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Increase in intimate partner violence during the COVID19 lockdown in uganda: a household survey

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Abstract

Introduction During the novel COVID-19 pandemic, governments worldwide limited people's movements in what became known as *lockdowns* to contain the spread of infection. Uganda experienced one of Africa's strictest, longest, and most widespread lockdowns. In this paper, we examine how the novel COVID-19 pandemic and government response to address it impacted intimate partner violence (IPV) among men and women in two diverse districts in central Uganda.

Methodology A household survey was conducted in Luwero and Mukono districts among 1680 respondents from 84 villages from October 25th, 2021, to December 3rd, 2021. Data were collected using standardized structured questionnaires adapted from UN guidelines for producing statistics on violence in women. Outcome variables were lifetime and current (measured as incidents in the past 12 months) prevalence of IPV and whether there was reported increase during the COVID-19 lockdown, assessed by several items under emotional, socio-economic, physical and sexual violence and analyzed as individual items or derived composite variables.

Results The lifetime prevalence of IPV was 55.4%, higher among women compared to men (57.9% vs. 47.4%, $p<0.001$). The current prevalence of IPV was 31.0% (497/1603), higher among women than men but the difference did not reach statistical significance (32.2% vs. 27.3%, $p=0.071$). Of these, 73.0% (363/497) reported that the COVID-19 lockdown worsened their IPV experiences, which was higher among women than men (74.7% vs. 67.0%,) $p=0.113$) but not statistically significant. At multivariable analysis, the reported increase in IPV during the COVID-19 lockdown was significantly lower in participants with at least a diploma education, in subsistence farming or self-employed. While emotional violence was the most prevalent across both genders, socioeconomic violence was reported to have increased most during the lockdown. Only 41.9% of those who experienced violence sought help, and the majority sought help from non-formal mechanisms like family members.

Conclusion While IPV was more likely to be experienced by women than men, in almost all cases, those of both genders who had experienced IPV reported that it had gotten worse during the lockdowns. Pandemic preparedness

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and government responses during future pandemics must consider how lockdowns can create unintended negative consequences, including exacerbating IPV.

Keywords Intimate partner violence, Gender, Emotional violence, Socioeconomic violence, Physical violence, Sexual violence, Central Uganda, COVID19 pandemic, Response, Lockdown

Introduction

Sub-Saharan Africa (SSA) has one of the highest rates of intimate partner violence (IPV) in the world, a situation linked to structural factors (women's unemployment, food, and social insecurity) as well as a generalized tolerance [1]. Despite policy progress, services continue to fail to provide for these women. Although a recent multi-country study showed that as many as 43% of all women have experienced intimate partner violence in SSA [2], the majority of women in the region do not seek help when they have experienced IPV [3].

IPV against women has devastating consequences. Globally, 38% of all murders of women are committed by intimate partners [4]. IPV against men is not as prevalent (globally, it is 24.2% in women [5], 18% in men [6]) and has been studied less than IPV against women. In SSA, large-scale quantitative data on men's experience of IPV is lacking, but a recent study from Kenya indicated that the prevalence of IPV among men is high, 76.1% [7]. Qualitative research, also from Kenya, suggests that among men, alongside a lack of services, social stigma and traditional gender norms often hinder male survivors from reporting or seeking support, as men may feel pressured to appear strong or fear being disbelieved [8]. For both men and women, lack of awareness and tailored resources leads to underreporting and lower help-seeking, leaving many survivors without adequate support [9]. In such contexts, external shocks either due to natural disasters such as the COVID19 pandemic or government intervention or both have the potential to exacerbate IPV prevalence especially among those already at risk due to existing vulnerability or extreme poverty or cultural practices.

The COVID-19 pandemic, with its accompanying lockdowns and movement restrictions, created environments that amplified the risk of IPV worldwide [10]. At the beginning of the pandemic, concerns were raised about the impact that lockdowns might have on vulnerable populations [11]. Studies from multiple countries indicate a significant rise in IPV cases during the COVID19 pandemic, likely due to increased isolation, economic stress, and restricted access to support services [12–14]. Lockdowns, while aimed at curbing virus transmission, unintentionally confin individuals to environments where tensions can escalate—especially in households with pre-existing IPV risk factors [15]. Limited access to social networks and reduced service availability compound these risks, isolating victims and limiting opportunities for escape or support [16]. Drawing from the Merton's theory on "*the unanticipated consequences of purposive social action*" [17], we postulate that the well-intentioned policies of lockdown and restriction of movement in Uganda during the COVID19 pandemic response may have created additional unintended nor predicted outcomes on the incidence of IPV.

Uganda experienced some of the strictest and longest lockdowns in the region [18, 19]. Prior to the pandemic, reports indicate that Uganda had some of the highest rates of IPV among both women and men in SSA. More than half of married women in Uganda reported experiencing IPV [20], including psychological (40%), physical violence (41%), and sexual violence (23%) [20]. Among ever-married Ugandan men, rates of IPV are also high. Almost half (43%) of men have experienced IPV, most especially psychological abuse (36%). They have lower rates of physical (20%) and sexual (8%) violence [21] in comparison to women, likely due to underreporting due to stigma or an identity rooted in strong masculinity and gender disparity in decision making roles. The lockdowns in Uganda may have seemed rational and justified at the time but they have created another health emergency, increase in IPV which was likely unintended and unanticipated [17]. Although, early Ugandan studies limited by method (conducted on the telephone) and with relatively small samples, provided a consistent picture that between 30.6% and 58.1% of women experienced at least one type of IPV during the COVID-19 pandemic [22–24], no systematic studies have, however, looked at the experience of IPV among both men and women during COVID-19 lockdowns.

This study analyzed IPV among both women and men in Luwero and Mukono districts in Central Uganda, using data from a large household survey conducted shortly after the second COVID-19 lockdown. It sought to determine unexpected outcomes on IPV prevalence, including a particular focus on the often-neglected IPV against men, likely due to COVID19 pandemic, but also because of the government response to it. In examining IPV, the study assessed emotional and socioeconomic violence in addition to the commonly reported physical and sexual violence.

Methods and materials

Study area and design

This household survey on intimate partner violence was conducted in villages within the catchment areas of

medicine outlets identified in a related study in Luwero and Mukono districts, Central Uganda [25]. Luwero, about 75 km north of Kampala, is predominantly rural, with agriculture as its main economic activity. It has a population of 614,230 in 162,438 households, with a population density of roughly 100 people per square kilometer. In contrast, Mukono, 25 km east of Kampala, is more urbanized and economically diverse, encompassing agriculture, manufacturing, and trade. It has 932,672 residents in 264,913 households, with a density of about 280 people per square kilometer [26]. Both districts are noted for their socio-political resilience and are subdivided into urban municipalities, town councils, and rural sub-counties. Villages or local councils, each typically comprising 50 to 200 households, are the smallest administrative units and were the primary sampling units in the current survey.

Sample size and sampling

The household sample size was estimated using the Bennett method for cluster-sample surveys [27], with each village (the smallest administrative unit) serving as a cluster. As part of a larger study [25], all villages within the catchment areas of drug shops, private clinics, and pharmacies, collectively referred to as the medicine retail sector (MRS), in Luwero and Mukono districts were mapped to form the sampling frame. Catchment areas were defined by a 5-kilometer radius from each medicine outlet, considering the road network and physical barriers affecting access.

Assuming 50% of households had at least one care-seeking episode from the MRS during the COVID-19 pandemic (maximizing sample size) and estimating 20 households per cluster (based on feasibility of surveying this number in a day), we applied a design effect of 4.2 due to high inter-cluster homogeneity (0.2), reflecting multistage sampling and varying levels of intimate partner violence. Using a two-sided test at a 5% significance level, we calculated a sample size of 1,680 households across 84 clusters. Multistage sampling was used. First, villages were randomly selected from the sampling frame. Then, three enumerators in each village systematically enrolled eligible households, guided by field context, until 20 households were surveyed per cluster.

Study variables and data sources

An instrument composed of a structured interviewer-administered questionnaire was used for data collection. It was developed by adapting socio-economic status questions from the *Simplified Asset Indices to Measure Wealth and Equity in Health Programs* tool [28] and the IPV questionnaire items from the *UN guidelines for producing statistics on violence against women* [29]. The adaptation involved including items that assessed intimate partner violence, relevant to the context and assessed intimate partner violence in men too. It was first prepared in English and translated into Luganda, the predominant language spoken in the study area, and then back-translated into English to ensure it retained the intended meaning. The data collection tool is provided as a supplementary file to this manuscript **[Supplementary file 2].**

The instrument contained questions on the socio-demographic profile of the respondents, spouses and their households as independent variables.

Outcome variables:

i. Lifetime experience of IPV, defined as having ever experienced any form of violence, was derived as a composite variable by considering any self-reported experience of the violent incidents measured under any of the forms of violence, i.e., emotional, socio-economic, physical, or sexual violence.
ii. Current experience of IPV, defined as experiencing any form of violence in the 12 months preceding the survey, was derived as a composite variable by considering any self-reported experience of the violent incidents measured under the four forms of violence.
iii. Whether IPV increased during the COVID-19 pandemic was derived as any self-reported worsening or increase of the violent incidents measured under the four forms of violence.
iv. Similarly, lifetime and current experience of each of emotional violence, socio-economic violence, physical violence, and sexual violence, respectively, and whether each form of violence was reported to have increased during the COVID-19 pandemic were derived by considering only items measured under each form of violence.
v. Care-seeking among IPV victims - sought care after the incidence of intimate partner violence in the past 12 months, from where, whether the help was given or reason for not seeking care.

For the detailed description of the IPV forms and the items measured under each violence form, **see Supplementary file 1** and for the structured household IPV questionnaire **see Supplementary file 2.**

Data collection

Data were collected from October 25th, 2021, to December 3rd, 2021, by experienced interviewers following intensive training on the protocol, data collection tools and study procedures. Figure 1 sets out the timeline for the research and the periods of more and less stringent lockdowns in Uganda. One adult per eligible household who had slept in the house for at least 4 weeks preceding

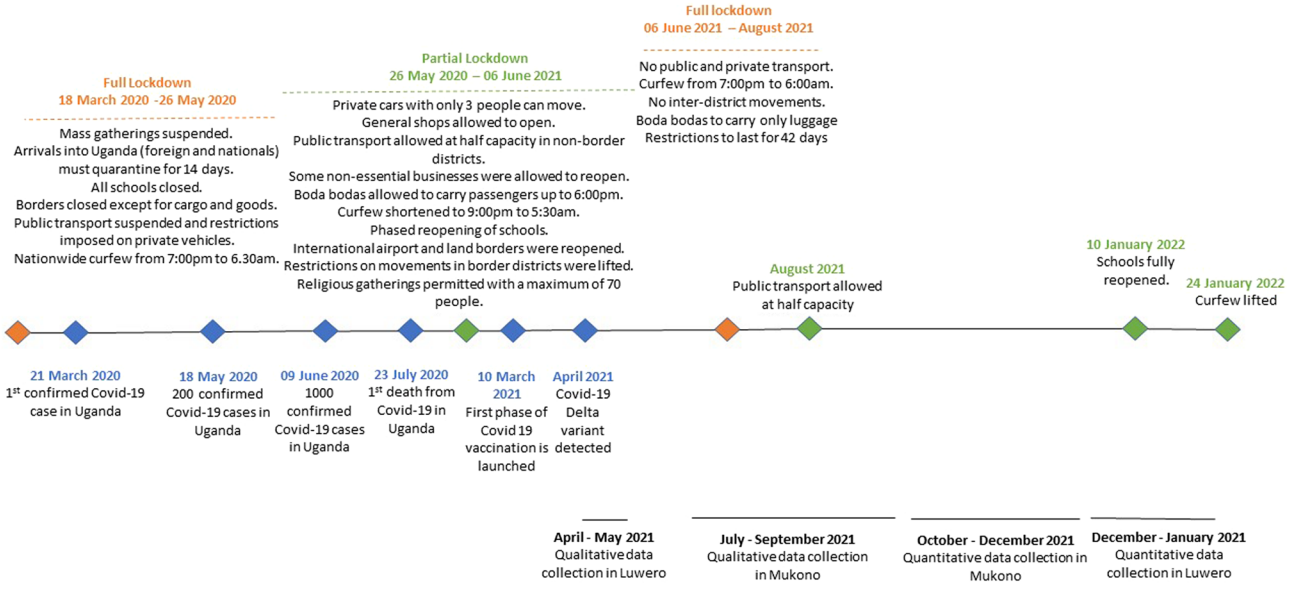

Fig. 1 Timeline of the COVID-19 pandemic, related response events, and study activities in Uganda

the survey was interviewed. An eligible household was one within the catchment area of the study medicine outlets and had at least one under-five household member. Whenever more than one willing adult was found, priority was given to the one deemed more informed on the health-related issues of the household. In case of unavailability of eligible respondents, a second visit was made. If this failed, the household next to it was included in the survey instead. Data was collected using electronic tools based on the KoboToolbox platform (Harvard Humanitarian Initiative, 14 Story St, Cambridge, MA 02138) installed on secure tablets and transmitted to a secure server under the direct supervision of the principal investigators.

Data management and analysis

Quantitative data were cleaned, checked, coded, and transferred to Stata version 15.0 (StataCorp LLC., College Station, TX, USA). The household, represented by one eligible adult respondent, was the unit of analysis. Outcome variables were derived before analysis. Composite outcome variables were created to estimate lifetime and current IPV prevalence, and any worsening during the COVID-19 lockdown, categorized by emotional, socioeconomic, physical, or sexual violence, and disaggregated by sex. Age was summarized as median with interquartile range; categorical variables were reported as frequencies and percentages in a table. Chi-square tests assessed differences in proportions between males and females. Results are presented in tables with proportions and p-values.

To identify factors associated with the reported increase in IPV during lockdown, we used multivariable modified Poisson regression due to the outcome prevalence exceeding 10% [30–32]. Logistic regression can overestimate relative risk in such cases, and log-binomial models often face convergence issues [30–32]. Modified Poisson regression, using robust error variance (sandwich estimator), effectively addresses these limitations [33, 34]. Backward elimination was used for variable selection. Multicollinearity was assessed, and variables with p-values < 0.05 were considered significant. Wald statistics tested variable importance. We assessed interaction between education and occupation but found none. Due to the limited availability of robust goodness-of-fit tests [35], the model with the lowest Akaike Information Criterion (AIC) was chosen [36]. Model fit was also evaluated using the Hosmer-Lemeshow test [37], yielding a chi-square of 3.96 ($p = 0.861$) and 74.3% classification accuracy, indicating good fit.

Results

Socio-demographic characteristics

Of the total 1680 respondents, the majority had or had ever had an intimate partner (95.4%), and were female (76.4%), with a lower median age of 37 years (IQR 28, 49) than males of 45 years (IQR 35, 53), were married or cohabiting (69.8%), and subsistence farmers (41%). Nearly half 762/1680 (45.4%) of the respondents and half of the spouses (52.2%, 612/1173) were educated beyond the primary level. (Table 1).

Table 1 Socio-demographic characteristics of respondents in the household survey ($N = 1680$)

Characteristic	Male ($N = 397$)	Female ($N = 1283$)
	Frequency (%)	Frequency (%)
Median age (IQR)	45 (35–53)	37 (28–49)
Role of respondent in a household		
Wife or mother	0 (0)	1283 (100)
Guardian	1 (0.3)	0 (0)
Husband or father	388 (97.7)	0 (0)
Child	8 (2.0)	0 (0)
Highest level of education		
None	20 (5.0)	128 (10.0)
Primary	188 (47.4)	582 (45.4)
Secondary	141 (35.5)	482 (37.6)
Certificate	12 (3.0)	50 (3.9)
Diploma	23 (5.8)	29 (2.3)
Degree	13 (3.3)	12 (0.9)
Respondent's occupation		
None	21 (5.3)	291 (22.7)
Subsistence farmer	188 (47.4)	500 (39.0)
Self-employed	130 (32.8)	414 (32.3)
Civil servant	15 (3.8)	17 (1.3)
Others	43 (10.8)	61 (4.8)
Respondent's marital status		
Never married	8 (2.0)	50 (3.9)
Married	168 (42.3)	257 (20.0)
Cohabiting	198 (49.9)	550 (42.9)
Separated or divorced	18 (4.5)	236 (18.4)
Widowed	5 (1.3)	190 (14.8)
Age of respondent's spouse ($n = 1173$)	$n = 366$	$n = 807$
Below 25 years	41 (11.2)	25 (3.1)
25 to 34 years	127 (34.7)	199 (24.7)
35 to 44 years	102 (27.9)	238 (29.5)
45 years and older	65 (17.8)	271 (33.6)
Do not know	31 (8.5)	74 (9.2)
Highest level of education of spouse ($n = 1173$)		
None	7 (1.9)	20 (2.5)
Primary	151 (41.3)	235 (29.1)
Secondary	157 (42.9)	334 (41.4)
Certificate	14 (3.8)	21 (2.6)
Diploma	8 (2.2)	36 (4.5)
Degree	7 (1.9)	35 (4.3)
Do not know	22 (6.0)	126 (15.6)
Occupation of spouse		
None	57 (15.6)	27 (3.6)
Subsistence farmer	175 (47.8)	223 (27.6)
Self-employed	107 (29.2)	390 (48.3)
Civil servant	10 (2.7)	47 (5.8)
Others	17 (4.6)	118 (14.6)
Do not know	0 (0)	2 (0.3)
Head of household		
Self	382 (96.2)	556 (43.3)
Spouse	7 (1.8)	663 (51.7)
Another male adult	3 (0.8)	19 (1.5)
Another female adult	5 (1.3)	44 (3.4)
Other	0 (0)	1 (0.1)

Table 1 (continued)

Characteristic	Male (*N* = 397)	Female (*N* = 1283)
	Frequency (%)	Frequency (%)
Age of the household head if not spouse or self (*n* = 72)	*n* = 8	*n* = 64
27–43 years	2 (25.0)	16 (25.0)
44–60 years	4 (50.0)	21 (32.8)
61–79 years	1 (12.5)	15 (23.4)
Do not know	1 (12.5)	12 (18.8)
Highest level of education of household heads other than spouse/self (*n* = 72)	*n* = 8	*n* = 64
None	0 (0)	9 (14.1)
Primary	4 (50.0)	18 (28.1)
Secondary	2 (25.0)	16 (25.0)
Certificate	0 (0)	1 (1.6)
Diploma	1 (12.5)	0 (0)
Degree	0 (0)	2 (3.1)
Do not know	1 (12.5)	18 (28.1)
Occupation of household heads other than spouse (*n* = 72)	*n* = 8	*n* = 64
None	0 (0)	12 (18.8)
Subsistence farmer	4 (50.0)	21 (32.8)
Self-employed	1 (12.5)	20 (31.3)
Civil servant	1 (12.5)	4 (6.3)
Others	2 (25.0)	3 (4.7)
Do not know	0 (0)	3 (6.3)
Respondents with or who ever had an intimate partner		
Yes	388 (97.7)	1215 (94.7)
No	9 (2.3)	68 (5.3)

Prevalence of overall lifetime and overall current IPV and factors associated with its worsening during the COVID-19 lockdown in Mukono and Luwero districts

The overall lifetime prevalence of intimate partner violence was 55.4%, higher among women compared to men (57.9% vs. 47.4%, $p < 0.001$). The overall current prevalence of IPV (measures as IPV in the past 12 months) was 31% (497/1603), higher among women than men but it did not reach statistical significance (32.2% vs. 27.3%, $p = 0.071$). Of these, 73.0% (363/497) reported that the COVID-19 lockdown worsened their IPV experiences, which was higher among women than men (74.7% vs. 67.0%,) $p = 0.113$) but did not reach statistical significance (Fig. 2). At multivariable analysis, a reported increase in any form of IPV was significantly lower in participants with at least a advanced education having an adjusted prevalence ratio (aPR) of 0.58, (95% CI: 0.37, 0.91, $p = 0.019$) compared to none; being in subsistence farming with aPR, 0.84, (95% CI: 0.74, 0.96, $p = 0.008$) and self-employed with aPR of 0.86, (95% CI: 0.75, 0.98, $p = 0.029$) compared to unemployed. On the contrary, being separated, divorced, or widowed were more likely to report an increase in any form of violence during the COVID-19 lockdown compared to never married had aPR of 1.51, (95% CI: 1.004–2.26, $p = 0.048$). Sex was not significantly associated with reporting an increase in any form of violence during the COVID-19 lockdown with aPR of 1.04, (95% CI: 0.87, 1.24, $p = 0.643$) (Table 2).

Prevalence of the different forms of IPV

Emotional violence

The most common form of intimate partner violence experienced was emotional violence (39.9%), significantly higher among women than men (41.7% vs. 34.5%, $p = 0.013$). Over the past 12 months, 21.2% (339/1603) had experienced emotional violence, with no statistically significant difference between men and women (19.3% vs. 21.7%, $p = 0.314$). Of these, 66.7% (226/339) reported that emotional violence increased during the COVID-19 lockdown, with no statistical difference between men and women (62.7% vs. 67.8%, $p = 0.405$) (Table 3; Fig. 2).

This was grouped into different actions, with insults (35.1%) being the most common among men and women during their lifetime, followed by humiliation (18.0%), being made to feel scared (16.0%), or being threatened (5.1%). This trend was the same for emotional violence in the previous 12 months. Notably, more than two-thirds of all participants who reported experiencing each of the four different actions of emotional abuse in the last 12 months noted that it had worsened during the COVID-19 lockdown (insults, 65.1%, humiliated or belittled, 73.8%, scared or intimidated, 73.3% and threatened to hurt by someone they cared about, 67.5%). Remarkably,

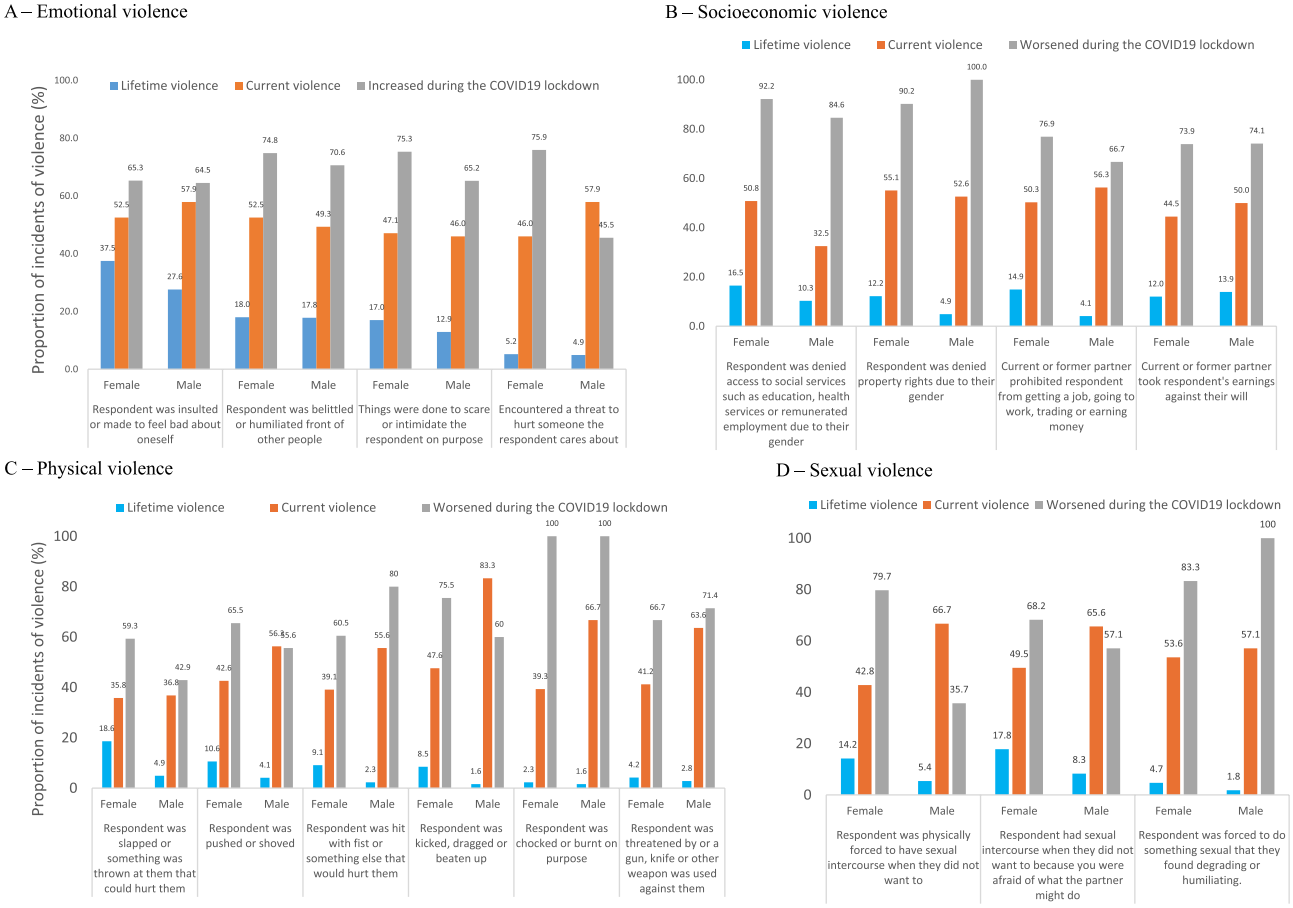

Fig. 2 Proportion of lifetime and current violence and whether it worsened during the COVID19 lockdown by category

the percentage of men and women who had experienced emotional violence was similar in each case within 10% points, except for threats, which were much higher among women than men (75.9% vs. 45.5%, $p = 0.067$). There were no statistically significant differences in the experiences of the forms of emotional violence between men and women.

Socio-economic violence

The overall lifetime prevalence of socioeconomic violence was 31.4%, higher in women than men (33.3% vs. 25.8%, $p = 0.006$). Over the 12 months preceding the survey, 15.9% (255/1603) had experienced socioeconomic violence, with a statistically significant difference between men and women (11.6% vs. 17.3%, $p = 0.008$). Of these, 81.6% (208/255) reported that socioeconomic violence increased during the COVID-19 lockdown, with no statistical difference between men and women (75.6% vs. 82.9%, $p = 0.252$).

This study found that 241/1603 (15.0%) were denied access to support services such as education and health assistance/services like contraceptives, followed by their partner taking their earnings against their will (12.5%), prohibiting employment (12.3%), and denial of property rights (10.4%). Denial of access to support services was significantly higher among women than men (16.5% vs. 10.3%, $p = 0.003$). Significantly, 50.8% of women reported that this happened in the last 12 months (during the COVID-19) pandemic, as opposed to 32.5% of men ($p = 0.035$). While more women reported that this worsened during the COVID-19 lockdown, this was not statistically different from men (92.2% vs. 84.6%, $p = 0.363$).

Similarly, more women than men (12.2% vs. 4.9%, $p < 0.001$) were denied property rights because of their gender. Over half experienced this during the last 12 months, and 100% of men and 90.2% of women reported that this worsened during COVID-19, but these were not statistically significant. Additionally, more women than men (14.9% vs. 4.1%, $p < 0.001$) were prohibited from employment by their current or former partner, with more than half experiencing this in the past 12 months and worsened during COVID-19, although this was not statistically significant. Finally, about 12.5% (200/1603) reported their partner taking their earnings against their will. This was experienced more among the men, who reported that it worsened during the COVID-19

Table 2 Multivariable analysis of factors associated with reported increase in any form of IPV in the last 12 months

Variable name	Reported increase in any form of IPV in the last 12 months		Unadjusted PRR (95%CI)	Adjusted PRR (95%CI)	*P* value
	Yes (%) (*n* = 363)	No(%) (*n* = 134)			
Gender					
Male	71 (19.6)	35 (26.1)	1	1	
Female	292 (80.4)	99 (73.9)	1.11 (0.95–1.32)	1.04 (0.87–1.24)	0.643
District					
Luweero	177 (48.8)	61 (45.5)	1	1	
Mukono	186 (51.2)	73 (54.5)	0.97 (0.85–1.09)	0.95 (0.85–1.07)	0.427
Age					
18 to 24 years	50 (13.8)	17 (12.7)	1	1	
25 to 34 years	137 (37.7)	53 (39.6)	0.97 (0.84–1.11)	0.98 (0.86–1.13)	0.808
35 to 44 years	99 (27.3)	40 (29.9)	0.95 (0.82–1.12)	0.98 (0.83–1.16)	0.830
45 years and above	77 (21.2)	24 (17.9)	1.02 (0.86–1.21)	1.05 (0.86–1.27)	0.649
Educational level					
None	25 (6.9)	8 (6.0)	1	1	
Primary	158 (43.5)	55 (41.0)	0.98 (0.80–1.20)	0.98 (0.80–1.20)	0.649
Secondary	155 (42.7)	52 (38.8)	0.99 (0.82–1.20)	1.00 (0.82–1.22)	0.976
Certificate	15 (4.1)	6 (4.5)	0.94 (0.71–1.25)	0.97 (0.71 – 1.30)	0.817
Advanced	10 (2.8)	13 (9.7)	0.57 (0.37–0.89)*	0.58 (0.37–0.91)*	**0.019**
Marital status					
Never married	11 (3.0)	9 (6.7)	1	1	
Married	79 (21.8)	28 (20.9)	1.34 (0.89–2.03)	1.35 (0.90–2.03)	0.150
Cohabiting	206 (56.8)	86 (64.2)	1.28 (0.85–1.93)	1.26 (0.84–1.88)	0.260
Separated/divorced/widowed	67 (18.5)	11 (8.2)	1.56 (1.04–2.34)*	1.51 (1.004–2.26)*	**0.048**
Occupation of the respondent					
None	102 (28.1)	22 (16.4)	1	1	
Subsistence farmer	111 (30.6)	48 (35.8)	0.85 (0.75–0.96)**	0.84 (0.74–0.96)**	**0.008**
Self-employed	119 (32.8)	51 (38.1)	0.85 (0.75–0.97)*	0.86 (0.75–0.98)*	**0.029**
Others	31 (8.5)	13 (9.7)	0.82 (0.71–1.04)	1.00 (0.81–1.22)	0.977
Infection of any household member with COVID-19					
No	330 (90.9)	124 (92.5)	1	1	
Yes	33 (9.1)	10 (7.5)	1.06 (0.91–1.23)	1.11 (0.95–1.29)	0.198
Chronic illness of any family member					
No	274 (75.5)	106 (79.1)	1	1	
Yes	89 (24.5)	28 (20.9)	1.05 (0.94–1.19)	1.07 (0.94–1.21)	0.319
No of people in the household					
2 to 4 people	125 (34.4)	49 (36.6)	1	1	
5 to 7 people	176 (48.5)	56 (41.8)	1.06 (0.94–1.19)	1.03 (0.91–1.17)	0.620
8 and above	62 (17.1)	29 (21.6)	0.95 (0.80–1.13)	0.94 (0.79–1.14)	0.546
Receipt of COVID-19 vaccine					
No	170 (46.8)	67 (50.0)	1	1	
Yes	193 (53.2)	67 (50.0)	1.03 (0.92–1.16)	1.05 (0.93–1.17)	0.433

lockdown but was not statistically significant (Table 4; Fig. 2).

Physical violence

The overall lifetime prevalence of physical violence was 18.7%, with more women experiencing physical violence than men (22.3% vs. 7.2%, $p < 0.001$). Over the past 12 months, 7.9% (126/1603) had experienced physical violence, with a statistically significant difference between men and women (3.6% vs. 9.2%, $p < 0.001$). Of these, 63.5% (80/126) reported that physical violence increased during the COVID-19 lockdown, with no statistical difference between men and women (57.1% vs. 64.3%, $p = 0.601$).

Just over 15% of the respondents (245/1603) experienced being slapped or thrown at something that could hurt them, and it was significantly experienced more among women than men (18.6% vs. 4.9%, $p < 0.001$). Of all participants (both men and women) who experienced it in the past 12 months, 57.3% reported worsening during

Table 3 Emotional violence among participants in the household survey ($n=1603$)

Emotional violence item	Frequencies (%)			*P* value
	Total ($n=1603$)	Male ($n=388$)	Female ($n=1283$)	
Was insulted or made feel bad about him/herself				
No	1041 (64.9)	281 (72.4)	760 (62.6)	< 0.001
Yes	562 (35.1)	107 (27.6)	455 (37.5)	
Happened in the last 12 months ($n=562$)				
No	261 (46.4)	45 (42.1)	216 (47.5)	0.312
Yes	301 (53.6)	62 (57.9)	239 (52.5)	
Worsened during COVID-19 lockdown ($n=301$)				
No	105 (34.9)	22 (35.5)	83 (34.7)	0.911
Yes	196 (65.1)	40 (64.5)	156 (65.3)	
Was belittled or humiliated in front of other people				
No	1315 (82.0)	319 (82.2)	996 (82.0)	0.914
Yes	288 (18.0)	69 (17.8)	219 (18.0)	
Happened in the last 12 months ($n=288$)				
No	139 (48.3)	35 (50.7)	104 (47.5)	0.639
Yes	149 (51.7)	34 (49.3)	115 (52.5)	
Worsened during COVID-19 lockdown ($n=149$)				
No	39 (26.2)	10 (29.4)	29 (25.2)	0.625
Yes	110 (73.8)	24 (70.6)	86 (74.8)	
Was scared or intimidated on purpose				
No	1347 (84.0)	338 (87.1)	1009 (83.1)	0.057
Yes	256 (16.0)	50 (12.9)	206 (17.0)	
Happened in the last 12 months ($n=256$)				
No	136 (53.1)	27 (54.0)	109 (52.9)	0.890
Yes	120 (46.9)	23 (46.0)	97 (47.1)	
Worsened during COVID-19 lockdown ($n=120$)				
No	32 (26.7)	8 (34.8)	24 (24.7)	0.328
Yes	88 (73.3)	15 (65.2)	73 (75.3)	
Was threatened to hurt someone they cared about				
No	1521 (94.9)	369 (95.1)	1152 (94.8)	0.822
Yes	82 (5.1)	19 (4.9)	63 (5.2)	
Happened in the last 12 months ($n=82$)				
No	42 (51.2)	8 (42.1)	34 (54.0)	0.365
Yes	40 (48.8)	11 (57.9)	29 (46.0)	
Worsened during COVID-19 lockdown ($n=40$)				
No	13 (32.5)	6 (54.6)	7 (24.1)	0.067
Yes	27 (67.5)	5 (45.5)	22 (75.9)	

Table 4 Socio-economic violence among participants in the household survey ($n=1603$)

Socio-economic violence item	Frequencies (%)			*P* value
	Total	Male	Female	
Was denied access to support services such as education, health services (e.g. contraceptives) or remunerated employment because of their gender ($n=1603$)				
No	1362 (85.0)	348 (89.7)	1014 (83.5)	0.003
Yes	241 (15.0)	40 (10.3)	216 (16.5)	
Happened in the last 12 months ($n=241$)				
No	126 (52.3)	27 (67.5)	99 (49.3)	0.035
Yes	115 (47.7)	13 (32.5)	102 (50.8)	
Worsened during COVID-19 lockdown ($n=115$)				
No	10 (8.7)	2 (15.4)	8 (7.8)	0.363
Yes	105 (91.3)	11 (84.6)	94 (92.2)	
Was denied property rights because of their gender				
No	1436 (89.6)	369 (95.1)	1067 (87.8)	< 0.001
Yes	167 (10.4)	19 (4.9)	148 (12.2)	
Happened in the last 12 months ($n=167$)				
No	75 (44.9)	9 (47.4)	66 (44.6)	0.819
Yes	92 (55.1)	10 (52.6)	82 (55.1)	
Worsened during COVID-19 lockdown ($n=92$)				
No	8 (8.7)	0	8 (9.8)	0.301
Yes	84 (91.3)	10 (100.0)	74 (90.2)	
Their current or former partner prohibited them from getting a job, going to work, trading, or earning money				
No	1406 (87.7)	372 (95.9)	1034 (85.1)	< 0.001
Yes	197 (12.3)	16 (4.1)	181 (14.9)	
Happened in the last 12 months ($n=197$)				
No	97 (49.2)	7 (43.8)	90 (49.7)	0.647
Yes	100 (50.8)	9 (56.3)	91 (50.3)	
Worsened during COVID-19 lockdown ($n=100$)				
No	24 (24.0)	3 (33.3)	21 (23.1)	0.492
Yes	76 (76.0)	6 (66.7)	70 (76.9)	
Their current or former partner took their earnings against their will				
No	1403 (87.5)	334 (86.1)	1069 (88.0)	0.324
Yes	200 (12.5)	54 (13.9)	146 (12.0)	
Happened in the last 12 months ($n=200$)				
No	108 (54.0)	27 (50.0)	81 (55.5)	0.490
Yes	92 (46.0)	27 (50.0)	65 (44.5)	
Worsened during COVID-19 lockdown ($n=92$)				
No	24 (26.1)	7 (25.9)	17 (26.2)	0.982
Yes	68 (73.9)	20 (74.1)	48 (73.9)	

the COVID-19 lockdown, with no significant difference between men and women. Nearly twice as many women than men (10.6% vs. 4.1%, $p<0.001$) reported experiencing a lifetime prevalence of being pushed or shoved. Close to half of men (56.3%) and women (42.6%) encountered this in the past year, with a reported increase during the COVID-19 pandemic, though these changes were not statistically significant (Table 5). Similarly, more women than men reported being hit with a fist or harmful item (9.1% vs. 2.3%, $p<0.001$). While 40.3% had experienced this in the past 12 months, and 62.5% reported an increase during the COVID-19 pandemic, there was no statistically significant difference between men and women.

More women than men had experienced kicking, dragging, or being beaten (8.5% vs. 1.6%, $p<0.001$). While not statistically significant, more men experienced this in the past 12 months (83.3% vs. 47.6%, $p=0.089$), but more women reported an increase during COVID-19 (75.5%

Table 5 Physical violence among participants in the household survey ($n=1603$)

Physical violence item	Frequencies (%)			
	Total	Male	Female	*P* value
Was slapped or something was thrown at them that could hurt them				
No	1358 (84.7)	369 (95.1)	989 (81.4)	< 0.001
Yes	245 (15.3)	19 (4.9)	226 (18.6)	
Happened in the last 12 months ($n=245$)				
No	157 (64.1)	12 (63.2)	145 (64.2)	0.930
Yes	88 (35.9)	7 (36.8)	81 (35.8)	
Worsened during COVID-19 lockdown ($n=88$)				
No	37 (42.1)	4 (57.1)	33 (40.7)	0.399
Yes	51 (58.0)	3 (42.9)	48 (59.3)	
Was pushed or shoved				
No	1458 (91.0)	372 (95.9)	1086 (89.4)	< 0.001
Yes	145 (9.1)	16 (4.1)	129 (10.6)	
Happened in the last 12 months ($n=145$)				
No	81 (55.9)	7 (43.8)	74 (57.4)	0.301
Yes	64 (44.1)	9 (56.3)	55 (42.6)	
Worsened during COVID-19 lockdown ($n=64$)				
No	23 (35.9)	4 (44.4)	19 (34.6)	0.566
Yes	41 (64.1)	5 (55.6)	36 (65.5)	
Was hit with their fist or something else that would hurt them				
No	1484 (92.6)	379 (97.7)	1105 (91.0)	< 0.001
Yes	119 (7.4)	9 (2.3)	110 (9.1)	
Happened in the last 12 months ($n=119$)				
No	71 (59.7)	4 (44.4)	67 (60.9)	0.333
Yes	48 (40.3)	5 (55.6)	43 (39.1)	
Worsened during COVID-19 lockdown ($n=48$)				
No	18 (37.5)	1 (20.0)	17 (39.5)	0.393
Yes	30 (62.5)	4 (80.0)	26 (60.5)	
Was kicked, dragged or beaten up				
No	1494 (93.2)	382 (98.5)	1112 (91.5)	< 0.001
Yes	109 (6.8)	6 (1.6)	103 (8.5)	
Happened in the last 12 months ($n=109$)				
No	55 (50.5)	1 (16.7)	54 (52.4)	0.089
Yes	54 (49.5)	5 (83.3)	49 (47.6)	
Worsened during COVID-19 lockdown ($n=54$)				
No	14 (25.9)	2 (40.0)	12 (24.5)	0.451
Yes	40 (74.1)	3 (60.0)	37 (75.5)	
Was chocked or burnt				
No	1569 (97.9)	382 (98.5)	1187 (97.7)	0.367
Yes	34 (2.1)	6 (1.6)	28 (2.3)	
Happened in the last 12 months ($n=34$)				
No	19 (55.9)	2 (33.3)	17 (60.7)	0.220
Yes	15 (44.1)	4 (66.7)	11 (39.3)	
Worsened during COVID-19 lockdown ($n=15$)				
No	0	0	0	NA
Yes	15 (100)	4 (100)	11 (100)	
Threatened to use or actually used a gun, knife, or other weapon against them				
No	1541 (96.1)	377 (97.2)	1164 (95.8)	0.226
Yes	62 (3.9)	11 (2.8)	51 (4.2)	
Happened in the last 12 months ($n=62$)				
No	34 (54.8)	4 (36.4)	30 (58.8)	0.175
Yes	28 (45.2)	7 (63.6)	21 (41.2)	
Worsened during COVID-19 lockdown ($n=28$)				

Table 5 (continued)

Physical violence item	Frequencies (%)			
	Total	Male	Female	*P* value
No	9 (32.1)	2 (28.6)	7 (33.3)	0.815
Yes	19 (67.9)	5 (71.4)	14 (66.7)	

Table 6 Sexual violence among participants in the household survey ($n=1603$)

Sexual violence item	Frequencies (%)			*P* value
	Total	Male	Female	
Was physically forced to have sexual intercourse when they did not want to				
No	1409 (87.9)	367 (94.6)	1042 (85.8)	< 0.001
Yes	194 (12.1)	21 (5.4)	173 (14.2)	
Happened in the last 12 months ($n=194$)				
No	106 (54.6)	7 (33.3)	99 (57.2)	0.038
Yes	88 (45.4)	14 (66.7)	74 (42.8)	
Worsened during COVID-19 lockdown ($n=88$)				
No	24 (27.2)	9 (64.3)	15 (20.3)	0.001
Yes	64 (72.7)	5 (35.7)	59 (79.7)	
Had sexual intercourse when they did not want to because they were afraid of what their partner might do				
No	1355 (84.5)	356 (91.8)	999 (82.2)	< 0.001
Yes	248 (15.5)	32 (8.3)	216 (17.8)	
Happened in the last 12 months ($n=248$)				
No	120 (48.4)	11 (34.4)	109 (50.5)	0.089
Yes	128 (51.6)	21 (65.6)	107 (49.5)	
Worsened during COVID-19 lockdown ($n=128$)				
No	43 (33.6)	9 (42.9)	34 (31.8)	0.326
Yes	85 (66.4)	12 (57.1)	73 (68.2)	
Was forced to do something sexual that they found degrading or humiliating				
No	1539 (96.0)	381 (98.2)	1158 (95.3)	0.011
Yes	64 (4.0)	7 (1.8)	57 (4.7)	
Happened in the last 12 months ($n=64$)				
No	30 (46.9)	3 (42.9)	27 (47.4)	0.821
Yes	34 (53.1)	4 (57.1)	30 (53.6)	
Worsened during COVID-19 lockdown ($n=34$)				
No	5 (14.7)	0	5 (16.7)	0.377
Yes	29 (85.3)	4 (100.0)	25 (83.3)	

vs. 60.0%, $p=0.451$). Being choked or burnt by intimate partners was rare among both women and men (2.3 vs. 1.6%, $p=0.367$), but all those who had experienced this in the last 12 months reported that it had gotten worse during lockdowns. This study also revealed that women experienced being threatened to use or use a knife, gun, or other weapons against them the most. However, more men, 71.4%, reported that it got worse during the COVID-19 lockdown (Table 5).

Sexual violence

The overall lifetime prevalence of sexual violence was 18.4%, higher among women than men (21.0% vs. 10.3%, $p<0.001$). Over the past 12 months, 9.2% (147/1603) had experienced sexual violence, with a marginally significant difference between men and women (6.4% vs. 10.0%, $p=0.033$). Of these, 66.7% (98/147) reported that sexual violence increased during the COVID-19 lockdown, with no statistical difference between men and women (52.0% vs. 69.7%, $p=0.088$).

The most experienced form of sexual violence was that of having sexual intercourse when respondents did not want to because they were afraid of what their partner might do (15.5%, 248/1603), based on self-report and the current study did not determine if it was consensual. This was slightly more than twice as common among women as men (17.8% vs. 8.3%, $p<0.001$), but more men reported experiencing this over the last 12 months than women (65.6% vs. 49.5%), although it was not statistically significant (Table 6).

Twice as many women experienced being physically forced to have sexual intercourse than men (14.2% vs. 5.4%, $p<0.001$). However, significantly more men reported that this happened during the past 12 months (66.7% vs. 42.8%, $p=0.038$), although more women reported that it had worsened during the lockdowns (79.7% vs. 35.7%, $p=0.001$).

Finally, more than twice as many women (4.7%) as men (1.8%) were forced to do something sexual that they found degrading or humiliating ($p=0.011$). Although the numbers were small, this worsened for men and women during the COVID-19 lockdowns with no statistically significant differences.

Care-seeking among the victims of intimate partner violence

Despite consistent high proportions of IPV, this study revealed that only 41.9% of victims had sought help in the 12 months preceding the survey. Most of those who sought help went to their family members or friends (60% of men; 57.8% of women), followed by local leaders (27.5% of men; 40.5% of women), and only 17.5% of men and 19.3% of women sought help from the police. Both men (77.5%) and women (75.0%) reported to have received the help they sought, the difference in proportions did not reach statistical difference. Of those who did not seek help, 40.8% considered violence to be normal or not serious. This response was higher among men (48.8%) than women (38.6%). More women (19.7%)

Table 7 Care-seeking among victims of intimate partner violence

Characteristic	Total	Males (%)	Females (%)	*P* value
Sought help for any incidence of violence experienced in the past 12 months ($n=497$)				
No	289 (58.2)	66 (62.3)	223 (57.0)	0.333
Yes	208 (41.9)	40 (37.7)	168 (43.0)	
Received help for any incidents of violence sought care for ($n=208$				
No	51 (24.5)	9 (22.5)	42 (25.0)	0.741
Yes	157 (75.5)	31 (77.5)	126 (75.0)	
Where was help sought from		Male ($n=40$)	Female ($n=168$)	
Family members or friends		24 (60.0)	92 (57.8)	
Local leaders		11 (27.5)	68 (40.5)	
Police		7 (17.5)	31 (19.3)	
Social services, legal advice center or court		3 (7.5)	3 (1.7)	
Settled their differences as individuals		2 (5.0)	2 (1.1)	
Health facility, public or private		1 (2.5)	3 (1.7)	
Religious leaders		1 (2.5)	3 (1.8)	
Landlord or neighbor		1 (2.5)	1 (0.6)	
Main reason for not getting help ($n=289$)				
Violence is normalized or not considered serious ($n=118$)		32 (48.8)	86 (38.6)	0.582
Felt embarrassed, ashamed or afraid or would not be believed or would be blamed ($n=47$)		10 (15.2)	33 (14.8)	
Fear of threats, more violence, end of relationships or other dire consequences ($n=53$)		7 (10.6)	44 (19.7)	
Knew other victims who were not helped ($n=18$)		5 (7.6)	13 (5.8)	
Brings a bad name to the family ($n=8$)		0	8 (3.6)	
Encountered challenges of high costs, lack of transport or health facilities were closed ($n=4$)		1 (1.5)	3 (1.4)	
Did not know ($n=23$)		6 (9.1)	16 (7.2)	
Other reasons ($n=27$)		5 (7.6)	20 (9.0)	

than men (10.6%) were likely not to seek help because they were afraid of more violence. Interestingly, almost the same proportion of women (14.8%) and men (15.2%) reported feeling embarrassed, ashamed and afraid that they would be blamed if they reported the intimate partner violence (Table 7).

Discussion

Uganda ranks among the top ten countries globally for both lifetime and current (past-year) prevalence of IPV [38, 39]. This study examined whether there was a reported increase in IPV among men and women during Uganda's COVID-19 lockdowns. Findings show that 55.4% had ever experienced IPV, 31% in the past 12 months, and 73.0% reported an increase in IPV during the lockdown. This is in line with Merton's argument about the possibility that a well-intentioned policy can produce unexpected results due to the complexity of social systems [17]. Global and national response of social distancing, movement restriction and lockdown came with adverse outcomes such as psychological stress and negative emotions [40], precarious employment and unemployment [41]. These effects due to the COVID19 response could have exacerbated the unanticipated reported increase in IPV. In the current study, emotional violence was most common, followed by socio-economic, then sexual, and physical violence. The lockdown particularly intensified socio-economic violence, followed by sexual, emotional, and physical forms of violence. Women were more likely than men to experience IPV across all types and periods, though gender differences in the reported increase during lockdown did not reach statistical significance.

Our findings reveal a notably higher lifetime prevalence of IPV, with 57.9% of women reporting ever experiencing IPV, exceeding the global WHO estimate (26%) [38], a recent meta-analysis (37.3%) [5], and WHO's Sub-Saharan Africa estimate (33%). The current study estimate is more consistent with Uganda-specific figures: 45% in the same WHO report [38] and 54% in the latest 2022 Uganda Demographic Health Survey (UDHS) [42]. Our estimate also surpasses global and regional rates for Europe, North America, Latin America, and Asia. Similarly, 32.2% of women reported current prevalence (past-year) of IPV in the current study, higher than WHO's estimate (13%) [38] and recent analyses (24.2%) [5], and all global regions except central SSA, which reported a similar rate of 32%. The higher lifetime prevalence in our study is likely due to the inclusion of all four IPV forms - emotional, socioeconomic, physical, and sexual - unlike WHO estimates, which emphasize physical and sexual violence. These discrepancies could stem from conceptual inconsistencies and the lack of standardized measures [38]. As emphasized in Sustainable Development Goal Target 5.2, eliminating all forms of violence against women and girls requires measuring all types, including psychological violence. Our findings demonstrate the need for comprehensive IPV assessment to meet this goal.

Among men, 47.4% reported experiencing lifetime IPV, consistent with the 44% reported in the 2016 UDHS

[43], though higher than the 34% in the 2022 UDHS [42]. Higher lifetime IPV prevalence has been reported elsewhere, such as 76% in Kisumu, Kenya [7], while lower rates were observed in Rwanda (18.4%) [44] and South Africa (18.5%) [45]. The current IPV prevalence among men was 27.3%, slightly below the 2016 UDHS (30.5%) [21] and the 2022 UDHS (34%) [42]. These findings reinforce growing evidence that men also suffer IPV, challenging the conventional view of IPV as predominantly impacting women. Variations likely result from regional and socio-cultural differences in IPV recognition, reporting, socio-economic stressors, and measurement tools across SSA. Notably, the high rates in Kenya were associated with being married and more educated [7], countering prior findings that suggested marriage and education to be protective, particularly for women, and highlighting the need for further research among men [46–48]. In Rwanda, men with controlling partners or whose partners consumed alcohol were more likely to report IPV [44]; in South Africa, risk was higher among men facing food insecurity or involved in transactional sex [45]. Socio-cultural phenomena predominant in Uganda and some societies in Sub Saharan Africa also underlie the observed IPV prevalence and variations by gender. These include patriarchal structures, traditional gender roles, identity embedded in masculinity, decision making disparity between the genders and implicit acceptance of certain forms of violence as the norm [1, 2, 20, 21]. Based on these findings, we recommend further investigation into IPV predictors among men.

Emotional violence was the most reported IPV form for both men and women, across both lifetime and past 12 months, followed by socioeconomic, sexual, and physical IPV. This pattern mirrors the 2016 [21, 43] and 2022 UDHS [42] and a global meta-analysis on violence against women [5], including SSA studies [1]. Emotional violence remains pervasive yet under-acknowledged, likely driven by entrenched societal and relationship dynamics, worsened by economic and social stressors. During COVID-19, socioeconomic violence saw the greatest reported increase, followed by sexual violence, challenging the usual focus on physical violence. Economic hardship occasioned by the COVID19 pandemic, job loss and financial instability, some of which were related to government restrictions to break the coronavirus transmission, may have fuelled economic control and household abuse. These findings raise concerns about whether current IPV frameworks fully reflect the range of abuse types. Physical violence may be underreported due to stigma or fear.

Despite the high lifetime, current IPV prevalence and worsening during the lockdown, only 41.9% of survivors sought help. Among those who did not, men often viewed violence as normal or not serious, while women cited fear of embarrassment or retaliation. This reflects broader societal tolerance of IPV, which contributes to its persistence [1]. The 2022 UDHS found that more women (32.6%) than men (29.8%) believed IPV was justified under certain circumstances, such as burning food or refusing sex [42]. This belief was particularly high in Teso (66.1%) and Elgon (75.0%) regions [42]. Cultural norms in Uganda also expose women to unequal treatment and increased vulnerability to sexual and gender-based violence [49]. Among those who sought help, most turned to family (55.8%) and local leaders (38%), while only 18.3% approached police. This aligns with findings that although over 40% of women experience IPV, only 7% report it to police [50]. Similarly, a study in Bangladesh during the COVID-19 lockdown found that despite rising GBV cases, formal reporting and service access declined [51]. Such trends may be linked to discriminatory cultural norms in Central Uganda, which discourage seeking help beyond family structures.

Our study's findings have key implications for IPV intervention policies, especially during crises like the COVID-19 pandemic. The rise in socioeconomic and emotional violence reveals the need to broaden IPV remedial interventions beyond physical and sexual abuse, to include financial aid, economic empowerment, and improved access to resources for at-risk populations. Mental health support and gender-sensitive counselling must also be prioritized to address the emotional impact of IPV. Furthermore, interventions directed to breaking transmission chains of infectious diseases should consider community-based networks and accessible crisis hotlines to reduce the burden of emotional violence across genders. A gender-inclusive approach is vital: while women are disproportionately affected, men also experience high levels of IPV, especially emotionally abuse and are less likely to seek help. Interventions must be inclusive and non-discriminatory, ensuring all survivors have access to support.

This study is among the first to document a reported rise in IPV among both men and women in Uganda during the COVID-19 pandemic, likely exacerbated by government measures to contain the coronavirus spread. By including emotional and socioeconomic violence, it offers a comprehensive view of the prevalence of IPV. However, limitations exist. Because of the difficulty of measuring emotional and socio-economic violence, the estimates in the current study may be an underestimation, partially due to social desirability bias or recall bias that afflicts self-reported data resulting in low disclosure of IPV especially among the male respondents. Likely reasons for social desirability bias include stigma and traditional masculinity norms. The smaller male sample may have reduced power to detect gender differences in the proportions in the different forms of IPV. The

cross-sectional design limits causal inferences between pandemic stressors and IPV. Longitudinal research is needed to assess how pandemic-related stress, including that from government interventions, influences IPV over time. Exploring the role of community and social support in buffering against various IPV forms would also deepen understanding of prevention strategies in crisis settings.

Conclusions

This study reveals a high baseline prevalence of IPV in Uganda, with 55.4% of participants reporting lifetime experience and 31% within the past 12 months, that was unintentionally exacerbated during the COVID19 lockdown. Although more common among women, a substantial proportion of men was also affected. Emotional abuse was the most common form, while socioeconomic violence had the highest reported rise, highlighting the impact of economic stress on IPV dynamics. Just over half of survivors sought help, but few pursued formal redress, such as reporting to police. Social distancing and movement restrictions during pandemics or disasters must also address unintended effects, such as the reported increase in IPV. Support services should be accessible to those at risk. Community-based platforms, like the medicine retail sector, can serve as hubs for information, support, and local services. Risk communication should challenge cultural norms that condone violence and reinforce referral systems. Policies must address all forms of abuse—physical, sexual, emotional, and socioeconomic—while promoting economic empowerment and mental health support for both women and men.

Abbreviations

AIC	Akaike Information Criterion
aPR	Adjusted Prevalence Ratio
CI	Confidence Interval
COVID19	Coronavirus disease caused by the SARS-CoV-2 virus
GBV	Gender Based Violence
IPV	Intimate Partner Violence
IQR	Interquartile Range
MRS	Medicine Retail Sector
p	P value
PRR	Prevalence rate ratio
SDGs	Sustainable Development Goals
SSA	Sub Saharan Africa
UDHS	Uganda Demographic Health Survey
UN	United Nations
WHO	World Health Organization

Supplementary Information

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Supplementary Material 1.

Supplementary Material 2.

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Authors' contributions

FEK, SEC and EH designed and conceptualized the study. FEK and SKN did the data cleaning, data management and preliminary analysis of the data. FEK, RO, SKN, ON, SEC and EH contributed to the data analysis and report writing. All authors contributed to the interpretation of the findings. ON wrote the first draft of the paper. FEK, RO, SKN, ON, SEC and EH reviewed, revised, and contributed to writing to the paper. All authors read and approved of the final manuscript. FEK, RO, SKN, ON, SEC and EH read and met the ICMJE criteria for authorship.

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Data availability

The datasets used and/or analyzed during the current study are available from the corresponding author upon reasonable request.

Declarations

Ethical approval and consent to participate

The research experiments involving human research participants were performed in accordance with relevant guidelines and regulations. The research was approved by the Ugandan National Council for Science and Technology (reference number HS1302ES), Makerere University School of Health Sciences REC (reference number MAKSHSREC-2020-71), and the London School of Hygiene and Tropical Medicine Ethics Committee (reference number 22907). To prevent transmission and protect the research team and study respondents, COVID-19 public health measures, including using alcohol rub, wearing face masks, and social distancing, were observed. Written informed consent to participate in the study was obtained from all human research participants. For any research participant with no formal education, informed consent to participate in the study was obtained from an appropriate representative and/or in the presence of a witness.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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