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Assessing attitudes towards violence against women and girls, their determinants and health-seeking behaviour among women and men in South Sudan: a cross-sectional national survey

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ABSTRACT

Objective Investigating attitudes accepting two categories of violence against women and girls (VAWG) (intimate partner violence—IPV—and other expressions of VAWG) and their association with seven demographic/social determinants and health-seeking behaviours in South Sudan.

Design Cross-sectional study using data from the South Sudan National Household Survey 2020.

Setting South Sudan.

Participants and methods 1741 South Sudanese women and 1739 men aged 15–49 years; data captured between November 2020 and February 2021 and analysed using binary logistic regression.

Results People with secondary or higher education displayed attitudes rejecting acceptance of IPV (OR 0.631, 95% CI 0.508 to 0.783). Women and men living in states with more numerous internally displaced people (IDP) or political/military violence had attitudes accepting IPV more than residents of less violence-affected regions (OR 1.853, 95% CI 1.587 to 2.164). Women had a higher odd of having attitudes accepting IPV than men (OR 1.195, 95% CI 1.014 to 1.409). People knowing where to receive gender-based violence healthcare and psychological support (OR 0.703, 95% CI 0.596 to 0.830) and with primary (OR 0.613, 95% CI 0.515 to 0.729), secondary or higher education (OR 0.596, 95% CI 0.481 to 0.740) displayed attitudes rejecting acceptance of other expressions of VAWG. People residing in states with proportionately more IDP and who accepted IPV were more likely to have attitudes accepting other expressions of VAWG (OR 1.699, 95% CI 1.459 to 1.978; OR 3.195, 95% CI 2.703 to 3.775, respectively).

Conclusion Attitudes towards accepting VAWG in South Sudan are associated with women's and men's education, gender, residence and knowledge about health-seeking behaviour. Prioritising women's empowerment and gender transformative programming in the most conflict-affected areas where rates of VAWG are higher should be prioritised along with increasing girls' access to education. A less feasible strategy to decrease gender inequalities is

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ Data are nationally representative of the population in South Sudan in all 10 states and three administrative areas.
⇒ Use of the ecological framework to assess women and men's attitudes towards violence against women and girls in a country with one of the highest violence against women and girls (VAWG) prevalences worldwide.
⇒ The sampling frame used projections of the 2008 census by the South Sudan National Bureau of Statistics, which are likely to be inaccurate due to migration, displacement and conflict.
⇒ Cluster effects were not considered in the methodology.
⇒ 'Attitudes accepting other expressions of VAWG' could not be further studied with the current dataset and could not be merged with 'attitudes accepting intimate partner violence' because the perpetrator was not captured in the National Household Survey, which focused on assessing health service coverage.

reducing insecurity, military conflict, and displacement, and increasing economic stability.

INTRODUCTION

Violence against women and girls (VAWG) is defined as any expression of gender-based violence (GBV) including psychological, physical or societal violence due to gender inequalities or is likely to result in physical, sexual or mental harm or suffering to women and girls, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life.[1] The causes of VAWG are multidimensional. However, the unequal power

distribution against women, and a hegemonic masculine biased society are principal factors.[2 3] Other supporting factors include environments of impunity for VAWG perpetrators and normalisation of violent social and practices against them.[3 4]

Intimate partner violence (IPV) is the most common expression of VAWG. The WHO defined IPV as 'behaviours by an intimate partner or ex-partner that causes physical, sexual or psychological harm, including acts of physical aggression, sexual coercion, psychological abuse and controlling behaviours'. 27% of women worldwide have experienced IPV in their lifespan and 13% in the past year.[5] However, the distribution patterns of IPV differ by region. Africa is the most affected continent; South Sudan has one of the highest prevalences worldwide (41%)[5] with some states having up to 65% of South Sudanese women who experienced physical and/or sexual violence by a partner or non-partner in their lifetimes.[6]

We explore for drivers of high prevalence VAWG acceptance in South Sudan taking account of a range of crucial social and demographic characteristics to understand the attitudes of the population towards VAWG. To do this, WHO recommends applying an ecological framework, which integrates interdisciplinary scientific evidence.[7] It labels VAWG as a phenomenon resulting from characteristics of individuals, their relationships with other people and their community, and societal norms and institutions.[3]

At the individual level, personal characteristics (eg, age, education, income, disabilities or a history of child abuse or rape) may increase the chance of experiencing or perpetrating VAWG.[3] At the relationships level, partners, relatives and peers could influence the risk of women experiencing violence through male dominance.[8] The community level is the place where a person lives or spends time and is related to the local social acceptance of VAWG. A community's characteristics could expose women to acts of violence.[3] The last level involves factors that encourage or discourage VAWG practices in society, such as a patriarchal social system and women's lack of legal support.[3 7]

A humanitarian setting like South Sudan offers many complexities. We structure our investigation using the ecological framework to address our overarching research question: what factors and health seeking behaviours are associated with attitudes accepting VAWG in South Sudan. We bifurcate our study by assessing attitudes about IPV and attitudes about other expressions of VAWG separately, as well as their interactions. Demographic determinants include age, gender, marital status, educational level, and residence and other factors such as knowledge about where to report and receive healthcare and psychological support for GBV. Other cofactors include the prevalence of military conflict and numbers of internally displaced people (IDP). We briefly summarise the context of South Sudan before continuing.

Understanding the current political economic context of South Sudan

In 2011, South Sudan became the world's newest nation. During decades of civil war, much of the country's social fabric and physical infrastructure was destroyed. Child and maternal mortality rates were among the highest in the world. Despite the challenging conditions, South Sudan and international donors were eager to progress towards the millennium development goals.[9 10] In 2012, the nation became a Countdown to 2015 country for Maternal, Newborn and Child Survival,[11] and a pilot country of the New Deal for Engagement in Fragile States, a partnership among donor countries, Fragile and Conflict Affected States, and civil society to create country-led transitions out of fragility.[12]

However, during 2011 and 2015, unexpected economic and conflict-related shocks occurred. South Sudan leadership refused to sign the New Deal Compact with donors to establish benchmarks for peace and state building.[12 13] The dramatic decrease in global oil prices in 2014/2015 and renewed conflict with Sudan resulted in a year-long reduction in South Sudan's oil production, which contributed to a national economic crisis.[14 15] Domestic conflict erupted in December 2013 when President Salva Kiir accused his ex-vice-president, Riek Machar, of plotting a coup d'état. By 2019, tens of thousands of people were dead and hundreds of thousands displaced or living with destroyed or limited infrastructure. South Sudan in 2023 ranked 3rd among 179 countries on the Fragile States Index[16] making it a suitable location to investigate the role of conflict and VAWG using current data.

METHODS

This cross-sectional study is a secondary analysis of the data collected in the 'Domestic and GBV' module of the National Household Survey (NHS) 2020.[17] The target populations in this module were South Sudanese men and women between 15 and 49 years of age.[17] This study is reported using the Strengthening the Reporting of Observational Studies in Epidemiology cross-sectional reporting guidelines.[18]

Survey design

The NHS 2020 covered all 10 states and 3 administrative areas (AA) in which each county was sampled as a stratum. The strata are aggregated for each state/AA as stratified random samples resulting in coverage proportions with 95% CIs that do not exceed±0.10. The survey design used the Lot Quality Assurance Sampling (LQAS) method as applied in the 2010 and 2015 national South Sudan surveys[19–21] to assess service delivery coverage at the county level.

Data were collected with probability proportional to size (PPS) with n=19 for each target population in each county of 10 states and n=24 interview locations in each county of the three AA. The total expected sample was n=1751 for each target population (table 1). The PPS

Table 1 Sample size and maximum CIs per state and administrative area

State	Total sample size for state for each client population	95% CI does not exceed
Abyei AA	4 SAs×24=96	+10.0%
Central Equatoria	6 SAsx19=114	+9.2%
Eastern Equatoria	8 SAsx19=152	+7.9%
Greater Pibor AA	4 SAsx24=96	+10.0%
Jonglei	8 SAsx19=152	+7.9%
Lakes	8 SAsx19=152	+7.9%
Northern Bahr el-Ghazal	5 SAs x19=95	+10.1%
Ruweng AA	4 SAs x 24=96	+10.0%
Unity	7 SAs x 19=133	+8.5%
Upper Nile	13 SAsx19=247	+6.2%
Warrap	6 SAsx19=114	+9.2%
Western Bahr el-Ghazal	5 SAsx19=95	+10.1%
Western Equatoria	10 SAsx19=190	+7.1%

AA, administrative areas.

sampling frame used the South Sudan National Bureau of Statistics (NBS) 2020 projected population from the 2008 Census.

The domestic and GBV survey module resulted in samples of 1741 women and 1739 men; the reduced sample size was due to damaged data or inaccessibility of some interview locations. For more information about the LQAS method, see references 22–24.

The sampling was conducted in stages with villages in each county selected with PPS. Typically, one representative of a target population was sampled in a selected village.

At the next stage, the village level, interviewees were chosen using segmentation sampling[25] which consists of constructing a village map with the help of village leaders and dividing it into segments using landmarks, with the segments having approximately the same number of households. One segment was then chosen randomly; if the segment had 20 or fewer households, the households were placed on the map and enumerated. One of them was then selected randomly.[25 26] If the segment was larger than 20 houses, it was subdivided into additional segments with one selected randomly. Then the process continued as described.

After the first household was randomly selected the house with the nearest door from the first selected house was chosen for interview. This is done to reduce the chance that a house was not included in the map and had zero probability of selection. At the selected household, eligible interviewees are listed corresponding to the client populations. One is selected randomly for interview. When the interview was completed, the interviewer went to the next closest house and repeated the process until finishing the questionnaires for each client population. Only one eligible person was interviewed in any household to reduce the chance of interquestion correlation. Consequently, men and women in this study were always selected from different households.[25 26]

Instrument

The NHS South Sudan 2020 consisted of nine questionnaires for each of nine target populations. Two of them are relevant to this study (women and men 15–49 years of age). Each questionnaire had a 'domestic and GBV' module which also captured sociodemographic data, health behaviours. The module was adapted from WHO's multicountry study on women's health and domestic VAW 2005.[7 17] United Nations Children's Fund (UNICEF) GBV subcluster provided the module in September 2020.

The attitudinal questions about IPV assessed the justification of beating a wife for (1) going out without permission, (2) child neglect, (3) arguing with her husband, (4) refusing sex and (5) burning food.[17] Each question had three option responses: acceptance, rejection and do not know. A positive response to any of these five scenarios scored 1; a negative response scored 0. As these data were treated as binary responses 'do not know' was considered missing data and coded with the median predominant value of the respondent's state. The do not know respondents were <8% of the national database.

This dichotomous classification of the responses has been used in other studies assessing attitudes towards VAWG in low-income and middle-income countries (LMICs) using Demographic and Health Surveys and NHS.[27] As a result, our methodology should be comparable to the wider literature.

We created an index outcome called 'attitude towards IPV', which aggregates responses to the five IPV binary questions: rejection (people who reject all five reasons to beat a wife) and acceptance (people who accept 1 or more of the reasons to beat a wife).

The questions assessing attitudes of other expressions of VAWG included accepting: (1) child marriage, (2) forced pregnancy or sterilisation, (3) forcing women into prostitution or to have sexual intercourse, (4) raiding villages for women, (5) female genital mutilation (FGM) and (6) intentional HIV transmission.[17] We also created an index for these responses using the same process to create the variable 'attitudes towards other expressions of VAWG' where rejection required respondents to not accept any of these actions.

Although a respondent's residence was registered by the name of the state where the interviewee lived, in the analysis, an additional variable was created to assign states to a category according to their number of conflict incidents and number of IDP: low-moderate level states/AA (Western Equatoria, Northern Bahr el-Ghazal, Greater Pibor, Abyei and Ruweng) and high-level states/AA (Unity, Central Equatoria, Jonglei, Upper Nile, Eastern Equatoria, Lakes and Western Bahr el-Ghazal[28] and Warrap[29]).

Table 2 Outcome and independent variables with definitions

Ecological framework	Variable	Classification	Categories
Outcome variables			
Community level	Attitude towards IPV*. Separate responses to several scenarios	Binary categorical	Yes/no
Community level	Attitude towards other expressions of VAWG. Separate responses to several scenarios	Binary categorical	Yes/no
Independent variables			
Individual level	Gender	Binary categorical	Man/woman
Individual level	Age	Ordinal categorical	15–25 years/26–35 years/36–49 years
Relationship level	Marital status	Nominal categorical	Never married/married, cohabited or living together/widowed, divorced or separated
Community level	Residence	Nominal categorical	States-AA with low-moderate level of conflicts or IDP/States-AA with a high level of conflicts or IDP
Individual level	Educational level	Ordinal categorical	Illiteracy/primary/secondary or upper
Individual level	Knowledge of where to report cases of GBV	Binary categorical	Yes/no
Individual level	Knowledge of where to receive healthcare and psychosocial support for GBV	Binary categorical	Yes/no

*Attitude towards IPV is an outcome and treated as independent variable for predicting acceptance of other expressions of VAWG.
AA, administrative areas; GBV, gender-based violence; IDP, internally displaced people; IPV, intimate partner violence; VAWG, violence against women and girls.

Likewise, the variables 'knowledge about where to report' and 'where to receive healthcare and psychological support for GBV' were categorised as 'yes' if the interviewer knew at least one way available for reporting and 'no' if they did not.

Data collection

Data were collected between November 2020 and February 2021 by 104 data collectors and 13 supervisors trained by experienced trainers from the Liverpool School of Tropical Medicine (LSTM) the week preceding the data collection.[17] The NBS provided electronic and hard copies of county maps for each of the 89 strata, depicting the randomly selected locations in each county. Data were collected on encrypted and password-protected smart phones programmed with Open Data Kit. Data were uploaded daily (or when connected to the internet) to the LSTM server and screened for duplicates and errors, and corrected daily by the lead trainers who managed the data collection. The uploaded data were stored at LSTM in a password-protected database and only accessible to the approved research team.[17]

Analysis strategy

The data were cleaned and analysed with SPSS V.28. Table 2 displays outcome and independent variables used in the study which correspond to the ecological framework.

The analysis uses multiple binary logistic regression to assess the association of the acceptance of IPV and other expressions of VAWG with independent variables, through crude and adjusted OR. Independent variables with p values <0.05 were interpreted using the ecological framework.

To address potential confounders among the independent variables, we used a collinearity diagnostic, the tolerance and a variance inflation factor. No collinearity was detected.

For the national-level analyses, the data from each state were weighted by their projected population size.

Patient and public involvement

This study does not involve patients. Also, the public was not involved in the design, conduct and reporting of the research. The public was engaged as interviewees. To ensure local engagement, all data capture was carried out jointly with the national and state Ministries of Health of South Sudan. We also shared the results with them and offered further dissemination of results and engaged them for data use and action planning activities.

RESULTS
Characteristic of the sample

3480 people were included in the survey (table 3) with the sample size by gender being approximately the same

Table 3 Samples sizes by gender for demographic and other independent variables used in this study

Factor		Men n (%)	Women n (%)	Total n (%)
Sample size		1739 (50.0)	1741 (50.0)	3480 (100)
Age (years)	15–25	524 (30.1)	740 (42.5)	1264 (36.3)
	26–35	547 (31.5)	599 (34.4)	1146 (32.9)
	36–49	668 (38.4)	402 (23.1)	1070 (30.7)
Marital status	Never married	389 (22.4)	216 (12.4)	605 (17.4)
	Married, cohabited or living together	1308 (75.2)	1402 (80.5)	2710 (77.9)
	Widowed, divorced or separated	42 (2.4)	123 (7.1)	165 (4.7)
Educational level	Illiteracy	779 (44.8)	1176 (67.5)	1955 (56.2)
	Primary	508 (29.2)	440 (25.3)	948 (27.2)
	Secondary or upper	452 (26.0)	125 (7.2)	577 (16.6)
Residence	Central Equatoria	114 (6.6)	114 (6.5)	228 (6.6)
	Eastern Equatoria	152 (8.7)	152 (8.7)	304 (8.7)
	Western Equatoria	190 (10.9)	190 (10.9)	380 (10.9)
	Lakes	152 (8.7)	152 (8.7)	304 (8.7)
	Warrap	114 (6.6)	114 (6.5)	228 (6.6)
	Western Bahr el-Ghazal	95 (5.5)	95 (5.5)	190 (5.5)
	Northern Bahr el-Ghazal	95 (5.5)	95 (5.5)	190 (5.5)
	Unity	133 (7.6)	133 (7.6)	266 (7.6)
	Upper Nile	247 (14.2)	247 (14.2)	494 (14.2)
	Jonglei	159 (9.1)	161 (9.2)	320 (9.2)
	Greater Pibor AA	96 (5.5)	96 (5.5)	192 (5.5)
	Abyei AA	96 (5.5)	96 (5.5)	192 (5.5)
	Ruweng AA	96 (5.5)	96 (5.5)	192 (5.5)
Knowledge about where to report GBV	No	113 (6.5)	145 (8.3)	258 (7.4)
	Yes	1626 (93.5)	1596 (91.7)	3222 (92.6)
Knowledge about where to receive healthcare and psychological support for GBV	No	471 (27.1)	497 (28.5)	968 (27.8)
	Yes	1268 (72.9)	1244 (71.5)	2512 (72.2)

AA, administrative areas; GBV, gender-based violence.

in every state. Two incomplete interviews of men from insecure areas or with physical barriers to access, coded as missing data were eliminated from the analysis which should have no impact on the results.

The highest number of men was concentrated in the 36–49 years age group (38.4%) while for women it was in the 15–25 years age group (42.5%). Most participants were married, cohabited or living together (77.9%); 17.4% had never married and 4.7% were widowed, divorced or separated. The group of women who were married, cohabited, or living together was slightly larger than men with the same characteristics, 80.5% and 75.2%, respectively.

Over half (56.2%) of the population was illiterate. However, women displayed a dramatically higher illiteracy rate (67.5%) compared with men (44.8%). The percentage of respondents with primary education was similar for gender (women 25.3% and men 29.2%).

However, only 7.2% of women had further education (secondary and upper) in contrast with 26.0% of men. Similarly, large proportions of men and women knew where to report GBV incidents (93.5%, 91.7%, respectively), and where to seek healthcare and psychological support (72.9%, 71.5%, respectively).

Attitudes towards IPV

We stratified respondents into three age groupings and used the youngest grouping as the reference: people between 15–25 years, 26–35 years and 36–49 years. No difference was detected when comparing the reference and age groups in an Adjusted OR (table 4).

Gender exhibited a statistically significant effect for the adjusted models with women having a 1.195 higher odds (95% CI 1.014 to 1.409) of having attitudes accepting IPV compared with men. Educational level displayed no

Table 4 Crude and adjusted ORs of attitude towards IPV and attitude towards other expressions of VAWG with 95% CIs

		Attitude towards IPV		Attitude towards other expressions of VAWG	
		Crude OR (95%CI) (p value)	Adjusted OR (95%CI) (p value)	Crude OR (95%CI) (p value)	Adjusted OR (95%CI) (p value)
Age group	15–25	1	1	1	1
	26–35	1.235 (1.031 to 1.480) (0.022)*	1.188 (0.973 to 1.452) (0.091)	1.168 (0.995 to 1.371) (0.057)	1.012 (0.842 to 1.216) (0.901)
	36–49	0.963 (0.805 to 1.151) (0.676)	0.906 (0.732 to 1.120) (0.361)	1.049 (0.891 to 1.236) (0.564)	0.886 (0.726 to 1.083) (0.238)
Gender	Man	1	1	1	1
	Woman	1.349 (1.162 to 1.565) (<0.001)†	1.195 (1.014 to 1.409) (0.034)*	1.211 (1.060 to 1.384) (0.005)*	0.987 (0.847 to 1.150) (0.868)
Education level	Illiteracy	1	1	1	1
	Primary	0.931 (0.781 to 1.110) (0.428)	1.010 (0.837 to 1.220) (0.916)	0.601 (0.514 to 0.704) (<0.001)†	0.613 (0.515 to 0.729) (<0.001)†
	Secondary or upper	0.572 (0.470 to 0.696) (<0.001)†	0.631 (0.508 to 0.783) (<0.001)†	0.519 (0.429 to 0.628) (<0.001)†	0.596 (0.481 to 0.740) (<0.001)†
Marital Status	Never married	1	1	1	1
	Married, cohabited or living together	1.324 (1.096 to 1.601) (0.004)*	1.195 (0.955 to 1.496) (0.119)	1.307 (1.093 to 1.562) (0.003)*	1.084 (0.873 to 1.346) (0.466)
	Widowed, divorced or separated	1.391 (0.945 to 2.047) (0.095)	1.236 (0.814 to 1.877) (0.321)	1.674 (1.184 to 2.367) (0.004)*	1.418 (0.963 to 2.089) (0.077)
Residence	States with low/ intermediate level of conflicts or IDP	1	1	1	1
	States with high level of conflicts or IDP	1.836 (1.575 to 2.141) (<0.001)†	1.853 (1.587 to 2.164) (<0.001)†	1.888 (1.633 to 2.183) (<0.001)†	1.699 (1.459 to 1.978) (<0.001)†
Knowledge where to report GBV	No	1	1	1	1
	Yes	1.170 (0.889 to 1.541) [0.262]	1.304 (0.973 to 1.749) (0.076)	1.017 (0.789 to 1.311) (0.898)	1.254 (0.945 to 1.664) (0.117)
Knowledge where to receive healthcare and psychological support for GBV	No	1	1	1	1
	Yes	0.918 (0.777 to 1.085) (0.315)	0.906 (0.757 to 1.083) (0.277)	0.700 (0.603 to 0.813) (<0.001)†	0.703 (0.596 to 0.830) (<0.001)†
Attitude towards IPV	No	–	–	1	1
	Yes	–	–	3.463 (2.941 to 4.077) (<0.001)†	3.195 (2.703 to 3.775) (<0.001)†

*p<0.05
†p<0.001.
IDP, internally displaced people; IPV, intimate partner violence; VAWG, Violence Against Women and Girls.

differences in IPV acceptance between men or women with primary education and the illiterate group. However, men and women with secondary or more education displayed a lower odd of having attitudes accepting IPV when compared with the illiterate group in the adjusted model (OR 0.631, 95% CI 0.508 to 0.783) indicating that education is highly protective against accepting IPV. The same pattern occurred in analyses of education and

attitudes of accepting IPV when the data were disaggregated by gender.

Marital status (never married, widowed, divorced or separated) did not display a significant predictive effect of attitudes accepting IPV. However, residence was highly predictive of attitudes accepting IPV. People living in states with a high level of IDP or a high level of conflicts exhibited a higher likelihood of having attitudes accepting IPV (OR 1.853, 95% CI 1.587 to 2.164) in comparison to those living in States/AA with a lower level of these characteristics.

Neither of the last two cofactors, having knowledge about where to report an act of GBV or where to receive healthcare and psychological support for GBV, exhibited statistically significant effects for comparisons of people who had learnt two items of knowledge and those who had not.

Attitudes towards other expressions of VAWG

Age and knowledge about where to report GBV displayed no statistical effects for having attitudes accepting other expressions of VAWG. Similarly, gender and marital status did not (table 4). However, primary, and secondary or upper education each displayed a protective effect in the adjusted model (p<0.001). People who received primary education were 0.613 (95% CI 0.515 to 0.729) less likely to accept VAWG in comparison to the illiterate group while secondary or upper education was only slightly more protective (OR 0.596, 95% CI 0.481 to 0.740).

Similarly, people who knew where to receive healthcare and psychological support displayed a significant protective effect in the adjusted model against accepting other expressions of VAWG (OR 0.703, 95% CI 0.596 to 0.830).

Residence was a risk factor as people living in states or AA with a high level of IDP or armed conflict had a higher odd of having attitudes accepting other expressions of VAWG in the adjusted model (OR 1.699, 95% CI 1.459 to 1.978) than residents living in states or AA with less displacement and conflict. However, the variable displaying the largest OR for accepting other expressions of VAWG was attitudes accepting IPV. People who accept IPV had a 3.195 (95% CI 2.703 to 3.775) times higher odds of accepting other expressions of VAWG than any other characteristic when compared with people who do not.

DISCUSSION
Understanding attitudes accepting IPV

In the model assessing attitudes towards IPV using the ecological framework, we included variables at the individual level (age, gender, educational level, knowledge of where to report cases of GBV and where to receive healthcare and psychological support), the relationship level (marital status) and the community level (residence). Figure 1 displays the independent variables with significant effects (p values <0.05).
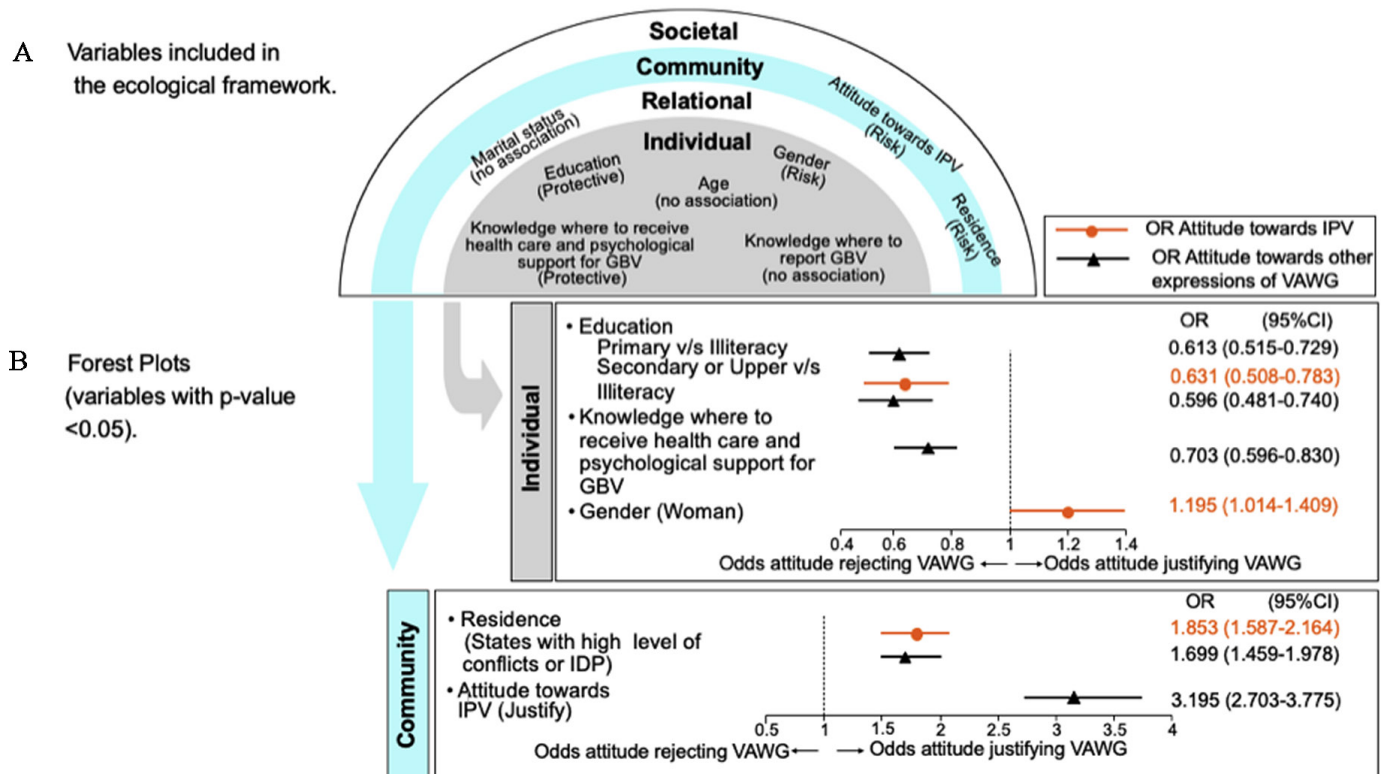

Figure 1 Ecological framework and forest plots of adjusted ORs for attitudes towards IPV and attitudes towards other expressions of VAWG. GBV, gender-based violence; IDP, internally displaced people; IPV, intimate partner violence; VAWG, violence against women and girls.

At an individual level, gender was associated with attitudes accepting IPV, with women having a higher odd of accepting it than men (OR 1.195, 95% CI 1.014 to 1.409). This result is consistent with an earlier study[27] of attitudes towards domestic GBV in 49 LMIC indicating that South Sudan is similar to other LMIC with high levels of conflicts and gender inequalities, which may be due to patriarchal societies promoting the normalisation of IPV such that women and men blame wives for giving husbands cause to beat them.

A recent study in South Sudan theorised that women grow-up under social norms that accept violence against them such as punishing girls as a precaution to preserve their virginity before marriage[30] or for witnessing domestic violence against their mothers.[31] Both earlier studies may indicate potential factors, at the individual level that explain the effect of gender being associated with attitudes accepting IPV.

Another possible social determinant of gender as a predictor of IPV acceptance is a man's family having to pay a dowry in cattle before his marriage, which may result in a woman recognising her partner as her owner, and that being beaten is part of a silent nuptial agreement inherent to gender inequality.[30 32]

On the other hand, at an individual level, having secondary or upper education was the only protective factor against having attitudes accepting IPV (OR 0.631, 95% CI 0.508 to 0.783) relative to illiterate people. This result is consistent with findings from several previous VAWG studies, which highlight the benefits of education in decreasing gender inequalities[33] due to men with a higher level of education being less likely to be aggressors and women being victims of IPV.[31] In a previous study, female literacy was the most significant socioeconomic protective factor against having attitudes accepting IPV.[27] In 2018, only 29% of South Sudanese women were literate, dramatically under the 2018 global average (83%) and the sub-Saharan Africa rate (58%).[34]

The protective effect of education for IPV acceptance could be explained as women with secondary or upper education having greater access to work in non-domestic activities and opportunities for receiving a salary, which is essential for gaining economic independence from partners. Economic independence is an essential step for tackling male dominance and reversing the normalisation of patriarchal practices such as wife beating.[27] Similarly, education increases women's self-esteem and confidence[35] and expands their access to a support network through which they can learn that IPV is an unacceptable violation of their human rights.[33] Woman literacy also increases skills and knowledge about how to avoid or respond to an event of IPV.[27 31]

The sole community-level factor we analysed was state/AA residence, which showed the strongest association with attitudes accepting IPV in the adjusted OR (1.853, 95% CI 1.587 to 2.164). People living in states with a high influx of IDP or political-military violence and related conflicts (such as banditry) have residents who are more likely to accept IPV than those who live in states/AA with lower levels of IDP or violence reports. This result further supports theories that settings with a complex emergency involving refugee camps, IDP or armed conflicts dramatically increase the level of VAWG, especially IPV and non-partner sexual violence.[27 32 36]

Buckley and Krause suggested that the stress experienced by men in this environment would boost their aggressive behaviours against wives and other women.[37] If this theory is reliable it suggests a detrimental scenario for South Sudanese women because 2.2 million people have been displaced and over 2.3 are refugees.[38] However, we need to consider other social determinants such as the impact of living in a patriarchal society in a humanitarian context that may aggravate gender inequities. For example, some evidence shows that women have an essential role in contributing to a household's income in humanitarian settings; as a result, men may perceive loss of power and authority. Wife beating could be interpreted as a practice to recover it.[27]

Understanding attitudes accepting other expressions of VAWG

Our assessment of attitudes accepting other expressions of VAWG used the same seven variables as in the previous outcome, and we also included attitude towards IPV as an exposure (figure 1).

At the individual level, educational attainment showed the most substantial protective effect against attitudes accepting other expressions of VAWG. Primary education, and secondary and upper levels were also protective (OR 0.613, 95% CI 0.515 to 0.729 and OR 0.596, 95% CI 0.481 to 0.740, respectively). This result contrasts with the attitude of accepting IPV where only higher education levels were protective.

Second, knowing where to receive healthcare and psychological support was associated with attitudes rejecting other expressions of VAWG (OR 0.703, 95% CI 0.596 to 0.830). A possible explanation of the protective influence of these two factors might be related to some expressions of VAWG being less rooted and justified in the South Sudanese society than IPV. For example, the prevalence of woman genital mutilation (FGM) is approximately 1%[39] while the prevalence of IPV is over 40%,[5] suggesting that wife beating, unlike FGM, is a socially accepted norm, requiring a higher level of literacy and a support network before being rejected.[27]

At the community level of the ecological framework, residence was associated with attitudes accepting other expressions of VAWG (OR 1.699, 95% CI 1.459 to 1.978). People living in settings with a high level of conflicts or IDP are more likely to accept VAWG. Several previous studies, referenced by UNICEF, claim that in a complex emergency, such as in South Sudan, the level of violence and acceptance of these types of behaviours dramatically increases among the population, and dealing with poverty, famine and lack of employment increased these effects.[39] A 2021 study posited that during crises tensions between communities can increase due to competition

for cattle grazing land and resulting in acts of VAWG. For example, the lack of cattle to pay a dowry would increase the raiding of villages for women and girls for marriage; in such settings, families could be willing to force girls into prostitution in exchange for food[30] or into child marriage to obtain capital from a dowry.[39]

Other authors[32] suggest that police corruption and armed conflicts increase sexual VAWG due to the lack of punishment for aggressors. Consequently, practices such as raping women in conflict or postconflict settings tend to be normalised and non-criminalised.[30]

Finally, also at a community level, attitudes accepting IPV was the variable with the strongest association with attitudes accepting other expressions of VAWG (OR 3.195, 95% CI 2.703 to 3.775). In other words, people who accept IPV were more likely to accept broader expressions of VAWG, especially in settings with gender inequalities, humanitarian complex emergency, lack of education and poverty[39] as South Sudan.

This study has some limitations. Possible cluster effects were not considered in the logistic regression models nor in the tabulation when men and women were analysed simultaneously. Additionally, some questions in the instrument relating to the outcome 'attitudes accepting other expressions of VAWG' could not be further studied with the current dataset and could not be merged with 'attitudes accepting IPV' because data about the perpetrator could not be captured in the NHS, which focused on assessing health service coverage.

Conclusion

This study contributes to understanding VAWG in South Sudan by identifying clear protective factors and risk factors for attitudes accepting IPV and other expressions of VAWG at the country level. Likewise, using an ecological framework to assess them allows for estimating at what level the association is displayed and focusing efforts to tackle them.[40]

Only few independent variables were included in this study. This does not mean that no other additional factors explain attitudes accepting VAWG in South Sudan, nor that additional ones could be investigated using an ecological framework.

A next stage of research could be to engage the Ministry of Health to use these results for policy reform and strategy development, such as prioritising women's empowerment and gender transformative programming in the most conflict-affected areas where rates of VAWG are higher, along with increasing access to education. The results do suggest the aspiration for South Sudan to reduce insecurity, military conflict and displacement; and increasing economic stability as a possible strategy to decreased gender inequalities. However, the former recommendation may be more feasible and pragmatic in the near to mid-term as a policy agenda. The latter focus on the political economic setting and conflict, highlighting the importance of conflict resolution and peace keeping which may have an impact on addressing multiple public health issues including VAWG.[20]

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