

Prevalence, Incidence and Impact of Sexual and Gender-Based Violence
in Areas of Humanitarian Conflict: A Systematic Review

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Abstract

Background: Women and children are disproportionately targeted for violence in conflict and require higher levels of protection (Ward & Marsh, 2006). The United Nations estimates that 35% of women and girls experience sexual and gender-based violence (SGBV) in their lifetime (World Health Organization, 2013). *Methods:* PubMed/Medline, CINAHL, Google Scholar and Cochrane Database of Systemic Reviews journals and grey literature was searched looking for incidence, prevalence and impacts of SGBV in conflict-affected countries. *Results:* Out of the 3,551 returned studies, 89 studies were assessed for eligibility. Of the 10 studies that met the inclusion and exclusion criteria, one was a randomized cohort study, four were non-randomized cohort studies, three were retrospective cohort analyses and two were cross-sectional surveys. Studies occurred in the Democratic Republic of Congo (DRC), East Timor, Uganda and mixed (Burundi, DRC, Rwanda, Sierra Leone, Somalia, southern Sudan, Uganda). All focused on examining incidence, prevalence and impacts of SGBV in conflict. *Conclusions:* Although limited, these studies demonstrate the increased incidence and prevalence of SGBV in conflict. Girls are disproportionately, more intensely impacted. Impacts for women and girls affected by SGBV range from intense psychosocial impacts and physical symptoms ranging from traumatic fistulas, pregnancy, abdominal pain, chronic pain, urinary incontinence, generalized malaise and symptoms of sexually transmitted infections.

Keywords: sexual and gender-based violence, conflict, prevalence, incidence, impacts, outcomes

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Background

Introduction and Definitions

Women and girls are disproportionately targeted in conflict, which causes higher levels of sexual and gender-based violence (SGBV) (Ward & Marsh, 2006). Many intergovernmental organizations (IGO) and international non-governmental organizations (INGO) provide definitions and parameters for SGBV and its associated concepts (Medecines Sans Frontieres (MSF), 2009; Ward & Marsh, 2006; Integrated Regional Information Networks (IRIN), 2004; United Nations Committee on the Elimination of Discrimination Against Women, 1999; World Health Organization (WHO), 2013; United Nations General Assembly (UNGA), 1993; Inter-Agency Standing Committee (IASC), 2013). The IASC's definition of gender-based violence (GBV) is the working definition for this paper because the IASC coalesces all United Nation (UN) branches' definitions of SGBV and related concepts. The IASC defines GBV as "an umbrella term for any harmful act that is perpetrated against a person's will, and that is based on socially ascribed (gender) differences between males and females" (IASC, 2013, p. 7). The term GBV can include violence against women and men, but is generally used interchangeably with violence against women because it highlights females' tendency to have a subordinate status within societies. GBV includes sexual and non-sexual forms of violence; thus, SV is a subset of GBV (IASC, 2013). This review will use GBV to refer exclusively to women and girls. The foundational aspect of the existence of GBV is inequality of power in societies, with men having the power (Ward & Marsh, 2006; United Nations High Commissioner of Refugees (UNHCR), 2011). The IASC outlines the concept of gender below.

The concept of gender being used in these definitions refers to the social differences between males and females that are learned, and though deeply rooted in every culture, are changeable over time, and have wide variations both within and between cultures. ‘Gender’ determines the roles, responsibilities, opportunities, privileges, expectations, and limitations for males and for females in any culture (IASC, 2013, p. 7).

Sexual violence, a component of GBV, can be defined as:

Any sexual act, attempt to obtain a sexual act, or other act directed against a person’s sexuality using coercion, by any person regardless of their relationship to the victim, in any setting. It includes rape, defined as the physically forced or otherwise coerced penetration of the vulva or anus with a penis, other body part or object (WHO, 2013, p. 2).

Additionally, sexual violence includes “rape/attempted rape, sexual abuse, and sexual exploitation” in the forms of, but not limited to, “rape, sexual slavery and/or trafficking, forced pregnancy, sexual harassment, sexual exploitation and/or abuse, and forced abortion (IASC, 2013, p. 8). SGBV has additional sub categories as well: marital rape, child abuse, defilement and incest, forced sodomy/anal rape, attempted rape or attempted forced sodomy/anal rape, sexual abuse, forced prostitution and sexual violence as a weapon of war and torture (IRIN, 2004). Sexual violence can be used as a strategy to cause forced displacement of persons (UNHCR, 2011).

Gang rape is a form of rape committed by two or more persons and the severity ranges depending on how it is committed. Gang rape is worsened through use of crude objects like bottles, tree branches, knives, bayonets, burned with an open flame or shot by a barrel of a gun being forced into the vagina (Longombe, Claude, & Ruminjo, 2008).

Characteristics of SGBV in Conflict

The nature of conflict places women and girls at risk for SGBV. During the flight from conflict, women and girls are at increased risk for SGBV because they may be forced to exchange sex for safe passage, food, shelter, or other resources. Once in a camp, few protection mechanisms are available. Overcrowding and insufficient lighting at night contribute to likelihood of SGBV to occur (Ward & Marsh, 2006). Poverty and conflict cause many women and girls to become prostitutes, which also places them at increased risk for SGBV (UN Committee on the Elimination of Discrimination against Women, 1999). Overall, conflict places women at a much greater risk for SGBV to occur and children are at particularly high risk (WHO, 2013; IASC, 2013; Marsh et al., 2007). Refugees are at risk for SGBV throughout the entire refugee experience (Wirtz et al., 2013).

History of SGBV

In many countries in conflict, rape is being used as a weapon of war to demoralize and weaken the population (Marsh, Purdin, & Navani, 2007; IRIN, 2004). For instance, there have been campaigns of rape in Darfur, Sudan targeted at women collecting firewood (Marsh et al., 2007).

This phenomenon has a long-standing precedence in history. The first, well-documented occurrence ensued in World War II (WWII) during the rape of Nanking, the Nazi genocide and the Japanese enslavement of comfort women (IRIN, 2004). After WWII, the war in Bosnia-Herzegovina ravaged the women in these countries; an estimated 20,000 to 50,000 women were raped (IRIN, 2004; MSF, 2009). SGBV have been occurred in these recent conflicts: the genocide in Rwanda's internal conflict in the 1990s; Indonesia's occupation of East Timor between 1975-1999; Sri Lanka and the Tamil Tiger's conflict in 1980; the period following

Haiti's coup in 1990; Colombia from 1964 to the present; the Democratic Republic of the Congo (DRC) from 1996 to the present, and Liberia from 1989 to 1996 and 1999 to 2003 (IRIN, 2004; Palermo & Peterman, 2011).

Interest from the Human Rights Community

This history of conflicts and SGBV spurred the UN to create resolutions to assure the human rights of women and girls in conflict. The United Nations Security Council (UNSC) Resolution 1325 calls all parties in armed conflict to take measures to protect women and girls from violence and requests States to end impunity for crimes against humanity and war crimes (2000). UNSC Resolution 1612 and 1882 places the protection of children living in armed conflict and the center of the Security Council's agenda and creates a reporting mechanism (2005, 2009). The Rome Statute that created the International Criminal Court (ICC) stated that rape, sexual slavery, forced prostitution, forced pregnancy and forced sterilization were crimes against humanity and war crimes and could be considered an element of genocide, punishable by the ICC (UN Secretariat, 2002).

Rights of Women and Girls

The Office of the High Commissioner for Human Rights (UNHCHR) protects women and girls' rights by requiring that the Special Rapporteur must seek and receive information on SGBV, recommend measures to eliminate SGBV, work to incorporate human rights of women and girls in UN activities and to adopt a comprehensive and universal approach to ending SGBV (2013). The Declaration on the Elimination of Violence Against Women ensures women's rights to: life; equality; liberty and security of person; equal protection under the law; be free from all forms of discrimination; the highest standard attainable of physical and mental health; just and favorable conditions of work; not to be subjected to torture, or other cruel, inhuman or degrading

treatment or punishment (UNGA, 1993). Under these rights, the violence committed against women is not permissible and violate women and girls' human rights.

Need for More Information and Present Knowledge

There recently has been an increased interest and dedication to the issue of SGBV by the INGO and IGO community (UNHCR, 2011; MSF, 2009; UNHCHR, 2013). Yet, there is a need for further clarification of the statistics of prevalence because of difficulties with over and underreporting (UNHCR, 2011; Palermo & Peterman, 2011; IASC, 2013).

Sexual violence can exacerbate conflict and can be used as a military strategy (UNSC, 2009; MSF, 2007). Rape tears communities apart due to its multifactorial impact (Marsh et al., 2007). When women try and seek services they have a difficult time because many doctors and nurses flee the country even though SGBV is a medical emergency (Chynoweth, 2008; MSF, 2009). Women face access to care issues and many programming gaps exist in financial, technical and logistical support (MSF, 2009; Chynoweth, 2008; Wirtz et al., 2013; Ward & Marsh, 2006). If women and girls take the risk of reporting the violence committed against them, a general culture of impunity exists within conflict zones (UNHCR, 2011; IRIN, 2004).

Thus, a summary of the current knowledge regarding the prevalence, incidence and impact of SGBV is needed to support the work of INGO and IGO community to determine where, to what extent and how interventions are needed on the behalf of this population. This inventory can inspire and inform the next phase of research to identify gaps and test potential interventions to alleviate a centuries old social problem.

Methods

Search Strategy

The Population Intervention Control Outcome (PICO) method of developing a research

question was loosely used to create the research question for this systematic review. The Cochrane Handbook for Systemic Reviews of Interventions developed the PICO format to create a relevant clinical question to direct review of literature. Population defines the participants of interest. Intervention is the variable of interest such as a risk behavior. Control is the comparison used for the intervention. Outcome is the effect of the intervention (Grove, Burns, & Gray, 2013). The comparison portion is not used because there are not sufficient randomized control studies with comparisons. The question created was: In women and girls in areas of humanitarian conflict (population), what is the prevalence, incidence and impact (outcome) of sexual and gender based violence (intervention)? This question was used to guide the search strategy.

The literature search included searches in academic, peer-reviewed journals and grey literature. Searches were completed using Boolean phrases. The following were phrases used to search for the topic of sexual and gender based violence:

- “sexual violence”
- “sexual and gender based violence”
- “gender-based violence”
- “sexual exploitation”
- “sexual abuse”
- “rape”
- “domestic violence”
- “intimate partner violence”
- “trafficking”
- “violence against women”

The following were phrases used to search for the topic of conflict:

- “conflict”
- “displaced person”
- “refugee”
- “armed conflict”
- “humanitarian conflict”
- “political violence”
- “war”

The grey literature was searched for using Google and the UN database IASC. The search results were limited to the first 100 results.

Searches in academic journals were completed between January 17, 2014 and March 5, 2014. The databases searched were: PubMed/Medline, CINHALL, Google Scholar and Cochrane Database of Systemic Reviews.

Reference lists of relevant reviews were searched to extract additional sources.

All searches operated under the definitions outlined in the background portion of this paper.

Inclusion and Exclusion Criteria

Studies were included if they: assessed either prevalence or impact of sexual and gender based conflict; took place in the context of conflict; reported evaluation methodology; and focused on women and girls as the population of interest.

Studies were excluded if they: were case studies, opinion pieces, book reviews, program descriptions without evaluations or references or a literature review or were in a language other than English.

Searches were completed without limits placed on dates. Control groups were difficult to find because of the ethical implications of not providing an intervention to a woman in need. Due to the nature of researching this topic, and the need for further research of this topic, stringent exclusion criteria were not utilized.

Data Analysis

All articles that were not relevant based on the abstract and duplicates were excluded. Afterwards, a reviewer examined all articles in full for exclusion and inclusion criteria.

Of the remaining documents, information was entered into an Excel sheet using the criteria outlined by a recent systematic review of mental health and psychological support interventions article (Tol et al., 2013). The following information was input into the Excel spreadsheet: study name; type of study (qualitative, quantitative, mixed methods); research site; study design; sample selection; sample characteristics (age); sample size; outcomes of interest; major results; and recommendations.

The quality of the papers was assessed using guideline outlined by Grove, Burns and Gray (2013). See Table 2 for the quality measures. The remaining documents that were analyzed in this paper were scored by how many points they met. The results are listed in Table 1.

Results

Out of the 3,551 returned studies, 89 studies were assessed for eligibility. Most studies were excluded because they did not report exact impacts on women and girls (incorporated men into data) and did not exclusively focus on SGBV.

After reviewing papers for inclusion and exclusion criteria, 10 studies remained. Of the 10 studies, more than half (n=6) occurred in the Democratic Republic of Congo. The other

locations were East Timor (n=1), Uganda (n=2) and mixed (Burundi, DRC, Rwanda, Sierra Leone, Somalia, southern Sudan, Uganda) (n=1).

Of the 10 studies, one was a randomized cohort study, four were non-randomized cohort studies, three were retrospective cohort analyses and two were cross-sectional surveys.

Studies either were exclusively comprised of women and girls, or tested data focused on women and girls separately from men and boys. The studies either reported on prevalence and incidence, impacts of SGBV or a combination.

Quality of the studies ranged from 22 to 33 items out of 45, indicating varying quality of studies and limitations of studies. See Table 2 for scoring methods.

Onsrud, Sjøveian, Luhiriri, & Mukwege sought to determine the incidence of traumatic fistulas in the DRC from 2005-2007. The researchers conducted a retrospective analysis of hospital records including persons who received treatment for gynecologic fistulas at Panzi Hospital between 2005 and 2007. The data was collected for. Of 795 patients who received fistula operations, the researchers collected information on 604 patients through outpatient cards and admission records during hospitalization. The hospital collected patient characteristics, surgical details and fistula etiology for the European Commission for Humanitarian Aid (ECHO) and the researchers used this data. Of the 604 women, 4% reported injuries caused by various types of sexual violence, but only 3% of sample had fistulas caused by SV that were not already in existence. There were two groups of women studied from the 3%, those who directly obtained a fistula from SV and those who indirectly received a fistula from SV. The women in the indirect group had a preexisting condition that was exacerbated by the rape that caused the fistula. Of the entire group, 0.8% women developed fistulas from rape with a crude object or gang rape. The study found that traumatic fistulas were rare compared to obstetric fistulas.

Hynes, Robertson, Ward, & Crouse focused on the prevalence of GBV in East Timor. The group used a standardized questionnaire created by the Reproductive Health Response in Conflict (RHRC) to measure GBV in 2002. 365 women were sampled using a multi-stage sampling scheme using an unclustered, unequal sample followed by a random selection producing 288 participants. The 136-question survey examined SGBV before and after the conflict in 1999. Prior to conflict, 23.8% of respondents reported intimate partner violence (IPV), and 24.8% reported IPV post-conflict. Assault by perpetrators outside the family decreased from 24.2% during conflict to 5.8% post-conflict. The majority of the perpetrators were identified as militia, Indonesian military or Indonesian police. Physical assault also declined post-conflict, going from 22.7% in conflict and 9.7% post-conflict. Women who experienced childhood physical abuse by parents were three times as likely to have underwent IPV prior to conflict and post-conflict. 92% of women who experienced violence reported being threatened with a weapon and 95.8% experienced improper sexual comments.

Bartels et al. examined the patterns of SV through survivors in Eastern DRC who presented to the Panzi Hospital in 2006. The researchers conducted a retrospective cohort study by using the medical records of women who presented to the hospital for post-SV care. The researchers conducted a non-systematic convenience sample and collected 1,021 medical records. Trained, female nurses completed interviews using a two-paged, semi-structured questionnaire. 56.5% of participants' attacks occurred in their individual homes, 18.4% in fields and 14.3% in a forest. 58.9% of attack occurred at night. Of all the types of sexual violence that the researchers assessed, 59.3% was gang rape. Older women were at slightly decreased risk to have experienced sexual slavery. Yet, women who suffered from sexual slavery were 37 times more likely to have a resultant pregnancy compared to the other forms of SV. Women attacked by

soldiers were more likely to describe a combination of gang rape and sexual slavery. Women who were raped at night, were two and a half times more likely to be gang raped or experience sexual slavery. Women who had attended secondary school were three times as likely to be taken as sex slaves compared to illiterate women. 6.1% of women reported pregnancy as a consequence of their SV. Social consequences included death of children, family or spouses, spousal abandonment, loss of possession and loss of family home.

Supervie, Halima, & Blower conducted an assessment of mass rape's impact on Human Immunodeficiency Virus (HIV) incidence in seven conflict-affected countries. The researchers completed an uncertainty analysis of a risk equation model using UN Program on HIV/Acquired Immunodeficiency Syndrome (AIDS), WHO and United States Census Bureau's international database for incidence rates of HIV. The researchers focused on seven countries: Burundi, DRC, Rwanda, Sierra Leone, Somalia, southern Sudan and Uganda. Using a static risk equation model, researchers determined new HIV cases in girls and women by multiplying number of women and girls who currently were uninfected by the proportion of female population who were raped by the prevalence of HIV among assailants and the average probability of transmission per act of rape. A second equation was used for country-specific data using the same parameters during peacetime. The first equation was divided by the second to determine the increase in the annual number of HIV infection in females due to mass rape in conflict. These equations determined that mass rape could cause approximately five HIV infection in every 10,000 females every year in Sudan, Somalia, Sierra Leone and DRC, which was double that in Burundi and Rwanda and quadruple that of Uganda. In the DRC, mass rape could increase HIV incidence by 7%.

Peterman, Palermo, & Bredenkamp sampled the DRC's population using the 2007 DRC Demographic and Health Survey (DHS) and other population estimates to determine the

prevalence and correlates of sexual violence. DHSs are household surveys funded by Marco International and United States Agency for International Development to provide policymakers and health professionals with data. The DRC DHS began collecting data in the 1990s, which was used to inform their research. To determine the total number of women who experienced SV, the researchers used the *Annuaire Sanitaire* and Expanded Program on Immunization's data. Five different equations were used to determine estimates of prevalence. 407,397 to 433,785 women reported being raped in the last year, during a time of conflict. Demographics did not significantly correlate to prevalence of SV.

Stark et al. used Columbia University's neighborhood method to conduct a systematic random sampling of internally displaced persons (IDP) in camps in Uganda to measure GBV. The neighborhood method used the female head of a household to report on her, her relatives and neighbor's experiences. 51.7% of the 204 respondents reported experiencing IPV in the last year and similar rates were reported for sisters and neighbors. 41% of respondents, 22.1% of sisters and 25.1% neighbors experienced marital rape. The researchers conducted multiple interviews with each woman and the inter-rater reliability for the same categories of IPV and rape was acceptable, but was poorer among marital rape.

Kinyanda et al. conducted a cross-sectional study on the medical and psychological consequences of war-related SV in Northern Uganda. Respondents were sampled from two Internally Displaced Persons (IDP) camps in the Kitgum district during wartime. A screening procedure of women seeking emergency medical interventions identified respondents who needed psychological, gynecological and surgical treatment. Of those identified, 573 respondents underwent a structured interview and were female. 28.6% of the women reported suffering from at least one war-related SV. The most common types of SV were defilement

(14.5%), abduction with sex (7.9%), attempted rape (4.9%), forced marriage (4.4%) and heterosexual rape, single episode (4.2%). 52% reported at least one physical trauma and 86.7% reported one psychological trauma. The main perpetrator of SV against women was the rebel Lord's Resistance Army (71.4%) and government soldiers (23.4%). 72.4% had at least one gynecological complaint. Of those, 52.2% experience abdominal pain, 27.4% had abnormal vaginal bleeding, 26.6% became infertile, 25.3% obtained genital sores and 22.5% had swellings in the abdomen. 69.4% had significant psychological distress, measured as a six or greater on the WHO Self Reporting Questionnaire-20. 19.3% of women 44 years and older experienced SV and 35.2% women 44 years and younger experienced SV.

Kelly, Betancourt, Mukwege, Lipton, & Van Rooyen used a mixed methods approach to capture the impact and type of SV in eastern DRC. They conducted a non-random sample of 225 women ages 18 and older that attended a referral hospital and two local NGOs to characterize the nature of the SGBV suffered. Afterwards, they held a focus group of 48 survivors to elaborate on qualitative survey findings. Of the 225 sampled, 75.7% experienced rape, and of those women, 29% were rejected by their families and 6% by their communities. Of those raped, 13% had a child from the rape. 68.9% of women reported experiencing gang rape and 46% of women reported being abducted by their perpetrator. In the focus groups, rape was majorly seen in conjunction with violence related to the conflict. Combatants were blamed for the majority of the SGBV. Women reported traumatic fistulas as a risk factor for rejection. 44.6% of women waited a year or longer prior to seeking SGBV services. 58% of women reported they would like their attacker to be arrested for the SGBV crime, and those who responded no reported a doubt of the effectiveness of the legal system.

Steiner et al. researched the impact of SV and access to care of SV survivors in the DRC

using the NGO Malteser International's clients. Malteser International provided a medical-social support program for rape survivors. A non-randomized, convenience sample of 20,517 women between 2005 to 2007 was analyzed to determine the impact of SV and the women's access to care issues. The data was originally recorded for the donor, ECHO. Only 3.3% of the sample received medical care within 72 hours, the standard of practice outlined by this article. The majority (17.5%) received care between one to two years after the violence. Rejection from the women's home occurred 12.5% of the time in 2005, and 6% of the time in 2006 and 2007.

Nelson et al. examined the impact of sexual violence on children in the Eastern DRC using semi-structured questionnaires from a convenience sample of girls presenting to the Panzi Hospital for post-sexual violence care. The researchers used a mixed methods approach to synthesize the aspects of the SGBV and determine common themes within the narratives. The final sample consisted of 389 girls under the age of 18 that were interviewed using a two-page, semi-structured questionnaire. The odds of rape among children were 5.6 times greater than the odds of an adult survivor. The odds of a girl being attacked by a civilian were 92.6 times greater than adults. Education was not a significant predictor of experiencing SGBV. Civilians accounted for 70% of rapes. Soldiers committed 84.2% of the combined gang rape and sexual slavery assaults against girls. Of the qualitative themes identified, 23.9% of survivors reported physical signs or symptoms resulting from the SV. The common symptoms included: chronic pain, urinary incontinence, generalized malaise and symptoms of sexually transmitted infections. 19.3% of the girls reported pregnancy as a result of the SV. 18.3% of the girls reported pursuing justice against the perpetrator.

Discussion

The purpose of this systematic review was to coalesce the existing literature on SGBV to

gain a better understanding of the prevalence, incidence and its impacts in countries experiencing humanitarian conflict. This review only identified 10 documents, despite an inclusive search of both academic and grey literature. Although one of the studies randomized the sampling, there were no randomized control studies (RCT) within the literature search that met the inclusion criteria.

Due to the lack of randomized studies, this data cannot be generalized to other populations easily. Randomization is the research tool that is essential to generalization (Grove et al., 2013).

Also, there were no cohort, longitudinal studies found in the literature. Existing literature has studies demonstrating the immediate impacts on the individuals, but there are no studies looking at how the SGBV affected women many years in the future. This could shed light on how to create interventions, and what type of economic impact not conducting interventions could have. This could be completed by following a group of women and girls who experienced SGBV in conflict from an initial assessment during conflict through a post-conflict time period of 10 years.

Overall, the quality and the quantity of the research do not reflect the magnitude and the severity of the problem. As stated above, there were no high quality studies found after a comprehensive search of the existing literature. In grey literature, educated estimates have been made of the magnitude of the problem. The World Bank cannot make firm estimates of the financial impact because there are very few impact evaluations related to GBV, but it did project that the economic costs of domestic violence – a component of GBV – cost governments 1.2-2% of their gross domestic product (GDP), as much as many governments spend on primary education (2013). The World Bank also made a prediction in a 2013 study that 35% of women

worldwide have experienced GBV. Utilizing estimates, one can see that the needs are vast, but a large amount of quality research does not exist.

The seven studies in this literature review that examined impact demonstrated the need for continued research of this topic because of the severe impacts they uncovered. Onsurd et al. and Kelly et al. outlined fistulas as possible, devastating impact of SGBV. Onsurd et al. discovered that a smaller percentage than previously thought were caused by traumatic fistulas, but both Onsurd et al. and Kelly et al. agreed that due to the increased severity of the cause of these traumatic fistulas, they needed to be carefully addressed. Also, a recent study uncovered that there is a general dearth of facilities that meets the classifications of an emergency obstetric facility and lack trained staff, essential supplies and medications and poor infection control practices (Casey et al., 2009).

Another common theme uncovered by these studies is the risk of becoming pregnant due to SV (Bartels et al., 2010; Kelly et al., 2011). The devastation of pregnancy was not only psychological, but women are more likely to have poorer access to care because of being rejected from their families and communities after experiencing SGBV. This leads to poor birth outcomes and possible obstetric fistulas.

These studies also found that SGBV causes a great deal of general gynecologic problems compounded by many psychological problems. Kelly et al. identified that 29% of women in the DRC were rejected by their families after their SGBV, removing their support system (2011).

Supervie et al. outlined the greater impact SGBV can have on the prevalence of HIV in conflicts (2010). Many women are viewed as unclean or contaminated after experiencing SGBV because people think they have HIV, furthering their isolation (Kelly et al., 2011).

This culmination of stressful events and severe impacts make the experience particularly

devastating. Many women delay seeking medical attention even though MSF has recognized that SV is a medical emergency (Steiner et al., 2009; MSF, 2009). Also, many of the perpetrators in conflict are members of the military or militias, leading to a general reign of impunity for these women and girls (Steiner et al., 2009; IRIN, 2004).

Also, just one of the studies specifically addressed the impact of SGBV on girls. As outlined by Nelson et al., girls are more likely to experience SGBV because they are more vulnerable (2011). Despite this discovery, many of the literature reviewed in this study did not specifically mention demographics or dedicate a portion of their paper comparing the different effects SGBV had. United Nations Children's Fund (UNICEF) adds that in emergencies, child protection laws, policies, services and regulation are weakened, leaving children more vulnerable (2011).

Stark et al. found that incidence of SGBV were mainly caused by someone close to them, while most others found that military and militia were more likely to commit the act (2010; Kinyanda et al., 2010; Bartels et al., 2010; Hynes et al., 2004; Kelly et al., 2011; Nelson et al., 2012). Despite differing offenders, SGBV existence in conflict is particularly devastating because of a lack of existing social and governmental structures to protect women and girls (UNICEF, 2011). Military and militia committing the crime occurs much more frequently in conflict (Hynes et al., 2004).

After experiencing SGBV, many women were rejected by their families and their communities, removing major support systems (Steiner et al., 2009; Kelly et al., 2011; Bartels et al., 2010).

A majority of women had psychological and gynecological impacts including severe psychological distress, abdominal pain, abnormal vaginal bleeding, infertility, genital sores, and

inflamed abdomens (Kinyanda et al., 2010).

The studies that focus on prevalence and incidence in this review demonstrated that rates of SGBV are probably much higher than current estimates (Peterman et al., 2011). This is most likely due to the sensitive nature of the topic and boundaries to reporting.

A majority of attacks occurred at night, in women's homes and were gang rape (Bartels et al., 2010; Kelly et al., 2011). The nature of the attacks endanger a woman's future ability to feel safe.

Johnson et al. recently found that compared to pre-conflict periods in Kenya, there was a 37-fold increase in opportunistic violence against women (2014). More studies like this one are needed to examine the levels of SGBV during conflict and before conflict. This could demonstrate a greater need to dedicate money to the issue by the international community.

Overall, there was only one study that mentioned the use of nurses to collect data (Bartels et al., 2010). The use of nurses is a tactic that could be helpful to more research teams because of nurses' intimate role with the survivors. Also, more research should be conducted examining the efficacy of using nurses to provide intervention as compared to other non-trained individuals.

These studies were limited because they did not use random sampling, causing the data to not be as representative (Onsurd et al., 2008; Bartels et al., 2010; Supervie et al., 2010; Peterman et al., 2011; Stark et al., 2010; Kinyanda et al., 2010; Kelly et al., 2011; Steiner et al., 2009). Also, many were retrospective, which could alter the data because the researchers did not collect it (Onsurd et al., 2008; Bartels et al., 2010; Nelson et al., 2011). Many studies relied on women to self-report, which could have had a reporter-bias, skewing the data (Bartels et al., 2010; Steiner et al., 2009; Stark et al., 2010; Kelly et al., 2011; Nelson et al., 2011).

A major limitation of this study is that only studies in English were examined. Due to the

international context of this research, many helpful studies could have been missed that were in another language. Also, because many studies were excluded because they incorporated men into the data, many implications for women and children could have been overlooked. Further, the topic inherently excludes non-conflict settings, which is another important contribution to SGBV impacts and prevalence.

A recent study conducted a similar literature review that focused on the prevalence of SV during conflict in IDPs and refugees. Using a random effects model, the study found that the prevalence rate of SV in all areas of conflict is 21.4% (Vu et al., 2014). This supports the findings in this study that SV has a significant prevalence in times of conflict.

Conclusion

Despite the UNHCR and UN's dedication to this issue, the problem is still rampant and needs greater attention and a shift in tactics (UNHCR, 2011).

Overall, UN agencies and INGOs need to plan evaluation and research during the inception of the intervention. The international community needs better data to truly understand the prevalence and impact SGBV has. If organizations utilized this mentality and valued quality research, a more accurate understanding of how the international community can address the issue of SGBV could be gained.

Currently, there are many efforts to address this issue, but in order to have precise interventions, INGOs and IGOs need to have an understanding of accurate data on the prevalence, incidence and impact of SGBV. The development of specific research questions through the PICO method is a helpful manner to develop research questions in order to obtain accurate data.

Also, to gain a deeper understand of the issue, longitudinal studies would be highly

beneficial because the international community could gain an understanding of how individuals' experiences affect their community, and ultimately their country's wellbeing. The utilization of community nurses in data collection is a possible method to complete longitudinal studies. Only one of the reviewed articles incorporated nurses in the collection of data, but many more could benefit from the quality of relationships nurses can form with their patients.

Furthermore, additional studies focusing exclusively on girls are necessary to fully understand girls' heightened vulnerabilities and different impacts from women. More accurate and efficient interventions would be possible if the current state and nature of SGBV against girls was understood.

On March 20, 2014 the "Under Secretary for Civilian Security, Democracy, and Human Rights Sarah Sewall launched the Bureau of Democracy, Human Rights, and Labor's (DRL) Gender-Based Violence Emergency Response and Protection Initiative (GBV Initiative)" (U.S. Department of State, 2014). Efforts such as this by the international community are essential, but will lack effectiveness and efficacy if more proactive, intentional research is not conducted in the future on this topic.

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Table 1

Examined Literature

Study Name	Research Site	Study Design	Sample Selection	Participants at Baseline	Outcomes Assessed	Quality Assessment
Sexual violence-related fistulas in the Democratic Republic of Congo	Democratic Republic of Congo	Retrospective analysis	Convenience sample	N = 604; age ranged from 3 to 45; 3% survived rape or SV and had a fistula	Systematic Review of patient records	22 out of 45
A Determination of the Prevalence of Gender-based Violence amount Conflict-affected Populations In East Timor	East Timor	Cross-sectional survey design	Multi-stage sampling scheme: un-clustered, equal-probability sample followed by a random selection	N = 288; age range from 18-49; 22.7% experienced SV	The Reproductive Health Response in Conflict's standardized questionnaire to measure GBV	32 out of 45
Patterns of sexual violence in Eastern Democratic Republic of Congo: reports from survivors presenting to Panzi Hospital in 2006	Democratic Republic of Congo	Retrospective cohort study	Non-systematic convenience sample	N = 1,021; unspecified age range; 100% experienced SGBV	Systematic Review of patient records	23 out of 45
Assessing the impact of mass rape on the incidence of HIV in conflict-affected countries	Burundi, DRC, Rwanda, Sierra Leone, Somalia, southern Sudan, Uganda	Retrospective analysis	Convenience sample	N = 164,878,000; 18-49; unspecified amount	Static Risk Equation mathematical model using UNAIDS/WHO data	30 out of 45
Estimates and Determinants of sexual Violence Against Women in the Democratic Republic of Congo	Democratic Republic of Congo	Cohort study	Population sample	N= 9,995; 15-49; 29% of women experience rape	Nationally representative household survey	33 out of 45
Measuring violence against women amidst war and displacement in northern Uganda using "neighborhood method"	Uganda	Randomized cohort study	Systematic random sampling	N=204; 16-57; 51.7% experienced IPV	Neighborhood Method	28 out of 45
War related sexual violence and it's medical and psychological consequences as seen in Kitgum, Northern Uganda: A cross-sectional study	Northern Uganda	Cross-sectional study design	Convenience sample	N=813; no limit; 28.6% of women SV	Structured questionnaire	29 out of 45
Experiences of female survivors of sexual violence in eastern Democratic Republic of the Congo: a mixed-methods study	Democratic Republic of Congo	Non-randomized cohort design	non-random convenience sample	N=255; 18 and older; 75.7% experienced SV	Survey designed by local NGO staff and nurses	27 out of 45
Sexual violence in the protracted conflict of DRC programming for rape survivors in South Kivu	Democratic Republic of Congo	Non-randomized cohort design	Convenience sample	N=20,517; no specification; 100% experienced SV	Systematic Review of patient records	24 out of 45

Impact of sexual violence on children in Eastern Democratic Republic of Congo	Democratic Republic of Congo	Non-randomized cohort design	Convenience sample	N=389; 18 and younger; 100% experienced SGBV	Semi-structured questionnaires	31 out of 45
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Table 2

Quality Determination Tool (Grove et al., 2013)

Measurement	Possible Points
Are the authors qualified to conduct the study?	1
Is the article title clear (type of study, variables and population identified)?	1
Does the abstract include the study's purpose, design, sample, and intervention if applicable?	1
Is the significance of the problem stated?	1
Is the background of the problem stated?	1
Is the problem stated?	1
Is the purpose stated?	1
Are relevant prior studies and theories described?	1
Are the references current? (Percentage in the last 5 and 10 years)	1
Are the studies described, critically appraised, and synthesized?	1
Is a summary of present knowledge given?	1
Is the framework explicit expressed, or must the reader extract the framework from implicit statements?	1
Is the framework based on tentative, substantive, or scientific theory?	1
Does the framework identify, define and describe relationships among concepts of interest?	1
Is a model of the framework provided for clarity?	1
Are study variables linked to the relevant concepts in the model?	1
How is the framework related to the general body of literature?	1
Are research objectives, questions or hypotheses listed?	1
Are demographic and other relevant terms identified?	1
Is the specific design of the study identified?	1
Is the study's treatment or intervention clearly described?	1
If the study has more than one group, was the assignment into groups described?	1
Are extraneous variables identified and controlled?	1
Were pilot studies used to design the study?	1
Were inclusion and exclusion information listed?	1
Was the specific probability or non-probability sampling method identified?	1
Was the sample size listed?	1
Was the sample attrition identified?	1
Were characteristics of the sample identified?	1
Was the institutional review board process described?	1
Was the study setting described?	1
Was each study variable listed that was measured?	1
Was the author of each measurement method listed?	1
Was the type of each measurement strategy listed?	1
Was the process for data collection described?	1
Was the statistical procedures conducted to describe the sample listed?	1
Was the level of significance or alpha identified?	1
Were the findings related back to the study's framework?	1
Were expected findings consistent with the actual findings?	1
Were expected findings not consistent with the actual findings?	1
Were the findings consistent with prior research findings?	1
Were study limitations identified?	1
Did the researcher generalize the findings?	1
Were suggestions for further research identified?	1
Was the description of the study clear enough for replication?	1