

# Innovations in implementing a health systems response to violence against women in 3 tertiary hospitals of Maharashtra India: Improving provider capacity and facility readiness

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Srinivas Gadappa<sup>1</sup>, Priya Prabhu<sup>2</sup> , Sonali Deshpande<sup>1</sup>,  
Nandkishor Gaikwad<sup>2</sup>, Sanjida Arora<sup>3</sup>, Sangeeta Rege<sup>3</sup>,  
Sarah R. Meyer<sup>4</sup> , Claudia Garcia-Moreno<sup>4</sup> and Avni Amin<sup>4</sup>

## Abstract

**Background:** Violence against women [VAW] is an urgent public health issue and health care providers [HCPs] are in a unique position to respond to such violence within a multi-sectoral health system response. In 2013, the World Health Organization (WHO) published clinical and policy guidelines (henceforth – the Guidelines) for responding to intimate partner violence and sexual violence against women. In this practical implementation report, we describe the adaptation of the Guidelines to train HCPs to respond to violence against women in tertiary health facilities in Maharashtra, India.

**Methods:** We describe the strategies employed to adapt and implement the Guidelines, including participatory methods to identify and address HCPs' motivations and the barriers they face in providing care for women subjected to violence. The adaptation is built on querying health-systems level enablers and obstacles, as well as individual HCPs' perspectives on content and delivery of training and service delivery.

**Results:** The training component of the intervention was delivered in a manner that included creating ownership among health managers who became champions for other health care providers; joint training across cadres to have clear roles, responsibilities and division of labour; and generating critical reflections about how gender power dynamics influence women's experience of violence and their health. The health systems strengthening activities included establishment of standard operating procedures [SOPs] for management of VAW and strengthening referrals to other services.

**Conclusions:** In this intervention, standard training delivery was enhanced through participatory, joint and reflexive methods to generate critical reflection about gender, power and its influence on health outcomes. Training was combined with health system readiness activities to create an enabling environment. The lessons learned from this case study can be utilized to scale-up response in other levels of health facilities and states in India, as well as other LMIC contexts.

**Plain language summary:** Violence against women affects millions of women globally. Health care providers may be able to support women in various ways, and finding ways to train and support health care providers in low and middle-income countries to provide high-quality care to women affected by violence is an urgent need. The WHO developed Clinical and Policy Guidelines in 2013, which provide guidance on how to improve health systems response to violence against women. We developed and implemented a series of interventions, including training of health care providers and innovations in service delivery, to implement the WHO guidelines for responding to violence against women in 3 tertiary hospitals of Maharashtra, India. The nascent published literature on health systems approaches to addressing violence

<sup>1</sup>Aurangabad Government Medical College and Hospital, Maharashtra, India

<sup>2</sup>Miraj Government Medical College and Hospital, Maharashtra, India

<sup>3</sup>Center for Enquiry on Health and Allied Themes (CEHAT), Mumbai, Maharashtra, India

<sup>4</sup>Department of Sexual and Reproductive Health and Research, World Health Organization, Geneva, Switzerland

## Corresponding author:

Avni Amin, Department of Reproductive Health and Research, World Health Organization, Avenue Appia 20, 1202 Geneva, Switzerland.  
Email: [amina@who.int](mailto:amina@who.int)



against women in low and middle-income countries focuses on the impact of these interventions. This practical implementation report focuses on the interventions themselves, describes the processes of developing and adapting the intervention, and thus provides important insights for donors, policy-makers and researchers.

### Keywords

Collaboration, guideline, health care provider, implementation strategy, low and middle income countries, violence

## Introduction

Violence against women [VAW] has been recognised as a global public health problem affecting the physical, sexual and reproductive, and mental health of millions of women (World Health Organization [WHO], 2021). Globally, 1 in 3 women have experienced physical and/or sexual intimate partner violence or non-partner sexual violence in their lifetime (WHO, 2021). Intimate partner violence [IPV] increases risk of poor pregnancy outcomes, unintended pregnancies and induced abortions, sexually transmitted infections including HIV, depression, anxiety and other mental health disorders, and can result in injuries and in extreme cases, deaths (from homicide or suicides) (Campbell, 2002; Devries et al., 2010; Krug et al., 2002). India's National Family Health Survey (NFHS) Round 4 found that 31% of women have experienced spousal violence in their lifetime. One-fourth of the women who experienced spousal violence reported injuries (International Institute for Population Sciences (IIPS) & ICF, 2017).

The health system plays a crucial role in responding to VAW. While few women explicitly disclose violence to health care providers [HCPs], abused women are more likely to seek health services than those who are not. As most women are likely to come into contact with health systems at some point in their lives, particularly for sexual and reproductive health care, health systems provide an important entry point to identify women who are abused, treat their health problems, offer psychological support and refer them to other services they may need.

The WHO published clinical and policy guidelines to strengthen the health system response to violence against women (WHO, 2013) (henceforth, the Guidelines). To facilitate their implementation, a clinical handbook for health care providers and a health systems manual for managers were developed (WHO, 2014, 2017). Details on content of the Guidelines, clinical handbook for health care providers and the health systems manual for managers are described in Table 1.

The Guidelines and the implementation tools are being used in several countries (e.g. Afghanistan, Namibia, Pakistan, Uganda, Uruguay). However, little has been systematically documented about the most effective approaches to implement the Guidelines in low and middle-income countries [LMIC]. We present here a case study of adapting and contextualising

interventions to implement the Guidelines in three tertiary health facilities in Maharashtra, India.

The vast majority of evidence on health system response to VAW is from studies in high-income contexts (e.g. UK, USA, Australia). Literature with respect to strengthening capacity for care of women affected by violence has largely focused on training interventions. Training and education of HCPs is a widely-used intervention implemented to overcome barriers to identifying and supporting women affected by intimate partner or sexual violence in health care settings (Kalra et al., 2021). In high-income contexts, training interventions often include a component on universal screening for VAW (Feder et al., 2011; Hegarty et al., 2020; O'Doherty et al., 2015); the Guidelines, based on systematic reviews of the effectiveness of screening in improving women's health outcomes, indicate that there is not sufficient evidence to recommend universal screening for IPV (WHO, 2013). In low-resource settings, it is recommended that HCPs have capacity to identify those experiencing VAW based on signs and symptoms – also known as clinical enquiry. The unique barriers and facilitators to health system response to VAW in LMIC have been documented (Colombini et al., 2017). Vast differences in resources, health system structure and HCPs' attitudes and capacity in LMICs entails that increased evidence focused on implementation processes in LMICs is needed, to inform future policy, programmatic and research priorities.

There are several barriers to implementing a health response to VAW, including a lack of protocols to guide implementation, a lack of trained providers, provider biases and weak referral linkages with other services (Garcia-Moreno et al., 2015). These barriers highlight that training alone is not sufficient to implement an effective health response to VAW, and that a systems approach is needed. In India, similar challenges have been identified, including a lack of gender-sensitivity in medical education, heavy patient loads and a lack of privacy in facilities (Chattopadhyay, 2019; Yee, 2013). While there are national guidelines on medico-legal care for survivors of sexual assault, there is no protocol or training programmes to guide a health systems response to VAW, despite a 2005 law [Protection of women from domestic violence Act] that mandates HCPs to respond to survivors (Government of India, 2005). Documented lack of capacity and limited implementation of health system response to

**Table 1.** WHO guidelines and tools and their content.

WHO guideline and tool type	Audience	Objectives and methods	Contents
Responding to intimate partner violence and sexual violence against women: WHO clinical and policy guidelines (2013)	Policy makers	To provide evidence-based recommendations on what clinical and policy interventions are to be offered to women subjected to violence Developed through Guidelines Group Expert Inputs and Systematic Reviews of Evidence	Evidence and recommendations for: <ol style="list-style-type: none"> <li>1. Woman-Centered care</li> <li>2. Identification and care for survivors of intimate partner violence</li> <li>3. Clinical care for survivors of sexual assault</li> <li>4. Training of health care providers</li> <li>5. Health-care policy and provision</li> <li>6. Mandatory reporting of intimate partner violence</li> </ol>
Health care for women subjected to intimate partner violence or sexual violence: A clinical handbook (2014)	Health-care providers	To provide practical instructions and job-aids on how to deliver clinical care interventions to women subjected to violence Draft based on guidelines and expert inputs from clinicians providing care to survivors.	Instructions and Job aids covering: <ol style="list-style-type: none"> <li>1. Raising awareness including what is VAW and how to identify it</li> <li>2. First-line support for survivors using LIVES (Listen; Inquire about needs and concerns; Validate; Enhance Safety and facilitate Support).</li> <li>3. Additional care for physical health after sexual assault</li> <li>4. Additional care for mental health</li> </ol>
Strengthening health systems for women subjected to intimate partner violence or sexual violence: A health manager's manual (2017).	Health managers	To provide practical instructions and job aids on how to plan/design, deliver/implement, monitor and evaluate services to women subjected to violence Draft based on guidelines and expert review by health practitioners, managers/administrators.	Instructions and job aids covering: <ol style="list-style-type: none"> <li>1. Getting started including awareness raising of the need and advocacy and planning</li> <li>2. Strengthening services including service delivery; health workforce; and infrastructure</li> <li>3. Improving leadership and governance including developing policies, governance and accountability, budget and financing and coordinating across sectors and with communities</li> <li>4. Strengthening evidence and scaling up including collecting, using data and monitoring and evaluating and preparing to scale-up.</li> </ol>

VAW in many LMIC settings indicates the need to identify strategies to develop and adapt intervention approaches towards implementing the Guidelines.

We approached the adaptation and implementation of the Guidelines as a multi-component intervention, recognizing that health systems and other contextual factors will interact with the training component of the intervention. We adopt the definition of context as “as a set of active and unique characteristics and circumstances that interact with, modify, facilitate or constrain intervention delivery and effects” (Evans et al., 2019). Implementation theory and research increasingly appreciates the role of understanding of context in informing type of and

approach to adaptation of interventions, which may include service setting adaptations, target audience adaptations, mode of delivery adaptations and cultural adaptations (Chambers & Norton, 2016). For an intervention to be effective in improving quality of care in the health system for women affected by violence, contextual factors that operate at individual, community, health systems institutional and societal levels must be understood and addressed in intervention design and implementation (Waltz et al., 2019). A recent evaluation of a health system intervention for addressing VAW in Palestine utilized Extended Normalization Process Theory [NPT] to identify intervention-context interactions that impacted

fidelity and workability of the specific intervention (Bacchus et al., 2021). NPT and Extended Normalization Theory are theories of “mechanisms that can support or impede the implementation of new ways of working” (Knowles et al., 2021). These theories include concepts relevant to our planning and understanding of ways to design and implement health system response to VAW in resource-constrained environments, including users’ capability, capacity of the context to implement the intervention, including the range of resources available to individuals within the system to support implementation, and potential, which is “individual readiness to translate beliefs and attitudes into behaviours that are congruent (or not) with system norms and roles” (Bacchus et al., 2021). Health system response to VAW is a complex intervention, introducing “a new way of thinking, acting, or organizing...into a social system of any kind” (May, 2013). Context is often undertheorized or positioned as an obstacle to effective implementation of pre-existing interventions, yet understanding of the multiple aspects of context, and how they interact with intervention implementation, is central in accounting for the outcomes and impacts of interventions, i.e. if an intervention ‘works’ in a given context. There are examples of approaches to intervention development that utilize participatory co-design and map elements of the co-design process to the core components of NPT: for example, a study of ways to implement electronic patient reported outcomes in renal services in the United Kingdom linked co-design methods to the following constructs which are most relevant to our present work: coherence (what is the meaning of the intervention to the different stakeholders?), cognitive participation (what roles need to be undertaken to deliver the intervention and who is able to perform them?), and collective action (what are the existing routines and practices that the intervention must work alongside?) (Knowles et al., 2021). The present paper describes the process of generating in-depth understanding of multiple components of the context in tertiary facilities in Maharashtra, India, in order to inform intervention components and implementation plans. Capturing and describing this phase of our study also responds to evidence that reporting of information-gathering and contextual influences on intervention development and implementation is limited across global health interventions (Luoto et al., 2014).

This practical implementation report, focused on tertiary health facilities in Maharashtra, India, provides a case study of such efforts. Description and documentation of adaptation processes are important in building the evidence-base concerning how or when content or delivery strategies for implementation health system response to VAW in LMIC can be achieved. The need for evidence and guidance regarding adaptation has been identified as a gap broadly in the field of complex health interventions (Campbell et al., 2020). Lessons learned through these

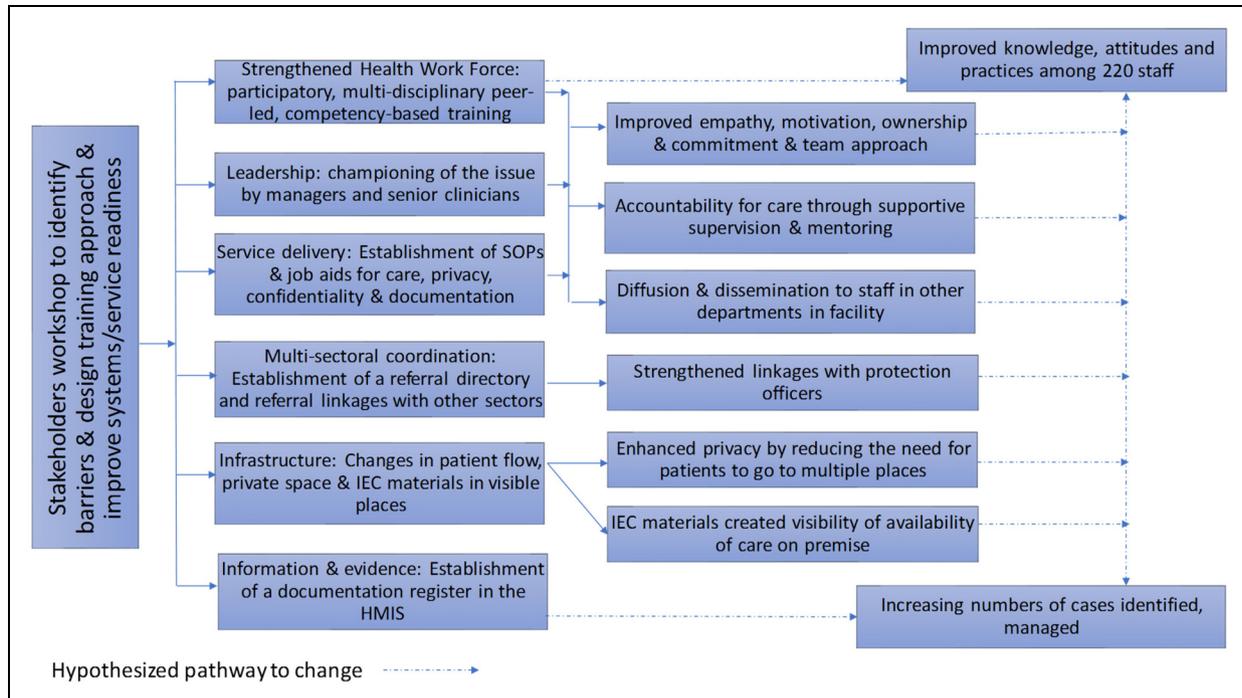
intervention adaptation strategies can be utilized to scale-up response in other levels of health facilities and states in India, as well as other LMIC contexts where a comprehensive health system response to VAW can improve quality of health care, referral systems and support for women affected by violence.

In 2017, the Human Reproduction Programme [HRP], housed within WHO, the Center for Enquiry into Health and Allied Themes [CEHAT], a Mumbai based research organisation, and the Directorate for Medical Education and Research [DMER], Maharashtra, India collaborated to undertake implementation research to first pilot test the roll out of the Guidelines and tools in three tertiary teaching hospitals in Maharashtra, India. The aim was that the pilot would subsequently inform the design of an evaluation trial to assess effectiveness of the intervention. In the pilot phase of the implementation research, to adapt the Guidelines and associated tools to the Indian context and develop the intervention components, we identified barriers and needs of HCPs and health managers in responding to VAW. We approached the study using the lens of the health systems building blocks, a well-established set of components of the health system with which to approach health systems strengthening (WHO, 2010). The building blocks comprise of service delivery, health workforce, health information system, medical products, financing, and leadership and governance. Due to the focus of the Guidelines and the specific components of the intervention in this setting, we focused primarily on service delivery and workforce.

The present Practical Implementation Report describes the process to inform the adaptation of intervention activities and design of the activities prior to undertaking the implementation research study. The intervention and the research took place in the tertiary teaching Government hospitals of Aurangabad, Miraj and Sangli in Maharashtra. In each hospital, three departments were selected that are most likely to receive women patients: obstetrics and gynaecology; general medicine and emergency or casualty.

## Describing the intervention

The intervention activities and the hypothesized outputs and changes we expected they would lead to are summarized in Figure 1. The package of intervention activities was based on the Guidelines and tools and included recommendations to implement not only clinical care through training of HCPs in understanding domestic violence as a health problem, but also skills in how to recognize signs and symptoms, identify violence and offer first-line support, facilitate referrals and document incidents of violence. Additionally, recognizing that training alone is not sufficient, service strengthening activities were undertaken within the framework of the health systems building blocks to implement the service delivery recommendations of the Guidelines and associated tools. This included



**Figure 1.** Summary of intervention activities and observed or hypothesized outcomes.

activities to bolster training with mentoring and supervision, establishing standard operating procedures [SOPs], strengthening referral linkages and raising awareness of patients about domestic violence and its health consequences, and establishing a documentation system.

The methods for the research component of the study, involving a survey of providers' knowledge, attitudes and clinical practices prior to and following training, in-depth interviews and focus group discussions with providers, are described elsewhere (Meyer et al., 2020). In this report, we describe the development and adaptation of the implementation components. Furthermore, the results of the interventions are also reported elsewhere (Arora et al., *Under review*; Arora et al., 2021).

## Process of adapting the intervention and the guidelines

### Stakeholder workshop

Global literature identifies, among other things, providers' lack of motivation based on a belief that addressing violence is not their role but that of the police. Another barrier is the lack of support from supervisors to address VAW (Garcia-Moreno et al., 2015). Therefore, to identify potential barriers and facilitators to improving providers' response to violence against women in this particular context, we conducted a 2-day stakeholder workshop, in March 2018. The 26 workshop participants were mid-level to senior staff from the three selected departments and included a mix of clinicians (medical college head of departments, associate

professors, matrons and staff nurses), support staff (social service superintendent, counsellors) and health managers in the hospital (medical superintendent, deputy medical superintendent). The stakeholder workshop sought to map the following:

- understand HCPs' motivations for and fears of addressing VAW;
- strengths, challenges, needs and solutions in providing hospital-based care to survivors of violence;
- roles and responsibilities of HCPs (including different cadres and departments);
- patient flow to identify potential entry points for enquiry about violence and provisions of psychological first aid, and potential breaches of privacy and confidentiality; referral flows within the facilities and with other sector services;
- documentation practices including register formats, responsibilities, oversight and storage; and
- the ideal length of training without disrupting routine clinical care provision.

The activities employed in the stakeholder workshop are described here:

- (i) Understanding HCPs' roles in and fears of addressing VAW: In this activity, participants were given two pieces of paper: on one, they were asked to write one fear and on another one motivation that they had in responding to VAW in their clinical practice.

The responses were aggregated under fears and motivations and analysed. Fears listed included lack of support from senior managers and institutions, heavy workload, lack of time required for counselling, and fear of not having the skills to resolve the problem. Motivations included that violence against women has significant health impacts and therefore addressing it provides opportunity for improved health care, that women trust providers, and recognition that VAW widespread in their communities. Using these findings, the training intervention was adapted – for example, to include senior clinicians in the trainings to ensure high-level support within facilities.

- (ii) Strengths, challenges, needs and solutions in providing hospital-based care to survivors of violence: Participants were divided into groups based on the health facility in which they worked, and asked the following questions: What are the strengths of your facility to be able to provide quality health care to women who have or are experiencing domestic or sexual violence? What are the challenges or barriers that would prevent your facility from providing quality health care to women who have or are experiencing domestic or sexual violence? What does your facility need in order to be better prepared to provide quality health care to women who have or are experiencing domestic or sexual violence? Can you propose some solutions or ideas for overcoming the barriers or challenges you have identified? These responses included several systems-level challenges and recommendations for strategies to address these challenges. For example, lack of standard operating procedures to resolve violence against women was identified as a challenge, while connections with local non-governmental organizations providing services to vulnerable women was identified as a way in which to build and expand referral networks.
- (iii) Mapping of roles and responsibilities: This activity sought to identify the different levels and types of interactions with different types of HCPs throughout the process of a woman affected by violence seeking care. Participants were requested to sit in groups according to departments, and as such, each group had representatives of different cadres of HCPs (doctors, nurses, social service superintendent and counselors). Groups were provided with detailed case studies of women seeking care, exhibiting particular signs and symptoms that may indicate exposure to violence, including cases demonstrating intimate partner violence and non-partner sexual violence. In response to each case study, groups were asked to map the types of providers that the woman in the case study would interact with when she came to the hospital, the roles and responsibilities of the providers, their motivations and challenges and barriers in providing quality care to the women.

- (iv) Mapping patient flow: Participants continued to discuss the case studies from the mapping of provider roles and responsibilities, in this case, drawing the movement of a woman across various departments from the time she enters the hospital with a particular set of symptoms or complaint. The participants created a flow chart of every facility with which the woman would interact, the different steps and actions taken at each point to provide her with care and manage her case (for example, registration, examinations or tests done, medicines prescribed, counselling provided). For each action, participants indicated if the activity could be done in private or if this was not possible, and also listed possible breaches of confidentiality throughout the process (e.g. records or register lying open, others overhearing discussion with patient or where information is shared across units either by phone or in writing).
- (v) Training structure and content: Through discussions with stakeholders participating in the workshop, multiple components of the training structure were identified and decided upon, including length, format and frequency of training. Following the stakeholder workshop, team members from CEHAT, WHO and participating hospitals reviewed the findings from the stakeholder workshop, identified areas of the existing HCP training curriculum that needed revision or adaptation based on the findings, and planned structure and delivery of the training based on discussion of the findings from the workshop. Several of the participatory activities directly led to adaptations in content; for example, in the activity about motivations and fears, one of the primary fears identified was lack of time to undertake clinical enquiry and provide quality care to women affected by violence. Therefore, when the training presented the LIVES approach (Listen; Inquire about needs and concerns; Validate; Enhance Safety and facilitate Support), the trainers emphasized that HCPs can focus on LIV, and ensure that social workers, who can spend more time with patients, can implement ES – enhance safety and facilitate support, which is more time intensive. Another fear identified – of not having high-level support in the department to implement the skills learned in training – was addressed by including senior clinicians in the training. The mapping of roles and responsibilities activity was also utilized to identify the priority health workers to include in the training.

### Training

We trained 26 master trainers over five days, using a curriculum based on the Guidelines and adapted to the Indian context by CEHAT. As not all providers could be pulled out of routine clinical care at the same time,

batches of 30 doctors, nurses and social workers were trained over a period of two days. A total of eight trainings were conducted – four in Aurangabad, and four combined for Miraj and Sangli hospitals – with a total of 220 HCPs. Each training was monitored by CEHAT staff for fidelity. Trainings were conducted from June-October 2018.

The project was reviewed and approved by Institutional Ethics Committee of CEHAT. We also obtained approval from the Research Project Review Panel [RP2], an independent technical review panel of the HRP (the UNDP/UNFPA/UNICEF/WHO/World Bank Special Programme of Research, Development and Research Training in

Human Reproduction) at the WHO, and the World Health Organization's Ethics Review Committee [ERC], which reviews all human subjects research conducted or supported by WHO. Permission to conduct the study was also obtained from Directorate of Medical Education and Research [DMER], Maharashtra, which is the governing body for tertiary teaching hospitals in Maharashtra. Informed consent was obtained from all subjects.

## Key innovations and adaptations for implementation of the guidelines

Innovations are organized according to the health systems building blocks (Garcia-Moreno et al., 2015).

**Table 2.** Summary of innovations in training.

Innovations in training:	Outcomes
Doctors, nurses, social workers trained together.	There was an increased sense of ownership, and joint responsibility in responding to violence as a team effort. Social workers whose role had earlier been relegated to providing information about other services and facilitating support for medical expenses were inspired to spend more time listening sensitively to survivors and connecting them to services not available at the hospital. Miraj hospital also implemented a patient feedback register, so patients could anonymously write their experience of receiving care.
Critical reflection on the intersecting role of sex, gender, and other forms of power inequalities in contributing to discrimination, VAW, and to a lack of respectful care in medical & nursing practices.	It helped providers to recognize their own contributions in the lack of respectful care to patients, and how that further disempowered and traumatised survivors. It helped create more empathy for their patients and influenced their communication with patients.
Training, mentoring and supervision by master trainers who were administrators and senior clinicians	Peer-led training was found to be acceptable to the HCPs who looked up to the senior clinicians and were able to approach them for problem-solving for difficult cases.
Diffusion of knowledge to other departments of the hospital.	Master trainers, empowered by the knowledge and skills they were offering to HCPs, shared their experiences of how they overcame barriers in other departments through clinical case presentation meetings.

### Strengthening health work force capacity: training and post-training support

The training focused on knowledge of VAW as a public health problem. It addressed providers' fears in responding to violence, attitudes towards gender equality and normalization of violence, and built communication skills. The master trainers were taught to mentor and supervise through monthly case management reviews. The decision to use practicing clinicians as master trainers who could mentor the junior clinicians, and to use a peer-to-peer approach, was driven by the fact that clinicians would be more likely to understand and address the nuances of providing care to survivors within the given clinical context. Secondly, peer and senior clinicians would more likely be accepted, credible in the eyes of other clinicians and also provide a mentoring and supervisory role. Therefore, rather than expert trainers with content knowledge on violence against women, we chose to train senior clinicians, nurses and social workers from within the hospital to act as master trainers, not only in the content, but also in delivering interactive/participatory methodology for training. We also created teams of master trainers each with a senior physician, nurse matron and social superintendent so that division of roles and responsibilities and team work dynamics across cadres could be established. These looked at the documentation registers to see how many cases were identified, discuss challenges in identifying and managing cases, and how to resolve these. They brought to light that trainees were identifying the more obvious and severe VAW cases that presented with injuries, attempted suicides and rapes, but not the ones that were less severe or obvious (e.g. repeated pregnancies or psychosomatic symptoms such as headaches with no physiological basis). This was addressed in half-day refresher trainings conducted after 6 months. The refreshers enhanced retention of what was learned, clarified concepts, and strengthened motivations by reinforcing the value of HCPs contributions. Subsequently,

HCPs started identifying cases of VAW that presented with less severe or obvious signs. See Table 2 for a summary of the innovations in training. Many of the innovations directly emerged from results from the stakeholders workshop. Concerns that quality response would take too much time for doctors and nurses were addressed by training social workers alongside doctors and nurses, and indicating ways in which they could work together to address women's needs. HCPs' identification of recognition of the health impacts of violence against women as a motivating factor resulted in a focus on understanding the health impacts of VAW during the training, as well as addressing the intersecting role of sex, gender and power inequalities leading to violence against women.

### *Improvements in service delivery and infrastructure*

SOPs were established for managing cases of IPV and job-aids were provided to HCPs in the local language (see Appendix 1). The patient flow exercise in the stakeholder workshop had identified numerous points at which women reporting having experienced violence may be forced to tell their story multiple times, be examined in places without adequate privacy, or risk having confidentiality compromised due to methods of record keeping. In addition, the trainings helped HCPs realise the trauma of survivors in having to repeatedly tell their story of violence. In one hospital, this led to a change in procedure so that the doctor was called to a specific room called the "Sukun Kaksh" (peaceful room) to carry out all procedures in one place. SOPs were also established for privacy and confidentiality so that consultations would take place in separate rooms when no other family member was present, and that all documentation registers would be kept in a locked storage. Information, Education and Communications [IEC] materials for patients were posted in prominent spaces, highlighting that women had the right to live free of violence, that help for survivors was available on the premise, and a local hotline number. The locations of these materials were determined in discussions in the stakeholder workshop, which identified the places patients would be most likely to see the materials.

### *Strengthening multi-sectoral coordination*

In the workshop activity on strengths, challenges, needs and solutions, one of the primary suggestions for solutions to address VAW in the hospitals was to strengthen linkages to referral services. CEHAT staff conducted meetings with non-governmental organizations providing counselling services, shelters and livelihood support, and with protection officers in each site to seek their collaboration for receiving referrals made by the hospitals. A referral directory was created and copies provided to the selected

departments. HCPs from Aurangabad realized the need to strengthen follow up of women they referred and hence, the master trainers invited protection officers to be part of joint trainings.

### *Strengthening data collection and monitoring*

Documentation registers were provided, based on an adapted template from the WHO health manager's manual (2017). HCPs were trained to document cases of violence. In one facility, HCPs developed an indexing system linking patient ID numbers to entries in the register, so that they could follow up with women when they returned. Registers were reviewed for completeness by one master trainer in each hospital and random quality checks were conducted by CEHAT staff every month. A total of 531 cases of violence were documented over 9 months. A video documentary of the innovations is available (Appendix 2).

## **Discussion**

Implementation of the study was informed by the stakeholder consultation. This approach is well documented (O'Campo et al., 2011) as an important step in creating ownership, support and acceptability of decision-makers to ensure success of an intervention. Cascade trainings and participatory methods were applied based on adult learning principles (Mormina & Pinder, 2018; Wilson et al., 2017). Our approach involving peer-led and joint trainings across cadres was based on previous CEHAT experiences, which indicated that it was important to break down the siloes across physician, nursing and social work cadres due to professional hierarchies, and to foster collective responsibilities for care provision. In high-income countries, nurses have played a leading role in responding to VAW (Hewitt, 2015) and the perception has been that doctors don't have the time. Our approach showed that doctors played a pivotal role in responding to VAW.

The concerns about high workload were addressed by giving emphasis to applying skills as part of routine clinical practice, with minimal incremental changes in tasks, and through task sharing. Visibility and appreciation for their contribution was gained when staff from other departments expressed interest in getting trained. This facilitated diffusion of the intervention to other departments. Literature suggests that one-off trainings are not useful in sustaining changes in clinical practices (Zaher et al., 2014). We addressed this by creating opportunities for on-going learning through monthly case management review meetings and refresher trainings. The role of master trainers as champions and mentors was crucial in fostering a sense of accountability for implementing the intervention. Evidence indicates that training alone is not sufficient for changing clinical practice and a supportive health system is needed (Garcia-Moreno et al., 2015).

Initial findings indicate that the highly participatory approach we utilized to understand various aspects of barriers and

facilitators to improving health system response to VAW in this context was instrumental in designing an intervention that was accessible and useful for HCPs. We present the quantitative and qualitative results of our evaluation of the intervention elsewhere (Arora et al., *Under review*; Arora et al., 2021).

## Future directions

The results from our intervention adaptation process indicate several future directions, in terms of intervention design and adaptation and implementation of the Guidelines in LMIC contexts to improve health systems response to violence against women. The methods that we employed – primarily, the 2 day participatory stakeholder workshop – generated important information for content and implementation of the training of HCPs, as well as components of service delivery changes that were necessary to support the content and skills imparted to HCPs during the trainings. Systems of mentorship and support, refresher trainings, and a focus on communication skills to provide and empathetic and non-judgmental response to survivors were key elements of the training design and implementation process. Future research could explore if a simple, few step adaptation process can be developed and piloted, in order to provide a toolkit towards adapting the Guidelines for other contexts. Further testing and documentation of the methodology we employed of engaging stakeholders in a participatory process of identifying challenges, needs and solutions, can provide a useful model to implement for intervention adaptation in other contexts. Implementing a similar adaptation approach in multiple settings could bring to light what factors are common between contexts, and what factors are specific, whether in terms of culture, health system structure, HCP capacity, and need to be the focus of intervention adaptation in order to effectively improve quality of health system response to VAW. In terms of methodology and implications for study design of future phases of this particular study, and studies planned for other contexts, this pilot study provided insights into the complex nature of this intervention. Study design has to account for the dynamic, systems approach of the intervention, and assess outcomes based on facility or systems-level changes, as individual HCPs are embedded within the health systems in which they practice. Considerations for study design for a future, rigorous evaluation of this set of interventions includes that randomization of individual HCPs to intervention or control group would not be effective given movement of HCPs within and between facilities over the course of the intervention, and potential for spillover effects of training within facilities. Based on results from the quantitative survey of HCPs, it is evident that further piloting, development and psychometric testing is needed to develop adequate measures of knowledge of and attitudes towards VAW in clinical practice.

## Conclusion

The process of implementing a health response to VAW needs to be adapted to the realities of a low-resource health care context. It must go beyond training and adopt a systems approach, apply participatory approaches to co-create changes with implementers, and introduce innovations that are feasible in terms of cost and time and easily integrated into routine clinical practice. Only when the whole system is ‘ready’ to support trained providers will they be able to reach and respond to the many women seeking care who are affected by violence.

## Declaration of conflicting interests

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## ORCID iDs

Priya Prabhu  <https://orcid.org/0000-0002-8786-9096>  
Sarah R. Meyer  <https://orcid.org/0000-0001-8595-2358>

## Supplemental material

Supplemental material for this article is available online.

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