Racial Targeting of Sexual Violence in Darfur

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Few quantitative studies have examined sexual violence associated with international war crimes, and, to our knowledge, no peer-reviewed studies have examined sexual violence in the Darfur region of western Sudan. Leone and southern Iraq. The latter uniquely identifies a government role in rape prior to the American occupation.

Quantitative research on international war crimes most often focuses on forced migration and mortality. ^{5,6} Total estimated mortality in Darfur for a 33-month period from 2003 to 2005 exceeded 200000; crude mortality rates were 4 to 6 times higher than expected in peace time, and more than 2 million persons in the region have been displaced. Fexual violence, although present in the region, is rarely reported numerically. A UN inquiry found that "various sources reported widespread rape" in Sudan, and the inquiry warned that "many cases went unreported due to the sensitivity" of the subject. ⁸

Sexual violence results in physical harm, reproductive trauma, the communication of sexually transmitted diseases (including HIV), pregnancy, and feelings of helplessness and humiliation that persist as posttraumatic stress disorders. 9 For example, the sequelae of sexual violence, such as traumatic fistula or incontinence of urine or stool, often leave victims physically traumatized, shamed, and ostracized. In contexts of warfare or societal disintegration, intergroup rape is often used as a means of controlling reproduction and is a powerful weapon for destruction of social groups. The International Criminal Tribunal's verdict in the Jean-Paul Akayesu case in Rwanda identified rape as an "an integral part of the process of destruction" outlawed by the Genocide Convention.¹⁰

Studies of sexual violence are complicated by societal taboos regarding rape. These taboos have not completely silenced advocacy on behalf of rape victims, ^{11,12} but they do discourage victims from reporting rapes. It has been anecdotally observed, however, that people are more comfortable reporting the rapes of others, and these reports can be cross-validated. In our

Objectives. We used the Atrocities Documentation Survey to determine whether Sudanese government forces were involved in racially targeting sexual victimization toward ethnically African women in the Darfur region of western Sudan.

Methods. The US State Department conducted the survey by interviewing a randomized multistage probability sample of 1136 Darfur refugees at 20 sites in Chad in 2004. For a subset of 932 respondents who had fled from village clusters that accounted for 15 or more respondents per cluster, we used hierarchical linear models to analyze village-level patterns of reported sexual violence. We statistically controlled for individual sexual victimization to remove bias.

Results. Respondents reported being subjected to racial epithets associated with sexual victimization significantly more often during combined attacks by Sudanese government forces and Janjaweed militia forces than during separate attacks by either force.

Conclusions. Combined attacks by Sudanese government forces and Janjaweed militia forces led to racial epithets being used more often during sexual victimization in Darfur. Our results suggest that the Sudanese government is participating in the use of sexual assault as a racially targeted weapon against ethnically African civilians. (*Am J Public Health*. 2009;99:1386–1392. doi:10.2105/AJPH.2008.141119)

study, we accounted for these considerations by analyzing central tendencies in reported rape, taking into account individual- and village-level variation and bias.

The origin of the Darfur conflict has been traced to rebel attacks on Sudanese government forces in the region in 2003.¹³ However, group polarization in Darfur dates at least as far back as the mid-1980s, when violence began between Arab nomadic herders and non-Arab farmers.¹⁴ Desertification and famine intensified competition over grazing areas and land, which is why the most common crimes involve crops and livestock.¹⁵ Libya's dictatorial leader, Muammar al-Gaddafi, exploited the 1985 famine in Sudan by bringing guns to the Arab herders in Darfur and trying to create an "Arab belt" across sub-Saharan Africa. Another cause of group polarization was the 1986 election of Sadiq al-Mahadi as prime minister of Sudan. Mahadi sought to form an "Arab and Islamic Union." 16

Gaddafi later adopted a more pan-African foreign policy, and al-Mahadi did not entirely exclude non-Arab groups from his regime, but Omar al-Bashir, who was installed as president of Sudan by a military coup in 1989, more brutally excluded non-Arabs from governance.

Bashir's government armed and trained landless Arab pastoralists who were growing more desperate for access to water and pastures. Desertification intensified the dichotomy between nomadic, pastoralist "Arabs" and sedentary, farming "non-Arabs" or "Black Africans." Although both groups were predominantly Muslim, the Black Africans were less likely to understand or speak Arabic. These contentious differences of livelihood and language were linked to variations in skin tone and defined as racial characteristics. 18

In 2003, Sudanese government forces launched the first of 2 major offensives against rebels in Darfur. ¹⁹ In 2004, the US State Department accused Sudan of joining its government military forces with the Arab Janjaweed ("men with guns on horses or camels") militias to target and carry out genocidal violence against African tribal villages populated by Black Africans. ²⁰ Sudanese government forces began bombing Zaghawa villages in north Darfur and subsequently extended ground and bombing attacks to Fur and Masalit villages in west and south Darfur. ^{2(pp9–10)} Fur and Masalit women were especially vulnerable to sexual violence during ground attacks. ²¹

Attackers often shouted racial epithets that designated Zaghawa, Fur, and Masalit groups as targets for attacks because they were Black Africans. These epithets were forceful attributions of racial difference intended to cause harm. Such evidence of racially specific intent is at the core of the legal definition of genocide. Judges in the Rwandan Akayesu genocide case decided that "the use of derogatory language toward . . . the targeted group" provides "sufficient evidence of intent,"10(para 523-524) and judges in the Bosnian Jelisi genocide case cited "words" and "remarks" as evidence of racial intent.22

We hypothesized that, in the Darfur conflict, Sudanese government forces joined with Arab Janjaweed militia in racially targeting non-Arab Black African villages for violence that included sexual victimization, while at the same time sparing Arab villages from sexual violence.

METHODS

We analyzed a US State Department Atrocities Documentation Survey (ADS) conducted from July 12 through August 18, 2004, with a randomized multistage probability sample of 1136 Darfur refugees at 20 sites in Chad.²³ The funding of this State Department survey (\$858322) was provided by the United States Agency for International Development through the American Bar Association and the Coalition for International Justice, which supervised data collection in eastern Chad. The United Nations (UN) used lettered grids to subdivide refugee camps into sectors, with each sector led by a recognized chief or other leadership figure. The ADS team proportionately sampled the camps' sectors by size and ethnicity. Informal refugee villages (refugee camps not recognized by the UN) were similarly sampled, with landmarks serving as sector boundaries. Interviewers followed random routes from leaders' households and selected interviewees from every tenth occupied living space. Interviewers used a Kish grid to randomly select 1 adult to interview in each household.

The questionnaire was developed by the State Department's Bureau of Intelligence and Research, with input from international law advisors on victim and perpetrator crime codes. With the aid of cartographers and translators, interviewers identified 90% of the villages from which refugees fled. 23(p67) We thus identified 932 respondents who had fled from 22

originating village clusters (henceforth called "villages") that had 15 or more respondents each (Figure 1).

Population pyramids from refugee and displacement camps inside Darfur are similar with regard to age and gender to those in Chad. In both Chad and Darfur there is a disproportionate absence of fighting-age men (aged 1829 years). There are no indications that the Darfur refugees in Chad differ in significant ways from internally displaced Darfuris in the bordering areas.

Table 1 indicates that the average refugee in the sample was 37 years old. The sample was about 60% female (N=559) and 40% male (N=373), reflecting the absence of fighting-age

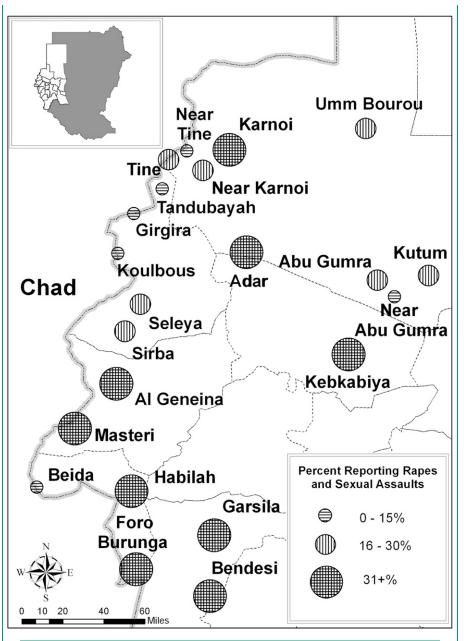


FIGURE 1-Map of rapes and sexual assaults: Atrocities Documentation Survey of Darfur Refugees, Chad, 2004.

TABLE 1—Individual-Level and Village-Level Profiles: The Atrocities Documentation Survey of Darfur Refugees, Chad, 2004

	Mean (SD)	
Village-level racial intention:	0.312 (0.144)	
racial epithets heard		
Individual-level charact	eristics	
Respondent attributes		
Age, y	37.100 (14.634	
Male	0.400 (0.491)	
African ethnic group membership		
Zaghawa	0.527 (0.550)	
Fur	0.055 (0.288)	
Masalit	0.275 (0.447)	
Others (Ref)	0.143 (0.330)	
Attacking group(s)		
GoS or Janjaweed militia (Ref)	0.328 (0.345)	
GoS and Janjaweed militia	0.672 (0.470)	
Ethnic exception: Arab	0.063 (0.244)	
villages spared		
Racial intention: heard	0.343 (0.475)	
racial epithets		
Reported sexual victimization		
Reported victimization of self	0.04 (0.205)	
Reported victimization of others	1.184 (2.539)	

Note. GoS = government of Sudan military forces. N = 932 individuals (level 1) and 22 village clusters (level 2). Data are expressed as percentage of respondents unless otherwise indicated.

men. About one half were Zaghawa (52%, N=485), about one quarter Masalit (27.5%, N=256), and about one twentieth Fur (5.5%, N=51), with the remainder from other ethnic groups (14%, N=140). More than two thirds of the respondents (67.2%) reported attacks by combined government and Janjaweed forces, nearly one fifth (18.8%) reported attacks by government forces alone, and one tenth (10%) reported attacks by Janjaweed forces alone.

The survey collected information about criminal events perpetrated against interviewees, their families, and their villages. Demographic information collected by the survey included respondents' date and place of birth, gender, ethnicity, tribe, clan, education, and employment. Responses were categorized and coded according to when and why the respondents, their families, and fellow villagers left Darfur. Answers from 35 crime

victimization codes—including codes for rape of self, rape of others, rape with object, and sexual humiliation—were cross-validated by reading the interviews and were recoded into sexual victimization of self and sexual victimization of others, as defined below. Answers from 10 perpetrator codes were similarly cross-validated by reading the interviews and were recoded into attacks by separate and combined government and Janjaweed forces.

It has been argued that traumatic events and other significant life events can be reliably reported for up to 10 years.²⁴ The maximum recall period for this study was 44 months, dating from January 2001.

Interviewers

There were 6 ADS teams. Each team was composed of 4 interviewers, 4 interpreters, and 1 core staff member. A typical interview team included a male international prosecutor, a female refugee and trauma worker, a female investigator experienced in gender crimes, and a male genocide scholar. Interpreters translated responses in 10 different languages. Training of the interpreters was conducted with the interviewers and was directed by a linguistics professor and an expert on interviewing sex-crime victims for international tribunals. The training emphasized complete and exact language. One interpreter was dismissed for including personal opinions as part of the translations.

An average of 5 interviews per interviewer per day were conducted. At the end of each day, each interviewer-interpreter pair reviewed each interview to clarify ambiguities. Analysts in the United States reviewed the interviews, and coders from a research organization performed a third check. The study's legal focus encouraged corroborative coding.

Statistical Analysis

The quantitative challenge in this study was to analyze both individual and village-level dynamics of sexual violence. In analyzing data, we used hierarchical linear modeling (HLM) designed for multilevel clustered samples. ²⁵ HLM yields robust standard errors adjusted for non-independence and allows analysis within and between villages. We analyzed the combined role of government forces operating with Janjaweed militias in racial targeting of sexual violence

(as well as in the sparing of Arab villages) in an "us versus them" dynamic of ethnic cleansing. 26

First we used a logistic regression to model binary reports of whether individuals heard racial epithets during attacks by government or Janjaweed forces. Then we estimated joined individual and village-level Poisson regression equations of sexual victimization (with robust standard errors and adjustments for dispersion and months of exposure before flight). The dependent variable, sexual victimization, was the count of the number of other persons reported by each individual (i.e., the count of the number of persons other than the respondent) in the village to have been sexually attacked, as further defined below.

HLM allowed simultaneous analysis within and between villages. Thus, our within-village Poisson model first regressed the individuallevel reports by the 932 respondents reporting sexual victimization of others on their individual reports of racial epithets, their own sexual victimization, and other independent variables defined below. Our between-village Poisson model then regressed the average sexual victimization of others for the 22 villages (after the individual-level variables were taken into account) on the proportion of the respondents reporting that they heard attackers using racial epithets in each village during attacks. The averaging of the dependent variable victimization scores within villages prevented overcounting of overlapping reports.

The equations for the hierarchical Poisson model were

(1)
$$\ln \lambda_{ij} = \beta_{oj} + \Sigma_k \beta_{ki} X_{kji} + \epsilon_{ii}$$
 and

$$\beta_{oi} {=} \pi_{oo} {+} \pi_{o1} Y_j {+} \delta_j, \label{eq:beta_oi}$$

where λ_{ij} was the rate of sexual victimization of others reported by individual i in settlement j, β_{kj} was the regression coefficient for variables k in settlement j, X_{kji} was the individual-level covariate, Y_j represented the proportion of individuals in settlement j that heard attackers use racial epithets during attacks, π_{oo} was a constant term for the entire sample, π_{ol} was the effect associated with the proportion hearing racial epithets, and ϵ_{ji} and δ_j were Poisson and normally distributed errors.

Poisson models assume independence of events, which in our case were the respondent's reports of others being sexually victimized.

Because reports about others being sexually victimized may include events that are associated with a common source or with a propensity to report, causing either fewer or more events to be reported, such reports could partially reflect the occurrence of nonindependent events. To partially purge such underlying dependence, we controlled for the respondent's report of her own sexual victimization. We also reported robust standard errors and an adjustment for overdispersion to limit further sources of dependence (information available as a supplement to the online version of this article at http://www.ajph.org).

The joint analysis provides information not only about individual sources of reported sexual victimization in Darfur but also about the influence of aggregate differences in the distribution of racial epithets between villages on sexual victimization, with individual-level variables controlled. The models we estimated thus considered (1) whether combined government and nongovernment involvement in attacks and in the sparing of nearby Arab villages predicted reports of racial epithets being used during attacks, (2) whether reports of racial epithets were unequally distributed across villages and whether this was an important determinant of the effects epithets had on reported sexual victimization, and (3) whether combined government and nongovernment attacks in conjunction with higher prevalence of racial epithets at the village level predicted greater sexual victimization.

Key Definitions

In Darfur, attackers created racial terror by targeted shouting of racial epithets. Some of these epithets were generic, such as "kill all the slaves" and "kill the Blacks." Others distinguished Arabs from Black Africans in terms of skin tone: "We will kill all men and rape the women. We want to change the color. Every woman will deliver red. Arabs are the husbands of those women." The depiction of rape as leading to the changing of child color makes clear that the reference to "husbands" in the preceding report reflects an involuntary relationship.

We identified attackers as belonging to either government forces or Janjaweed militia by clothing and equipment reported by interviewees. We defined sexual victimization to include rape, sexual assault, acts of sexual molestation such as insertion of foreign objects into the genital opening or anus, and sexual slavery. Four percent of the full sample and 7 percent of women reported personal sexual victimization. The latter proportion

approximated that found in Sierra Leone. (29.1%) Nearly one third of the respondents (29.1%) indicated that other villagers were sexually victimized during attacks. Others' sexual victimization was coded from 1 to 10 other persons victimized, with a mean of 1.18. As noted above,

TABLE 2—Logistic Regression Model of Racial Epithets Heard During Attacks: The Atrocities Documentation Survey of Darfur Refugees, Chad, 2004

	b (SE)	OR (95% CI)
Respondent attributes		
Age	-0.005 (0.005)	0.995 (0.985,1.005)
Gender	0.655*** (0.185)	1.925 (1.339,2.766)
African ethnic group membership		
Fur	0.679** (0.252)	1.973 (1.206, 3.231)
Masalit	0.727*** (0.200)	2.070 (1.398, 3.064)
Zaghawa	0.384* (0.192)	1.469 (1.008, 2.141)
Attacking groups: GoS and Janjaweed militia	0.652*** (0.165)	1.920 (1.389, 2.653)
Ethnic exception: Arab villages spared	1.123*** (0.231)	3.074 (1.957, 4.830)
Intercept	-1.737 (0.288)	0.176 (0.097, 0.320)

Note. OR = odds ratio; CI = confidence interval; GoS = government of Sudan military forces. N = 932 individuals (level 1) and 22 village clusters (level 2).

TABLE 3—Individual-Level and Village-Level Models of Sexual Victimization, Adjusted for Exposure and Dispersion: The Atrocities Documentation Survey of Darfur Refugees, Chad, 2004

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	b (SE)	ER (95% CI)
Individual-level cha	racteristics	
Respondent attributes		
Age	-0.019** (0.006)	0.981 (0.969, 0.994)
Gender	0.235 (0.183)	1.265 (0.882,1.812)
African ethnic group membership		
Fur	-0.235 (0.379)	0.791 (0.376, 1.663)
Masalit	-0.380 (0.335)	0.683 (0.355, 1.318)
Zaghawa	-0.514 (0.285)	0.598 (0.342, 1.045)
Attacking groups		
GoS and Janjaweed militia	0.345* (0.164)	1.412 (1.018, 1.958)
Ethnic exception: Arab villages spared	0.196 (1.66)	1.217 (0.881, 1.681)
Reported sexual victimization: reported victimization of self	1.180*** (0.229)	3.254 (2.078, 5.094)
Racial intention: heard racial epithets	0.290 (0.188)	1.337 (0.924, 1.935)
Village-level char	acteristics	
Racial intention: mean heard racial epithets	2.518** (0.905)	NA
Intercept	-3.660 (0.100)	0.981 (0.969, 0.994)

Note. ER = event ratio; CI = confidence interval; GoS = government of Sudan military forces; NA = not available. N = 932 individuals (level 1) and 22 village clusters (level 2).

^{*}P<.05; **P<.01; ***P<.001.

^{*}P<.05; **P<.01; ***P<.001.

others' sexual victimization was our ultimate outcome variable. Self-reports of sexual victimization were used as a control variable for unmeasured heterogeneity or reporting bias. Figure 1 indicates that sexual violence was most commonly reported in villages in west Darfur where Fur and Masalit tribal groups were concentrated. The HLM reliability score resulting from the partitioning of the variance of others' sexual victimization within and between villages was 0.906, indicating precision at the village level.

We used village-level proportions of respondents hearing racial epithets to measure aggregation and concentration of racial targeting. These scores ranged from zero to 50.2%. As a further measure of the "us versus them" dynamic, we also included the respondents' reports of nearby Arab villages being spared from attacks.

RESULTS

Table 2 presents a logistic regression model of hearing racial epithets during attacks. The model indicated that men were more likely than women (b=0.66, P < .001) to hear epithets. Nearly three fourths (72.8%) of the female refugees had no schooling, and less than one twentieth (4.5%) had attended Islamic school; slightly more than one third (35.6%) of male refugees had no schooling, and more than one quarter (26.0%) had attended Islamic school. Men were thus more likely to understand and report racial epithets spoken in Arabic.

The model further indicated that Fur (b=0.68; P<.01), Masalit (b=0.73; P<.001), and Zaghawa (b=0.38; P<.05) group members were also more likely than others to hear racial epithets. The Zaghawa experienced more bombing than ground attacks, which may explain why they were less likely than the Fur and Masalit to report hearing racial epithets. There is much attention in human-rights reporting to the specific targeting of the Fur.²¹ An added finding in the model is that respondents who reported that nearby Arab villages were spared also were more likely to report hearing racial epithets (b=1.12; P < .001). The final important finding in the model was that racial epithets were more likely to be heard during joint Sudanese government and Janjaweed attacks (b=0.65;

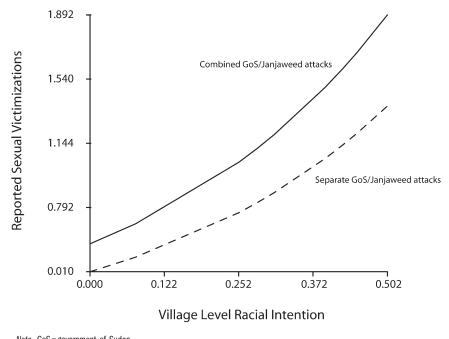
P<.001), indicating government involvement in racially targeted violence.

It is possible that combined forces shouted epithets in several languages, increasing the likelihood that the epithets would be understood. Yet this would not account for an effect of combined forces on sexual victimization; nor would it account for the persistence of an effect of racial epithets on sexual victimization after statistically controlling for combined attacks. The latter relationships are a focus of Table 3.

Table 3 presents the Poisson model of sexual violence, with robust standard errors and adjustment for dispersion and for months of exposure before fleeing. A significant age effect (b=-0.019; P < .01) indicates that younger respondents reported more sexual victimization. More striking is the direct and significant role (b=0.35; P<.05) of combined attacks by government and Janjaweed forces in explaining sexual victimization. More striking still is the simultaneously significant role of racial intention (b=2.52; P < .01) when measured as the proportion of respondents hearing racial epithets at the village level during attacks. This effect was net of all other variables, including racial epithets measured at the individual level and as respondents' own reported sexual

victimization. As expected, self-reports of sexual victimization have a highly significant effect on the reported sexual victimization of others (b=1.18; P < .001). The effects of combined government and Janjaweed attacks and villagelevel racial intention remain statistically significant, withstanding controls for bias and unmeasured heterogeneity in reports of sexual victimization.

Results from the Poisson model of sexual victimization are summarized graphically in Figure 2. The lines in this figure show the predicted number of other persons sexually victimized in the villages when the model used the proportion of respondents in each village who reported hearing racial epithets during attacks and who reported that the attacking forces were a combination of government and Janjaweed forces (and when we set other variables in the Poisson model at their mean values). Thus, the top line in this figure indicates that an average of more than 1 and as many as 2 persons were reported to have been sexually victimized when half or more of the respondents from a village reported hearing racial epithets during attacks by combined government and Janjaweed forces. Sexual victimizations were reported less often



Note. GoS = government of Sudan.

FIGURE 2-Additive effects of combined GoS and Janjaweed militia attacks in village-level racial targeting of sexual victimization in Darfur: 2004.

when the attacks were conducted by government or Janjaweed forces separately and when attackers used no racial epithets during attacks.

DISCUSSION

Omar al-Bashir, the president of Sudan, has asserted that "It is not in the Sudanese culture or people of Darfur to rape. It doesn't exist. We don't have it."29 In October 2007, the United States introduced a UN resolution condemning governmental use of rape and sexual violence for political or military objectives. 30 However, several nations succeeded in having references to government responsibility removed from the resolution.31 In June 2008, the UN Security Council adopted a US-sponsored resolution that says, "Sexual attacks in conflict zones may be considered war crimes."32 In Darfur, the UN High Commission on Human Rights cites continued eyewitness reports of "consistent and credible accounts of rape" by government and Janjaweed forces.33 The government of Sudan persists in denying these charges.

The June 2008 UN Security Council resolution calls for better documentation of sexual violence. A public health perspective identifies the political sources of the urgent, severe medical problems that follow sexual violence as an instrument of war. We argue that the urgency of documenting rape demands a new research methodology. Our approach broadens the measurement of sexual violence by emphasizing the victimization of others, which mitigates self-reporting problems while revealing broader patterns.

Our results suggest that Sudanese government forces joined Janjaweed militia forces in conducting attacks with a concentrated racial intent that created terror through the shouting of racial epithets and that provoked sexual violence against racially targeted African villages. Our results also suggest that this racial terror was intensified near Arab villages that were spared such violence. This evidence of the selective sparing of Arab villages and the targeting of racial epithets toward Black African villagers, leading to sexual violence, supports the charge of an organized Sudanese pattern of racially targeted rape in Darfur.

Our study had several limitations. The interviewers did not speak the languages of the

Darfur refugees, so interpreters were required. The interpreters contributed to the study in another important way however, they introduced interviewers to the refugees and used knowledge of local customs to establish trust. The investigators expressed high satisfaction with the interpreters'

Shared method bias may result from respondents reporting both predictor variables and sexual violence outcomes. However, aggregated reports of sexual violence across villages yielded highly reliable reporting. We also controlled for the respondents' reports of their own sexual victimization to minimize potential common sources of bias and heterogeneity.

An indirect survey of Darfur villagers who fled from Sudan could introduce selectivity bias. Yet the Chad survey displayed demographics similar to those from Sudanese camp surveys. The refugee survey allowed questions about sexual victimization unasked in Sudanese camps. Finally, the adjustment for months since fleeing to Chad was a partial control for selectivity.

Government of Sudan forces joined with Arab Janjaweed militia in racially targeting Black African women with racial epithets during attacks on Darfur villages. This led to heightened sexual victimization, which in turn produced terror and physical and mental trauma. The reported sparing of nearby Arab villages from these attacks broadened the evidence that the sexual violence was a selective and targeted part of the conflict. The demonstrated involvement of Government of Sudan forces in the racially targeted perpetration of sexual violence in Darfur is evidence that this victimization plays an important role in international conflict zones. The involvement of Sudanese military forces in these attacks indicates governmental knowledge, participation, and resulting resposibility for sexual victimization. Rape and sexual violence are often employed as instruments of state and intergroup conflict, and lead to major health problems in international settings.

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Contributors

J. Hagan originated the study, supervised all aspects of its implementation, and led the analyses and the writing. W. Rymond-Richmond assisted with the study and helped complete the analyses. A. Palloni assisted with the study and analyses. All authors helped conceptualize ideas, interpret findings, and review drafts of the article.

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Human Participant Protection

This study was approved by the American Bar Foundation's institutional review board. Each of the participants provided oral consent to participate in the study.

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