Multiyear, Multisectoral Training Program in Kenya to Enhance Medical-Legal Processes in Response to Sexual and Gender-Based Violence

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Abstract

Sexual and gender-based violence (SGBV) leads to severe sequelae for individuals and communities. Lack of cross-sector coordination inhibits effective medical–legal support and justice for survivors. Multisectoral trainings for health, legal, and law enforcement professionals on survivor-centered SGBV care were conducted in Kenya during 2012–2018. Evaluation utilized objective structured clinical examinations, standardized patients, knowledge assessments, and interviews. A total of 446 professionals participated in 18 trainings. Mean knowledge scores

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increased from 75.6% to 84.7% ($p < .001$). Thirty interviews revealed improved survivor confidentiality, increased specialized hospital care, more comprehensive forensic care, and greater cross-sector collaboration. Participants reported survivors feeling more comfortable pursuing legal action and increased perpetrator convictions.

**Keywords**
gender-based violence, sexual violence, sexual assault, Kenya, forensic evidence

Sexual and gender-based violence (SGBV) has been identified as a critical public health issue and a violation of human rights (World Health Organization, 2013). The World Health Organization reports up to 70% of women have suffered physical or sexual violence from an intimate partner in their lifetime (García-Moreno et al., 2005). Sexual and other forms of gender-based violence increase in prevalence in times of conflict and are known risk factors for mental health conditions and reduced psychosocial well-being (Tol et al., 2013). Consequences of SGBV range from the physical and psychosocial to the spiritual and socioeconomic. They include unwanted pregnancy, fistulae, sexual dysfunction, sexually transmitted infections, posttraumatic stress disorder, anxiety, and depression (Ba & Bhopal, 2017). Social impacts commonly include rejection by family, community, and spouse as well as an increased risk of drug and alcohol abuse (Ba & Bhopal, 2017). SGBV has also been known to have negative costs to countries (Ellsberg & Heise, 2005; Fulu & Miedema, 2015) as the violence hinders peacebuilding efforts, postconflict rehabilitation, and generational reconstruction (Blay-Tofey & Lee, 2015). In fact, SGBV against women costs some governments up to 3.7% of their Gross Domestic Product—twice as much as most governments spend on education (Soliman & Kalle, 2020).

Women in sub-Saharan Africa face some of the highest rates of SGBV in the world, with prevalence rates up to 65% in some countries (Arnold et al., 2008; García-Moreno et al., 2013; Gebreyohannes, 2007; Iliyasu et al., 2011; Letta et al., 2014; Mullu et al., 2015; Umana et al., 2014; Wandera et al., 2017). Women in some African countries are also at the greatest risk of being killed by their intimate partners or family members (United Nations Office on Drugs and Crime, 2018). In Kenya, sexual violence was extensively used as a tool of intimidation during and after the 2017 General Election, according to a report by the Kenya National Commission on Human Rights (Kenya National Commission on Human Rights, 2018). A majority (54.5%) of these sexual assaults were perpetrated by security agencies. Another study approximated an increase of 22% in SGBV incidents without an identifiable aggressor, 20% in incidents involving multiple aggressors, and 18% in situations where survivors waited more than one month to consult a medical support agency, all in correlation with the postelection violence period following the highly contested presidential election of 2007 in Kenya (Anastario et al., 2014).
Healthcare, law enforcement, and legal professionals’ attitudes toward SGBV and survivors of SGBV factor immensely into ensuring adequate survivor care (Ferdowsian et al., 2016). Oftentimes, SGBV goes unreported due to stigma and inadequate medical and legal support (Ba & Bhopal, 2017; Smith et al., 2019; Verelst et al., 2014). The United Nations reports that more than 60% of female survivors do not seek assistance, with <10% of women who seek help appealing to the police (United Nations Economic and Social Affairs, 2015). Social norms often prevent survivors’ empowerment by placing the blame on survivors and furthering the perception of SGBV as customary (Glass et al., 2018; Read-Hamilton & Marsh, 2016). Law enforcement views generally follow along similar lines, dismissing SGBV as insignificant or driving the focus of policing efforts nearly exclusively on a stigmatized subset of offenders such as male youth gangs (Walby et al., 2014). In Kenya, a review of sexual assault survivors attending an assault recovery center found that 43% of assaults were reported to the police and only 44% of survivors received counseling (Ranney et al., 2010).

To effectively address SGBV in times of conflict, efforts must be made to strengthen forensic capacity and establish a multisectoral model for combating sexual violence (Lokuge et al., 2016; Shako & Kalsi, 2019). We hypothesized that improved forensic training and establishing multisectoral networks of physicians, nurses, psychologists, police officers, prosecutors, and judges could significantly increase collaboration among professionals across sectors and improve care and justice processes for survivors of SGBV.

Methods

In collaboration with clinicians, police officers, lawyers, judges, and grassroots civil society organizations, Physicians for Human Rights (PHR) developed in-person trainings to strengthen the way duty-bearers respond to the needs and care of survivors of SGBV using trauma-informed, survivor-centered approaches and to enhance the way they collect, document, and preserve forensic evidence of sexual violence to support local prosecutions. Local partners, through a series of roundtable discussions, helped to identify the content priorities of these trainings. The trainings included multisectoral introductory forensic training, advanced crime scene investigation for law enforcement, advanced forensic documentation training for clinicians, institutional capacity training, advanced pediatric evaluation for clinicians, and training of trainers (Table 1). Training participants were medical, legal, and law enforcement professionals who regularly worked with SGBV survivors in and around the diverse communities of Eldoret, Kisumu, Nairobi, and the Rift Valley.

Trainings were typically two to four days in duration and utilized best practices in adult learning, such as clinical roleplays and objective structured clinical examinations (OSCE) using trained standardized patients (SPs). During the trainings, expert PHR medical trainers, forensic professionals, and the SPs completed structured checklists to evaluate trainees and provide feedback to improve the quality of clinical care and forensic documentation. Trainees also completed a closed-response knowledge and
Table 1. Description of Trainings Conducted by PHR’s Program on Sexual Violence in Conflict Zones for Medical, Legal, and Law Enforcement Professionals.

**Multisectoral basic forensic training:** The first in PHR’s series of trainings, multisectoral trainings on sexual violence brought together medical, legal, and law enforcement professionals. These trainings focused on survivor-centered care and collecting, documenting, and using forensic evidence of sexual violence to increase access to justice for survivors. Individuals participated in modules related to their and other professions, emphasizing interoperability among sectors. These multiday trainings featured practical, hands-on instruction and were based on the latest advances in the fields of forensics and medicine, as well as a range of international and local standards and widely accepted practices, including the Istanbul Protocol on the Effective Investigation and Documentation of Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (United Nations High Commissioner for Refugees, 2004), the International Protocol on the Documentation and Investigation of Sexual Violence in Conflict (Ribeiro & van der Straten Ponthoz, 2017), and the WHO Guidelines for Medico-Legal Care for Victims of Sexual Violence (World Health Organization, 2003).

**Advanced crime scene investigation for law enforcement:** This two-day training workshop deepened law enforcement professionals’ skills in conducting systematic high-quality forensic investigations and documentation. The training was highly interactive, allowing participants to practice new skills with the support of expert trainers.

**Advanced forensic documentation training for clinicians:** This two-day training session provided participants with additional skills in interviewing survivors; examining patients; and collecting, documenting, and preserving forensic evidence of sexual violence. Some sessions also included training on forensic photography.

**Institutional capacity trainings:** PHR worked with select facilities on a progressive series of trainings covering topics including introduction to sexual violence and the legal framework; conducting forensic medical evaluations; evidence collection, documentation, and preservation; responding to child survivors of sexual violence; and mental health and vicarious trauma. These trainings were part of an institutional capacity development process in Nakuru.

**Advanced pediatric evaluation for clinicians:** This three-day training workshop provided clinicians with the specialized skills to document human rights violations in pediatric and adolescent-age survivors, using an innovative standardized patient methodology. Trainers shared practical guidance for providing high-quality, trauma-informed care for child survivors.

**ToT:** PHR’s four-day ToT workshop targeted participants who have attended several trainings and excelled in the subject matter. The participants received practical guidance on leading a successful training, from setting up the room to facilitating conversation and engaging activities. Participants who successfully completed the ToT workshop continue on to lead multisectoral trainings.

Note. PHR = Physicians for Human Rights; ToT = training of trainers; WHO = World Health Organization.

To extend multisectoral communication beyond the training periods, trainees were given a suite of PHR-developed learning materials, including a lexicon booklet that translates unfamiliar medical terms into language understandable by legal and law enforcement
officials and a curriculum companion that trainees can use as a reference tool for best practices for interviewing survivors, examining patients, documenting findings, and packaging evidence. Trainees were also encouraged after their training to distribute the information to peers through formal training sessions as well as on-the-job mentoring. PHR collaborated with multisectoral training participants to establish networks of medical, legal, and law enforcement professionals in each county. At the close of each training, participants were invited to join a WhatsApp group to reinforce coordination and collaboration across medical, law enforcement, and legal sectors. With WhatsApp groups and regularly scheduled network meetings, each county’s medical–legal network of professionals collaborated on specific cases and shared best practices.

Several months after training, trainees were contacted by phone by PHR and asked to participate in semistructured interviews. To understand the new program areas, purposive sampling was by training topic rather than chiefly by the professional sector. The interviews were conducted by two independent external evaluators, with each interview lasting approximately 30–60 min. Following full transcription, interviews were analyzed using a qualitative and inductive coding procedure inspired by a grounded theoretical approach (Charmaz, 2016; Service, 2008). To conduct this type of analysis, the study team first subjected all interview data to open coding (present progressive summations of text) within each programmatic area \((k=5)\). Second, the study team conducted axial coding within a single programmatic area that was used to structure the subsequent presentation of results for each programmatic area.

Trainee responses to the pre- and posttraining closed-response questionnaires were analyzed by using SPSS 25.0 (Armonk, NY) and a two-tailed paired samples \(t\)-test with an alpha value of .05. This study was reviewed and received ethical approval from the Georgetown University institutional review board (Protocols 2016-0661 and 2016-1404).

Results

Trainings

Eighteen training workshops were conducted from June 2012 to May 2018 involving 446 participants (Table 2). The mean number of participants per training was 24.8

Table 2. Training Workshops Conducted Between 2012 and 2018 in Various Locations in Kenya.

| Trainings (N = 18)                                                                 | Number of participants (N = 446) |
|-----------------------------------------------------------------------------------|---------------------------------|
| Multisectoral basic forensic training                                              | 247 (55.4%)                     |
| Advanced crime scene investigation for law enforcement                            | 62 (13.9%)                      |
| Advanced forensic documentation training for clinicians                           | 52 (11.7%)                      |
| Institutional capacity trainings                                                   | 34 (7.6%)                       |
| Advanced pediatric evaluation for clinicians                                      | 28 (6.3%)                       |
| Training of trainers (ToT)                                                        | 23 (5.2%)                       |
Age and sex-disaggregated data for 11 trainings incorporating pre- and posttraining knowledge assessment tests were collected. Training participants included health (51.1%), law enforcement (57.9%), legal (9.9%), and other (9.4%) professionals. Of trainees completing the pre- and posttest assessments, the majority (62.2%) were female, a plurality (38.1%) were 30–39 years old, a majority (62.4%) were healthcare professionals, and their mean years of professional experience was 12.2 (SD 8.6, range 0.5–38) (Table 3).

On average, training participants reported having been involved in 96.6 (SD 76.4) SGBV cases during their careers, with 66.5% (SD 65.2) of presenting survivors being female. Table 4 describes participant caseloads. When asked how likely is the destruction or loss of medical records or evidence related to a sexual violence case in their country, a plurality (41.9%) reported “somewhat likely,” while 16.2% reported “very unlikely,” 21.9% reported “somewhat unlikely,” and 20.0% reported “very likely.”

A comparison of pre- and posttraining knowledge assessments indicated an increase in participant knowledge with mean pre- and posttest knowledge assessment scores of 75.6% (SD 11.8) and 84.7% (SD 11.8), respectively. The result of a two-tailed paired t-test was significant ($p < .001$). When subcategorized by question topic, pre- and posttest scores increased in all question categories: SGBV terminology (means 87.8% and 96.9%, $p < .001$), survivor-centered care (means 82.6% and 89.8% $p < .001$), forensic evidence (means 65.6% and 72.2%, $p = .004$), evidence preservation (50.9% and 73.4%, $p < .001$), and professional attitudes (85.0% and 90.5%, $p = .001$).

**Qualitative Results**

In February 2018, 30 semistructured interviews were conducted among professionals who had completed one or more of the training workshops in the previous 12 months.

**Table 3.** Characteristics of Training Participants Completing the Pre- and Posttraining Knowledge Assessments.

| Participants ($n = 351$) |
|--------------------------|
| Gender                   |
| Female                   | 191 (62.2%) |
| Male                     | 116 (37.8%) |
| Age group                |
| 18–29 years old          | 56 (18.1%)  |
| 30–39 years old          | 118 (38.1%) |
| 40–49 years old          | 88 (28.4%)  |
| ≥50 years old            | 48 (15.5%)  |
| Profession               |
| Healthcare               | 189 (62.4%) |
| Law enforcement          | 54 (17.8%)  |
| Legal                    | 53 (17.5%)  |
| Other                    | 7 (2.3%)    |
| Years of experience      | Mean 12.2 years (SD 8.6, range 0.5–38) |
Table 4. Sexual and Gender-based Violence (SGBV) Cases Seen by Training Participants in the Past Year, as Reported by Participants.

| Cases seen in the past year | Mean values |
|-----------------------------|-------------|
| Total                       | 45.1 (SD 99.3), female 80.5%, male 19.5% |
| Number of female cases      | 33.4 (SD 68.4) |
| Number of male cases        | 8.1 (SD 20.6)  |
| Number of child cases       | 2.7 (SD 9.8)   |
| Number of child cases       | 12.1 (SD 22.8) |
| Number of adolescent cases  | 16.1 (SD 38.6) |
| Number of adult cases       | 12.0 (SD 26.2) |
| Case disclosure             |             |
| Survivors disclosed assault spontaneously | 74.0% |
| Survivors disclosed assault after being asked | 26.0% |
| Perpetrator                 |             |
| Able to identify by name    | 37.7% (SD 48.5) |
| Able to identify by clothing| 17.4% (SD 25.1) |
| Able to identify by language| 14.8% (SD 31.7) |
| Able to identify by ethnicity/tribe/religious affiliation | 15.0% (SD 25.4) |
| Multiple perpetrators involved | 13.5% (SD 19.9) |
| Multiple SGBV acts involved  | 16.9% (SD 23.0) |

Table 5. Distribution of Interviewees (n = 30) by Sector and Programmatic Area.

| Sector                        | Count (Percentage) |
|-------------------------------|--------------------|
| Healthcare                    | 22 (73.3%)         |
| Law enforcement               | 4 (13.3%)          |
| Legal                         | 4 (13.3%)          |
| Programmatic area             |                    |
| Advanced training             | 7 (23.3%)          |
| Institutional capacity assessment | 3 (10.0%)     |
| Digital forensic documentation and reporting | 5 (16.7%) |
| Networking                    | 10 (33.3%)         |
| Training of trainers (ToT)/mentoring | 7 (23.3%) |
| Total                         | 30                 |

(Table 5). From these interviews, five common themes emerged. Illustrative quotations for each theme are presented in Table 6.

Training and Training Approaches Well Received. According to the participant interviews, the trainings facilitated improvements at two levels. First, the trainings improved the technical skills of individual participants. The training sessions featured the use of SPs as an andragogical method. Participants observed that the scenarios demonstrated by the SPs were fairly comprehensive, covered many of the situations encountered in
**Table 6. Themes and Illustrative Quotes.**

| Theme | Illustrative quotes |
|-------|---------------------|
| **Training and training approaches well-received** | The standardized patients have been trained to present certain challenges that are practical. So, when you meet a real-time patient, I’ve had scenarios where my mind goes to what I encountered during the standardized patient workshop, and sort of you’d quickly try to think how you went through that and it somehow gives you some results ... I’ll give you this example, one standard patient - when we were training ... could not totally open up. And at that point, one of the trainers suggested that we involve someone of younger age, same gender, in the room, someone like a social worker. So, when that happened, she opened up and we got the information that we’re looking for.  
  * Initially, I wouldn’t know how to, for example, indicate injuries, the terms to use ... I would, for example, just say, “There was an injury in the genitalia at this position.” But after the training, I will be more specific. For example, I’ll say, “There was a bruise at the five o’clock position. There was a laceration in the hymenal ring,” and so on. So that aspect of being detailed and specific came out quite well after the training. |
| **Program emphasized a survivor-centered approach** | There are victims who never came because they did not trust the whole system. But the way we learned to keep their confidentiality, welcome them, talk with them, it gives them trust. These victims go and tell the people in the community, and other people now come to us. And this is a big thing, because there was this reinforcement of trust.  
  * I think it’s high time they also think about outside the forensic evidence collection, which is not doing very well in the country. I may collect a lot of evidence that is going to be lost in the police station because there’s nobody to take them to the government chemist. We have only three government chemists. One is in Nairobi, Mombasa, and the other one in Kisumu. If the police officer does not have the capacity to take that forensic evidence to where it is supposed to be, it is lost. In other words, I just collected it, but it is not going to help the survivor. What helps the survivor most? It is the trauma counseling, and the follow-up, and all that, which currently, there’s no NGO or any institution that is doing that. And when I’m doing it, I’m doing it on my own.  
  * Children like a friendly room because they need something to play with. If he comes [to] a room like this one ... children need attractive colors in their rooms. Red, flowers, dolls, and etc. So since then, some of the materials you are given by the child— they are still in my room whenever I have such a case who can give a child drawings, something we didn’t know before about the kids. And through that child would feel friendly. ... Sometimes we tell them to draw what happened. From their drawing you can learn something from their brain.  
  * Especially for the children between the age of 12 years and above who are fluent in what they’re saying, when you fill the psychiatric part and then present it in court, present the history they have given, your physical findings, then the laboratory (continued) |
Table 6. (continued)

| Theme | Illustrative quotes |
|-------|---------------------|
| Improvements and ongoing challenges in medical services for survivors: | works, then you relate and make an impression that your features are highly consistent to sexual assault. It has more weight. Because initially what we used to do was just present and you don’t give that conclusion, and then it’s like you have left the judge to decide. But right now, you can make an impression and say, “This one is highly consistent with sexual assault or defilement. Or consistent or not consistent.” |
| • Unlike when we have been using the papers, when we have these wounds—cut wound, bruises, lacerations—sometimes you are not able to explain. You cannot make the other person understand what you really saw. But with that picture, it is going to show clearly, even in courts or the police, that this is exactly what happened without any addition or any subtraction. |
| • [When PHR] went through our records, the way we keep and tally them, then they were able to, of course, tell me that this is how you are supposed to be keeping the records. And then I started to do that. |
| • Initially, I wouldn’t know how to, for example, indicate injuries, the terms to use … I would, for example, just say, ‘There was an injury in the genitalia at this position.’ But after the training, I will be more specific. For example, I’ll say, ‘There was a bruise at the five o’clock position. There was a laceration in the hymenal ring,’ and so on. So that aspect of being detailed and specific came out quite well after the training. |
| Improvements and ongoing challenges in law enforcement for survivors: | After [the sexual assault], the lady came to my police station. She reported the matter, I escorted her up to the hospital here, she was treated. There was a lot of evidence; there were spermatozoa, there was everything. And then after that I managed to proceed to [the office building of the alleged perpetrator], where I requested the manager to avail all the staff to an ID parade. The manager actually complied, there was an ID parade. The lady managed to identify the suspect. And in the survivor’s house, there was a cat—a small cat. The cat played with the perpetrator, and you know, when you play with a cat, after sometime, the cat leaves hair on your clothing. I managed to retrieve four pieces of hair on the clothing of the perpetrator, and I managed to connect that, ‘At one particular time, you were in this house.’ Because this cat’s—actually the color of the hair, resembles that recovered from the suspect’s clothing. |
| • Because it was a well investigated case, I collected evidence within two and a half hours, probably immediately after the offense was committed. So the perpetrator had not even taken a bath. So I had a lot of evidence, and the trial magistrate jailed the perpetrator for 25 years. The perpetrator managed to appeal the case, and it was taken to the High Court. We went again to the High Court, we provided the evidence. The magistrate, the trial judge, upheld the sentence of 25 years. |
| • A teacher had just impregnated a 13-year-old. … Somebody called me and told me, “… This child, we don’t know what to (continued)
Table 6. (continued)

| Theme                                | Illustrative quotes                                                                                                                                                                                                 |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Improved multisector collaboration   | do. We’ve gone to the police, and the police don’t seem to be taking this case seriously.” Because it was not a case whereby that child was defiled that day. It was just realized that she was pregnant and when that was reported, then it was discovered that it was the teacher…. So when the case was reported, one of the police officers who deals with cases in that station was among the people that we were trained with, so I called him. And he took it as a matter of urgency. |
|                                      | • So, the doctors who come in the chain providing medication, psychologists who come with the psychological care, police officers and judges who come with their legal assistance bring it to the court until there is judgment. So, the survivor feels at ease and finds satisfaction to all her preoccupations. |
|                                      | • If you can bring people together and talk together then you can make changes. My problem as a judge when dealing with sexual and gender-based violence cases is I used to find it very hard to close a case. Before PHR training we would all work independently and there was no preservation of evidence. Every agency wanted to prove their importance so we would not assist each other on the case. … At the training I was able to explain to first responders like the police and doctors that if they are building evidence in a case they must tell me a story. They must persuade me of the facts and they must find information that makes it undisputable. I used to feel immense sadness when I would come to prosecute a case and would have to fail the victim because there was not enough good evidence to prosecute the perpetrator. Now I feel an enormous sense of pride when we are able to work together to achieve a conviction. |

Note. PHR = physicians for human rights.
practice, and were frequently recalled after the training when working with survivors. Second, the trainings improved the capacity for collaboration between individuals from the law enforcement, legal, medical, community health, civil society, and judicial sectors. Prior to the training, there was reportedly little trust or respect across these sectors of stakeholders, but this was directly addressed by the training. The training sessions used case studies to facilitate group discussions about current cross-sector challenges and propose solutions. The training sessions allowed the participants to forge new and trusting relationships that proved useful after the training.

The scope of this cross-sectoral impact, however, was limited by consistent turnover, especially among police officers and judges. After being trained, some professionals would be transferred to new posts in other counties while incoming professionals are unfamiliar with both the training’s content and the larger concern with SGBV. Within sectors, knowledge dissemination occurred as some participants conducted their own trainings or mentoring sessions among their colleagues. Others described feeling they were unable to train their peers without additional time or resources to do so. These subsequent trainings were offered in a multitude of ways. For example, some respondents used time in regularly scheduled staff meetings to briefly share what they learned, while others would facilitate longer, more formalized sessions.

Trainees found the content to be important enough to be incorporated into conventional medical training to further expand forensic expertise in the region. They also recommended PHR work with the government to establish university-based laboratories to train clinical trainees such as medical students and obstetrics–gynecology residents.

Program Emphasized a Survivor-Centered Approach. The assumption that survivors are worthy of protection, rapid response, and access to justice was a central component of the training. Many respondents recognized that cases have been dismissed because of a lack of properly collected and stored forensic evidence. In these instances, the survivor did not receive any form of justice, which respondents said led to significant psychological harm for the survivor and perpetuated a culture of impunity for perpetrators.

Following the training, both medical and law enforcement professionals reported greater sensitivity to the stigma surrounding sexual assault and the potential for revictimization. This led them to establish private interview rooms with lockable doors—in both the medical facilities and police stations. This relatively minor action preserved the privacy and dignity of survivors while they underwent a forensic exam.

Legal sector trainees and other network members perceived that the training led to an increased conviction, and, in jurisdictions with more successful prosecutions, to more survivors reporting incidents to police.

To further improve survivor access to services, interview participants described a variety of activities their networks were pursuing. Some networks were highly focused on policy-change advocacy, including lobbying the government to reduce redundancies in sexual assault documentation, to implement various prison reforms, to use courthouse video links for child survivors of sexual violence, and to establish a centralized database to track case processing.
Consistent with a survivor-centered approach, one interviewee felt efforts should first improve survivors’ access to mental health services. In Kenya, mental health services are reportedly prohibitively expensive if survivors pay out of pocket, costing more than what many survivors earn in a month for one counseling session. Without affordable mental health services, healthcare providers—who were untrained in counseling—were attempting to provide this support but felt inadequate to meet the significant needs of survivors.

Following PHR’s advanced pediatric evaluation training, perceived improvements in survivor-centeredness were also described for child survivors. A reportedly successful change was providers interacting more effectively with the child’s caretaker or guardian. This was especially notable in situations where the caretaker was a potential perpetrator or when eliciting information on peer sexual contacts. Further, participants also noted that both their pediatric documentation and attentiveness to the psychological needs of child survivors improved as a result of the PHR training. Improvements were made to the physical spaces to make them more comfortable environments for children – providing toys, arts, and crafts to children during their visits. However, while interviewees felt progress had been made in improving the child-centeredness of health services, they regretted limited progress within the law enforcement and justice sectors.

**Improvements and Ongoing Challenges in Medical Services for Survivors.** Clinicians expressed greater confidence in conducting forensic examinations and documentation after training. Specifically, they shifted the focus of examinations away from relying solely on the characteristics of the hymen and toward greater documentation of the survivor’s narrative statements and a fuller accounting of physical injuries on the body. Healthcare providers believed that, in response to these changes, the judiciary began receiving higher-quality evidence, survivor statements, physical examination documentation, and reliable laboratory tests as part of each case’s evidence. Similarly, they believed that, as a result of these improvements, more perpetrators were held accountable in a court of law.

The interviews highlighted some operational challenges, including ongoing documentation issues. For example, some participants felt that completing both the Medical Examination Report and Post Rape Care form (both required by Kenyan law) was burdensome and that they did not have the expertise to properly complete the psychosocial section of the latter form. These issues often resulted in delays and in survivors sometimes waiting days to have both forms completed, becoming discouraged, and abandoning their pursuit of justice. Challenges with documentation also included limited space in the forms for diagramming survivor injuries. Participants described the ultimate goal of eliminating the requirement of the Medical Examination Form if the Post Rape Care Form is properly completed.

Medical professionals in Kenya reported system-wide structural deficiencies regarding the management of sexual violence cases. Respondents recommended PHR trainings be expanded to more medical and health facilities so survivors would be more likely to receive victim-centered care regardless of which facility or geographic region they present. Challenges to the potential impact of the trainings included
frequent personnel transfers as well as a chronic shortage of equipment and supplies, including stockouts of basic antibiotics, laboratory reagents, and various testing kits. Lastly, clinicians requested that greater attention be paid to vicarious trauma experienced by healthcare providers and recommended that additional support and time be allocated to personal recovery.

**Improvements and Ongoing Challenges in Law Enforcement.** Law enforcement respondents recognized that they enter the profession without forensic training and that, generally, the issue of sexual violence is deprioritized or not perceived as being effectively addressable. However, as a result of the PHR training, law enforcement participants described a stronger appreciation for appropriate forensic evidence collection, documentation, and processing.

Several training participants reported returning to their police precincts and training their colleagues following the workshops. This included accompanying colleagues into the field to collect evidence from crime scenes, modeling how to work with traumatized survivors, and reinforcing chain-of-custody procedures for secure evidence collection and transfer. Trainees perceived that sexual assault cases were being processed more successfully in the courts. In one example from the interviews, a police officer reported investigating 80 sexual violence cases using methods learned from his first PHR training five years earlier. Of those cases, 14 were pending, three were lost, and 63 resulted in imprisonment of perpetrators.

To further improve the reach and sustainability of the trainings within law enforcement, interviewees suggested PHR collaborate with the Kenyan Police College to introduce the content into the student curriculum.

**Improved Multisector Collaboration.** Participants believed that establishing professional networks of collaboration significantly increased cross-sectoral understanding, facilitated coordination, improved case processing, and strengthened the sectors’ ability to advocate to the government. One manner in which networking expedited cases was through newly established direct communication (e.g., phone calls and text messages) between law enforcement personnel conducting investigations and laboratory personnel analyzing the samples. Many networks established cross-sector WhatsApp groups to coordinate referrals and troubleshoot issues.

Integrating community-based organizations into the multisectoral networks further enhanced program impact, as these organizations were able to assist with public outreach and education campaigns, as well as to provide or facilitate psychosocial services for survivors. The networks also provided improved access to relatively high-level individuals across multiple sectors, including community leaders and judicial officers, who could help effect change. Relatedly, participants found having judicial sector participants present at the trainings was useful, as judges could provide feedback to physicians on best practices for evidence documentation.

Collaborations fostered in the trainings continued into the field in the form of improved coordination. For example, interviewees described PHR-trained law enforcement and legal professionals working side-by-side to conduct investigations of sexual
assaults, including traveling together in the field to improve processes for medical evidence collection and transfer. Although some networks—including one of the Nairobi-based networks—were highly active with structured monthly meetings, lack of funding and a reliance on the voluntary efforts of network members were described as limiting potential collaboration.

**Discussion**

This initiative sought to improve services and outcomes for survivors of sexual violence in Kenya through training and network-building among healthcare, law enforcement, and legal professionals. The multisectoral trainings aimed at improving skills in forensic evidence collection, documentation, and preservation; pediatric forensic examination; mental health support for survivors; and training of peers.

The study’s pre- and posttraining knowledge assessments showed a significant increase in knowledge among training participants across all sectors. Qualitative data from the interviews with participants were similarly encouraging and suggested the program made strong progress in establishing a multisectoral community and in deepening local forensic capacity to effectively document evidence of sexual violence using a survivor-centered approach. One of the more valued features of the program was its multisectoral focus which strengthened collaboration and communication across the medical, law enforcement, and legal communities. The networks facilitated improvement in the management and collection of forensic evidence for sexual assault survivors.

The results echo prior reporting about the benefits of this approach. The United Nations Population Fund concluded multisectoral approaches can help prevent revictimization, improve institutional and cultural perceptions of SGBV, and reinforce trust between the survivor and those providing services (Horga & Nicoara, 2015). A comparative study in Ethiopia and The Gambia concluded, despite its additional cost, that multisectoral efforts improved both forensic documentation and court processes for survivors of SGBV (Keesbury & Askew, 2010). Conversely, a study in Zambia found multidisciplinary coordination was not only more expensive and protracted but was, likewise, more challenging as a result of poor communication between nongovernmental and governmental institutions. A similar project in Uganda and Malawi by the same organization found multisectoral efforts unsustainable and requires constant reinforcement. Nevertheless, the authors also reported multisectoral models improved the quality of care as evidenced by an increase in referrals from police. In Kenya, a provincial hospital-based SGBV recovery center showed the effectiveness of closely integrating emergency care, mental health, paralegal, police, judiciary, and the community (Temmerman et al., 2019). Lastly, a study related to intimate-partner violence within one of Kenya’s refugee camps identified the ineffectiveness of SGBV programming when it fails to engage community residents (Tappis et al., 2016).

Within the trainings themselves, the use of less didactic and more experiential teaching methods, such as SPs with OSCEs and case studies, were considered relatively innovative in this setting and effective in teaching participants critical interviewing and examination skills. In fact, several interviewees considered the SPs as the most
valuable part of the training by solidifying learning objectives and aiding future recall. While commonly utilized in medical education in high-resource settings, the use of OSCEs and SPs is a relatively novel educational tool in sub-Saharan Africa (Daniels et al., 2017).

A significant focus in our initiative was also given to building local ownership and investment in training design and implementation to promote sustainability and ensure relevancy. The program used repeated engagement within and across sectors through training workshops, roundtable discussions, mentoring, and connections between local and international experts. Even greater sustainability and scale could be achieved by offering additional trainings coordinated by the government and by introducing training on SGBV into the preservice curricula of healthcare, law enforcement, and legal professionals.

Current efforts are focusing on addressing several of the barriers identified in the study. For example, improvements are being made in formalizing and providing additional supervisory support to trainees in subsequently training their peers. However, ongoing health system-level issues remain challenges to the program, including limited healthcare resources and mental health services for survivors.

There are limitations to this study. Although its participants were diverse in terms of age, experience, and professional sector and were from diverse communities in southern and western Kenya, the study findings may not be generalizable to communities beyond these regions or beyond Kenya. Nevertheless, the experiences reported by the participants appear consistent with those in the literature and in other countries in which PHR has been training. Secondly, as with any study involving self-report, there is the possibility of recall and social desirability biases. We attempted to mitigate social desirability bias by utilizing external evaluators and emphasizing the anonymous nature of the study and our desire to understand both the strengths and weaknesses of the program. Another limitation involves the fact that the evaluation was done at a point in time. At this moment there are no means of assessing the potential impact of the program (e.g., on practice and knowledge attainment) longitudinally, beyond the study period; it is possible that the positive effects will not be sustained in the long run. Lastly, despite the perceived positive outcomes reported by the participants, we did not assess the impact (actual or perceived) on survivors themselves, or on justice outcomes such as the number of successfully prosecuted SGBV cases involving the trained cohort compared to nontrained cohorts.

**Conclusion**

Scaling medical–legal training and strengthening multisectoral networks in areas with high rates of SGBV are promising strategies for increasing collaboration, enhancing the quality of services, and improving justice processes for survivors of SGBV.

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References
Anastario, M. P., Adhiambo Onyango, M., Nyanyuki, J., Naimer, K., Muthoga, R., Sirkin, S., Barrick, K., van Hasselt, M., Aruasa, W., Kibet, C., & Omollo, G. (2014). Time series analysis of sexual assault case characteristics and the 2007–2008 period of post-election violence in Kenya. *PLoS One, 9*(8), Article e106443. https://doi.org/10.1371/journal.pone.0106443

Arnold, D., Gelaye, B., Goshu, M., Berhane, Y., & Williams, M. A. (2008). Prevalence and risk factors of gender-based violence among female college students in Awassa, Ethiopia. *Violence and Victims, 23*(6), 787–800. https://doi.org/10.1891/0886-6708.23.6.787

Ba, I., & Bhopal, R. S. (2017). Physical, mental and social consequences in civilians who have experienced war-related sexual violence: A systematic review (1981–2014). *Public Health, 142*, 121–135. https://doi.org/10.1016/j.puhe.2016.07.019

Blay-Tofey, M., & Lee, B. X. (2015). Preventing gender-based violence engendered by conflict: The case of Côte d’Ivoire. *Social Science & Medicine, 146*, 341–347. https://doi.org/10.1016/j.socscimed.2015.10.009

Charmaz, K. (2016). The power of constructivist grounded theory for critical inquiry. *Qualitative Inquiry, 23*(1), 34–45. https://doi.org/10.1177/1077800416657105

Daniels, B., Dolinger, A., Bedoya, G., Rogo, K., Goicoechea, A., Coarasa, J., Wafula, F., Mwaura, N., Kimeu, R., & Das, J. (2017). Use of standardised patients to assess quality of healthcare in Nairobi, Kenya: A pilot, cross-sectional study with international comparisons. *BMJ Global Health, 2*(2), Article e000333. https://doi.org/10.1136/bmjgh-2017-000333

Ellsberg, M., & Heise, L. (2005). *Researching violence against women: A practical guide for researchers and activists*. World Health Organization.

Ferdowsian, H., Kelly, S., Burner, M., Anastario, M., Gohlke, G., Mishori, R., McHale, T., & Naimer, K. (2016). Attitudes toward sexual violence survivors: Differences across professional sectors in Kenya and the democratic republic of the Congo. *Journal of Interpersonal Violence, 33*(24), 3732–3748. https://doi.org/10.1177/0886260516639257

Fulu, E., & Miedema, S. (2015). Violence against women. *Violence Against Women, 21*(12), 1431–1455. https://doi.org/10.1177/1077801215596244

García-Moreno, C., Pallitto, C., Devries, K., Stöckl, H., Watts, C., & Abrahams, N. (2013). *Global and regional estimates of violence against women: Prevalence and health effects of intimate partner violence and non-partner sexual violence*. World Health Organization.
Garcia-Moreno, C., Jansen, H. A. F. M., Ellsberg, M., Heise, L., & Watts, C. (2005). *WHO multi-country study on women’s health and domestic violence against women: Initial results on prevalence, health outcomes and women’s responses.* World Health Organization.

Gebreyohannes, Y. (2007). *Prevalence and factors related to gender-based violence among female students of higher learning institutions in Mekelle Town, Tigray, Northern Ethiopia* [Unpublished master’s thesis]. School of Graduate Studies, Addis Ababa University, Ethiopia. http://etd.aau.edu.et/handle/123456789/10151

Glass, N., Perrin, N., Clough, A., Desgroppes, A., Kaburu, F. N., Melton, J., Rink, A., Read-Hamilton, S., & Marsh, M. (2018). Evaluating the communities care program: Best practice for rigorous research to evaluate gender-based violence prevention and response programs in humanitarian settings. *Conflict and Health, 12,* 5. https://doi.org/10.1186/s13031-018-0138-0.

Horga, I., & Nicoara, B. (2015). *Multi-sectoral response to GBV: An effective and coordinated way to protect and empower GBV victims/survivors.* UNFPA Regional Office for Eastern Europe and Central Asia (UNFPA EECARO).

Iliyasu, Z., Abubakar, I. S., Aliyu, M. H., Galadanci, H. S., & Salihu, H. M. (2011). Prevalence and correlates of gender-based violence among female university students in Northern Nigeria. *African Journal of Reproductive Health, 15*(3), 111–119. https://pubmed.ncbi.nlm.nih.gov/22574498/?format=pubmed

Keesbury, J., & Askew, I. (2010). *Comprehensive responses to gender-based violence in low resource settings: Lessons learned from implementation.* Population Council.

Kenya National Commission on Human Rights. (2018). *Silhouettes of brutality: An account of sexual violence during and after the 2017 general election.* Kenya National Commission on Human Rights.

Letta, T., Felekse, A., & Derseh, L. (2014). Assessment of violence and associated factors among rural high school female students, in Hadiya Zone, Southern Nation and Nationalities Peoples’ Region, Ethiopia, 2013. *OALib, 01*(03), Article 1100659. https://doi.org/10.4236/oalib.1100659

Lokuge, K., Verputten, M., Ajakali, M., Tolboom, B., Joshy, G., Thurber, K. A., Plana, D., Howes, S., Wakon, A., & Banks, E. (2016). Health services for gender-based violence: Médecins sans frontières experience caring for survivors in urban Papua New Guinea. *PLoS One, 11*(6), Article e0156813. https://doi.org/10.1371/journal.pone.0156813

Mullu, G., Gizachew, A., Amare, D., Alebel, A., Wagnew, F., Tiruneh, C., Worku, M., Kediri, R., Tamiru, S., & Demsie, T. (2015). Prevalence of gender-based violence and associated factors among female students of Menkorer High School in Debre Markos town, northwest Ethiopia. *Science Journal of Public Health, 3*(1), 67. https://doi.org/10.11648/j.sjph.20150301.22

Rannya, M. L., Rennert-May, E., Spitzer, R., Chitai, M. A., Mamlin, S. E., & Mabeya, H. (2010). A novel ED-based sexual assault centre in western Kenya: Description of patients and analysis of treatment patterns. *Emergency Medicine Journal, 28*(11), 927–931. https://doi.org/10.1136/emj.2010.096412

Read-Hamilton, S., & Marsh, M. (2016). *The communities care programme: Changing social norms to end violence against women and girls in conflict-affected communities.* Taylor & Francis.

Ribeiro, S. F., & van der Straten Ponthoz, D. (2017). *International protocol on the documentation and investigation of sexual violence in conflict: Best practice on the documentation of sexual violence as a crime or violation of international law.* UK Foreign & Commonwealth Office.
Service, R. W. (2008). Book Review: Corbin, J., & Strauss, A. (2008). Basics of qualitative research: Techniques and procedures for developing grounded theory (3rd ed.). Thousand Oaks, CA: Sage. *Organizational Research Methods, 12*(3), 614–617. https://doi.org/10.1177/1094428108324514

Shako, K., & Kalsi, M. (2019). Forensic observations and recommendations on sexual and gender-based violence in Kenya. *Forensic Science International: Synergy, 1*, 185–203. https://doi.org/10.1016/j.fsisyn.2019.06.001

Smith, L. L., Flowe, H. D., & Kanja, W. (2019). Achieving more with less: A critical review of protocols for forensic investigation of sexual violence in low-resource environments. *Forensic Science International: Synergy, 1*, 108–113. https://doi.org/10.1016/j.fsisyn.2019.07.002.

Soliman, A., & Kalle, M. (2020, September 28). *Treating a silent cancer: How to tackle gender-based violence in MENA*. World Bank Blogs.

Tappis, H., Freeman, J., Glass, N., & Doocy, S. (2016). Effectiveness of interventions, programs and strategies for gender-based violence prevention in refugee populations: An integrative review. *PLoS Currents, 8*. https://doi.org/10.1371/currents.dis.3a465b66f9327676d61eb8120eaa5499

Temmerman, M., Ogbe, E., Manguro, G., Khandwalla, I., Thiongo, M., Mandaliya, K. N., Dierick, L., MacGill, M., & Gichangi, P. (2019). The gender-based violence and recovery centre at Coast Provincial General Hospital, Mombasa, Kenya: An integrated care model for survivors of sexual violence. *PLoS Medicine, 16*(8), Article e1002886. https://doi.org/10.1371/journal.pmed.1002886

Tol, W. A., Stavrou, V., Greene, M. C., Mergenthaler, C., van Ommeren, M., & García Moreno, C. (2013). Sexual and gender-based violence in areas of armed conflict: A systematic review of mental health and psychosocial support interventions. *Conflict and Health, 7*(1), Article 16. https://doi.org/10.1186/1752-1505-7-16

Umana, J. E., Fawole, O. I., & Adeoye, I. A. (2014, December 8). Prevalence and correlates of intimate partner violence towards female students of the University of Ibadan, Nigeria. *BMC Women’s Health, 14*, Article 131. https://doi.org/10.1186/1472-6874-14-131

United Nations Department of Economic and Social Affairs. (2015). *The world’s women 2015 trends and statistics*. Department of Economic and Social Affairs (DESA).

United Nations High Commissioner for Refugees. (2004). *Manual on the effective investigation and documentation of torture and other cruel, inhuman or degrading treatment or punishment*. United Nations.

United Nations Office on Drugs and Crimes. (2018). *Global study on homicide: Gender-related killing of women and girls*. United Nations Office on Drugs and Crimes.

Verelst, A., De Schryver, M., Broekaert, E., & Derluyn, I. (2014). Mental health of victims of sexual violence in eastern Congo: Associations with daily stressors, stigma, and labeling. *BMC Women’s Health, 14*, Article 106. https://doi.org/10.1186/1472-6874-14-106

Walby, S., Towers, J., & Francis, B. (2014). Mainstreaming domestic and gender-based violence into sociology and the criminology of violence. *The Sociological Review, 62*(2_suppl), 187–214. https://doi.org/10.1111/1467-954X.12198.

Wandera, S. O., Clarke, K., Knight, L., Allen, E., Walakira, E., Namy, S., Naker, D., & Devries, K. (2017). Violence against children perpetrated by peers: A cross-sectional school-based survey in Uganda. *Child Abuse & Neglect, 68*, 65–73. https://doi.org/10.1016/j.chiabu.2017.04.006
World Health Organization. (2003). *Guidelines for medico-legal care of victims of sexual violence*. WHO.

World Health Organization. (2013). *Global and regional estimates of violence against women: Prevalence and health effects of intimate partner violence and non-partner sexual violence*. WHO.

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