



Original Research

Sexual and gender-based violence among adolescents and young adults in refugee settlements and host communities: A case of Palorinya Refugee Settlement in Obongi District, Uganda

Nazarius Mbona Tumwesigye^{a,*}, Claire Biribawa^a, Cissie Namanda^a, Edson Mwebesa^a, James Muhumuza^b, Tumwine Muzamiru^b, Charles Luwaga^b, Russell Dowling^c, Moses Otai^b

^a Makerere University School of Public Health, Uganda

^b ChildFund Uganda, Uganda

^c ChildFund International, USA



ARTICLE INFO

Keywords:

Gender-based violence

Refugees

Sexual violence

SGBV

Adolescents

ABSTRACT

Objective: This study established the prevalence and correlates of Sexual and Gender-Based Violence (SGBV) among adolescents and young adults aged 13–24 in refugee and host communities in Obongi District of Uganda as of June 2022.

Study design: The study was cross-sectional and the participants were adolescents (13–19 years) and young adults (20–24 years) in both refugee and host communities.

Methods: Using a stratified sampling technique 801 participants were identified in the settlement's five zones and interviewed using a semi-structured questionnaire. The main outcome of interest was the experience of SGBV in previous 12 months and factors associated with it were determined using modified Poisson multivariable regression analysis technique.

Results: Most of the respondents (82.7 %) perceived SGBV occurred in their community and 13.6 % reported that they had experienced it in the previous 12 months. However, less than half (48 %) of those who experienced it reported the incident to the police or other authorities. Factors significantly associated with SGBV were being female (APR = 1.70, 95 % CI: 1.08–2.70), attaining vocational/tertiary education (APR = 2.18, 95 % CI: 1.02–4.69), being married [monogamous marriage (APR = 2.64, 95 % CI: 1.53–4.55), polygamous marriage (APR = 3.58, 95%CI: 1.86–6.89)], and being Ugandan (APR = 2.20, 95 % CI: 1.33–3.63).

Conclusion: The findings highlight a concerning prevalence of SGBV among adolescents and young adults within both refugee and host communities, compounded by substantial under-reporting to authorities. Urgent attention is needed to implement targeted interventions that prioritize the protection of women, married individuals, and Ugandan households in and around settlements, while also providing comprehensive support for survivors. Further research should be conducted to explore the connection between tertiary education and SGBV to inform prevention strategies.

Introduction

Sexual and gender-based violence (SGBV) refers to inflicting acts of mental, physical, or sexual suffering against a person's will and based on gender differences.¹ SGBV is a serious human rights violation and a major public health issue.² SGBV is largely under-reported but the most affected include women, children, and displaced persons.³ The displaced include asylum-seekers, refugees, stateless persons, internally displaced persons, and returnees who are collectively referred to as persons of

concern (PoC) according to the United Nations High Commission for Refugees (UNHCR). The PoC are at an increased risk of SGBV irrespective of their age, gender or other diversity considerations.⁴

In 2022, there were at least 103 million people worldwide that had been forced to flee their homes, and among them were nearly 32.5 million refugees.⁵ SGBV was cited as one of the greatest concerns that need intervention in refugee settings.⁶ A meta-analysis of 19 studies across 14 countries affected by conflict found that 21.4 % of refugee women experienced some form of sexual violence such as rape/coerced

* Corresponding author.

E-mail address: naz@musph.ac.ug (N.M. Tumwesigye).

<https://doi.org/10.1016/j.puhe.2024.09.014>

Received 5 October 2023; Received in revised form 11 September 2024; Accepted 14 September 2024

Available online 27 September 2024

0033-3506/© 2024 The Royal Society for Public Health. Published by Elsevier Ltd. All rights are reserved, including those for text and data mining, AI training, and similar technologies.

sex, or sex trafficking in the previous year⁷ but SGBV prevalence in general is as high as 43.8 % among South Sudanese refugees in Ethiopia⁸ and 28.5 % of migrants in Nepal.⁹ Adolescents and young adults in refugee settlements are particularly vulnerable to SGBV due to their age, lack of social support networks, and the emergency conditions in which they live.¹⁰ According to WHO, adolescents are young people in the age group 10–19 while young adults are in age range 20–24 although this may stretch beyond 24 years in different contexts.¹¹ These two groups are often neglected as major SGBV interventions focus on women in general and child protection.¹⁰ While a substantial amount of research has been carried out on SGBV among women in refugee settings in general very little has focused on adolescent or young adult boys and girls. A Google Scholar search from Jan 1, 2019 to April 5, 2024 using Boolean operators¹² ["sexual and gender based violence" + "refugees"... - Google Scholar] found that out of 13,100 papers with a focus on SGBV only 1480 (11.3 %) had information about refugees and adolescents.

Uganda is host to the largest number of refugees in Africa and ranks among the top 10 countries worldwide for number of refugees.¹³ In July 2022, the total number of refugees and asylum seekers in Uganda exceeded 1.5 million, 81 % of whom were women and children.¹⁴ Most of them (92 %) live in settlements and host communities in the West Nile, Mid-West, and Southwest sub-regions of Uganda.¹⁴

SGBV in refugee settlements in Uganda is recognized as a major challenge by the government and development partners and they have shown willingness to address it.¹⁵ A study carried out among displaced persons in 2009 in northern Uganda found that 50 % of women had experienced some form of violence in the previous year.¹⁶ Additionally, a study carried out in 2022 found that the prevalence of gender-based violence (GBV) in all 13 refugees settlement in Uganda was 32 % for psychosocial/emotional abuse, 24 % for physical assault and 21 % for rape.¹⁷ While a lot has been written on SGBV among refugees, there remains a large evidence gap on levels, patterns and factors associated with SGBV among adolescents and young adults in refugee communities in Uganda. The government, in collaboration with the development partners have a strategic plan against SGBV in the refugee communities and it needs a lot of research evidence to aid its implementation.^{15,18}

Child Fund Uganda (Child Fund) is among 77 organizations working to improve the health and welfare of refugees and it operates in Palorinya and Kisoro refugee settlements in the North East and South West parts of the country respectively.¹⁹ Palorinya has particularly faced an increase in domestic violence and child protection risks, and thus needs greater attention in terms of mental health and psychosocial support (MHPSS).²⁰ Since 2019, Child Fund has worked to address the violence against children through promoting enabling environments in which children grow with full rights.¹⁹ To ensure they are implementing evidence-based interventions, Child Fund Uganda commissioned a study in 2022 to establish sexual and reproductive health (SRH)/GBV knowledge, attitudes, practices and experiences in Palorinya camp, identify SRH services gaps, and map initiatives, programs and key lessons learned.

This paper establishes the prevalence and correlates of SGBV from the study. Selection of the appropriate variables to be included in the analysis was based on the Socio-ecological model²¹ which suggests that factors that influence experience SGBV occur within multiple layers of influence, including individual, interpersonal/relationship, community, and societal levels. This model helps to understand how factors such as socio-demographic, living conditions in refugee camps, cultural norms, and post-migration stressors interact to contribute to SGBV. Additionally, the model also suggests that prevention of violence should occur across multiple levels of the model at the same time in order to attain sustainability of prevention efforts over time and achieve population-level impact. Several studies on SGBV in Uganda have used the ecological model in design and analysis and some of their key variables and methodological approach have been incorporated in this study. These studies include work by Ssekamatte et al. (2022),²² Bukuluki et al. (2023),²³ and Amodoi et al. (2024).²⁴ The evidence from

the paper will aid program implementation and policy formulation to prevent and address SGBV in Uganda and low- and middle-income countries (LMIC).

Methods

This was a cross-sectional study targeting adolescents aged 13–19 years and young adults aged 20–24 years in both refugee and host communities. The UNHCR defines a refugee host community as a community that may encompass the camp, or simply neighbors the camp but have interaction with, or otherwise be impacted by, the refugees residing in the camp.²⁵ Using Yamane's sample size formula²⁶ of $n = \frac{N}{1 + Ne^2}$, the minimum number of respondents required (n) from a settlement population of households (N) of 30,730²⁷ with a desired error margin (e) of 0.05 and a design effect of 2 is 801. From a list of all households arranged by zone a stratified random sampling technique was applied to select the 801 households. Within each household one eligible participant was selected and where there were more than one eligible residents a simple random selection was applied. The total number of participants included 592 adolescents and 209 young adults aged 20–24 and each zone had a sample size that was proportionate to its total population.¹⁹

The quantitative data were collected using smart phones that had been programmed to use Open Data Kit (ODK) software. ODK operates on phones and computers with Android operating systems and allows for data export into the Windows operating system.²⁸ ODK employs encryption protocols to secure data transmission between mobile devices and cloud storage, thereby minimizing the risk of unauthorized access. Additionally, to ensure data confidentiality role-based permissions were provided, to ensure that only authorized individuals had access to participant data.²⁸ The data were hosted on a cloud account whose URL address downloaded on smart phone via Store Play application. The questionnaire was designed using validated tools that included the Reproductive Health Assessment Toolkit for Conflict-Affected Women,^{29,30} and Adolescent Sexual and Reproductive Health Toolkit for Humanitarian Settings.³¹ The data extracted were de-identified to protect confidentiality, including the removal of personally identifiable information and the assignment of unique identifiers to each participant.

The study had research assistants with previous experience of conducting quantitative data collection in Palorinya Refugee Settlements and who were conversant in the local languages (Kuku/Bari) and knowledgeable about the local culture. All research assistants underwent training in the data collection methods, data collection tools, and use of ODK-based data collection. The data collection tools had been pretested for validity and reliability one-week prior to the commencement of the field work. Prompts were enabled in ODK to ensure all fields were filled prior to submission.

Inclusion into the study involved 1) being 13–24 years old, 2) being willing to participate in the study and 3) being from the Palorinya refugee settlement or village neighboring the settlement. Informed consent was obtained from all adult participants (aged 18 years or older) prior to their participation in the study. For participants below 18 years, informed consent was sought from their parents or legal guardians, in addition to obtaining assent from the participants themselves if they were aged 13–17 years. Assent meant a child's affirmative agreement to participate in research.³² Participants were excluded from the study if they did not meet all inclusion criteria or if they refused to participate after enrolment.

The analysis followed standard procedures for use of multivariable analysis techniques and was carried out using STATA V14. Data analysis was preceded by rigorous data management and quality assurance procedures that involved checks on completeness, validity, and consistency of the data on all relevant variables. The analysis process started with variable distribution tables, which determined the necessary

bivariate analysis that produced crude relationships with the exposure to SGBV. The key outcome variable was having experience of SGBV in the previous 12 months. while the key independent variables included the socio-demographic and cultural characteristics of the respondents. Each of the independent variables used in analysis is known to have a relationship with the outcome variable. For example, studies in Uganda and parts of Africa show that key determinants of SGBV include religion and religiosity,^{33,34} marital status, age and education and occupation of the respondents.^{35,36} The significance of the cross tabulations with the outcome variable was tested using a chi-square test. The variable inclusion criterion for the multivariable model was $p = 0.2$, while the exclusion criterion was $p = 0.1$. The model was built using the modified poisson regression, given its ability to produce prevalence ratios, higher prevalence of outcome of interest ($>10\%$), and having minimal convergence problems.³⁷ Backward elimination process was used in development of the final model. The process starts with the inclusion of all eligible variables followed by variable elimination in those that don't show sufficient significance until all remaining variables are considered to have a great contribution to the outcome.^{38,39} Prior to conducting backward stepwise regression, we pre-selected some variables which were theorized to be relevant to SGBV in humanitarian settings according to the Socio-ecological model. These variables were retained throughout the variable selection process.

Results

Table 1 shows the distribution of the respondents by background characteristics. Most participants were female (67.2 %, 538/801), aged 13–19 years (73.9 %, 592/801), had only attained primary education level (63.4 %, 508/801), were in school at the time of the study (69.4 %, 556/801), were from households that earned less than Shs 50,000 (USD 15) monthly (82.9 %, 603/801) and single or never married (74.1 %, 593/801), were from South Sudan (92.4 %, 704/801) and of the Kuku tribe (70.2 %, 562/801). Of those who were married, most got married between the ages of 16 and 19 years (60.9 %, 98/161).

The distribution of the following variables varied significantly by sex: age ($p = 0.04$), education level ($p = 0.048$), marital status ($p = 0.04$) and religious affiliation ($p = 0.01$). In comparison to the male respondents, a higher proportion of the female respondents were younger (13–15 years) (42 % vs. 33 %), were either uneducated or attained primary school level only (74 % vs 67 %), had ever married (28 % vs. 23 %) and belonged to Pentecostal/born again religious affiliation (48 % vs 40 %).

Burden of SGBV

Table 2 shows the prevalence and burden of SGBV, reporting, and observations in the community. A high proportion of respondents (82.7 %, 662/801) thought SGBV occurred in the community and this did not

Table 1
Characteristics of the respondents in the study.

Characteristic	Sex		All n (%)	Ch-sq test
	Male n (%)	Female n (%)		
Age				
13–15	86 (32.7)	227 (42.2)	313 (39.1)	P = 0.04
16–19	101 (38.4)	178 (33.1)	279 (34.8)	
20–24	76 (28.9)	133 (24.7)	209 (26.1)	
Highest level of education				
None	27 (10.3)	41 (7.6)	68 (8.5)	P = 0.048
Primary	149 (56.7)	359 (66.7)	508 (63.4)	
Secondary	70 (26.6)	108 (20.1)	178 (22.2)	
Vocation/Tertiary/university	17 (6.5)	30 (5.6)	47 (5.9)	
Current occupation				
In School	186 (70.7)	370 (68.8)	556 (69.4)	P = 0.64
Employed/Apprenticeship	21 (8.0)	54 (10.0)	75 (9.4)	
Others	56 (21.3)	114 (21.2)	170 (21.2)	
Monthly income (n = 727)				
<50,000	194 (80.8)	409 (84.0)	603 (82.9)	P = 0.47
50,000–100,000	30 (12.5)	55 (11.3)	85 (11.7)	
>100,000	16 (6.7)	23 (4.7)	39 (5.4)	
Marital status				
Single/Never Married	206 (78.3)	388 (72.1)	593 (74.1)	P = 0.08
Married (monogamous)	49 (18.6)	112 (20.9)	161 (20.1)	
Married (polygamous)	8 (3.0)	35 (6.5)	43 (5.4)	
Separated/divorced/Widowed/Others	0 (0.0)	3 (0.6)	3 (0.4)	
Age at first marriage (n = 206)				
≤15	10 (17.9)	43 (28.7)	53 (25.7)	P = 0.22
16–19	36 (64.2)	89 (59.3)	125 (60.7)	
20–24	10 (17.9)	18 (12.0)	28 (13.6)	
Religious affiliation				
Catholic	100 (38.0)	197 (36.6)	297 (37.1)	P = 0.01
Anglican	57 (21.7)	81 (15.1)	138 (17.2)	
Pentecostal/Born Again/PAG	98 (37.3)	221 (41.1)	319 (39.8)	
Muslim and Others)	8 (3.0)	39 (7.3)	47 (5.9)	
Country of Origin				
South Sudan	241 (91.6)	499 (92.8)	740 (92.4)	P = 0.58
Uganda	22 (8.4)	39 (7.2)	61 (7.6)	
Tribe				
Kuku	173 (65.8)	389 (72.3)	562 (70.2)	P = 0.12
Kakwa	15 (5.7)	28 (5.2)	43 (5.4)	
Madi	38 (14.5)	50 (9.3)	88 (11.0)	
Dinka	4 (1.5)	15 (2.8)	19 (2.4)	
Others	33 (12.6)	56 (10.4)	89 (11.1)	
All	263 (32.8 %)	538 (67.2)	801 (100.0)	

Table 2
Burden of SGBV by sex.

Characteristic	Sex		All n (%)	Chi-sq test
	Male n (%)	Female n (%)		
Thinks SGBV occurs in the local community				
Yes	214 (81.4)	448 (83.4)	662 (82.7)	P = 0.50
No	49 (18.6)	90 (16.7)	139 (17.4)	
Experience of SGBV in the past 12 months				
Yes	24 (9.1)	85 (15.8)	109 (13.6)	P = 0.01
No	239 (90.9)	453 (84.2)	692 (86.4)	
Reporting of SGBV (of the 24 men & 85 women)				
Nowhere	12 (50.0)	45 (52.9)	57 (52.3)	P = 0.80
Local leader	11 (45.3)	25 (29.4)	36 (33.0)	P = 0.13
Police	5 (20.8)	19 (22.4)	24 (22.0)	P = 0.87
Parent	4 (16.7)	11 (12.9)	15 (13.8)	P = 0.64
Peer	0 (0.0)	3 (3.5)	3 (2.8)	–
School teacher	0 (0.0)	3 (3.5)	3 (2.8)	–
Religious leader	3 (12.5)	2 (2.4)	5 (4.6)	–
Traditional leader	1 (4.2)	1 (1.2)	2 (1.8)	–
NGO/Development Worker	2 (8.3)	2 (2.4)	4 (3.6)	–
Seen a person that has experienced SGBV in this community				
Yes	21 (8.0)	80 (14.9)	101 (12.6)	P = 0.006
No	242 (92.0)	458 (85.1)	700 (87.4)	
Specific SGBV existing in the community (21 men&80 women)				
Rape	4 (19.1)	16 (20.0)	20 (19.8)	P = 0.92
Sexual exploitation	3 (14.3)	8 (10.0)	11 (10.9)	P = 0.56
Sexual harassment	2 (9.5)	9 (11.3)	11 (10.9)	P = 0.82
Domestic violence	20 (95.2)	72 (90.0)	92 (91.1)	P = 0.02
Early & Forced Sex in Marriage	9 (42.9)	29 (36.3)	38 (37.6)	P = 0.22
GBV trafficking	0 (0.0)	12 (15.0)	12 (11.9)	P (0.02)

differ by gender. Overall, 13.6 % (109/801) of the respondents had experienced SGBV and this was significantly higher among women than men (9.2 % compared to 5.8 % respectively, $p = 0.01$). Reporting of the SGBV by the victims at 48 % level and this was mostly to local leaders (33.0 %), Police (22.0 %) and parents (13.8 %). Overall, 12.6 % had seen a victim of SGBV in the community. On further enquiry, the specific SGBV cases seen were of rape (19.8 %, 20/101), general sexual exploitation (10.9 %, 11/101), sexual harassment (10.9 %, 11/101), domestic violence (91.1 %, 92/101), early and forced sex in marriage (37.6 %, 38/101) and GBV trafficking (11.9 %, 12/101). The proportion that had seen victims of domestic violence in the community was significantly higher among men than women while SGBV trafficking cases were seen by men only. In our context general sexual exploitation referred to actual or attempted abuse of a position of vulnerability, power, or trust, for sexual purposes⁴⁰ and sexual harassment referred to unwelcome behavior of a sexual nature⁴¹ while Trafficking involves recruitment, harboring or transportation of the victims.⁴²

Factors associated with experience of SGBV in the past 12 months

Table 3 shows the results from the bivariate and multivariable regression models with having experienced SGBV in the past 12 months as the outcome and controlling for all background characteristics. From the bivariate models we notice that the experience of SGBV is more common among the young adults, females, those who have attained vocational/tertiary education, the employed, those with higher income, those who are married/formerly married, those whose age at first marriage was higher (20–24), Ugandans living in the settlement and among members of the Kakwa tribe. In adjusting the model, we controlled for all key background characteristics in a multivariable model, which included participant age, gender, education level,

occupation, marital status, country of origin and tribe. The factors independently associated with experience of SGBV were being female (APR = 1.70, 95 % CI: 1.08–2.70), having attained vocational/tertiary education level (APR = 2.18, 95 % CI: 1.02–4.69), being in a monogamous marriage (APR = 2.64, 95 % CI: 1.53–4.55), being in a polygamous marriage (APR = 3.58, 95 % CI: 1.86–6.89), and being Ugandan (APR = 2.20, 95 % CI: 1.33–3.63).

Discussion

The findings of this study shed light on the prevalence and determinants of Sexual and Gender-Based Violence (SGBV) among refugees and more specifically adolescents and young adults. The prevalence of SGBV was 13.6 % in the Palorinya refugee settlement but less than half (48 %) of those who experienced it reported to the police or other authorities. The factors significantly associated with SGBV were being female, attaining vocational/tertiary education, being married [monogamous marriage or polygamous marriage], and being Ugandan.

The prevalence of SGBV (13.6 %) among adolescent and young adults in the settlement was found to be considerably lower than the general (all men and women) level in all refugee settlements (>32 %) in Uganda¹⁷ and other areas such as among Afghan refugees in Iran (79 %),⁴³ in urban female refugees in Kampala the capital city of Uganda (85.8 %),⁴⁴ Kakoma refugee settlement in Kenya (79.9 %)⁴⁵ and among adolescents in Austria (24 %).⁴⁶ The level was even much higher (27.8 %) than that among adolescents in slum areas of Kampala city. The differences in the prevalence of SGBV in different refugee studies could be due to the age range of those included in the study. For the case of refugees in Kampala, Iran and Kakoma in Kenya, the focus was on all age groups while this study was limited to 13–24 age group and the participants were mostly unmarried (74 %).

Table 3

Factors associated with experience of SGBV in the previous 12 months among adolescents and young adults in Palorinya Refugee Settlements Obongi district, Uganda.

Characteristic	Experienced SGBV		Unadjusted PR (95 % CI)	Adjusted PR (95 % CI)
	Yes	No		
Age				
13–15	15 (4.8)	298 (95.2)	1.0	1.0
16–19	34 (12.2)	245 (87.8)	2.54 (1.39–4.67)**	1.70 (0.87–3.33)
20–24	60 (28.7)	149 (71.3)	5.99 (3.40–10.55)***	1.78 (0.81–3.89)
Gender				
Male	24 (9.1)	239 (90.9)	1.0	1.0
Female	85 (15.8)	453 (65.6)	1.73 (1.10, 2.72)*	1.70 (1.08–2.70)*
Education				
None	10 (14.7)	58 (85.3)	1.0	1.0
Primary	41 (8.1)	467 (91.9)	0.55 (0.27–1.10) ^	0.89 (0.44–1.83)
Secondary	34 (19.1)	144 (80.9)	1.30 (0.64–2.63)	1.42 (0.69–2.95)
Vocation/Tertiary/University	24 (51.1)	23 (48.9)	3.47 (1.66–7.26)***	2.18 (1.02–4.69)*
Occupation				
In School	46 (8.3)	510 (91.7)	1.0	
Employed/Apprenticeship	34 (45.3)	41 (54.7)	5.47 (3.52–8.54)***	–
Others	29 (17.1)	141 (82.9)	2.06 (1.30–3.28)**	–
Monthly income (n = 727)				
<50,000	69 (11.4)	534 (88.6)	1.0	
50,000–100,000	20 (23.5)	65 (76.5)	2.06 (1.25–3.38)**	–
>100,000	15 (38.5)	24 (61.5)	3.36 (1.92–5.87)***	–
Marital status (n = 798)				
Single/Never Married	41 (6.9)	553 (93.1)	1.0	1.0
Married (Monogamous)	51 (31.7)	110 (68.3)	4.59 (3.04–6.92)***	2.64 (1.53–4.55)***
Married (polygamous)	17 (39.5)	26 (60.5)	5.73 (3.25–10.08)***	3.58 (1.86–6.89)***
Age at 1st marriage (n = 206)				
≤15	17 (32.1)	36 (67.9)	1.0	
16–19	35 (28.0)	90 (72.0)	0.87 (0.49–1.56)	–
20–24	16 (57.1)	12 (42.9)	1.78 (0.90–1.56)	–
Religion				
Catholic	49 (16.5)	248 (83.5)	1.0	
Anglican	11 (8.0)	127 (92.0)	0.48 (0.26–0.90) *	–
Pentecostal/Born Again/PAG	41 (12.9)	278 (87.2)	0.78 (0.53–1.14) ^	–
Muslim/Others	8 (17.0)	39 (83.0)	1.03 (0.52–2.03)	–
Country of Origin				
South Sudan	88 (11.9)	652 (88.1)	1.0	1.0
Uganda	21 (34.4)	40 (65.6)	2.89 (1.94–4.31)***	2.20 (1.33–3.63)**
Tribe				
Kuku	59 (10.5)	502 (89.5)	1.0	
Kakwa	7 (16.3)	36 (83.7)	1.55 (0.75–3.18)	–
Madi	28 (31.8)	60 (68.2)	3.03 (2.05–4.47)***	–
Dinka	3 (15.8)	16 (84.2)	1.50 (0.52–4.36)	–
Other	12 (13.5)	77 (86.5)	1.28 (0.72–2.29)	–

*p < 0.05, **p < 0.01, ***p < 0.001, ^p < 0.2, PR is prevalence ratio – Dropped as per backward elimination process of statistical modelling.

Poor reporting of SGBV in this study is in line with findings from other studies and underscoring pervasive challenges in accessing support and justice mechanisms.³ Further research is needed to highlight major challenges faced and provide evidence-based interventions to mitigate them in this setting. It is a challenge highlighted in another study of refugee hosting areas of Uganda.⁴⁷ Another study in Belgium and the Netherlands found that a quarter of the refugees affected by SGBV never reported it.⁴⁸ One of the reasons for low level of reporting is low expectation from police and other responsible institutions.⁴⁹

The distribution of SGBV cases varied across different forms, with domestic violence being the most observed, followed by early and forced sex in marriage and rape. This aligns with work among four refugee settlements in western and south western parts of the country.⁵⁰ These findings underline the multifaceted nature of SGBV, encompassing various forms of violence that pose significant threats to the well-being and safety of individuals within the settlement.

Our study also identified several socio-demographic factors associated with an increased risk of experiencing SGBV. Being a woman emerged as a significant predictor, aligning with existing literature and highlighting the disproportionate impact of SGBV on women and girls and higher prevalence of SGBV among females compared to males is the norm in nearly all studies regardless of age or refugee status.^{51,52} Therefore, this finding is consistent with studies around the world.

It is not clear why having attained vocational/tertiary education level was associated with SGBV. This is unusual since most studies connect SGBV with vulnerability like low level of education⁴⁸ and education is often considered a protective factor against SGBV.¹⁰ This could possibly be influenced by socio-cultural factors and power dynamics within relationships. This highlights the need for tailored interventions that address the intersecting vulnerabilities faced by individuals with different educational backgrounds. However, this observed association between higher educational attainment and increased risk of SGBV warrants further research.

Furthermore, the role of marital status in shaping the risk of SGBV underscores the importance of addressing gender inequalities within intimate relationships and promoting healthy and equitable partnerships. Interventions aimed at preventing SGBV must prioritize strategies that challenge harmful gender norms and empower individuals to recognize and assert their rights within marital unions. Being married as a risk factor for SGBV is also reported by most studies⁵³ and more so with being in polygamous marriage.⁵⁴

The findings also emphasize the significance of other contextual factors, such as nationality and tribal affiliation, in shaping the risk of SGBV. Being an Ugandan citizen as a risk factor needs further investigation. Similar evidence linking Ugandans to higher prevalence of SGBV compared to others has so far not been found by the authors of this

paper. Refugees face unique challenges, including displacement, socio-economic marginalization, and cultural adaptation, which may exacerbate vulnerabilities to violence.⁵⁵ Efforts to address SGBV must therefore consider the specific needs and experiences of refugees, taking into account the intersectionality of factors that contribute to their vulnerability.

Conclusion and recommendations

There is little research work on SGBV among adolescents and young adults in refugee settlements or other humanitarian settings especially in low- and middle-income countries. The prevalence of SGBV among adolescents and young adults in Palorinya refugee settlement is lower than the level in several other refugee settlements in the country and the region but it is still unacceptably high. Furthermore, when SGBV does occur, it often goes unreported. Being female, having a higher education attainment, being married and especially in a polygamous marriage, and being an Ugandan citizen were associated with the experience of SGBV in previous 12 months. The policy and programs should be geared more towards prevention and management of the SGBV trauma among women, those with high education attainment, the married, those in polygamous relationships and local Ugandan community within and around the settlement. Additionally, more sensitization and destigmatization efforts should be conducted to ensure that victims of SGBV feel comfortable reporting incidents when they occur. More research in the settlement, preferably qualitative, is needed to understand the unusual positive relationship between high education attainment and SGBV exposure and less SGBV exposure among refugees compared to the Ugandan host community. We recommend a comprehensive national SGBV survey covering all refugee settlements in the country that will provide sufficient evidence for a national intervention.

Strengths and limitations of the study

This research derives its strengths from the large sample size, representativeness of the study participants through a random selection of participants, uniqueness of the study population of adolescents and young adults (male and female) and from both a refugee settlement and host communities, and providing data for key indicators of SGBV in this kind of population. Out of 13,100 papers on SGBV published between January 1, 2019 and April 5, 2024, only 493 (3.8 %) had information about host communities [Boolean search: "sexual and gender-based violence" + "refugees" ... - Google Scholar].

The limitations of this study include having few standard SGBV indicators and minimal representation of the host community in the study. Secondly, the target population of such a study is limited because of having only one refugee settlement out of 13 in the country. Thirdly, there was no information collected on refusal to participate. This would have helped to compute the response rate. Nevertheless, the study provides vital information necessary for intervention in the settlement and those with the same demographic and socio-cultural composition.

Author statements

Ethical approval

Ethical clearance was obtained from the Institutional Review Board (IRB) of Makerere University- School of Public Health Research Ethical Committee and Uganda National Council for Science and Technology (UNCST), the government agency in charge of clearing all research projects in the country. Each participant had to sign or thumbprint a standard informed consent as demanded by the institutional review board. More information on the methods used can be obtained from the survey report.⁵⁶

Funding

The funding for the study came from Child Fund Uganda and there is nobody on the author list that has any competing interest with the publication of the paper or its contents.

Competing interests

None of the authors has any conflict of interest in the paper.

Acknowledgments

The investigating team is very grateful to Childfund Uganda for funding the research work and to Promise Consult International Ltd for the data collection.

References

- Marshall J, Barrett H. Human rights of refugee-survivors of sexual and gender-based violence with communication disability. *Int J Speech Lang Pathol.* 2018;20(1):44–49.
- Division of International Protection. U., UNHCR policy on the prevention of, risk mitigation, and response to gender-based violence (GBV). *Int J Refug Law.* 2021;33(3):506–527.
- Sarkin JJ, Morais T. A cost-benefit assessment of refugee and asylum-seeking women reporting sexual and gender-based violence in Uganda: assessing women's resilience as a means to protect their ethno-religious group. *Int J Gynecol Obstet.* 2023;138:143.
- Adetutu OM, Okunlola DA, Ijisakin AP, Hammed SA, Ogunsanya YS. Emergency healthcare accessibility in the context of COVID-19 in Nigeria. *African Development and Global Engagements.* In: *Policy, Climate Change, and COVID-19.* Springer; 2023: 65–81.
- Von Arcosy C, Padilha M, Mello GL, et al. A bright side of adversity? A systematic review on posttraumatic growth among refugees. *Stress Health.* 2023;39(5):956–976.
- Ager A, Bancroft C, Berger E. Local constructions of gender-based violence amongst IDPs in northern Uganda: analysis of archival data collected using a gender- and age-segmented participatory ranking methodology. *Conflict Health.* 2018;12(1):10.
- Vu A, Adam A, Wirtz A, et al. The prevalence of sexual violence among female refugees in complex humanitarian emergencies: a systematic review and meta-analysis. *PLoS Currents.* 2014;6.
- Hadush F, Tsegaye D, Legass SA, Abebe E, Zenu, Factors contributing to the high prevalence of intimate partner violence among South Sudanese refugee women in Ethiopia. *BMC Publ Health.* 2023;23(1):1418.
- Shai N., G.D. Pradhan, E. Chirwa, et al. Factors associated with IPV victimization of women and perpetration by men in migrant communities of Nepal. *PLoS One.* 2019; 14(7). 0210258.
- Stark L, Seff I, Reis C. Gender-based violence against adolescent girls in humanitarian settings: a review of the evidence. *The Lancet Child & Adolescent Health.* 2021;5(3):210–222.
- WHO. Overview- Adolescent Health. 2024. [cited 2024 10th May 2024]; Available from: <https://www.afro.who.int/node/5523>.
- Ugwu CN, Opah AC. Use of Boolean search strategy for accessing the databases of university of technology libraries by postgraduate students in South-East, Nigeria. *Journal of Library Services and Technologies.* 2023;5(2):24–35.
- Altinkalp I, Vonkova H, Moore A. The policy of inclusion: a comparative analysis of refugee education policies in Germany and Turkey. *Bulgarian Comparative Education Society.* 2022; 20:94–100.
- Child Fund Uganda. ChildFund International, Uganda country humanitarian Situation report. In: *A Humanitarian Situation Report 02, September 2022.* 2022.
- UNHCR, 5-Year SGBV Interagency Strategy Uganda, 2016–2020. 2016 (UNHCR).
- Stark L, Roberts L, Wheaton W, Acham A, Boothby N, Ager A. Measuring violence against women amidst war and displacement in northern Uganda using the "neighbourhood method. *J Epidemiol Community Health.* 2010;64(12):1056–1061.
- UNHCR, Gender-Based Violence Dashboard. In: *Uganda Refugee Response Plan (RRP) 2022 - 2023 January - September 2022.* United Nations High Commissioner for Refugees; 2022.
- Gou U. *Uganda Refugee Response Plan (RRP) 2022–2023, Gender-Based Violence Dashboard - Quarter 4, January - December 2022.* Government of Uganda and UNHCR; 2023.
- Childfund P. *SRH Needs Assessment Among Adolescents and Youth in Refugee and Host Communities in Obongi District.* Kampala: Childfund and Promise Consult International Ltd; 2022.
- Web R. *Uganda Refugee Operation: Palorinya Refugee Settlement Incident Mapping Dashboard.* 2022.
- Kilanowski JF. Breadth of the socio-ecological model. *J Agromed.* 2017;22(4): 295–297.
- Ssekamatte T., A. Nalugya, J.B. Isunju, et al. Help-seeking and challenges faced by transwomen following exposure to gender-based violence; a qualitative study in the Greater Kampala Metropolitan Area, Uganda. *Int J Equity Health.* 2022;21(1):171.
- Bukuluki P, Kisaakye P, Wandiembe SP, et al. Access to information on gender-based violence prevention during COVID-19 lockdown in Uganda: a cross-sectional study. *EClinicalMedicine.* 2023;57.

24. Amodoi GP, Taremwa IM, Nakakande J, Akugizibwe P, Mugambe S, Nanyingi, Prevalence and correlates of intimate partner sexual violence among pregnant women in Napak district, Northeastern Uganda. *PLOS Global Public Health*. 2024;4(2):0002286.
25. UNHCR, UNHCR-NGO. Toolkit for practical cooperation on resettlement. Community outreach - outreach to host communities: definitions and FAQs. In: *Handbooks, Manuals and Toolkits*. United Nations High Commissioner for Refugees; Geneva; 2011.
26. Uakarn C, Chaokromthong K, Sintao N. Sample size estimation using Yamane and Cochran and Krejcie and Morgan and Green formulas and Cohen statistical power analysis by G* power and comparisons. *Apheith Int J*. 2021;10(2):76–88.
27. UNHCR. *Projection of Youths Aged 15-24 Years in Palorinya Refugee Settlement*. 2021.
28. Katarahweire M, Bainomugisha E, Mughal KA. Data classification for secure mobile health data collection systems. *Development Engineering*. 2020;5, 100054.
29. Hynes M, Tong V, Zotti ME. *Reproductive Health Assessment Toolkit for Conflict-Affected Women*. 2007.
30. Control CfD. *Prevention, Reproductive Health Assessment Toolkit for Conflict-Affected Women*. Atlanta, GA: Centers for Disease Control and Prevention; 2007:2013, 14.
31. UNFPA and Save the Children- USA. Reproductive health toolkit for humanitarian settings. A companion to the inter-agency field manual on reproductive health in humanitarian settings. In: *A Companion to the Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings*. USA: UNFPA, SAVE THE CHILDREN; 2009 (Online).
32. Knopf A. Advice for parents on enrolling your child in a research project. *Brown Univ Child Adolesc Behav Lett*. 2022;38(4):9–10.
33. Adeyemo C, Nwadiuto A. Socio-demographic determinants of sexual and gender-based violence in rural and urban communities in Rivers State: an analytical comparative cross-sectional survey. *Nigerian Health Journal*. 2023;23(2):612–618.
34. Fawole OI. Gender based violence. In: Okonofua Friday E, ed. *Confronting the Challenge of Reproductive Health in Africa: A Textbook for Student and Development Practitioners*. vol. 10. Women's Health and Action Research Centre (WHARC); 2014: 207–235.
35. Tumwesigye N.M., B. Kyomuhendo, G., T. Greenfield, Kennedy, and R.K. Wanyenze, Problem drinking and physical intimate partner violence against women: evidence from a national survey in Uganda. *BMC Publ Health*. 2012;12:1–11.
36. Amalo, C.L. and J.O. Odwee, Sexual and gender-based violence against women in conflict areas in Uganda: a case of Kitgum District. in *57th Session of the International Statistical Institute*. 2009. Durban, South Africa: ISI 2009.
37. Yelland LN, Salter AB, Ryan P. Performance of the modified Poisson regression approach for estimating relative risks from clustered prospective data. *Am J Epidemiol*. 2011;174(8):984–992.
38. Ratner B. Variable selection methods in regression: ignorable problem, outing notable solution. *J Target Meas Anal Market*. 2010;18:65–75.
39. Chowdhury MZI, Turin TC. Variable selection strategies and its importance in clinical prediction modelling. *Family Medicine and Community Health*. 2020;8(1).
40. WHO. *Sexual Exploitation and Abuse*. WHO: Geneva: W.H. Organization; 2024.
41. UN. What is sexual harassment? [cited 2024; Available from: <https://www.un.org/womenwatch/osagi/pdf/whatish.pdf>]; 2024.
42. USDJ. *Human Trafficking*. United States Department of Justice; 2024.
43. Delkhosh M, Merghati Khoei E, Ardalan A, Rahimi Foroushani A, Gharavi MB. Prevalence of intimate partner violence and reproductive health outcomes among Afghan refugee women in Iran. *Health Care Women Int*. 2019;40(2):213–237.
44. Logie C.H., M. Okumu, S. Mwima, et al. Social-ecological factors associated with experiencing violence among urban refugee and displaced adolescent girls and young women in informal settlements in Kampala, Uganda: a cross-sectional study. *Conflict Health*. 2019;13(1):1–15.
45. Ngala PE. *Prevalence and Correlates of Sexual and Gender Based Violence Among Refugees in Kakuma Refugee Camp, Turkana County, Kenya*. University of Nairobi; 2021:119.
46. Wood S, Ford K, Hardcastle K, Hopkins J, Hughes K, Bellis M. *Adverse Childhood Experiences in Child Refugee and Asylum Seeking Populations*. 2020.
47. Sebba KR. Negotiating the gender-based violence referral pathway: challenges and opportunities in the refugee hosting areas of Uganda. *Risks, Identity and Conflict: Theoretical Perspectives and Case Studies*. 2021:339–366.
48. Keygnaert I, Vettenburg N, Temmerman M. Hidden violence is silent rape: sexual and gender-based violence in refugees, asylum seekers and undocumented migrants in Belgium and The Netherlands. *Cult Health Sex*. 2012;14(5):505–520.
49. Kawaguchi C. *Why GBV survivors cannot seek help: the Case of south Sudanese Refugees in Uganda*. *Risks. Identity and Conflict: Theoretical Perspectives and Case Studies*. 2021: 307–338.
50. Kwiringira JN, Mutabazi MM, Mugumya F, Kaweesi E, Munube D, Rujumba, Experiences of gender based violence among refugee populations in Uganda: evidence from four refugee camps. *E Afr Soc Sci Res Rev*. 2018;34(1):291–311.
51. Karunakara UK, Neuner F, Schauer M, et al. Traumatic events and symptoms of post-traumatic stress disorder amongst Sudanese nationals, refugees and Ugandans in the West Nile. *Afr Health Sci*. 2004;4(2):83–93.
52. Shukla S, Ezebiuhe JA, Steinert JI. Association between public health emergencies and sexual and reproductive health, gender-based violence, and early marriage among adolescent girls: a rapid review. *BMC Publ Health*. 2023;23(1):117.
53. Solomon A. *Sexual and Gender-Based Violence against Arab Women Refugees: Yazidi Minority in Northern Iraq*. 2019.
54. Nagarajan R. Polygyny and spousal violence in India: findings from the 2019–2021 national family health survey. *International Journal of Population Studies*. 2022;7(1): 108–123.
55. Echterhoff G, Hellmann JH, Back MD, Kärtner J, Morina N, Hertel G., Psychological antecedents of refugee integration (PARI). *Perspect Psychol Sci*. 2020;15(4):856–879.
56. Promise Consult International Ltd. SRH needs assessment among adolescents and youth in refugee and host communities in Obongi district. In: *A Consultancy Report Submitted to ChildFund*. Kampala; 2022.