community enquiries and referrals as a result of violence against women."

"The third project is to understand the mechanisms through which program effects are achieved. Like many public health implementors, we have a strong interest in realist evaluation (Pawson & Tilley, 1997). Within an intervention with many moving parts, which activities work well, for whom, and in which contexts? Our aim is to generate candidate context-mechanism-outcome configurations that we can propose as hypotheses, and to test them. The context of program sites will be described after a combination of ethnographic work, participatory learning and action activities, and quantitative data collection on demography, sociocultural indices, and experience of and response to violence against women. We take a method-neutral approach, combining ethnographic interviews and observation, targeted qualitative interviews with staff, group members, and volunteers, and case studies of how the intervention unfolds in selected localities; these augmented with data from our intervention monitoring system that can be used to answer specific questions. Central issues for consideration include the contribution of secondary prevention to primary prevention, the role of collective action (Gram, Daruwalla, & Osrin, 2019), the role of expanded reference groups in norm change, and the role of men in program effectiveness (Chakraborty, Osrin, & Daruwalla, 2018)."

Comment 3

The notion of a "ceiling of accountability" is interesting, and I wonder if the authors can discuss how many IPV prevention programs position themselves along these lines. While many programs cite their stated aim is to reduce domestic violence, few projects globally have ever proven that they are able to do this.

Response

A ceiling of accountability is recommended by experts in theory of change. We are not aware of other theories from violence prevention programs having used it. It is particularly relevant because of the need to be realistic about what a program could achieve. We do aim to reduce domestic violence, but wider effects are unlikely in the short term.

Comment 4

It would be nice to hear a bit more about how *sanginis* "emerge" (or are chosen by the program to take up this role).

Response

We have added to the Results section:

"Group sessions aim to build a political agenda for change that privileges women's interests and looks to transform gender and social power relations. Our group-work module follows a sequence over three years. The first year emphasises awareness of violence, gender norms, women's rights and entitlements, and the importance and strength of women's collectives in addressing violence against women and girls. The second year emphasises action, be it individual or collective. The third year emphasises leadership and group members are encouraged to take on prominent roles in the community. Generally, women who are proactive, articulate, have a social network in their neighbourhoods, and are willing to devote time to the issue are recommended as volunteer activists by groups and invited to become *sanginis*."

Comment 5

As above, the discussion statement around “makes explicit specific testable causal pathways to impact” is not entirely right, since the pathways themselves are poorly fleshed out. While the ‘context’ and ‘outcome’ configurations are indeed mapped out, I believe the ‘mechanism’ linking the two requires additional thinking.

Response

This challenge has been articulated by both reviewers. We have added information about our evaluative plans to the Discussion section.

“A potential criticism of a theory of change is that the connections between specific activities and outcomes are often insufficiently understood, a challenge that we call the *block and arrow* problem. Given our theory’s provisional nature, we hope to open up the blocks to understand the ways in which their components ‘work’. This is clearly difficult in a complex system with multiple inputs and emergent phenomena, but can be divided into three projects. The first project involves the stuff of process evaluation: to understand what was delivered, how well, what was received, and by whom. An evaluation framework is in place to address these questions both qualitatively and quantitatively in terms of reach, efficacy, adoption, implementation, and maintenance (the RE-AIM framework (Glasgow et al., 1999), which we have used before. The second project is to understand whether each of the components of the three boxes describing change happens. We hope to evaluate this quantitatively through an electronic intervention monitoring system and simultaneous qualitative observation and interview: each of the changes listed in the boxes has been taken as an indicator. For example, we will track bystander intervention quantitatively and through case studies. We will enumerate identification of survivors and their subsequent communication with medical, police, and legal services. We will conduct qualitative and quantitative assessments of people’s understanding of violence and the degree to which it ceases to be thought of as a private family matter. We will follow group membership, actions taken by members, and the development of leadership. And we will document community enquiries and referrals as a result of violence against women.”

“The third project is to understand the mechanisms through which program effects are achieved. Like many public health implementors, we have a strong interest in realist evaluation (Pawson & Tilley, 1997). Within an intervention with many moving parts, which activities work well, for whom, and in which contexts? Our aim is to generate candidate context-mechanism-outcome configurations that we can propose as hypotheses, and to test them. The context of program sites will be described after a combination of ethnographic work, participatory learning and action activities, and quantitative data collection on demography, sociocultural indices, and experience of and response to violence against women. We take a method-neutral approach, combining ethnographic interviews and observation, targeted qualitative interviews with staff, group members, and volunteers, and case studies of how the intervention unfolds in selected localities; these augmented with data from our intervention monitoring system that can be used to answer specific questions. Central issues for consideration include the contribution of secondary prevention to primary prevention, the role of collective efficacy (Gram et al., 2019), the role of expanded reference groups in norm change, and the role of men in program effectiveness (Chakraborty et al., 2018).”

Comment 6

The protocol by Christofides et al (2016) would be important to include in the discussion, given its emphasis on a theory of change for primary prevention of IPV in a similar peri-urban setting. This would be particularly valuable in the sections on the three types of theory and the section about how policy change is incorporated into a theory of change and the concomitant impact evaluation.

Response

We actually discussed this protocol in a recent team seminar, but had not included protocols in our paper. We have added text in the relevant section.

“A similar approach has been taken in the development of Sonke CHANGE, a cluster randomised controlled trial in periurban Johannesburg, South Africa. The Sonke Gender Justice intervention involves workshops and community action teams working predominantly with men with an emphasis on changing harmful gender norms and prevailing hegemonic masculinity. The program theory of change proposes that community action and advocacy to promote equitable gender norms and non-violent masculine attitudes and practices will lead to enhanced critical consciousness, collective efficacy and action, and better social cohesion and trust. These will lead in turn to self-efficacy to take action, reduced influence of harmful gender norms, and an enabling environment for policy implementation (Christofides et al., 2018).”

Comment 7

What methods beyond running a trial are the authors engaged with presently? For example, will they harness path analysis to unpack the mechanisms underlying intervention success? Will they conduct a qualitative process evaluation alongside the trial?

Response

Unfortunately, we are still waiting for the trial protocol to be published. It contains a fairly comprehensive discussion of what we intend to do. We are doing a qualitative and quantitative process evaluation as part of the trial, along with the development and testing of context-mechanism-outcome configurations. We have added information on to the Discussion section and it is included in the response to Comment 5.

Comment 8

While the contradictions between feminist framing and the needs of trials/projects to be managerial in nature is important, I wonder if it could use additional thinking. In particular, this is an area where Theory (capital T) could be brought forward more intentionally, since the authors are clearly drawing from multiple approaches and epistemologies.

Response

In light of this and other comments, we have added a discussion of theory to the Results.

“Three areas of disciplinary theory meet in the ideas that underlie our program theory: social norms theory (already prominent in prevention of violence against women), network theory (prominent in political science, economics, and latterly in public health), and behaviour change theory (prominent in behavioural psychology and public health).”

“Our ideas about norms are informed by feminist theory (Heise, 1998), which also underlies our organizational approach to working with survivors of violence. Beyond the need to work with families, we aim to ensure that no further harm is done to women, who remain the focus and whose views and making of meaning are prioritized. We believe that violence against women deserves attention as a gendered phenomenon beyond family violence (Lawson, 2012), and that gender needs to be in the foreground (Dobash & Dobash, 1979; Gelles, 1985). Our attempts to achieve gender transformative change are particularly indebted to theory around asymmetric distribution of power between genders (Rodríguez-Menés & Safranoff, 2012), and hegemonic patriarchy (R. Connell, 1987; R. W. Connell, 1995).”

“Our thinking on potential mechanisms has been influenced by social norms theory, and particularly by discussions of the need to transform gender norms as a route to addressing violence against women (Alexander-Scott, Bell, & Holden, 2016). This is particularly relevant

because we are concerned about the forms of violence that constitute gender-based household maltreatment: emotional and economic violence, control and neglect. Our previous work suggested that we might focus on three ideas about norm change (Daruwalla et al., 2017). The first is to make use of the mismatch between descriptive and injunctive norms. A descriptive norm describes beliefs about what other people do (Bicchieri, 2006; Cialdini, Kallgren, & Reno, 1991; Muldoon, Lisciandra, Bicchieri, Hartmann, & Sprenger, 2014), while an injunctive norm describes beliefs about what other people think one ought to do (Bicchieri, 2006; Cialdini et al., 1991). Descriptive norms intolerant of violence are likely to be magnets for behaviour and if we are able to show examples of non-violent interaction we might be able to influence people's perception of what is actually prevalent in the community. This is helped by our second idea, which is that injunctive norms disapprove (at least in principle) of violence. How to spread awareness of this turns on the reference group - the people surrounding an individual from whom she takes her cue (Levy Paluck, Ball, Poynton, & Sieloff, 2010) - and our third idea is to expand the currently limited reference groups around individuals so that they can process a larger pool of opinion on norms intolerant of violence."

"When we 'expand a reference group', we are basically saying that individuals meet and engage with more people, and this evokes ideas from network or social capital theory (Putnam, 1995). Another way of seeing the new connections between people that develop in community groups is as weak ties or bridging social capital, in contradistinction to the (hierarchical) strong ties or bonding social capital that the family circle typifies (Granovetter, 2005; Patulny & Svendsen, 2007). Added to this is the idea of linking social capital between, for example, community members and institutions that might help them to address violence against women (Szreter & Woolcock, 2004), a process explicit in our theory of change. So, although community mobilisation is a way to address violence against women, it can be seen equally as a community building or social capital endeavour (see (Szreter & Woolcock, 2004) for an anatomisation of the debates around social capital and public health)."

"We use the Capability, Opportunity, and Motivation model (COM-B) to think about individual behaviour change, particularly in terms of the functions of interventions that it summarises (Michie, van Stralen, & West, 2011). The program aims to increase the capability of participants to understand violence against women, identify survivors, and take supportive action, with knowledge of law and rights, decision-making and negotiation skills, self-efficacy, and collective efficacy. This it does predominantly through education, training, enablement, and modelling (first by program staff and then by community members). It presents opportunities to engage with others, learn, develop confidence and leadership, and connect with supportive non-government and government organisations; again predominantly through education, training, enablement, and modelling. Motivation comes from the development of belief in preventing violence against women and children, increased by education, persuasion, enablement, training, and modelling. From the point of view of potential perpetrators of violence, the primary functions are persuasion, coercion, and education, accompanied (we hope) by awareness and change in attitude brought about by education and modelling and reduced opportunity for violent behaviour."

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