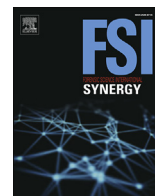


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Achieving more with less: A critical review of protocols for forensic investigation of sexual violence in low-resource environments

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ABSTRACT

Sexual and gender based violence (SGBV) is notoriously difficult to investigate and prosecute. SGBV occurs in varied contexts and requires flexibility in the investigative approach in order to develop a strong evidence base to enable successful prosecutions. In this paper we focus on the need for innovation and development of training protocols for gathering testimonial and forensic evidence in SGBV cases, particularly in low resource environments, such as developing countries, displaced communities, and conflict and post-conflict societies. We discuss existing international guidelines that have been developed for improving the documentation and investigation of SGBV in these contexts, and argue there are significant gaps in the knowledge base that impede the effective implementation of such guidelines. In particular, collaborative research between academics, practitioners and NGOs is needed to address several priority areas. These include the development of programmes geared towards training non-specialist practitioners who work in low resource environments, as well as research programmes that evaluate the implementation of the programmes. This research will improve access to justice for victims and accountability for perpetrators of sexual violence.

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Gender inequality continues to be one of the world's most enduring violations of human rights, and sexual and gender-based violence (SGBV) is one of the most damaging manifestations of gender inequality. Violence against women and girls (including SGBV) has devastating effects on half of the population, and adversely impacts all aspects of the economic, social, and political realm [1]. The importance of addressing gender equality is acknowledged by the UN's Sustainable Development Goals (specifically SDG5), and the importance of continuing to improve the prevention and responses to SGBV is central to achieving a number of other SDGs, including good health and well-being (SDG3), quality education (SDG4), decent work and economic growth (SDG8), and peace, justice and strong institutions (SDG16) [2].

Improving support for victims and accountability for perpetrators of SGBV is not exclusively an international development issue, as women are victimised in all regions of the world; however, there is a well-documented link between the risk of victimisation and

poverty [3]. The link between poverty and women's rights also operates in reverse, as society in general cannot alleviate poverty when women are not engaged and provided with inclusive opportunities to contribute at all levels of society. It is therefore a global challenge, with a wide range of barriers to overcome, including cultural, religious, and institutional practices and mind sets.

Sexual and gender based violence is notoriously difficult to investigate and prosecute, and the varied contexts in which victimisation occurs requires flexibility in the investigative approach and a strong evidence base to support the use of a range of techniques for the gathering of testimonial and physical evidence contributing to the successful prosecution of perpetrators. It is therefore imperative that the international community engages with the available research literature, rooted in criminological and psychological theory, as a starting point for the development of further context-specific evidence based practice to strengthen the response to SGBV in low-resource contexts.

In this paper we discuss existing guidelines for the documentation and investigation of SGBV and argue that significant gaps exist in training provisions and the extant research literature. We

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set out recommendations regarding priority areas in which we believe that collaborations between academics, practitioners and NGOs can achieve impact through high-quality research. In particular, we highlight research that is needed for the development of implementation and evaluation programmes to improve access to justice for victims and accountability for perpetrators of sexual violence.

1. Challenges to investigating and prosecuting sexual violence in low-resource environments

In the investigation of SGBV, there has been a positive shift in many regions to a victim-centred approach [4] - which prioritises victims' right to access to justice and aims to treat victims with respect, sensitivity and dignity throughout the investigative process; nevertheless, SGBV reporting and conviction rates remain very low [5]. It is particularly challenging to implement effective responses to sexual violence in low-resource environments, such as developing countries, conflict and post-conflict affected regions, and displaced communities, where criminal justice infrastructure is lacking. Victims in such environments are often not able to access medical facilities and trained medical and law enforcement professionals. As a result, they are often denied their right to access to justice and perpetrators are rarely identified and held accountable, resulting in a culture of impunity and continued cycles of violence.

There are a number of victim-centred programmes operating in low-resource environments that aim to support victims and tackle the culture of impunity. Many of these are implemented by human rights organisations and NGOs, which provide guidelines and awareness campaigns for supporting victims, and operate clinics where victims can access psycho-social support and advocacy services. Whilst these programmes are invaluable for supporting victims, they do not directly address the causes underlying the lack of prosecutions or maximise opportunities to implement evidence-based investigative practice. Multi-sectoral collaborations to produce international guidance to assist with the gathering of information about SGBV violence in low-resource environments following best practice have emerged, which is a positive step in furthering case investigations and successful prosecutions.

A recent example is the International Protocol on the Documentation and Investigation of Sexual Violence in Conflict published by the UK Foreign and Commonwealth Office [6] (hereafter referred to as the Protocol), which provides valuable guidance for the interviewing of victims and witnesses. While protocols such as this one are important resources for the international community, appropriate training in their use and systematic evaluations of their effectiveness are required in order to support their continued development and meaningful usage. Further, there are gaps in the current research literature and knowledge base regarding the applicability of certain investigative assumptions, as well as the practices and techniques being recommended in low-resource environments. Addressing these issues through research would further strengthen future revisions of this and similar types of protocols.

The specific context of sexual violence allegations (and the national or international legal framework in which they are made), and in particular, whether the victim is able to identify the perpetrator, inform the investigative strategy and the subsequent standards of evidence required to pursue a successful prosecution. In cases where establishing the identity of the perpetrator is a key question for investigators, as opposed to proving consent, which is a separate issue, the quality of the testimonial evidence provided by the victim and witnesses, and availability of corroborating physical evidence (e.g. DNA) are important predictors of successful progression of cases through the criminal justice system [7,8]. The

following sections of this paper discuss existing guidance and literature concerning the value of both witness and physical evidence in successful case prosecutions, and the relationship between these sources of intelligence, and the specific challenges for adapting current best practice for use in low-resource environments. We focus our discussion largely on the Protocol, as it is the most comprehensive and globally well-known guides on documenting and investigating SGBV that has been developed to date.

2. An overview of current guidelines and protocols for the interviewing of SGBV victims and witnesses in low-resource environments

Conflict and atrocity related sexual violence (CARSV) has become an important policy priority for governments around the world. The majority of United Nation member states have endorsed the Declaration of Commitment to End Sexual Violence in Conflict, which pledges a number of political and practical commitments to end sexual violence, such as strengthening international law and national justice systems. It aims to increase awareness of conflict-related sexual violence, as well as increase national capacity to prevent and respond to sexual violence and hold perpetrators accountable. Arising from this, the Protocol was first launched in 2014 at the Global Summit to End Sexual Violence in Conflict. Now in its second edition, the Protocol provides comprehensive guidance for best practices on documenting crimes of sexual violence perpetrated in the context of armed conflict. The guidelines are intended to enable criminal justice and human rights practitioners to collect reliable, credible, and legally relevant information to strengthen and facilitate prosecutions. Other uses of the Protocol might include researching the prevalence and impact of sexual violence, obtaining information for civil claims, reparations or advocacy purposes. The Protocol is not intended to be a stand-alone tool, but rather provides a comprehensive overview of the knowledge and procedures pertinent to documenting CARSV. It is also expected that practitioners will adapt the Protocol to local contexts (e.g., gender, cultural, and sexual norms).

Guidance given in the Protocol is underpinned by a legal framework for systematically collecting evidence to establish violations of international law, including war crimes, crimes against humanity, or acts of genocide, as well as other serious violations of international criminal, human rights or humanitarian law. The Protocol advises that, where possible, the evidence documented should provide information about the elements of the crime as defined by the Rome Statute, including: 1) the specific elements of the underlying crime (e.g., what happened, to whom, when and where), 2) the common elements of the crime that could lead to it being charged as a war crime, crime against humanity or genocide, 3) linkage elements describing the manner in which the perpetrator(s) is (are) responsible for the crime, and 4) the pain and suffering of the victim, which is essential. Further, practitioners should document information that helps to connect the crime to a larger campaign of violence, which may connect the crime to higher level officials forming the basis of joint criminal enterprise charges and subsequent prosecutions.

In addition to setting out the legal requirements for prosecuting CARSV, the Protocol also sets out best practice for conducting interviews with victims and witnesses. To briefly summarise, the recommendations are based on research-based models for obtaining witness accounts on which there is expert consensus, such as the PEACE (i.e., Planning and Preparation, Engage and Explain, Account, Closure and Evaluation) model [9], while providing guidance about how to minimize harm, safety and security risks to interviewers, witnesses, and victims. The interview guidance also reviews rapport-building approaches, the process of

obtaining informed consent from victims and witnesses, and emphasises the importance of using an open-ended questioning style to elicit accounts that are told in the witness' or victim's own words. The recommendations have as their foundation the central requirements of other interview protocols that are endorsed by experts and used around the world (e.g., NICHHD, Step-wise). For instance, the requirement to obtain a free narrative account of the offense, told in the victim or witness' own words is the central aim in a well-conducted investigative interview, regardless of the context of the investigation [10]. Further topics related to interviewing that are covered include, but are not limited to: critical aspects of interviewing children, descriptions of traumatic responses some survivors may have following sexual violence, and considerations that arise when using language interpreters. Thus, the protocol recognizes the critical role that witness and victim testimony play in criminal investigations and prosecutions, and seeks to equip practitioners with the essential knowledge for conducting an effective interview to obtain high quality testimonial evidence.

3. The challenges of collecting witness evidence in low-resource environments

Practitioners operating in low-resource environments may have limited specialised training in investigative interviewing. Yet, they are often the first to obtain a documented account of the witness' or victim's testimony. In relatively few cases, criminal charges will be pursued, and usually this will be years after the crime [11]. Therefore, it is essential that practitioners conduct interviews following best practice guidelines to help ensure the integrity of the information gathered. From a memory standpoint, the initial interview provides an opportunity to obtain what will perhaps be the most complete and accurate account given by the victim [12]. As the time between the crime and an interview increases, the completeness and accuracy of the testimony can decrease [13], as the victim's ability to remember and provide a first-hand account may be impaired by forgetting as well as interference caused by exposure to other information (e.g., other witness testimony about the event).

Further, an interview that is conducted following best practice guidelines increases the possibility of obtaining a more comprehensive initial account, which could increase the likelihood that a case is progressed for prosecution. It can also minimize the number of times that the victim has to be subsequently interviewed, thereby decreasing the occurrence of inconsistent information across victim accounts [14], and the risk of victim re-traumatisation arising from an interview [15]. Finally, victim and witness testimony alone, without corroborating evidence, is sufficient for a criminal conviction in international criminal proceedings [16]. However, it would strengthen the case to have corroborating evidence and a reliable victim/witness account. An effective and reliable victim/witness interview could provide crucial information and detail to assist with the search and recovery of other types of evidence (e.g. Forensic DNA, medicolegal evidence, or identification of further witnesses/victims). Further, it is likely that, even in SGBV and CARSV, the defense will call into question the credibility of the complainant and/or other witnesses to argue that their testimony is inaccurate or unreliable (see [17]). Therefore, it is essential that practitioners follow best practice guidance in obtaining testimony to increase its reliability as well as to help make the case at trial that it was collected following the best possible advice.

Written statements may also become evidence. For instance, the Jankovic Trial Panel, which found Dusan Jankovic guilty of crimes against humanity during the conflict in the former Yugoslavia, allowed prior testimony and/or written statements of victim

testimony obtained by the International Criminal Tribunal for the former Yugoslavia (ICTY) investigators to be entered into evidence, without prior cross-examination by the defence, to corroborate other direct evidence of the defendant's guilt [16]. This allows for the presentation of testimonial evidence in cases where victims and witnesses cannot attend trial, or where there are concerns about the safety or well-being of the victim or witness in testifying due to emotional trauma. However, written testimonial evidence cannot be scrutinised in the same manner as when it is presented live or video recorded. For instance, in the UK, the video recorded testimony of vulnerable witnesses and victims is presented at trial, not only to minimize the impact of trial on witnesses and victims, but also to make the interview process more transparent for fact finders. This enables methods that were used to obtain the testimony to be scrutinised, to establish, as examples, whether leading or suggestive questioning was used [18].

The courtroom presentation of video-recorded testimony also allows for the quality of the testimony itself to be evaluated, enabling fact finders to hear precisely what the complainant said to the investigators and how it was expressed. What is more, there is research indicating that written statements of witness and victim testimony taken by police investigators contain errors, and considerable information is lost or found to be in error when comparing recordings of what the witness actually said to what the police wrote down in the witness statement (e.g., [19,20]). In the context of international criminal investigations, given that written statements may be used in trial proceedings, it is of paramount importance that research is undertaken to evaluate whether best practices for obtaining testimony in the field with sexual violence survivors are being followed and how methods might be further improved to increase the accuracy of statements.

Adherence to best practice guidelines for conducting investigative interviews is a significant predictor of whether criminal cases are solved [12] and successfully prosecuted [21]. Additionally, in cases involving translators, adherence to best practice protocols is essential [22]. A host of factors influence the quality of an investigative interview, such as the nature of the offense, factors related to memory and forgetting (e.g., how long ago the offense(s) occurred), and factors related to the context in which the interview(s) were carried out (e.g., translators, gender and sociocultural dynamics). Communicative skill, social and cultural understandings, and knowledge about memory limitations are important to eliciting testimony that is as complete and accurate as possible. The initial interview also has implications for how well the victim will remember the event over time. The more complete the initial interview, the less susceptible the victim's memory may be to distorting influences that intervene between the event and trial (see [23]). Further, laboratory research suggests information is less likely to be forgotten over time the more contemporaneous the initial interview is with the crime, all other things being equal [24].

Although the Protocol provides the necessary academic knowledge about conducting effective interviews with victims and witnesses, training that would enable practitioners to build and practice the skills that are necessary for conducting effective interviews is currently unavailable. The current training provision for the Protocol appears to consist of a one-off training session that provides an overview of the academic information contained in the Protocol, with little to no opportunity for training participants to actually practice interviewing [25]. Further, the extant training does not appear to incorporate ongoing supervision and practice, which are essential in developing the competence necessary for conducting effective interviews [26]. Instead, the training seems to include only an exercise for interview planning and preparation. The extant training does not allow participants to actively practice interview skills, such as rapport-building, techniques for asking

open-ended questions, or approaches for obtaining specific information about case elements. Further, the training does not incorporate long term supervised interview practice. Having said this, interview training programmes even in developed countries consist of a single intensive session because this is efficient and cost effective [27]. The cost and efficiency of training are of course particularly important considerations in low-resource contexts, such as human rights and justice work, in which there are considerable restrictions on people's time to learn interviewing skills because of high workloads and limited funding or lack of access to trained professionals.

Given the limited opportunities for training that exists in low-resource environments, how might we equip practitioners with the skills that they need to conduct high-quality investigative interviews? There are no studies to our knowledge that have evaluated the efficacy of training programs in low-resource environments with non-specialist interviewers. However, a number of studies have evaluated investigative interview training programs that are delivered to police investigators. This research indicates that the principles that underpin effective investigative interviewing are difficult to grasp [28] and people find it difficult to accurately assess and monitor their own performance [26,29]. Further, while training programs can successfully impart knowledge to participants about appropriate practices to follow in investigative interviews, they are less likely to impact participants' investigative interviewing practices for the better (e.g., [29–31]). People deviate from best practice even when they have been extensively trained, with trained investigators still tending to ask closed rather than open-ended questions. Further, while investigators can formulate open-ended questions, it appears to be more difficult for them to utilise open-ended prompts over the course of the interview to keep the interviewee talking [32].

In order to increase the success of training programs, research indicates that participants should distribute their training and practice over time, and receive individualized feedback by expert instructors as well as being exposed to models of good practice (see [31]). Challenges such as these have led to the suggestion that there be a formal qualification to teach investigative interviewing, with forensic interviewers tested and authorised to practice in a domestic policing context and awarded incentives to increase motivation to practice learned techniques [28].

It seems manifest that equipping practitioners with the knowledge and necessary practice needed to develop competence in investigative interviewing is challenging, even under ideal conditions. Perhaps one of the greatest challenges is a lack of necessary resources that would allow practitioners to have ongoing supervised training and practice. In overcoming this challenge, we first need to identify, via empirical research, the skills that are the most important for obtaining reliable accounts from sexual violence survivors and witnesses. Arguably, justice and human rights practitioners are documenting SGBV and CARSV more so than investigating it. Therefore, in the interest of limited resources, perhaps existing evidence-based interview training programs, which are geared for the purposes of investigations that are carried out by law enforcement, could be scaled back for practitioners operating in low resource environments, and focus only on essential interview skills. For instance, research might indicate that training could focus exclusively on training practitioners on techniques for asking open questions and for avoiding leading or suggestive questions.

Further research could then be undertaken to develop and test distance-learning training materials designed to allow practitioners to have access to supervised ongoing training, practice, and feedback. For instance, recently, computerised training was found to be an effective means of training investigators as well as non-specialist interviewers to use open-ended questioning [33,34].

Further, incorporation of training materials and computerised training systems that include examples based on real world interviews conducted in the field with sexual violence survivors and witnesses may be a valuable component of the training.

4. Challenges of obtaining corroborating evidence: forensic science in low-resource environments

In regions with sufficient technological and legal infrastructure, the integration of high-quality forensic science into investigative strategies for solving SGBV cases provides powerful intelligence and evidence to identify perpetrators, link crimes, and exonerate the innocent. In particular, the development of DNA profiling in 1984 revolutionised the investigation and prosecution of violent crimes, as well as providing robust methods for the exoneration of the innocent. Investigations have also been enhanced in some regions through technology and legislation that enable the use of criminal justice biometric databases (e.g., DNA, fingerprints).

Despite the routine use of these forensic technologies in developed countries, the implementation of forensic science in low-resource environments for investigating CARSV and SGBV is challenging for a number of complex social and political reasons. Forensic anthropology has been successfully utilised in the investigation of war crimes and crimes against humanity, primarily through the use of techniques for the excavation of mass graves and identifying deceased individuals. However the international community has been reluctant to fully exploit available forensic technologies in investigations of SGBV and CARSV in low-resource environments. This is largely due to barriers such as the lack of availability and accessibility of medical facilities and trained practitioners, as well as cultural norms and safety concerns that deter victims from seeking invasive medical examinations. There are limited examples of innovation to support the cost-effective recovery of DNA evidence in challenging circumstances (e.g. [35]), and efforts to establish forensic laboratory capabilities have been successful in some key regions (e.g. Kenya, South Africa, Iraq, Sri Lanka). The cost of standard DNA profiling has dramatically decreased in recent years, so for many regions the main barriers to utilising this technology are mechanisms for recovering DNA evidence and the necessary legislation to support the collection and retention of samples from suspects.

The lack of high-quality forensic evidence, particularly DNA, contributes to continued cycles of violence in some regions in a number of ways. Firstly, prosecutors are often unwilling to progress cases to trial when forensic DNA is not available to corroborate victim statements, as illustrated by recent legal rulings in Kenya, Uganda, and India [35]. These cases set a dangerous legal precedent whereby DNA evidence—which is largely unavailable in these regions—is required in order to secure prosecutions. Effectively, victims face a *catch 22* situation in these cases, and are being denied access to justice. Secondly, victims are less likely to report sexual violence when there is no physical evidence available to corroborate their statements [36]. Therefore, successful implementation of forensic strategies may increase propensity to report, thereby enhancing access to justice, support for victims, and our understanding of prevalence. Finally, given low SGBV reporting, detection and prosecution rates, perpetrators are not deterred from committing crimes. Deterrence theory suggests that increasing the certainty of punishment is a more effective deterrent to offending than imposing harsher sentences. Therefore, it follows that access to high-quality identification evidence to support prosecutions may result in a reduced likelihood of offending [37].

The Protocol, discussed in the previous sections of this paper, and other investigative guidelines, focus almost exclusively on the gathering of testimonial evidence from victims and witnesses of

sexual violence. Whilst there is no doubt that testimony is a crucial source of evidence to provide first-hand accounts of the alleged crimes, and the context in which they occurred, the lack of attention to other sources of identification and corroboration evidence (e.g. physical evidence) is problematic (Maras & Miranda, 2017) and makes prosecutions difficult to achieve. The most recent edition of the Protocol includes reference to physical evidence, and provides some detail of potential uses of various forms of evidence; however, the totality of the guidance provided is summarised in one brief section, which largely discourages the collection of available evidence. Further, whilst there is some reference to the relationship between testimonial and physical evidence, this is a crucial area that is not addressed sufficiently in the current edition of the Protocol. Research aimed at developing forensic techniques in the context of low-resource environments, along with comprehensive guidelines and training would help meet these challenges.

Despite the potential benefits of integrating forensic evidence into investigative strategies for sexual violence in low-resource environments, the probative value of forensic material is determined (at least in part) by the quality of the witness statement gathered by investigators. A detailed, reliable witness statement provides the necessary context and details of the alleged crime, through which any available forensic analyses are interpreted. It is therefore important that testimonial evidence is collected in the most appropriate way, and the interviewer is mindful of the need to gather information that can potentially be corroborated by any available physical evidence. The experience of the ICTY in prosecuting sexual violence underscores this issue, as prosecutors have noted that even though corroborating evidence was not legally required by the statutes governing the ICTY proceedings, it should be relied upon when available in order to protect against appeals in cases where victim testimony is the only available evidence [38].

Given the importance of a holistic approach to documentation and investigation of sexual violence in low-resource environments, training for practitioners would benefit from a multidisciplinary approach to implementation of best practice guidelines (see recommendations in the next section). This would ensure that potential sources of valuable, corroborating evidence are not overlooked, and that the information gathered by first responders has the potential to support successful national and international investigations and prosecutions. To work towards achieving this goal, the following section outlines a series of recommendations for research and training in areas where gaps currently exist.

5. Summary and conclusion

SGBV occurs in a range of contexts that vary with respect to the availability of forensic science technology and well-trained medical and legal professionals. In low resource environments, forensic science, and well-trained practitioners are often scarce. Consequently, SGBV and CARSV is notoriously underreported, and successful prosecutions are rare. For example, in Kenya, an estimated 40,000 cases of sexual violence occurred during the 2007/2008 elections, and yet, only 900 cases were reported and no successful prosecutions have been achieved to date [39]. In order to develop a strong evidence base to deter would-be perpetrators as well as enable successful SGBV prosecutions, we need to empirically identify strategies for adapting and incorporating low cost and effective investigative strategies that are widely used in developed countries.

As a first step, this would require identifying the most essential technologies and approaches that can be implemented for use in a range of low-resource environments. For instance, DNA technology is more affordable and accessible than ever, however innovation is required in order to make the collection of DNA evidence possible

in circumstances where medical facilities and trained personnel are lacking. In some regions legislation is also required in order to enable the collection and retention of DNA profiles from suspects of crime in order for DNA samples recovered from victims to be useful as evidence. Likewise, research is needed to identify essential interview skills for non-specialist interviewers (e.g., human rights workers) in obtaining reliable accounts from GSBV and CARSV survivors and witnesses. Based on the findings, low cost interviewing training programmes could be developed and tested to ascertain whether they are effective in producing quality testimony from GSBV and CARSV survivors.

It is also evident from the foregoing interdisciplinary and multisectoral collaboration is needed in carrying out such research to ensure that protocol development, training and implementation are complementary and exploit the full potential of different sources of evidence and information to corroborate and further strengthen prosecutions nationally and internationally. Finally, there is also a need for greater understanding of factors in the field that facilitate and hinder the adaptation, acquisition and use of technologies that are widely used in developed countries. For instance, there may be cultural or socio-legal barriers in low-resource environments that impede the collection and retention of DNA evidence, owing to public misconceptions regarding intimate medical examinations and the use of the evidence that is obtained.

It is clear that in order to improve access to justice for victims of SGBV in low-resource environments researchers and practitioners must work collaboratively to co-develop research projects which will provide a more robust and appropriate evidence base on which protocols, guidelines, and training can be developed and implemented. This requires partnerships through which reciprocal benefits can be achieved, and impact 'on the ground' can be maximised. A holistic approach to documenting SGBV cases, and a deeper understanding of the complementary nature of different sources of intelligence and evidence, will contribute to more robust investigations and better support for prosecutions which in turn will result in increased victim engagement with the criminal justice process and deterrent effects for perpetrators thus contributing to ending the current culture of impunity and cycles of violence.

Conflict of interest statement

Author declare no conflict of interest.

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