

Trauma, Violence, & Abuse

<http://tva.sagepub.com/>

A Systematic Review of Prevalence Studies of Gender-Based Violence in Complex Emergencies

Lindsay Stark and Alastair Ager

Trauma Violence Abuse 2011 12: 127 originally published online 20 April 2011

DOI: 10.1177/1524838011404252

The online version of this article can be found at:

<http://tva.sagepub.com/content/12/3/127>

Published by:



<http://www.sagepublications.com>

Additional services and information for *Trauma, Violence, & Abuse* can be found at:

Email Alerts: <http://tva.sagepub.com/cgi/alerts>

Subscriptions: <http://tva.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>

Citations: <http://tva.sagepub.com/content/12/3/127.refs.html>

>> [Version of Record](#) - Jul 6, 2011

[OnlineFirst Version of Record](#) - Apr 20, 2011

[What is This?](#)

A Systematic Review of Prevalence Studies of Gender-Based Violence in Complex Emergencies

Lindsay Stark¹ and Alastair Ager¹

Abstract

Current methods to estimate the incidence of gender-based violence in complex emergencies tend to rely on nonprobability samples. Population-based monitoring is undertaken relatively infrequently. This article provides a systematic review of published literature that represents attempts to quantify the magnitude of gender-based violence in emergency settings. Searches adopted a Boolean procedure, which led to initial selection of material that was then reviewed against set criteria. Only 10 studies met the final criteria for inclusion. Intimate partner violence, physical violence, and rape were the three categories of violence most frequently measured. Rates of intimate partner violence tended to be quite high across all of the studies—much higher than most of the rates of wartime rape and sexual violence perpetrated by individuals outside of the home. Direct comparisons of rates of violence were hindered by different case definitions, recall periods, and other methodological features. Recommendations for future studies are offered based on lessons learned from the studies reviewed.

Keywords

rape, intimate partner violence, gender-based violence, sexual violence, violence against women, incidence, prevalence, war, humanitarian, complex emergency

Introduction

Many of today's conflicts displace masses of people and result in women's and children's exposure to violence, family separation, splintering of community solidarity, shattered social trust, and inability to create an adequate livelihood (Ai, Peterson, & Ubelhor, 2002; Garbarino & Kostelny, 1996; Jablensky et al., 1994; Lustig et al., 2003; Mollica et al., 1989; Smith, Perrin, Yule, Hacam, & Stuvland, 2002). Ensuring the protection and well-being of women and children according to the basic principles agreed upon by the international community is a critical human right and fundamental humanitarian concern (CEDAW, 1981; CRC, 1990).

The international community's data on critical protection concerns tend to reflect reported cases collected in the course of situation analyses, site visits, and other forms of field investigation (Cox, Andrade, Lungelow, Schloetelburg, & Rode, 2007; Hammoury & Khawaja, 2007; Kerimova et al., 2003). The "incident" reports generated from such data collection are valuable for the purposes of criminal investigations, legal documentation of rights abuses, and sensitization to potential protection concerns. However, such reports may represent a small portion of the actual population-wide incidence of rights violations that are taking place at any given time. Few assessments employ methodologies capable of reliably estimating overall incidence, permitting estimates of concentration of need and/or protection trends. This underreporting

allows perpetrators to commit crimes with greater impunity. It prevents key actors from identifying and analyzing trends, evaluating the effectiveness of protection responses, and developing effective policies and improved solutions around these key issues of violence (PFMH, 2006).

Current methods to estimate the incidence of gender-based violence (GBV) tend to rely on nonprobability samples. Organizations utilize data collected from patient records at medical facilities or formal reporting sources such as the police. Relying on this type of data often produces an inflated picture of stranger violence while masking the much more prevalent forms of GBV that are often occurring within the home (Stark et al., 2010). This skewed understanding of patterns of sexual violence may affect advocacy, funding, and programming.

Population-based monitoring is relatively infrequent. Reviewing and learning from the prevalence and/or incidence studies that have previously been carried out is an important first step in recommending a way forward for population-based

¹ Program on Forced Migration & Health, Mailman School of Public Health, Columbia University, New York, NY, USA

Corresponding Author:

Lindsay Stark, Program on Forced Migration & Health (PFMH), Mailman School of Public Health, Columbia University, 60 Haven Avenue, New York, NY 10032, USA
Email: ls2302@columbia.edu

Table 1. Search Terminology Used in Systematic Review by Core Theme

Gender-Based Violence	Incidence	Complex Emergencies
Rape	Incidence	War
Domestic violence	Prevalence	Refugee
Gender-based violence	Rates	Humanitarian
Sex offenses	Frequency	Displaced
Sexual violence	Percentage	
Violence against women		

work on this subject. This article provides a systematic review of literature that represents attempts to quantify the magnitude of GBV in complex emergencies.

Methodology

Inclusion Criteria and Search Terms

The study followed the principles of a systematic review (Mulrow, 1994) in defining explicit inclusion criteria for studies considered in the course of the review. Three core themes structured such inclusion criteria: GBV; prevalence; and complex emergencies. For the purposes of this review, an article had to address all three of these thematic areas to be accepted. A general descriptive article of rape as a war crime in the Democratic Republic of Congo or an article detailing the prevalence of domestic violence in San Francisco would, for example, not have been accepted for the review. In the first case, the article does not address the issue of prevalence; while in the second case, San Francisco does not constitute a complex emergency. Explicit inclusion criteria were developed with respect to each of the three core themes defining the scope of the review. These are shown in Table 1.

The 1993 UN Declaration on the Elimination of Violence Against Women was used to define the concept of GBV. The document defines GBV as any act of violence “that results in, or is likely to result in physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life” (UN, 1993). Inclusion criteria were then narrowed to physical forms of GBV, on the ground that these physical categories of GBV have clearer case definitions and are less subjective (and culturally determined) than nonphysical categories of such violence. Categories such as coercion, psychological violence, economic violence, verbal abuse, and intimidation were excluded as they tend to be more grounded in cultural traditions, making them more difficult to interpret, measure, and compare across settings.

The second core theme informing inclusion was an attempt to measure incidence or prevalence. As opposed to a review, for example, of qualitative inquiries of rape or domestic abuse, the emphasis for this review was population-based epidemiologic studies that attempt to measure the magnitude and scope of the problem. In relation to this, we chose to focus on studies that utilized population-based sampling techniques and a sampling universe that is generalizable to a larger community,

Table 2. Relief Web's List of Complex Emergency Settings

Afghanistan	Eritrea–Ethiopia border conflict	Russian Fed. Chechnya
Angola	Ethiopia	Sierra Leone
Balkans	Great Lakes (Burundi; DR Congo; Kenya; Rwanda; Tanzania; Uganda)	Somalia
Caucasus (Armenia; Azerbaijan; Georgia)		Southern Africa Humanitarian Crisis
Central African Republic	Haiti	Sri Lanka
Colombia	Indonesia	Sudan
Congo	Iraq	Tajikistan
DPR Korea	Eritrea–Ethiopia border conflict	Uganda
East Timor	Occupied Palestinian Territory	West Africa

district, or country level. Thus, a study looking at incidence rates of rape in a hospital setting did not meet the primary criteria for this review. Nor would other forms of passive surveillance, where no special effort is made to seek out cases that have not been identified in clinic, hospital, police, or other records. Data from passive surveillance tend to be incomplete and biased.

The third core theme defining inclusion was a focus on complex emergencies. A “complex emergency” was defined as “a humanitarian crisis in a country, region or society where there is total or considerable breakdown of authority resulting from internal or external conflict, and which requires an international response that goes beyond the mandate or capacity of any single agency and/or the ongoing United Nations country program” (IASC, 1994). Two strategies were employed to operationalize this concept for search and selection purposes. First, search terms were derived from the above definition and tested to return matches that were most relevant to the review. Additionally, the United Nations’ run website, “Relief Web” was utilized to further systematize article selection. This website, considered to be the leading coordination site used by the large majority of humanitarian agencies, maintains a list of recent complex emergency settings. It was thus determined that in order for a study to be accepted into this review, the sample population had to be drawn from one of the contexts listed on Relief Web’s list of complex emergencies (see Table 2).

Data Sources and Search Procedure

The electronic databases Medline, PsychInfo, and Pubmed were searched in January 2009, according to the search terminology outlined in Table 1 for all relevant published material within the last 15 years. Articles published in languages other than English were excluded from the review. Searches adopted a Boolean procedure which led to initial selection of material on the basis of the appearance of any of the search terms related to GBV, any of the search terms related to prevalence, and any of the search terms related to complex emergencies.

Once a study was identified through the initial search process described above, the title and abstract were reviewed

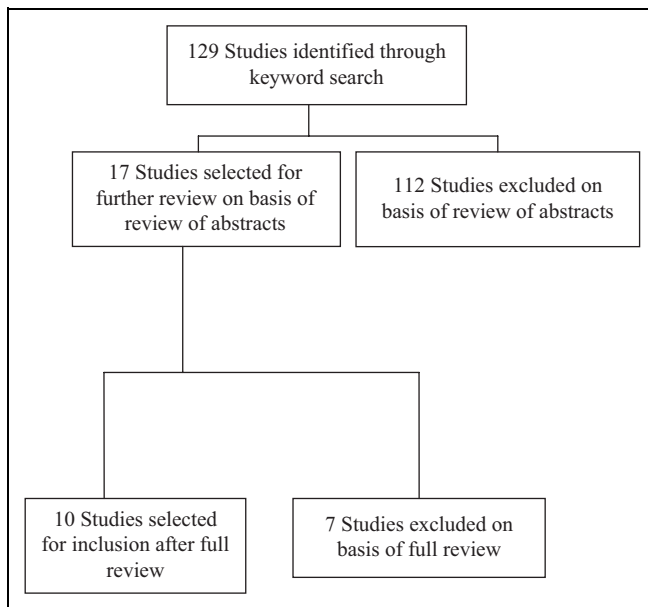


Figure 1. Selection process of articles through stages of review.

to ascertain whether inclusion of the targeted search terms was substantive or tangential to the focus of the article. Specifically, from abstracts it was determined whether the primary focus of the study addressed at least one of the areas of GBV of interest to this review; whether the study included a determination of incidence or prevalence; whether the sampling universe was sufficiently generalizable; and, finally, whether the study setting met the criteria for an emergency context described above. In situations of ambiguity, a review of the full article was conducted to make a final determination as to whether a article met these criteria for inclusion.

Results

An initial simultaneous search of Medline and PsychInfo of the search terms listed in Table 1 resulted in a total of 129 “hits.” Of those, 17 articles made it through the second round of review and appeared to meet the criteria according to the study title and abstract. Only 10 studies met the final criteria for inclusion, the other 7 prevalence studies based on passive surveillance of clinic populations (see Figure 1). An identical search in Pubmed produced 70 hits, however, did not result in any additional relevant studies that had not already been captured in the earlier database search.

Descriptive Overview of Included Studies

Of the 10 articles, 2 summarized findings across multiple countries. One of these articles (Ellsberg, Jansen, Heise, Watts, & Garcia-Moreno, 2008) presented summary results from a 10-country World Health Organization (WHO) study, while the other (Watts & Zimmerman, 2002) was a secondary analysis of more than 50 prevalence studies (most of which are unpublished). Neither of these studies detailed

sampling techniques, though the secondary review article mentioned that these techniques differed by country. Additionally, while the WHO article noted a standardized survey instrument used across all settings, the other study implied that different tools were used in different settings. This limited the utility of these two studies to contribute to an in-depth analysis of GBV prevalence rates and study designs.

Of the remaining eight studies, two were based in West Africa, two were based in Eastern Europe, three were from the Middle East, and one was from Southeast Asia. Two of the studies were undertaken in refugee camps, three studies were community based and the other three studies sampled both camp and community populations.

Although the 15-year selection window for the review was relatively short, even within this narrow time frame the majority of the studies were undertaken in the latter part of the time under review. With the exception of the secondary review article, which cites a few studies undertaken in the late 1980s and the Swiss et al.’s study, which was undertaken in 1994, all of the remaining studies were undertaken after 1999. While it is possible that prevalence studies of GBV were undertaken more frequently in years previous to those reviewed in this article, our findings are suggestive of a relative recency of concerted attempts to determine prevalence rates of GBV in complex emergencies.

Main Findings

The articles reported on similar categories of violence. Three main categories of GBV emerged from the retrieved studies:

- *Intimate Partner Violence* (seven studies; Avdibegovic & Sinanovic, 2006; Ellsberg et al., 2008; Hynes, Robertson, Ward, & Crouse, 2004; Khawaja, 2004; Khawaja & Barazi, 2005; Khawaja & Tewtel-Salem, 2004; Watts & Zimmerman, 2002);
- *Physical Violence (by someone other than an intimate partner)*; two studies; Hynes et al., 2004; Swiss et al., 1998; Watts & Zimmerman, 2002);
- *Sexual Violence and Rape (by someone other than an intimate partner)*; five studies; Amowitz et al., 2002; Hynes & Cardozo, 2000; Hynes et al., 2004; Swiss et al., 1998).

Within the first two categories, there was a certain amount of variation in terms of what was being measured. In the category of “intimate partner violence” (IPV), for example, one study (Hynes et al., 2004) compared rates of violence perpetrated by a partner before and after the conflict period, while another study (Khawaja, 2004) analyzed attitudes about the acceptability of domestic violence as a proxy for wife beating. A third study (Khawaja & Barazi, 2005) compared prevalence rates of IPV based on women’s versus men’s reports. Despite these differences, IPV and physical violence were often operationalized similarly and included being slapped, grabbed, shoved, kicked, hit with fists, and being choked.

Articles rarely operationalized “rape” beyond “forced sex.” One article (Hynes & Cardozo, 2000) specified that only rape of women was considered, thus excluding rape of men, boys, and girls. Another article (Hynes et al., 2004) specified that forced sex included oral, vaginal, and anal sex. Yet, the general lack of an explicit definition of rape in these articles makes it impossible to determine how a “case” was counted. We cannot tell, for example, if nonforcible sex with an incapacitated victim was part of a definition of rape in any of the studies listed. We do not know whether rape included forced sex with a marital partner or not. Statutory age is also not clarified, nor is rape of men and boys in the majority of the studies. This ultimately inhibits the reader’s ability to understand exactly what is being measured in each of these studies.

Study Design

Without exception, the studies employed cross-sectional survey designs involving interviewer-administered questionnaires to assess rates of GBV. In many cases, GBV prevalence was not the primary reason for undertaking the survey. The WHO multicountry household survey, for example, focused more broadly on women’s health (Ellsberg et al., 2008). Another study’s primary area of interest was on trauma and mental health (Hynes & Cardozo, 2000).

Sampling Techniques and Response Rates

True random sampling that is generalizable to a larger population was achieved in very few of the studies identified through this review. In half of the studies, specific camps, regions, or towns were purposefully selected based on logistics, future GBV programming, or other unspecified reasons. Attempts were then made to sample randomly from these areas—with some studies achieving a higher degree of rigor than others (Amowitz et al., 2002; Avdibegovic & Sinanovic, 2006; Hynes & Cardozo, 2000; Khawaja, 2004; Khawaja & Barazi, 2005; Khawaja & Tewtel-Salem, 2004; Swiss et al., 1998). Four of the studies used a subsample drawn from a larger study. Thus, the original sampling size that was determined to be necessary to measure an effect size or prevalence rate from the original study was reduced, and the studies do not show that their new sample sizes were sufficient to be able to extrapolate back to the original sampling frame. Finally, the two multicountry sites do not provide enough information to evaluate their sampling techniques.

Response Rates

Response rates were also an issue for at least a few studies. While most of the studies do not report response rates at all, Hynes et al. report response rates being lower than had been anticipated. As a result, the team had to collect supplemental interviews at the end in order to obtain their target sample size (Hynes et al., 2004). While Avdibegovic and Sinanovic (2006) do not report response rates as an explicit limitation, they do

articulate that only 54 out of 90 invited women agreed to be interviewed in the camp populations, and 142 out of 310 invited women agreed to be interviewed in the community setting. Finally, Swiss et al. (1998) reported having very low response rates in their subsample taken in market places (25 refusals out of 65 invited women). The authors assert that this was most likely due to the fact that women thought the information they provided would somehow affect the amount of relief food they received.

Recall Period/Periods

As outlined in Table 3, studies employed various recall periods to determine rates of violence. Studies often included more than one recall period, asking, for example, about both experiences over a lifetime and experiences of violence in the past year. The Khawaja (2004) study on attitudes about domestic violence was the only study in which a recall period was not noted, as this was irrelevant for the study. Among the other nine articles, “lifetime” was the recall period most often used, it being cited in seven studies. Five studies used a 1-year recall period, and three studies used “wartime” as a recall period. As wartime differed by context, this recall period ranged from approximately 5 to 10 years. Finally, one study (Khawaja & Tewtel-Salem, 2004) also asked about experiences of GBV during pregnancy.

Findings on Rates of Violence

The main findings of each study are detailed in Table 3. While some of the reported findings are too broad to be informative (e.g., the report from one of the multicountry studies that “3–52% of women reported physical violence in the past year”), certain trends can be gleaned. Rates of IPV tended to be quite high across all of the studies—much higher than most of the rates of wartime rape and sexual violence perpetrated by individuals outside of the home. This is interesting to consider in light of the GBV advocacy and funding patterns in humanitarian emergencies that tend to focus on violence occurring outside the home (Card, 1996; Swiss et al., 1998; Wakabi, 2008). Taken together, the data from these studies highlight that while violence perpetrated by armed forces is an important component of GBV, in fact, it may not be the most prevalent form of violence facing women in crisis settings.

There also appears to be evidence from at least a few studies that rates of GBV increase during times of conflict, at least for those incidents perpetrated by individuals outside of the women’s homes (Amowitz et al., 2002; Hynes et al., 2004). This data supports much of the anecdotal evidence dominating current dialogues about conflict and GBV (Card, 1996; Wakabi, 2008). The data on IPV, however, is more complex. In one study (Hynes et al., 2004), women reported that rates of domestic violence had decreased since the conflict ended; yet, this was not reflected in the quantitative data taken from the same population. Another finding from the study comparing reports of IPV from women as opposed to men (Khawaja

Table 3. Summary of Population-Based Studies of GBV

Study	Objectives	Methods	Findings
1 Amowitz et al. (2002)	To assess the prevalence and impact of war-related sexual violence and other human right abuses among internally displaced persons (IDPs) in Sierra Leone.	Setting: 3 IDP camps and 1 town Sample: 991 women informing on 9,166 household members Participants: Purposeful sampling of camps and town, random sampling of individuals within Recall period: 10 years and lifetime Instrumentation: cross-sectional household survey	94 (9%) of the 991 respondents reported 1 or more war-related sexual assault experiences. Study participants also reported war-related sexual assault among 396 (8%) female and 6 (0.1%) male household members. Rape was reported by 84 of the 94 sexually assaulted women and 31 reported being gang raped.
2 Avdibegovic and Sinanovic (2006)	To assess psychological consequences of domestic violence and determine the frequency and forms of domestic violence against women in Bosnia and Herzegovina.	Setting: 2 camps and 3 municipalities in Tuzla Canton region Sample: In the camps, 90 women were invited and 54 accepted to participate in the study. In the municipalities, 310 women were invited and 142 accepted to participate in the study. From the clinic population, 120 women were randomly selected to participate in the study. Participants: Data were collected among two groups of women: women in the general population and women who received psychiatric treatment at the Department for Psychiatry of the University Clinical Center, Tuzla Recall period: Lifetime Instrumentation: Partner Violence Screen Questionnaire	Out of 283 women, 215 (75.9%) were physically, psychologically, and sexually abused by their husbands. Among the abused, 107 (50.7%) experienced a combination of various forms of domestic violence. The frequency of domestic violence was high among psychiatric patients (78.3%).
3 Ellsberg et al. (2008)	To summarize a WHO 10-country study of domestic violence and women's health	Setting: 15 sites in 10 countries (Bangladesh, Brazil, Peru, Thailand, Tanzania, Ethiopia, Serbia, Japan, Namibia, and Samoa) Sample: women age 15–49 who were “ever partnered” Participants: information not provided Recall period: 1 year and lifetime Instrumentation: Population-based survey using a standardized questionnaire	15–71% of ever-partnered women reported experiencing physical or sexual violence
4 Hynes and Cardozo (2000)	To provide a summary of sexual violence in conflict and includes some information on a CDC study in Kosovo.	Setting: Kosovo Sample: drawn from 558 randomly selected households Participants: 60 Kosovar Albanian women aged 15 years or older Recall period: Lifetime Instrumentation: Part of a larger cross-sectional cluster survey of mental health and trauma	We found that the prevalence of rape among women was 4.3% ($n = 60$; 95% confidence interval (CI) [2.7, 5.9]; and 6.1%, 95% CI [4.1, 8.2] of women were either raped or witnessed rape.
5 Hynes et al. (2004)	To generate reliable GBV prevalence data for international, national, and local programs to use in their GBV-related program planning and advocacy purposes.	Setting: 2 districts in East Timor—Dili and Alieu, chosen for logistical reasons and because that is where an NGO would be providing services. Sample: 365 women were sampled to obtain a target number of 348 completed interviews Participants: A multistaged sampling scheme was used to select women of reproductive age over 18. Assumed prevalence was 27%. Lower than anticipated response rate (74%) and large number of women who had moved resulted in a need to generate supplemental random households. Recall period: For violence perpetrated by people outside of the home, recall was the crisis period (from August 1999 to the present). For intimate partner violence, recall period was from the year before the crisis (August 1998–August 1999) and crisis to postcrisis. Instrumentation: 136-question household survey	The incidence of physical violence among nonfamily members decreased after the crisis (24.2% vs. 5.8%). Incidence of sexual violence among nonfamily members decreased after the crisis (22.7% vs. 9.7%). The sample for IPV was smaller, but 52.7% reported violence during the recall period. 41.5% reported physical injuries. Women reporting violence during the crisis reported that frequency of violence had gone down since the crisis had ended, but the data did not show this to be the case.

(continued)

Table 3 (continued)

Study	Objectives	Methods	Findings
6 Khawaja (2004)	To examine the acceptance of wife beating as a proxy for domestic violence among married persons living in refugee camps in Jordan.	Setting: 12 refugee camps in Jordan Sample: 259 women and 132 men Participants: Secondary data from a survey of 3,100 randomly selected households. Inclusion criteria being age 15 and above, married, and currently living with spouse. Recall period: N/A Instrumentation: Matched analysis from a cross-sectional household survey	Overall, 60.1%, CI [51.7, 68.9] of men and 61.8%, CI [55.9, 68.1] of women considered wife beating acceptable.
7 Khawaja and Barazi (2005)	To examine the similarity between men's self-reports of violence and women's reports of being subjected to domestic violence.	Setting: 12 Palestinian refugee camps in Jordan Sample: 262 women and 133 men were included in the study Participants: 2,590 households were randomly selected. The original sample was reduced because of the eligibility criteria: currently married, living with spouse, and privacy during the interview. Recall period: 1 year and lifetime Instrumentation: 3 questionnaires: 1 for the household, 1 for a randomly selected adult aged 15+ years from each household, and the third for all ever-married women	The prevalence rate of lifetime beating was 44.7%, with men reporting higher overall prevalence (48.9%) than women (42.5%). Prevalence estimates for past year beating were much lower, and 17.4% of the respondents experienced beating at least once in the past year overall.
8 Khawaja and Tewtel-Salem (2004)	To compare husband and wife reports of wife beating using household survey data collected from poor Palestinian refugee communities in Lebanon.	Setting: Palestinian refugee communities in Lebanon. Sample: 417 randomly sampled currently married couples Participants: Matched data files of married couples drawn from a unique multipurpose living conditions sample survey of about 3,600 Palestinian refugee households. The following criteria had to be met to be part of the sample: be currently married and living with the spouse and be the household head or his or her spouse. Recall period: Ever, last year, and during pregnancy Instrumentation: The living conditions household survey. The survey included 2 different questionnaires for married men and women with similar questions on domestic violence	The majority of couples agreed on reports of wife beating. Overall, 29.5% of husbands compared with 22% of their wives reported that wife beating occurred at least once during their married life. Of these, 18.6% of couples agreed that wife beating ever occurred. The prevalence estimates for the three remaining indicators are smaller, and fairly similar to each other, whether based on the reports of husbands or wives. When asked whether they were beaten during the past year, 10.4% of husbands and 9.1% of wives responded in the affirmative.
9 Swiss et al. (1998)	To document women's experiences of violence, including rape and sexual coercion, from a soldier or fighter during 5 years of the Liberian civil war from 1989 through 1994.	Setting: Monrovia, Liberia Sample: Purposefully sampled areas (markets, schools, camps, communities), and then random sampling within those areas. Participants: 205 Liberian girls and women of age 15–70 Recall period: 5 years of conflict Instrumentation: Survey	(49%) reported experiencing at least one act of physical or sexual violence from a soldier or fighter during the years 1989 through 1994. Thirty-four (17%) of those surveyed reported being beaten, tied up, or locked up (detained in a room under armed guard) by soldiers or fighters. Sixty-six (32%) reported that they had been strip searched one or more times. Thirty-one (15%) reported that they had been raped, subjected to attempted rape, or sexually coerced by soldiers or fighters.
10 Watts and Zimmerman (2002)	To undertake a secondary analysis of prevalence studies of violence against women	Setting: Multiple countries Sample: Various sampling techniques Participants: 50+ studies from various countries Recall period: Ever and last year Instrumentation: Household surveys	10–50% of women who have ever had partners have been hit or physically assaulted by an intimate male partner at some point during their lives. In a review of the surveys, 3–52% of women reported physical violence in the past year.

GBV = gender-based violence; CDC = Centers for Disease Control and Prevention.

& Barazi, 2005) revealed that men actually reported slightly higher rates of violence than the women. This has interesting implications for the way GBV prevalence research is conducted in the future and may indicate some potential benefit to interviewing men or at least including them as more active research participants.

Discussion and Conclusions

The data set presented in this article is clearly limited. This may be due in part to the fact that the search was restricted to English articles published in the last 15 years. However, it appears clear that the undertaking of prevalence studies of GBV is not yet routine in humanitarian practice. Despite these limitations, the data set presented in this article suggests that rates of GBV are high in complex emergencies, and GBV prevention and response remain important priorities.

One interesting implication for GBV programming and policy in emergency settings suggested by this data set, as mentioned above, is the finding that rates of IPV tend to be quite high across all of the studies—much higher than most of the rates of wartime rape. These findings suggest that women are at the greatest risk for violence when they are in their own homes and suggest that GBV programs need to develop innovative strategies for reaching out to victims who suffer GBV in their own homes. From a policy perspective, the findings suggest that GBV advocates need to strengthen country-level processes and accountability mechanisms that relate to issues of household and IPV at the policy and legal levels. Much of this programming and policy logic is currently overlooked, as time and resources are frequently devoted to protecting women against threats occurring outside of their homes.

Beyond these two general—and important—findings, it is difficult to draw strong conclusions from the data set presented in this article, given the methodological challenges and resulting limitations of the data set. Conducting a valid and reliable study of GBV is difficult in any setting. The difficulties are compounded, however, in humanitarian settings where fear, stigma, and norms of secrecy, in addition to the difficulties of displacement result in additional barriers to measuring the magnitude of GBV. Direct comparisons across the studies were difficult to make due to a number of factors: using different recall periods, employing different case definitions, not providing case definitions at all, targeting different groups of women, and a range of other methodological variations.

These variations provide a foundation for a number of key principles and methodological insights that have the ability to inform future work in this area of study. If our ultimate aim for these types of studies is to help begin to piece together a global picture of GBV in emergencies and to monitor these trends over time, for example, then there needs to be a concerted effort to overcome some of the current limitations listed above. Indeed, in reviewing the studies, it seems that some sort of standardization—at least for certain categories of violence—is possible and would still allow researchers to also understand context-specific elements of GBV. Both IPV and physical

violence, for example, had common case definition across the cited studies. Similarly, if every study had asked about lifetime experiences of rape or used a 1-year recall period, this would go a long way toward providing a global understanding of rape across complex emergencies. Additionally, by only documenting rape perpetrated by certain actors (e.g., members of armed groups), valuable information is lost.

Another important methodological lesson is suggested by the Swiss et al. study (1998) and likely other studies reporting low response rates. These studies underscore the critical need to clarify processes of informed consent so that participants understand that their involvement in the study will not affect their access to relief aid in any way. In a related vein, none of these studies mention following up with study participants at a later date in an attempt to understand whether any negative unintended consequences may have occurred. When undertaking studies on subjects as sensitive as GBV, it is vital to move beyond mere information extraction, to ensure that study participants have not come to (further) harm as a result of being interviewed.

As this review demonstrates, the undertaking of prevalence studies of GBV is limited, and there remains great opportunity for innovation in development of methodologies to measure this critical protection concern in an ethical and responsible way. Findings have the potential to improve reach, quality, and impact of GBV programming in destabilized societies; feed into a larger global-level understanding and analysis of violence against women and girls in crisis-affected settings; and support policy decision making and monitor trends in sexual violence over time. The time has come to professionalize the field of international protection—and consistent obtainment of a clear, numerical picture of GBV is key to this forward development.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interests with respect to the authorship and/or publication of this article.

Funding

The author(s) received no financial support for the research and/or authorship of this article.

References

- Ai, A., Peterson, C., & Uebelhor, D. (2002). War-related trauma and symptoms of post-traumatic stress disorder among adult Kosovar refugees. *Journal of Traumatic Stress, 15*, 157-160.
- Amowitz, L., Reis, C., Lyons, K. H., Vann, B., Mansaray, B., Akinsulure-Smith, A., . . . Iacopino, V. (2002). Prevalence of war-related sexual violence and other human rights abuses among internally displaced persons in Sierra Leone. *Journal of the American Medical Association, 287*, 513-521.
- Avdibegovic, E., & Sinanovic, O. (2006). Consequences of domestic violence on women's mental health in Bosnia and Herzegovina. *Croatian Medical Journal, 47*, 730-741.
- Card, C. (1996). Rape as a Weapon of War. *Hypatia, 11*, 5-18.

- Convention on the Elimination of All Forms of Discrimination Against Women* (CEDAW). September 3, 1981, 19 ILM 33.
- Convention on the Rights of the Child* (CRC). September 2, 1990, 1577 UNTS 3.
- Cox, S., Andrade, G., Lungelow, D., Schloetelburg, W., & Rode, H. (2007). The child rape epidemic: Assessing the incidence at Red Cross Hospital, Cape Town, and establishing the need for a new national protocol. *South African Medical Journal*, 97, 950-955.
- Ellsberg, M., Jansen, H. A., Heise, L., Watts, C. H., & Garcia-Moreno, C. (2008). Intimate partner violence and women's physical and mental health in the WHO multi-country study on women's health and domestic violence: An observational study. *Lancet*, 371, 1165-1172.
- Garbarino, J., & Kostelny, K. (1996). The effects of political violence on Palestinian children's behavioural problems: A risk accumulation model. *Child Development*, 67, 33-45.
- Hammoury, N., & Khawaja, M. (2007). Screening for domestic violence during pregnancy in an antenatal clinic in Lebanon. *European Journal of Public Health*, 17, 605-606.
- Hynes, M., & Cardozo, B. L. (2000). Sexual violence against refugee women. *Journal of Women's Health & Gender-Based Medicine*, 9, 819-823.
- Hynes, M., Robertson, K., Ward, J., & Crouse, C. (2004). A determination of the prevalence of gender-based violence among conflict-affected populations in East Timor. *Disasters*, 28, 294-321.
- Inter-Agency Standing Committee (IASC). (1994). *Working Paper on the Definition of Complex Emergencies*. Proceedings of meeting held in Geneva, December 9, 1994.
- Jablensky, A., Marsella, A. J., Ekblad, S., Jansson, B., Levi, L., & Bornemann, T. (1994). Refugee mental health and well-being. In A. J. Marsella, T. Bornemann, S. Ekblad, & J. Orley (Eds.), *Amidst peril and pain: The mental health and well-being of the world's refugees* (pp. 327-339). Washington, DC: American Psychological Association, 1.
- Kerimova, J., Posner, S. F., Brown, Y. T., Hillis, S., Meikle, S., & Duerr, A. (2003). High prevalence of self-reported forced sexual intercourse among internally displaced women in Azerbaijan. *American Journal of Public Health*, 93, 1067-1070.
- Khawaja, M. (2004). Domestic violence in refugee camps in Jordan. *International Journal of Gynaecology & Obstetrics*, 86, 67-69.
- Khawaja, M., & Barazi, R. (2005). Prevalence of wife beating in Jordanian refugee camps: Reports by men and women. *Journal of Epidemiology & Community Health*, 59, 840-841.
- Khawaja, M., & Tewtel-Salem, M. (2004). Agreement between husband and wife reports of domestic violence: Evidence from poor refugee communities in Lebanon. *International Journal of Epidemiology*, 33, 526-533.
- Lustig, S., Kia-Keating, M., Knight, W. G., Geltman, P., Ellis, H., Kinzie, J. D., . . . Saxe, G. N. (2003). *Review of Child and Adolescent Refugee Mental Health*. White Paper from the National Child Traumatic Stress Network Refugee Trauma Task Force.
- Mollica, R., Fish-Murray, C. C., Donelan, K., Dunn-Strohecker, M., Tor, S., Lavelle, J., & Blendon, R. J. (1989). *Repatriation and disability: A community study of health, mental health and social functioning of the Khmer residents of site two*. Cambridge, MA: Harvard Program in Refugee Trauma. Alexandria, VA: World Federation for Mental Health.
- Mulrow, C. (1994). Systematic reviews. *British Medical Journal*, 309, 597-599.
- Program on Forced Migration and Health (PFMH), Mailman School of Public Health, Columbia University. Situation Analysis of Child Protection in Darfur: Final Report to UNICEF, March 2006.
- Smith, P., Perrin, S., Yule, W., Hacam, B., & Stuvland, R. (2002). War exposure among children from Bosnia-Herzegovina: Psychological adjustment in a community sample. *Journal of Traumatic Stress*, 15, 147-156.
- Stark, L., Roberts, L., Wheaton, W., Acham, A., Boothby, N., & Ager, A. (2010). Measuring violence against women amidst war and displacement in northern Uganda. *The Journal of Epidemiology and Community Health*, 64, 1056-1061.
- Swiss, S., Jennings, P. J., Aryee, G. V., Brown, G. H., Jappah-Samukai, R. M., Kamara, M. S., . . . Turay-Kanneh, R. S. (1998). Violence against women during the Liberian civil conflict. *Journal of the American Medical Association*, 279, 625-629.
- United Nations (UN). (1993). Declaration on the Elimination of Violence against Women. (A/RES/48/104). New York, NY: UN General Assembly.
- Wakabi, W. (2008). Sexual violence increasing in Democratic Republic of Congo. *Lancet*, 371, 15-16.
- Watts, C., & Zimmerman, C. (2002). Violence against women: Global scope and magnitude. *Lancet*, 359, 1232-1237.

Bios

Lindsay Stark is a professor in the Program on Forced Migration and Health (PFMH), Mailman School of Public Health, Columbia University.

Alastair Ager is a professor of Clinical Population and Family Health at the Mailman School of Public Health.