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Risk for Family Rejection and Associated Mental Health Outcomes Among Conflict-Affected Adult Women Living in Rural Eastern Democratic Republic of the Congo

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Stigma due to sexual violence includes family rejection, a complex outcome including economic, behavioral, and physical components. We explored the relationship among conflict-related trauma, family rejection, and mental health in adult women living in rural eastern Democratic Republic of the Congo, who participate in a livestock-based microfinance program, Pigs for Peace. Exposure to multiple and different types of conflict-related trauma, including sexual assault, was associated with increased likelihood of family

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rejection, which in turn was associated with poorer mental health outcomes. Design of appropriate and effective interventions will require understanding family relationships and exposure to different types of trauma in postconflict environments.

The authors focus on the health of women who have experienced on-going conflict, violence against women, and limited access to social services including health care and economic opportunity. We apply concepts of stigma to better the understanding of factors that influence mental health outcomes amongst women who have experienced trauma. In Africa and worldwide, conflict and violence are a key concern. A better understanding of how outcomes due to war-related violence influence health is essential to improve interventions in these settings. To learn more about these issues, we conducted a study in the Democratic Republic of Congo (DRC).

Since 1996, civilian populations living in eastern DRC have endured ongoing war and violence resulting in disruption of economic opportunities and destruction of basic health and social services (Alberti et al., 2010; Coghlan et al., 2007; Réseau des Femmes pour un Développement Associatif, Réseau des Femmes pour la Défense des Droits et la Paix, & International Alert, 2005). Women living in North and South Kivu provinces and Ituri District reported high exposure to physical (17.2%), movement (7.8%), and property (23.6%) rights violations including sexual violence (39.7%) between 1994 and 2010 (Johnson et al., 2010). These findings are consistent with other studies where researchers attempted to quantify conflict and nonconflict-related sexual violence in eastern DRC (Steiner et al., 2009; Wakabi, 2008). Several scholars have documented that exposure to war-related violence including surviving rape or sexual assault, lacking basic necessities (e.g., food, water), lacking medical care when ill, and being in a combat situation are risk factors for mental illness (Betancourt, Brennan, Rubin-Smith, Fitzmaurice, & Gilman, 2010; Kubiak, 2005; Miller et al., 2002; Roberts, Damundu, Lomoro, & Sondorp, 2010; Roberts, Ocaka, Browne, Oyok, & Sondorp, 2008).

Individual-level consequences of sexual violence include poor health, stigma, rejection, and fear of rejection. Women survivors of sexual violence accessing health services at Panzi Hospital (in Bukavu) or one of two rural nongovernmental organizations (NGOs) in eastern DRC reported abandonment by their husband (29%) and communities (6%) after the assault (Kelly, Betancourt, Mukwege, Lipton, & Vanrooyen, 2011). Similar estimates of rejection have been reported in studies with participants in NGO programs (Steiner et al., 2009) and with community members (Vinck, Pham, Baldo, & Shigekane, 2008). Such stigma and rejection arises from family and community beliefs that women were voluntary participants in the assault; the trauma and humiliation associated with public, witnessed rape; cultural beliefs that sex, whether or not voluntary, means that a woman is married to her partner/aggressor; fear of return of the aggressor; family and community

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pressure to reject survivors; cultural beliefs that women should represent purity; and pregnancy due to rape (Harvard Humanitarian Initiative, 2009; Kohli et al., 2012; Réseau des Femmes pour un Développement Associatif et al., 2005; Sideris, 2003).

Female survivors of sexual assault and their male partners living in Walungu Territory, South Kivu province, described family rejection as complex and multifaceted, including, for example, forced removal from the family home, loss or limited financial support by family, children of the survivor (even those not born from rape) being rejected by the family, lack of communication and affection, limited assistance or involvement in household activities, reduced or absence of sexual activity, and loss of property (Kohli et al., 2012). Community members described difficulties that all villagers faced due to their exposure to different types of conflict-related trauma, and they expressed a need to understand and address the multiple risk factors and consequences of those varied exposures on both family relationships and individual outcomes.

Theoretical Consideration on Violence and Stigma

A brief introduction into moral stigma may provide an understanding of how family rejection is related to exposure to multiple types of trauma and mental health outcomes. Stigma is a process involving the use of labels and stereotypes, separation of individuals from a group, and discrimination against labeled individuals. Stigma and the associated outcomes result from an interaction between individual behavior and characteristics and social and cultural norms, morals, and beliefs (Link & Phelan, 2001). Yang and colleagues (Yang & Kleinman, 2008; Yang et al., 2007, p. 1528) propose a cultural understanding of stigma, where stigma is "embedded in the moral life of sufferers." In this context, moral is defined as that which is most important in the daily life and interaction of ordinary people. Thus, communities employ stigma as a means of protecting the larger group and preserving social and cultural norms, meanings, and values (Kleinman & Hall-Clifford, 2009; Yang et al., 2007).

Corrigan and Miller (2004) explain that family members may be stigmatized because of their choice to continue to interact with the marginalized individual. This places great social pressure on families to reject stigmatized persons, even if the individual members express a desire to practice acceptance. In the DRC, male partners of survivors of sexual assault have described the difficulty they face in accepting their wife/female partner for reasons that include the family and peer pressure they face to remarry a woman who has not been raped (Kohli et al., 2012). In the DRC, people develop and define their identity as a part of a larger social whole, favoring the well-being of the group over individual needs (Menkiti, 1984). Experiences of family rejection in the DRC may fall within the realm of moral stigma whereby individuals

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grow and live in a family and social unit, and threats to the moral character of society and family are considered dangerous to the character and cohesion of the group. As a result, decisions to reject family members may be related to experiences where individuals are held responsible or blamed for their trauma; for example, sexual violence. There may be other conflict-related traumatic exposures that similarly result in a stigmatizing experience within the family and community leading to negative health outcomes.

Research Aims

In response to community requests to understand the relationship between traumatic experiences and stigma within family relationships, we explored the relationship among conflict-related trauma, family relationships, and mental health amongst female participants in the baseline data collection of an impact evaluation of a Congolese-led livestock microfinance program, Pigs for Peace (PFP). PFP is a collaborative project between Programme d'Appui aux Initiatives Economiques, a Congolese microfinance organization, and the Johns Hopkins University School of Nursing (Glass, Ramazani, Tosha, Mpanano, & Cinyabuguma, 2012) that was designed to address the social, health, and economic effects of conflict and poverty on families and communities. Members of PFP receive a loan in the form of a 2- to 4-month-old female pig. The PFP model uses pigs as a loan because animals are an important source of economic well-being in these rural villages and there are no cultural taboos or gender-based responsibilities for raising or selling pigs. Each member cares for his or her pig with support from trained Congolese PFP Research and Microfinance agents. When the pig gives birth, members repay their pig loan in the form of two female piglets, which are then used to provide new pig loans in the same village. Consistent with prior research on family relationships, we hypothesized that (a) family rejection would be associated with a past experience of conflict-related traumas; and (b) an experience of family rejection would more strongly predict poorer mental health outcomes than experiences of conflict-related trauma including sexual assault. Last, the relationship between specific circumstances of sexual assault and family rejection is examined.

METHODS

Study Design

In 2011, a National Institutes of Health/National Institute of Minority Health and Health Disparities-funded randomized community trial was initiated to evaluate the effectiveness of PFP on health, economic, and community-level outcomes. Ten rural villages of Walungu Territory, South Kivu Province, were selected for participation in PFP based on the following: (a) feasibility

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of delivering an intervention over a wide geographic area; (b) commitment to the intervention and study by traditional chiefs and administrators; and (c) findings from village-level assessments.

Study Sample

Adults, aged 16 years and older, were eligible for the study if they expressed a commitment to and understanding of microfinance principles (e.g., repayment of loans), were permanent residents of the village, and were responsible individuals in the household (e.g., married 16 year old, 16 year old responsible for younger siblings because of death of parent). Participation was limited to one member (male or female) of a household. Following a participatory village meeting, eligible and interested community members attended a second meeting where each individual was randomly assigned, through a village lottery, to intervention and delayed control group.

Data Collection

Baseline data collection took place after randomization but prior to initiation of the intervention. Translation and back translation of the questionnaire from English to French was conducted as well as translation to local languages—Swahili and Mashi. The questionnaire was pilot tested before finalizing it and use of the tablet for interviews. To address logistical challenges of conducting research (e.g., limited infrastructure), trained interviewers (male and female) collected baseline data in two phases of five villages each: between May and June 2012 and August and September 2012. A few participants were not available (e.g., participant hospitalized) during the baseline data collection period; therefore, the final baseline interview was completed in November 2012.

The Institutional Review Board (IRB) of the Johns Hopkins Medical Institute approved this study. As there is no local IRB in South Kivu province, a committee of respected Congolese educators at the Universite Catholique at Bukavu reviewed and approved this study, including risks and benefits to participants. Pilot and study interviews were initiated only after receiving oral, voluntary, and informed consent. All data recorded through the tablet-based program were backed-up and uploaded to a password-protected server managed by the study team. Participant names were centrally removed from the dataset and stored in a separate file. As interviews were conducted during the day when members would be earning their daily income, compensation (~U.S.$1.50) for the time (~90 minutes) spent away from work was provided. All interviews took place in a private setting of the respondent's choice, most often their home.

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Study Questionnaire

Participants reported their current age category (e.g., 15–19 years, 20–24 years). Age was included in the model as a continuous variable with values between 0 and 4 where the reference group was 15–19 years and persons over 60 years were coded as four.

Exposure to trauma. Participants were asked about their exposure to 18 different conflict-related traumatic events over the past 10 years, a time period when rural villagers experienced conflict-related violence using an adapted version of the Harvard Trauma Questionnaire (HTQ; Mollica, McDonald, Massagli, & Silove, 2004). Exposure to conflict-related trauma was examined in two ways: as a single continuous variable (experience of 1–18 different events) and as multiple binary variables indicating exposure to one or more events within categories of traumatic events. These categories were defined through a slight adaptation of those proposed by Mollica and colleagues (Mollica, Henderson, & Tor, 2002) and include the following: (a) material deprivation (three events: lack of food or water, lack of shelter, and ill health without access to medical care); (b) warlike conditions (one event: combat situation); (c) bodily injury (four events: torture or witnessed torture, serious injury, rape or sexual assault, other type of sexual humiliation); (d) coercion (six events: imprisonment, brainwashing, lost or kidnapped, being close to death, forced isolation, forced separation from family members); and (e) violence to others (four events: unnatural death of family member or friend, murder of family member or friend, murder of stranger, witness rape or sexual abuse).

Sexual assault. Female participants who reported any type of sexual assault or kidnapping in the past 10 years were asked when they were assaulted. As not all would have been raped (e.g., sexual humiliation, verbal abuse), only those reporting rape were asked a series of follow-up questions about the assault(s).

Family rejection. Questions on family rejection were developed through qualitative work with survivors of sexual violence (Kohli et al., 2012). Participants reported whether they ever experienced rejection (financial, emotional, or physical) by family members (spouse/male partner, parents, or in-laws). In the first iteration of the family rejection section (i.e., surveys implemented between May and June 2012), all those participants reporting sexual assault provided information on their experience of family rejection. In July 2012, this module on family rejection was revised and expanded to include all participants (i.e., not limited to those reporting sexual assault only). This revision was done in response to participants noting that trauma-related factors, other than sexual assault, can be linked to family rejection.

Mental health. A 16-item version of the HTQ was used to understand the frequency of experiencing post-traumatic stress symptoms in the prior

week (Mollica et al. 2004). The 15-item Hopkins Symptom Checklist (HSCL) was used to understand the frequency of experiencing depression-related symptoms in the prior 4 weeks (Mollica et al., 2004). Both the HSCL and HTQ have been validated for use in other conflict settings and in East Africa (Bass, Ryder, Lammers, Mukaba, & Bolton, 2008; Roberts et al., 2008; Sabin, Lopes Cardozo, Nackerud, Kaiser, & Varese, 2003). An average individual symptom score was calculated for post-traumatic stress disorder (PTSD) and depression where the symptom frequency "not at all" was scored as 1 and "extremely" as 4. Where individual-level missing data on the frequency of experiencing symptoms were small for a syndrome (<25% missing data for total symptoms), the individual's average symptom score was the average of the available items. Individuals who were missing data for >25% of items within a scale were not included in the analysis.

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Data Analysis

Female participants in the baseline interview who responded to questions on family rejection and had experienced at least one traumatic event in the past 10 years were included in this analysis. To test our first hypothesis that family rejection would be associated with a past experience of more violent conflict-related traumas, we used bivariate logistic regression. Each category of trauma was tested as a predictor of ever being rejected by family. Multiple linear regression was used to test the second hypothesis that experience of family rejection would more strongly predict poorer mental health outcomes than experiences of conflict-related trauma including sexual assault. For each dependent variable (PTSD, depression), we estimated seven multivariable linear regression models to test the relative importance of exposure to the different trauma categories and family rejection in predicting mental health. Each model included a different trauma category (e.g., number of different trauma exposures, material deprivation, bodily injury, rape, or sexual assault). Age was included as a covariate in all multiple linear regression models. Within this sample size, we were able to detect with 80% power small to moderate associations in the analysis for both hypotheses. In exploratory analyses amongst the subset of women who reported ever experiencing rape ($N = 51$), we used Pearson's chi-square test to examine bivariate relationships between specific experiences of assault and family rejection. All statistical analyses were formed using STATA version 11.2 (Stata Corporation, College Park, Texas, USA).

RESULTS

This analysis includes 315 women in 10 villages who experienced at least one conflict-related traumatic event and provided information on family

TABLE 1 Descriptive Statistics of Female Participants in Pigs for Peace Who Experienced at Least One Conflict-Related Trauma in the Past 10 Years

Item	Frequency	Percent
Village ($N = 315$)		
Karhagala	33	10.48
Kamisimbi	46	14.60
Cagombe	2	0.63
Cahi	55	17.46
Lurhala	4	1.27
Kahembari	52	16.51
Irhaga	76	24.13
Karherwa	6	1.90
Cize	12	3.81
Izege	29	9.21
Current age group ($N = 315$)		
16–19 years	6	1.90
20–24 years	46	14.60
25–34 years	89	28.25
35–44 years	71	22.54
45–60 years	93	29.52
> 60 years	10	3.17
Current marital status ($N = 314$)		
Married	218	69.43
Widowed	72	22.93
Separated/divorced/abandoned	19	6.05
Never married	5	1.59
Symptoms of PTSD ($N = 308$)*		
Mean score (95% confidence interval)	2.22 (2.14, 2.30)	
Standard deviation of mean score	0.71	
Possible range of average symptom score	(1–4)	
Symptoms of depression ($N = 314$)*		
Mean score (95% confidence interval)	1.85 (1.80, 1.91)	
Standard deviation of mean score	0.50	
Possible range of average symptom score	(1–4)	

*PTSD and Depression were scored according to the standards laid out in the instrument. 16 different symptoms were used to understand symptoms of PTSD and 15 symptoms for depression.

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rejection. Owing to the previously described revisions to the family rejection section, the majority of participants (262) were from Phase II villages. Most participants were married (69.43%) and between 45 and 60 years (29.52%; Table 1). Average PTSD and depression scores were available for a total of 308 (97.78%) and 314 (99.68%) females, respectively, out of the 315 total women included in this analysis. The average post-traumatic stress symptom score was 2.22 (95% CI = 2.14, 2.30) and the mean depression score was 1.85 (95% CI = 1.80, 1.91).

The average number of different traumatic experiences was 4.64 (95% CI = 4.15, 5.14) (Table 2). In the past 10 years, respondents reported experiencing material deprivation (87.94%), warlike conditions (52.70%), and rape or sexual assault (15.56%). Of the 315 women who experienced at least one conflict-related trauma, 60 (19.05%) reported being rejected by at least

TABLE 2 Frequency of Experiencing Individual and Grouped Traumatic Events Amongst Female Participants Who Experienced at Least One Conflict-Related Traumatic Event ($N = 315$)

Item	Frequency	Percent
Average number of traumatic events (range: 1–18)	4.64 (4.15, 5.14)	
Material deprivation trauma	277	87.94
Ill health without access to medical care	224	71.11
Lack of food or water	212	67.30
Lack of shelter	78	24.76
Warlike condition (combat trauma)	166	52.70
Coercion	149	47.30
Forced separation from family members	99	31.43
Being close to death	76	24.13
Brainwashing	55	17.46
Forced isolation	47	14.92
Lost or kidnapped	38	12.06
Imprisonment	34	10.79
Violence to others	111	35.24
Unnatural death of family or friend	81	25.71
Murder of family or friend	70	22.22
Witness rape or sexual abuse	47	14.92
Murder of stranger	25	7.94
Bodily injury	105	33.33
Serious injury	69	21.90
Tortured or witnessed torture	61	19.37
Rape or sexual assault	49	15.56
Other types of sexual humiliation	32	10.16

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one family member (husband/male partner, parents, in-laws; see Table 3). Women who experienced more types of traumatic events (OR = 1.09; 95% CI = 1.03, 1.15), violence to others (OR = 1.97; 95% CI = 1.12, 3.49), coercion (OR = 2.24; 95% CI = 1.25, 4.00), and bodily injury trauma (OR = 2.61; 95% CI = 1.47, 4.64) were significantly more likely to be rejected by family members in bivariate logistic regression (Table 4).

Association of Trauma and Family Rejection With Mental Health

In all seven multivariate linear regression models between trauma, family rejection, and PTSD, family rejection was significantly associated with

TABLE 3 Frequency of Family Rejection Amongst Women That Reported Experience of at Least One Conflict-Related Trauma ($N = 315$)

Item	Frequency	Percent
Ever experienced family rejection (husband, parents, in-laws)	60	19.05
Ever rejected by husband/male partner	44	13.97
Ever rejected by parents and/or in-laws	27	8.57

TABLE 4 Bivariate Logistic Regression Between Experience of at Least One Traumatic Event in the Past 10 Years and Family Rejection ($N = 315$)

Item	Ever experienced family rejection		
	No. (%) who never experienced family rejection*	Odds Ratio	95% Confidence interval
Number of different traumatic events (1–18 events)		1.09	1.03, 1.15
Material deprivation trauma	54 (19.49%)	1.29	0.51, 3.24
Warlike conditions trauma	35 (21.08%)	1.33	0.75, 2.34
Violence to others trauma	29 (26.13%)	1.97	1.12, 3.49
Coercion trauma	38 (25.50%)	2.24	1.25, 4.00
Bodily injury trauma	31 (29.52%)	2.61	1.47, 4.64

*Comparison of number and percent of participants rejected by family who experienced specific traumatic events compared with those who did not experience the traumatic event.

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post-traumatic stress symptoms (Table 5). Material deprivation was not significantly related to PTSD symptoms. Experience of rape or sexual assault in the past 10 years was more strongly related to increased symptoms of PTSD than family rejection (as evidenced by the standardized β). Family rejection was significantly related to having symptoms of depression in all seven multiple linear regression models (Table 6). Family rejection showed a stronger association with depression-related symptoms than the experience of increased number of different traumatic events, coercion, violence to others, and rape/sexual assault. Neither the experience of material deprivation nor warlike conditions were significantly related to symptoms of depression.

Experience of Sexual Assault

Fifty-one women in the 10 villages reported rape (Table 7). Amongst this subset, 16 (31.37%) reported ever experiencing family rejection, consistent with previous studies in eastern DRC, with most reporting rejection by their husband. About one-third of women reported that member(s) of an armed combatant group sexually assaulted them more than once. The most recent sexual assault was frequently witnessed by others (52.94%), involved more than one perpetrator (60.88%), and took place in the forest (45.10%) or the woman's home (43.14%). Bivariate analysis showed that repeated rape, witness of rape by others, having multiple perpetrators (i.e., gang rape), or having a child due to sexual assault were significantly associated with family rejection (Table 8).

TABLE 5 Multivariate Linear Regression of Severity of PTSD Symptoms, Experience of at Least One Traumatic Event and Family Rejection ($N = 308$)

Model	B	Standard error	β	p value	Adjusted R^2
Model 1					
No. of different traumatic events (1–18 events)	0.07	0.01	0.43	.000	
Family rejection	0.39	0.09	0.22	.000	0.276
Age in years	0.09	0.03	0.15	.003	
Model 2					
Material deprivation trauma	0.14	0.12	0.06	.243	
Family rejection	0.51	0.10	0.28	.000	0.101
Age in years	0.09	0.03	0.15	.005	
Model 3					
Warlike conditions	0.30	0.08	0.21	.000	
Family rejection	0.49	0.10	0.27	.000	0.141
Age in years	0.09	0.03	0.15	.005	
Model 4					
Coercion	0.45	0.07	0.31	.000	
Family rejection	0.43	0.09	0.24	.000	0.194
Age in years	0.08	0.03	0.14	.008	
Model 5					
Violence to others	0.46	0.08	0.31	.000	
Family rejection	0.44	0.09	0.25	.000	0.193
Age in years	0.09	0.03	0.15	.004	
Model 6					
Bodily injury	0.63	0.07	0.42	.000	
Family rejection	0.37	0.09	0.21	.000	0.269
Age in years	0.09	0.03	0.14	.004	
Model 7					
Rape or sexual assault	0.72	0.10	0.35	.000	
Family rejection	0.43	0.09	0.23	.000	0.228
Age in years	0.10	0.03	0.17	.000	

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DISCUSSION

This cross-sectional analysis of trauma-related predictors and mental health outcomes of experience of family rejection amongst conflict-affected adult women living in rural eastern DRC provides evidence of the importance of family relationships to mental health. Female participants reported high exposure to traumatic events. Almost one in five women reported an experience of family rejection (19.05%). While qualitative studies and this data point to the importance of sexual assault in family rejection (Kelly et al., 2011; Kohli et al., 2012; Steiner et al., 2009), community members in Walungu Territory presented the importance of all types of trauma experiences to changes in family and community relationships. We quantified the importance of trauma exposures, by category, to family rejection and found that exposure to more events, violence to others, coercion and bodily trauma were significantly associated with family rejection.

TABLE 6 Multivariate Linear Regression of Severity of Depression Symptoms, Experience of at Least One Traumatic Event and Family Rejection ($N = 308$)

Model	B	Standard error	β	p value	Adjusted R^2
Model 1					
No. of different traumatic events (1–18 events)	0.02	0.01	0.22	.000	
Family rejection	0.44	0.07	0.34	.000	0.214
Age in years	0.07	0.02	0.17	.001	
Model 2					
Material deprivation trauma	0.09	0.08	0.06	.254	
Family rejection	0.49	0.07	0.38	.000	0.171
Age in years	0.07	0.02	0.17	.001	
Model 3					
Warlike conditions	0.06	0.05	0.06	.226	
Family rejection	0.48	0.07	0.37	.000	0.171
Age in years	0.08	0.02	0.17	.001	
Model 4					
Coercion	0.12	0.05	0.12	.021	
Family rejection	0.46	0.07	0.36	.000	0.182
Age in years	0.07	0.02	0.17	.001	
Model 5					
Violence to others	0.14	0.05	0.14	.009	
Family rejection	0.47	0.07	0.36	.000	0.186
Age in years	0.07	0.02	0.17	.001	
Model 6					
Bodily injury	0.34	0.05	0.32	.000	
Family rejection	0.41	0.06	0.32	.000	0.266
Age in years	0.07	0.02	0.16	.001	
Model 7					
Rape or sexual assault	0.41	0.07	0.29	.000	
Family rejection	0.46	0.02	0.34	.000	0.256
Age in years	0.08	0.06	0.18	.000	

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A focused analysis of sexual assault and family rejection provided detailed information on factors associated with the assault that could result in family rejection. For example, women reporting that there were people, other than the perpetrators, who witnessed the assault (e.g., family, friends) or more than one perpetrator were more likely to have an experience of family rejection. Women who were raped multiple times by armed groups and who became pregnant as a result of the assault were also more likely to report family rejection. These situational risk factors for family rejection of survivors of sexual assault are supported by qualitative research (Kelly et al., 2011; Kohli et al., 2012; Réseau des Femmes pour un Développement Associatif et al., 2005). In the framework of moral stigma, it is not surprising that the more public experiences of rape (e.g., witnessed assault, gang rape, multiple rapes) were associated with rejection. These types of rape experiences are difficult to hide from other family members and the larger community. With each of the categories of trauma (e.g., warlike conditions, coercion, violence

TABLE 7 Descriptive Statistics of Female Participants Who Reported Having Ever Been Sexually Assaulted

Item	Frequency	Percent
Number of women reporting sexually assault, ever ($N = 701$)	51	7.27
Report being rejected by any family member ($N = 51$)	16	31.37
Report being rejected by husband ($N = 33$)	13	39.39
Report being rejected by parents ($N = 36$)	4	11.11
Report being rejected by in-laws ($N = 29$)	6	20.69
Report being rejected by children ($N = 47$)	1	2.13
Number of times assaulted sexually		
One time	34	66.67
Two times	5	9.80
Three times	8	15.69
Four or more times	4	7.84
Most recent sexual assault was witnessed ($N = 51$)	27	52.94
Witnessed by husband	4	7.84
Witnessed by parents	2	3.92
Witnessed by children	9	17.65
Witnessed by other family members	9	17.65
Witnessed by friends	7	13.73
Ever abducted by perpetrators of sexual assault ($N = 51$)	43	84.31
Number of different perpetrators in most recent sexual assault		
One person	20	39.22
Two people	7	13.73
Three people	11	21.57
Four people	5	9.80
Five people	5	9.80
Six or more people	3	5.88
Place of most recent sexual assault		
Forest	23	45.10
Home	22	43.14
Other (in field, on route, market, etc.)	6	11.76
Family possessions were taken during most recent sexual assault ($N = 51$)	38	74.51
Animals were taken	27	52.94
Money was taken	15	29.41
Business materials	13	25.49
House	1	1.96
Agricultural products	13	25.49
Other	17	33.33
Had a child from sexual assault ($N = 51$)	12	23.53
Sought medical care after most recent sexual assault ($N = 51$)	33	64.71
3 days or less	11	33.33
4–7 days after assault	5	15.15
More than 1 week, but less than 6 months after assault	12	36.36
Between 6 months to 1 year after assault	3	9.09
One year or more after the assault	2	6.06

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to others, bodily injury), there is the possibility to blame the survivor for her experience and to interpret it as a threat to the moral attitudes that guide social interaction and family relationships. Family rejection, related to any type of trauma exposure, may be an act to preserve sociocultural morals and

TABLE 8 Experience of Ever Being Rejected by a Family Member Amongst Women Who Were Sexually Assaulted

Item	No. and percent ever rejected by a family member ($N = 51$)	Chi square	p value
Number of times raped			
Once	8 (23.53%)	4.41	.036
More than once	9 (52.94%)		
Most recent sexual assault was witnessed			
Yes	15 (55.56%)	12.75	<.0001
No	2 (8.33%)		
Ever abducted by perpetrators of sexual assault			
Yes	14 (32.56%)	0.07	.785
No	3 (37.50%)		
Number of perpetrators in most recent sexual assault			
One	2 (10.0%)	8.06	.005
More than one	15 (48.39%)		
Location of most recent sexual assault			
Home	10 (43.48%)	1.94	.164
Away from home (e.g., forest, field, market, etc.)	7 (25%)		
Possessions were stolen during most recent sexual assault			
Yes	13 (34.21%)	0.05	.820
No	4 (30.77%)		
Had a child as a result of sexual assault			
Yes	8 (66.67%)	7.85	.005
No	9 (23.08%)		
Sought medical care after most recent sexual assault			
Yes	12 (36.36%)	0.39	.534
No	5 (27.78%)		

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protect the family and community, albeit at the expense of certain vulnerable individuals.

The association between family rejection and increased symptoms of depression and PTSD regardless of the trauma exposure is consistent with other research on the importance of social conditions in producing individual outcomes apart from, or in addition to, exposure to conflict-related trauma (Amone-P'olak et al., 2013; Miller, Omidian, Rasmussen, Yaqubi, & Daudzai, 2008; Miller & Rasmussen, 2010; Sideris, 2003). Women who have experienced violence in war have referred to the social impact of the violence as overwhelming and debilitating, affecting their access to resources and support (Mukamana & Brysiewicz, 2008; Sideris, 2003). While individual trauma experiences, including sexual assault/rape, were generally more

strongly related to PTSD, family rejection consistently predicted symptoms of depression. In a study focused on the mental health effects of political violence in Nepal, Kohrt similarly reports that conflict-related violence predicted PTSD, but social factors, such as socioeconomic factors, more strongly predicted depression (Kohrt & Hruschka, 2010; Kohrt et al., 2012). Material deprivation was not significantly associated with family rejection or increased symptoms of PTSD or depression. Because material deprivation was widespread in families and the larger community, it may not be associated with an assumption of culpability, and individuals may not experience the stigma and mental health outcomes associated with other types of trauma.

Results from this study demonstrate the importance of relationships to mental health outcomes in eastern DRC, and likely other conflict-affected countries (Farhood, 2004; Igreja, Kleijn, & Richters, 2006). Individual experiences of different categories of trauma (conflict and nonconflict related) remain important. Their long-term significance may be understood, in part, however, through how the trauma affects social relationships. Broadening the lens of interventions from addressing individual needs to include family and community relationships may present an opportunity to address the multilevel outcomes of conflict in an appropriate and culturally acceptable manner. Partnering with local organizations to understand, design, and adapt interventions for rural communities is critical. For example, in the DRC, local communities emphasize the importance of building on community resources to provide mediation to resolve family conflict. Support to enhance family mediation interventions (Kohli et al., 2012) or adaptation of promising group psychotherapy approaches (Bass et al., 2013) to address family relationships may reduce some of the negative outcomes associated with trauma. Survivors of trauma frequently describe the economic impact of conflict on individuals and families. Economic interventions that prioritize the needs of the family and larger community, perhaps through inclusion of awareness or counseling, may also reduce some of the negative outcomes of conflict while contributing toward improved outcomes.

There are several limitations to this study. First, as a 10-year history of trauma experience(s) and cumulative experience of family rejection was assessed, conclusions on causality are precluded. Longitudinal data on family rejection, trauma exposure, and mental health would provide insight into causality and change over time and whether family rejection mediates all or part of the relationship between trauma and mental health. Second, the measure of family rejection was developed based on qualitative research in these communities, but it did not involve the use of a validated scale which might more accurately measure the different manifestations of family rejection.

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CONCLUSION

The experience of multiple and different types of trauma in conflict settings affects family relationships and may lead to rejection of survivors of trauma including those who have experienced sexual assault. Exposure to conflict-related violence and family rejection both had independent, significant relationships with poor mental health. In the future, researchers should explore whether family rejection mediates the relationship between trauma and mental health outcomes. Further, exploration of how family rejection affects access to social services including health care and economic opportunity is important given that survivors in other studies have described the multidimensional aspects of family rejection. Intervention design should be guided by an understanding of family dynamics and must address trauma experiences more broadly rather than offering an exclusive focus on one type of trauma at the expense of other trauma exposures associated with poor health outcomes.

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