Stigma and Parenting Children Conceived From Sexual Violence

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abstract

BACKGROUND AND OBJECTIVES: Since armed conflict began in 1996, widespread sexual violence in eastern Democratic Republic of Congo has resulted in many sexual violence-related pregnancies (SVRPs). However, there are limited data on the relationships between mothers and their children from sexual violence. This study aimed to evaluate the nature and determinants of these maternal–child relationships.

METHODS: Using respondent-driven sampling, 757 women raising children from SVRPs in South Kivu Province, Democratic Republic of Congo were interviewed. A parenting index was created from questions assessing the maternal–child relationship. The influences of social stigma, family and community acceptance, and maternal mental health on the parenting index were assessed in univariate and multivariable analyses.

RESULTS: The majority of mothers reported positive attitudes toward their children from SVRPs. Prevalence of perceived family or community stigma toward the women or their children ranged from 31.8% to 42.9%, and prevalence of perceived family or community acceptance ranged from 45.2% to 73.5%. In multivariable analyses, stigma toward the child, as well as maternal anxiety and depression, were associated with lower parenting indexes, whereas acceptance of the mother or child and presence of a spouse were associated with higher parenting indexes (all $P \leq .01$).

CONCLUSIONS: In this study with a large sample size, stigma and mental health disorders negatively influenced parenting attitudes, whereas family and community acceptance were associated with adaptive parenting attitudes. Interventions to reduce stigmatization, augment acceptance, and improve maternal mental health may improve the long-term well-being of mothers and children from SVRPs.

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WHAT'S KNOWN ON THIS SUBJECT: Maternal–child relationships among women raising children from sexual violence-related pregnancies (SVRPs) are not well understood. Limited case reports suggest widely varied and complex relationships. The determinants of these relationships are unknown.

WHAT THIS ARTICLE ADDS: With its large sample size, this article quantifies and analyzes maternal–child relationships among women raising children from SVRPs, and assesses the impact of stigma, acceptance, and maternal mental health on these relationships.

For nearly 2 decades, the armed conflict in eastern Democratic Republic of Congo (DRC) has been characterized by widespread sexual violence.[1–3] It is estimated that 40% of women in eastern DRC have experienced sexual violence,[4] and up to 17% of survivors became pregnant as a result.[4–6] There are limited data about children born from sexual violence-related pregnancies (SVRPs) in DRC or elsewhere.[7]

Limited existing empirical evidence suggests that SVRPs provoke complex emotional responses in sexual violence survivors. Some women abort the fetus,[2,8] whereas others abandon the child at birth.[8] For women who raise the child, anecdotal evidence suggests a complex and varied maternal–child relationship.[7,9] Interviews with women raising children from SVRPs suggest alternating emotions of love and hate for their children.[2,10,11] Several reports describe poor parent–child relationships, abuse, and neglect of children from SVRPs,[7,12] whereas others suggest a primarily positive maternal–child relationship.[13,14]

It is unknown how external factors, such as social stigma and family and community acceptance, impact the maternal–child relationship. Stigma toward sexual violence survivors is well documented,[2,3,6,9] and stigma is thought to be even greater toward children from SVRPs.[12] Case reports suggest the children are often perceived negatively by their families and communities,[8,15] and may be given derogatory names.[2,7,11] Women with children from SVRPs have been described as the "most marginalized,"[9] and it is suggested that the children increase stigma and isolation for the women who raise them.[8] Even when mothers are accepted by their communities after sexual assault, the acceptance may not extend to their children.[16]

The importance of the maternal–child relationship, and influences on that relationship, cannot be overstated. Childhood experiences have effects on physical and emotional development that can persist into adulthood. Adverse childhood events, including physical abuse, emotional abuse, and parental mental health disorders are associated with higher rates of mental illness, substance use, comorbidities, stress, and somatic disturbances in adulthood.[17,18] Nurturing and secure relationships early in life correlate with improved emotional and cognitive development in childhood, and improved physical and mental health in adulthood.[19]

Improved systematic understanding of maternal–child relationships arising from SVRPs is needed to develop interventions that will improve child outcomes. To learn more about these relationships among women with SVRPs, a hard-to-reach population, this study used respondent-driven sampling (RDS) to explore the nature of and influences on maternal–child relationships among women raising children from SVRPs in eastern DRC. Specifically, this study aimed to (1) describe parenting attitudes of women raising children from SVRPs, (2) examine the relationship between maternal mental health and parenting attitudes, and (3) investigate how parenting attitudes are impacted by family and community stigmatization and acceptance of mothers and children from SVRPs.

METHODOLOGY

Respondent-Driven Sampling

RDS uses tracked peer-to-peer recruitment to sample hard-to-reach populations, such as sexual violence survivors. In RDS, initial participants are chosen and recruit their peers to participate, who subsequently recruit additional participants. Recruitment patterns are closely tracked, and the number of recruits and timeline for recruitment are controlled.[20]

Analyses of recruitment patterns and social network size allow recruitment biases to be identified and corrected for during final data analysis. If sufficient recruitment is achieved, the data approximate an unbiased estimate of population parameters.[21–23]

Participants and Sampling Procedures

The study was conducted in Bukavu, South Kivu Province, DRC from October 9 to November 7, 2012. The survey methodology has been previously described.[24] In collaboration with local partners, 10 eligible women raising children from SVRPs were selected and interviewed as initial participants. Participants were given verbal instructions on recruitment and could recruit up to 3 other eligible women with an SVRP, who could each recruit 3 others, and so on. Recruitment patterns were tracked with uniquely numbered coupons, and recruitment time was limited to 2 weeks.[20,24,25] Only recruited participants could participate in the study.

Women who were either raising a child from an SVRP (parent group) or had terminated a pregnancy from sexual violence (termination group) were eligible for the study. Cross-recruitment was allowed between groups, though each had separate surveys and data analysis plans. Only results from the parent group are presented here. Participants were eligible for the parent group if they (1) were 18 years of age or older, (2) self-reported an SVRP since the start of the war (1996), (3) delivered a live infant from the SVRP, and (4) currently lived with and cared for that child.

Participants self-presented to the study office and their referral coupons were checked for validity. Screening questions verified participant eligibility; 276 recruits were ineligible, the majority of whom (53%) did not have an SVRP. After obtaining verbal informed consent, interviews were conducted by trained

local female research assistants. A headscarf (value USD$1) was provided as compensation for the participant's time and transportation to/from the study office was reimbursed directly to drivers. There was no secondary incentive for recruiting additional participants. The Harvard School of Public Health provided institutional review board approval, and a community advisory board and the provincial ministry of health provided local approval.

Data were collected electronically by using KoBoToolbox software (http://www.kobotoolbox.org) on handheld tablets. If a tablet was not available, paper surveys were used, and the data were retrospectively entered.

Sample Size

With a design effect of 2,[26] 50% prevalence of depression,[4] and 5% margin of error, the desired sample size for the parent group was 754.

Instruments

The study questionnaire was designed with local and international experts and then refined through pilot testing and cognitive interviewing. The questionnaire was translated into Kiswahili by a local translator and back translated by a different translator. Differences were resolved by consensus with a third translator. A panel of local collaborators reviewed the translated questions.

Demographics and Assault Characteristics

Demographic characteristics, such as age, place of origin, current residency, marital status, ethnicity, and religion, were self-reported by participants. Meals per day served as a proxy of socioeconomic position.[27,28] Sexual assault characteristics were recorded.

Outcome: Assessment of Parent–Child Relationships

Four domains of parenting were assessed: positive regard, attunement, parental stress, and hostility. Attunement is awareness of, sensitivity to, and responsiveness to the child's needs. Questions on positive regard and parental stress were drawn from the Parental Stress Scale.[29] Culturally appropriate questions were developed for the remaining domains with assistance from local partners. Responses were recorded on a standard 5-point Likert scale. The primary outcome of the study was a parenting index generated from these responses, with a range from 0 to 12. So that higher index values uniformly represented more adaptive parenting attitudes, questions on positive regard and attunement contributed a point if there was a response of agree or strongly agree, whereas questions on hostility and parental stress were reverse scored, so that a response of disagree or strongly disagree contributed 1 point. Cronbach's α, calculated to assess the internal consistency of the parenting index, was 0.79.

Stigma and Acceptance

In the absence of validated measures, stigma toward and acceptance of the mother and child were assessed by using Likert scale questions such as "My community accepts my child as he/she is" or "I believe that the community stigmatizes me because I have a child born from sexual violence." Local partners and pilot testing verified clarity and understanding of the questions. Stigma and acceptance were not defined and left open to interpretation of the participant. For data analysis, responses of strongly agree and agree were considered affirmative. For multivariable analysis, summary variables for stigma or acceptance from 1 or more of the spouse, family, or community were used.

Maternal Mental Health

Mental health was assessed by using the Patient Health Questionnaire-2 screen for major depressive disorder,

TABLE 1 Weighted Demographics and Assault Characteristics of Women Raising Children From SVRPs in Eastern DRC

Characteristic	All Respondents
Age of respondent, *n* = 765, mean (SD), y	33.8 (9.1)
Age of child, *n* = 764, mean (SD), y	5.7 (2.3)
Meals per day, *n* = 765, *n* (%)	
1	547 (71.4)
2	211 (27.6)
3	8 (1.0)
Education level, n = 762, *n* (%)	
No education	344 (45.2)
Any primary school	304 (39.9)
Any secondary school	111 (14.6)
Any university	2 (0.3)
Marital status, *n* = 763), *n* (%)	
Married	243 (31.9)
Divorced or separated	219 (28.7)
Widowed	156 (20.5)
Never married	93 (12.2)
Husband missing	44 (5.8)
Living with partner	6 (0.8)
Other	2 (0.2)
Ethnic group, *n* = 756, *n* (%)	
Bashi	566 (74.0)
Balega	146 (19.0)
Batembo	23 (2.9)
Other	30 (4.0)
Current village, *n* = 765, *n* (%)	
Bukavu	583 (76.1)
Kabare	132 (17.2)
Walungu	32 (4.2)
Kalehe	11 (1.5)
Other	8 (1.0)
Village of origin, *n* = 764, *n* (%)	
Walungu	331 (43.2)
Kabare	144 (18.8)
Shabunda	102 (13.3)
Bukavu	64 (8.4)
Kalehe	64 (8.4)
Mwenga	48 (6.3)
Other	12 (1.6)
Religion, *n* = 761, *n* (%)	
Catholic	405 (53.2)
Protestant	344 (45.1)
Muslim	3 (0.4)
Other	10 (1.3)
Number of reported assailants in assault resulting in SVRP, *n* = 751, *n* (%)	
More than 1	605 (80.6)
1	146 (19.4)
SVRP occurred while in captivity for more than 24 h, *n* = 743, *n* (%)	
Yes	635 (85.5)
No	108 (14.5)

TABLE 1 Continued

Characteristic	All Respondents
Reported perpetrator of assault leading to SVRP,[a] *n* = 765, *n* (%)	
Interhamwae/FDLR/Hutu	714 (93.2)
Congolese military	19 (2.5)
Mai Mai	8 (1)
Other or unknown armed	14 (1.8)
Community member	8 (1)
Year of assault, *n* = 755, *n* (%)	
1996–2002	34 (4.5)
2003	43 (5.8)
2004	69 (9.1)
2005	130 (17.2)
2006	169 (22.3)
2007	127 (16.8)
2008	96 (12.7)
2009	45 (6)
2010–2012	44 (5.7)

Data are presented as mean ± SD or *n* (%). Frequencies and percentages are weighted, thus frequencies may add to greater than the 757 respondents.

[a] Percentage indicates percentage of respondents reporting that type of assailant; percentages may total above 100% because more than 1 type of assailant could be reported.

Generalized Anxiety Disorder (GAD)-2 screen for anxiety, and Posttraumatic Stress Disorder (PTSD) Checklist, civilian version (PCL-C) screen for PTSD.[30] The Patient Health Questionnaire-2 and PCL-C have previously been used in low resource and postconflict settings,[31–33] whereas the GAD-2 is a validated short form of the GAD-7, which has been used in similar settings. The depression and anxiety screens were considered positive if the total score was 3 or higher,[34] whereas the PCL-C cutoff was 50 or higher.[35] Due to a programming error, participants reporting no symptoms to the first question of the GAD-2 (*n* = 74) were inadvertently not asked the second question. These were scored as negative anxiety screens, because participants only would have screened positive if they reported the severest category of symptoms on the second question. Sensitivity analyses revealed excluding these participants did not meaningfully alter the results.

Data Analysis

Analysis of recruitment patterns and potential biases was carried out in the Respondent Driven Sampling Analysis Tool 7.1.38.[36] Homophily (the tendency of individuals to recruit individuals similar to themselves),[22] intergroup affiliation, and ability to reach equilibrium were analyzed for 9 variables, and population weights were generated by using both study groups and taking into account individual network size.[24] Six variables (age, ethnicity, current residence, religion, meals per day, and parenting/termination group) reached equilibrium, 2 others (marital status and education) were stabilizing, and 1 (place of origin) did not reach equilibrium. Variables with a homophily of >0.3 or whose population proportion estimates required greater than a 5% correction were weighted in the final analysis; 5 variables met this criteria (religion, ethnicity, place of origin, current residency, and marital status).[24]

Weights were imported into SAS version 9.3 (SAS Institute, Inc, Cary, NC) for further analyses. The initial participants were excluded from analysis, according to RDS methodology.[20] When respondents had >1 child from sexual violence (*n* = 19), data on the relationship with the oldest child was used. *t* tests were used for bivariate analyses of the parenting index. Linear regression was used for multivariable analyses, and residual plots were examined visually for normality. Given the limited understanding of the constructs of stigma and acceptance in this context, adjusting 1 for the other was not thought to add meaningful information. Thus, 2 separate regression models were run to examine the effects of stigma and acceptance when adjusted for other variables.

TABLE 2 Maternal Perceptions of Child and Maternal–Child Relationship Among Women Raising Children From SVRPs

Question (Weighted Number of Total Respondents = 765)	Weighted Number Responding Affirmatively, *n* (%)
Positive regard	
I enjoy spending time with my child	716 (93.5)
I find my child enjoyable	703 (91.9)
My child is an important source of affection for me	631 (82.5)
Attunement	
I worry about the well-being of my child	713 (93.1)
I find it easy to respond to my child when he/she is crying or upset	604 (78.9)
I praise or encourage my child[a]	642 (84.1)
Parent stress	
The major source of stress in my life is my child	371 (48.5)
Having this child has been a financial burden	586 (76.6)
I feel overwhelmed by the responsibility of being a parent	644 (84.2)
Hostility	
I feel negatively about my child[b]	210 (27.5)
I feel angry at my child often[b]	99 (13.0)
My child is bad[b]	38 (5.0)

[a] Weighted number responding = 764.

[b] Weighted number responding = 763.

RESULTS

Excluding initial participants, 757 respondents raising children from SVRPs were interviewed. Demographics and characteristics of the assault leading to the SVRP are shown in Table 1. The mean age of participants was 33.8 +/− 9.1 years, and the mean age of the children born from sexual violence was 5.7 +/− 2.3 years. The majority of assaults, 85.5%, occurred while the respondent was held in captivity for more than 24 hours and 80.6% involved multiple assailants.

Maternal views toward their children are shown in Table 2. High positive regard (defined as an affirmative response to all 3 of the questions)

was reported by 80.5% of participants and high attunement by 73.0%. Low hostility (defined as a negative response to all 3 questions) was reported by 51.1% and low parental stress by 9.4%. The mean parenting index was 8.2 (95% confidence interval: 8.0–8.4). When looking at their children, 66.1% reported they often saw their assailant and/or remembered the sexual assault.

The prevalence of stigma and acceptance toward the mother and child, as reported by the mother, are shown in Table 3. Among the participants, 38.1% reported the community stigmatized their child and 38.4% reported they themselves were stigmatized. Perceived acceptance of the child was lowest from the spouse (45.2%), followed by the community (52.6%) and family (68.3%). Perceived acceptance was lower for the child than for the mother. When stratifying by perceived stigma or acceptance, the parenting index was significantly lower when the mother or child was stigmatized or when the mother or child was not accepted (all $P < .03$; Table 3).

Multivariable analyses of the influences of stigma and acceptance on the parenting index are shown in Tables 4 and 5, respectively. In both models, the presence of a spouse or partner positively influenced the parenting index ($P < .001$), whereas depression and anxiety had negative influences. In the stigma model (Table 4), stigma toward the child remained significantly correlated with the parenting index ($P = .01$), whereas stigma toward the mother did not ($P = .42$). In the acceptance model (Table 5), acceptance of both the mother and child remained significant predictors of the parenting index ($P < .001$).

DISCUSSION

To our knowledge, this is largest study of parenting attitudes among sexual violence survivors raising children from SVRPs, and the first to use RDS in this context. By using RDS to recruit a large sample that provides a more representative estimate of population parameters, this study offers valuable insight into the maternal–child relationships of women raising children from SVRPs. Overall, most mothers reported positive feelings toward their children, contrary to some case reports and anecdotal experience.

TABLE 3 Maternal Report of Acceptance and Stigma Toward Mother and Child Among Woman Raising Children From SVRPs

	Weighted Number and Percent Endorsing, *n* (%)	Mean Parenting Index With Affirmative Response (95% CI)	Mean Parenting Index With Negative Response (95% CI)	*P*
Demographics and mental health				
Respondent has a spouse (*n* = 762)	249 (32.7)	9.2 (8.9–9.5)	7.7 (7.5–7.9)	<.0001
Mother reported any formal education (*n* = 762)	418 (54.8)	8.2 (7.9–8.4)	8.2 (8.0–8.5)	.61
Mother sees face of assailant or remembers assault when looking at child (*n* = 765)	506 (66.1)	8.1 (7.8–8.3)	8.5 (8.2–8.7)	.03
Mother reported 2 or more assailants (*n* = 751)	605 (80.6)	8.1 (7.9–8.3)	8.7 (8.4–9.0)	.002
SVRP occurred while held in captivity for more than 24 h (*n* = 743)	635 (85.5)	8.2 (8.0–8.4)	8.4 (8.0–8.8)	.29
Child is in school (*n* = 424)[a]	226 (53.4)	8.6 (8.3–8.9)	8.2 (7.9–8.6)	.11
Mother met PTSD symptom criteria (*n* = 765)	442 (57.8)	7.7 (7.5–8.0)	8.8 (8.6–9.1)	<.001
Mother met depression symptom criteria (*n* = 765)	372 (48.6)	7.4 (7.2–7.7)	8.9 (8.7–9.1)	<.001
Mother met anxiety symptom criteria (*n* = 765)	331 (43.3)	7.5 (7.2–7.7)	8.8 (8.6–9.0)	<.001
Stigmatization and acceptance, as perceived by the mother				
Child stigmatized by spouse, community, or family (*n* = 765)	386 (50.4)	7.7 (7.5–8.0)	8.7 (8.4–8.9)	<.001
Child stigmatized by spouse (*n* = 331)[b]	142 (42.9)	8.3 (7.9–8.7)	9.3 (9.0–9.6)	<.001
Child stigmatized by family (*n* = 748)[c]	238 (31.8)	7.2 (6.8–7.5)	8.7 (8.5–8.9)	<.001
Child stigmatized by community (*n* = 610)[d]	223 (38.1)	7.5 (7.1–7.8)	8.6 (8.4–8.9)	<.001
Mother stigmatized by the community (*n* = 610)[d]	235 (38.4)	7.6 (7.2–7.9)	8.6 (8.4–8.9)	<.001
Child accepted by spouse, community, or family (*n* = 765)	564 (73.8)	8.8 (8.6–8.9)	6.6 (6.2–7.0)	<.001
Child accepted by spouse (*n* = 324)[b]	147 (45.2)	9.2 (8.8–9.6)	8.6 (8.2–8.9)	.02
Child accepted by family (*n* = 752)[c]	514 (68.3)	8.9 (8.7–9.0)	6.8 (6.4–7.1)	<.001
Child accepted by community (*n* = 630)[d]	331 (52.6)	9.0 (8.8–9.2)	7.3 (7.0–7.6)	<.001
Mother accepted by spouse, community, or family	598 (78.1)	8.7 (8.5–8.9)	6.5 (6.0–6.9)	<.001
Mother accepted by spouse (*n* = 314)[b]	180 (57.2)	9.1 (8.8–9.5)	8.6 (8.1–9.0)	.03
Mother accepted by family (*n* = 751)[c]	552 (73.5)	8.7 (8.6–8.9)	6.7 (6.3–7.1)	<.001
Mother accepted by community (*n* = 610)[d]	358 (58.6)	8.9 (8.6–9.1)	7.1 (6.8–7.5)	<.001

Due to weighting, frequencies may be more than the 757 subjects included in the analysis. Data on perceived stigma against the mother by spouse or family were not collected. CI, confidence interval.

[a] School-aged children only.

[b] Excludes those who do not have a spouse or whose spouse does not know the child was from a SVRP.

[c] Excludes those who indicated their family does not know the child was from a SVRP.

[d] Excludes those who indicated their community does not know the child was from a SVRP.

TABLE 4 Effect of Stigma and Mental Health on Parenting Index: Stigmatization Regression Model

	β	P
Mother perceives child is stigmatized by spouse, community, or family	−0.50	.01
Mother perceives she is stigmatized by community	−0.17	.42
Mother screened positive for PTSD	−0.27	.18
Mother screened positive for depression	−0.83	<.001
Mother screened positive for anxiety	−0.56	.006
Mother has spouse or partner	1.1	<.001
Mother reported more than 1 assailant	−0.49	.02
Mother sees assailant or remembers the assault when seeing child	−0.15	.42

In addition to the variables above, the model also controlled for age of mother, age of child, meals per day, presence of any formal education, and if the respondent was held in captivity (all $P > .05$). Data on stigma against the mother by her spouse or family were not collected. Number of participants contributing to the regression = 718.

This study suggests that stigma and mental illness are associated with a lower parenting index, whereas acceptance and having a spouse are associated with a higher parenting index. These associations have significant implications for the well-being of children from SVRPs in DRC.

The relatively positive attitudes of mothers toward their children from SVRPs contrast with previous reports focused on the negative consequences of SVRPs. The positive parenting attitudes could represent the strength of the innate bond between mother and child that overcomes social stigma and community perceptions. Alternatively, the positive attitudes could reflect societal expectations about the role of a mother in Congolese society. The associations of parenting attitudes with mental health, stigma, and acceptance suggest that complex factors influence a mother's perceived relationship with her child.

With the prevalence of stigma toward the mother and child nearing 40%, the need for interventions to reduce stigma is paramount. Without well-informed interventions, secondary victimization through stigmatization could continue to negatively impact mothers and their children years after the sexual assault. The fact that stigma directed toward the child, but not the mother, remained significantly related to parenting attitudes in multivariable analysis highlights the need to address stigma toward children from SVRPs specifically. In Sierra Leone, media campaigns discouraging stigma toward children from SVRPs effectively encouraged acceptance.[13] Similar strategies should be considered in DRC. Methods used to reintegrate sexual violence survivors, such as cultural rituals[37] and family mediation,[15] could be expanded to reintegrate children from SVRPs. Given the importance of religion in this society, the role of religious groups in reducing stigma should be explored. Finally, education and awareness-raising programs in schools could mitigate stigma.

TABLE 5 Effect of Acceptance and Mental Health on Parenting Index: Acceptance Regression Model

	β	P
Mother perceives child is accepted by spouse, community, or family	1.2	<.001
Mother perceives she is accepted by spouse, community, or family	0.95	<.001
Mother screened positive for PTSD	−0.23	.21
Mother screened positive for depression	−0.72	<.001
Mother screened positive for anxiety	−0.59	.002
Mother has spouse or partner	0.78	<.001
Mother reported more than 1 assailant	−0.39	.06
Mother sees assailant or remembers the assault when seeing child	−0.093	.59

In addition to the variables above, the model also controlled for age of mother, age of child, meals per day, presence of any formal education, and if the respondent was held in captivity (all $P > .05$). Number of participants contributing to the regression = 718.

Further research is needed to explore the constructs and determinants of stigma and acceptance, which are complex and multifactorial.[15,38–40] It has been suggested that a child's physical appearance and acceptance by immediate family influence the child's stigmatization or acceptance by the community.[12] This has not been explored in systematic studies, nor is it known what other factors may contribute, such as the visibility of the assault, resulting physical or mental illnesses, and the survivor's sociodemographic characteristics. Better understanding of stigma and acceptance will facilitate effective interventions to reduce stigma.

Finally, this study highlights the importance of effective programming to address the mental health needs of women raising children from SVRPs. The well-known association between maternal mental health and maternal–child relationships[41,42] is further supported by this study, which demonstrated significant relationships between depression and anxiety and parenting. Given the high rates of depression, anxiety, and PTSD, treatment services are essential not only to assist the mothers, but also for the long-term benefit of their children. Assisting survivors with their psychological trauma could prevent the negative effects of violence from cascading across generations. Techniques that have been successfully used in DRC, such as community-based group treatment programs[31] and trauma-focused cognitive behavioral therapy,[43] should be expanded to specifically target women raising children from SVRPs.

RDS sampling methodology has limitations, including the need to meet several sampling assumptions, such as a small sample size relative to population size and networking among population members.[23,44–47] This study met most of these assumptions,[24] although, as in any RDS study, we cannot decisively

determine if selection within a recruiter's network was random. Additionally, although RDS corrects for identified recruitment biases, there may be other undetected biases. This may explain why theoretical corrections of RDS recruitment biases have had mixed results in practice.[46] Finally, RDS's reliance on peer recruitment means this study may have missed nondisclosed acts of sexual violence.

The generalizability of our findings may be limited because most participants lived in Bukavu, an urban area. However, we do not suspect that maternal attitudes or the associations identified would differ significantly in a rural setting. Almost all perpetrators in this study were members of armed groups, and the results may not be generalizable to civilian-perpetrated SVRPs.

Due to the absence of validated parenting scales for this population, we created a parenting index. This has not been validated and it is unknown how this differs from other parenting scales. Parental attitudes were self-reported by the mothers, which may have biased responses. Because study participants self-presented after recruitment, mothers with more positive attitudes may have been more likely to enroll. This study did not include interviews with the children, and cannot draw conclusions regarding the child's mental health or perceptions of stigma. Furthermore, this study cannot compare parenting attitudes of women raising children from SVRPs to those of other mothers in eastern DRC. It is unknown how other factors, such as displacement, poverty, insecurity, or other forms of trauma, may affect parenting attitudes.

Finally, for ethical reasons, the study did not ask about child abuse or neglect, because the protection of at-risk children could not be assured without breeching confidentiality. The positive parenting attitudes reported here should not be interpreted to mean that these children are safe from abuse and neglect. It is possible for caregivers to love their children yet to maltreat or neglect them, particularly when the emotional response to the pregnancy and child is complex.

CONCLUSIONS

Among women raising children from SVRPs in eastern DRC, the maternal–child relationship is primarily positive. Acceptance and having a spouse correlate with more positive parenting attitudes, whereas stigma and mental health disorders are associated with negative parenting attitudes. It is essential to develop evidence-based programming to reduce stigmatization, improve acceptance, and address the mental health needs of mothers and their children born from SVRPs. Assisting sexual violence survivors with their psychological trauma, mitigating stigma, and facilitating acceptance all represent important opportunities to positively influence parenting, and to thereby improve the lives and well-being of Congolese children born from SVRPs.

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ABBREVIATIONS

DRC: Democratic Republic of Congo
GAD: Generalized Anxiety Disorder
PCL-C: Posttraumatic Stress Disorder Checklist, civilian version
PTSD: posttraumatic stress disorder
RDS: respondent-driven sampling
SVRP: sexual violence-related pregnancy

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