

Effects of COVID-19 Pandemic on Female Genital Mutilation/Cutting and Child, Early or Forced Marriages in Kenya, Uganda, Ethiopia and Senegal

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Abstract

Background

The effects of COVID-19 on harmful traditional practices such as Female Genital Mutilation/Cutting (FGM/C) and Child, Early or Forced Marriages (CEFM) have not been well documented. We examined how the COVID-19 pandemic has affected FGM/C and CEFM in Kenya, Uganda, Senegal, and Ethiopia.

Methods

A cross-sectional study design with a mixed methods approach was used. Household surveys targeting women and men aged 15–49 years in Kenya ($n = 312$), Uganda ($n = 278$), Ethiopia ($n = 251$), and Senegal ($n = 208$) were conducted. Thirty-eight in-depth interviews with programme implementers and policymakers were carried out in Kenya ($n = 17$), Uganda ($n = 9$), Ethiopia ($n = 8$), and Senegal ($n = 4$).

Results

In Kenya, the COVID-19 pandemic has contributed to the increase in both FGM/C and CEFM cases. Minimal increase of FGM/C cases was reported in Uganda and a significant increase in CEFM cases. In Ethiopia, the COVID-19 pandemic had a limited effect on changes in FGM/C and CEFM. In Senegal, there were minimal effects of COVID-19 on the number of FGM/C and CEFM cases. The pandemic has negatively affected implementation of interventions by the justice and legal system, the health system, and civil societies.

Conclusions

The pandemic has had varied effects on FGM/C and CEFM across the four countries. Across the four countries, the pandemic has negatively affected implementation of interventions by the various sectors that are responsible for preventing and responding to FGM/C and CEFM. This calls for innovative approaches in intervening in the various communities to ensure that women and girls at risk of FGM/C and CEFM or in need of services are reached during the pandemic. Evidence on how effective alternative approaches such as the use of call centres, radio talk shows and the use of local champions as part of risk communication in preventing and responding to FGM/C and CEFM amid COVID-19 is urgently required.

Introduction

Female Genital Mutilation/Cutting (FGM/C) and Child, Early, or Forced Marriage (CEFM) violates human rights with far-reaching negative effects on the health of women [1–3]. FGM/C involves partial or total removal of the external female genitalia or injury to the female genital organs for non-medical reasons [4]. Nearly 200 million women and girls in 30 countries have undergone FGM/C [5, 6], while approximately 70 million girls aged 0–14 years have been cut or at risk of being cut [7]. Although there are variations in the definitions of age at maturity, CEFM is defined as marriage before the age of 18 years [8] or when marriage is forced or arranged [9, 10]. In 30 countries of sub-Saharan Africa, approximately 30% of girls have experienced CEFM [11]. Annual estimates indicate that about 15 million girls are married off before their 18th birthday, and if strategic interventions are not implemented, this

would increase to 1.2 billion by 2050 [11]. FGM/C and CEFM are influenced by community and family interests on sustaining cultural or religious beliefs such as purity, honour, fidelity in marriage, preserving virginity before marriage and financial security [12]. The two practices may coexist or occur independently [13, 14].

Due to the complex relationship of the two practices, global public health challenges like the Coronavirus Disease 2019 (COVID-19) pandemic are likely to exacerbate such practices. However, there are limited studies that have investigated COVID-19 effects on people's lives at individual and community level [15, 16]. A handful of studies have examined the impact of COVID-19 on gender-based violence [15, 17, 18], while fewer studies have examined its impact on harmful practices such as FGM/C and CEFM [18]. We conducted a multi-country study to generate evidence on the effects of COVID-19 pandemic on FGM/C and CEFM in Kenya, Uganda, Ethiopia, and Senegal.

Methods

This was a cross-sectional mixed methods study. A household survey was conducted targeting women and men aged 15-49 years. In-depth interviews (IDI) were conducted with programme implementers and policymakers with a history of working on FGM/C and CEFM in the four focus countries. The national estimates of FGM/C and CEFM in the four countries are: Kenya (21% and 23%), Uganda (0.3% and 34%), Ethiopia (65% and 40%) and Senegal (24% and 31%) respectively [19-22]. Since the sub-national estimates of FGM/C and CEFM varies considerably within the countries, data was collected in areas where both practices are prevalent. In Kenya, data was collected in Kajiado, Samburu and Marsabit counties; Bukwo district in Uganda; Qewot district in Ethiopia, and Sedhiou municipality in Senegal.

Household survey

Quantitative survey involved collecting data from women and men aged 15-49 years from ethnic groups that have traditionally practised FGM/C and CEFM resided in the study sites for at least five years. Once the sub-regions were selected, we listed the lowest administrative areas and randomly selected villages where data collection took place. Since the effect of COVID-19 on FGM/C and CEFM is not known, a 50% prevalence with a 10% precision was used for sample size calculation. A total of 1,049 respondents were interviewed: Kenya (n=312), Uganda (n=278), Ethiopia (n=251), and Senegal (n=208). A team of research assistants reached out to potential participants while observing COVID-19 safety guidelines and sought their consent or assent to be interviewed. We collected data on participants' perceptions on the trends of FGM/C and CEFM cases before and during the COVID-19 pandemic; and perceptions on the role of judicial system, healthcare workers and the civil society in responding to FGM/C and CEFM during the pandemic.

In depth interviews

The qualitative component included IDIs with programme implementers and policymakers who have been involved in supporting interventions to end FGM/C and CEFM. Convenience sampling was used to identify representatives of international and local organisations and government representatives who provide support towards ending FGM/C and CEFM as well as those supporting interventions to contain the spread of COVID-19. A total of 17 respondents were interviewed in Kenya (9 policy makers and 8 programme implementers); 9 respondents in Uganda (6 policy makers and 3 programme implementers); 8 respondents in Ethiopia (3 policy makers and 5 programme implementers); and 4 respondents in Senegal (2 policy makers and 2 programme implementers). Participants were interviewed in languages they were fluent in by research assistants with training in qualitative

data collection using a guide. The interviews were audio-recorded with consent of the participant. Ethical approval was obtained from relevant country specific ethical review boards.

Data processing and analysis

Research assistants were trained to encode notes by encrypting devices, to anonymise participants and locations and categorized subjects by type of interview. Notes were translated and linked to a database management program (NVivo 12). Audio recordings of IDs were translated and transcribed verbatim. In reviewing text data from interviews, inductive analysis was used to identify themes and patterns and construct typologies. Codes corresponding to themes and constructs were used to organize data for refined analysis. The research team met regularly to discuss, add new codes, or sub-codes, and to identify emerging themes. Analysis of quantitative data entailed descriptive statistics and Chi-square tests and significance tests of proportions were conducted to determine if differences between sub-groups were statistically significant with probability set at 0.05.

Results

Background characteristics of respondents

Table 1 summarizes key sociodemographic characteristics of respondents who participated in the household survey in the four countries. There were more women sampled than men with majority of respondents residing in rural areas. In Kenya and Ethiopia, majority of respondents were aged between 26 to 35 years, while in Uganda and Senegal, the majority were aged between 15 to 18 years. Apart from Uganda where most of the respondents had incomplete secondary education, most of the respondents in the other three countries had no education. Across all the countries, most of the respondents were married.

Table 1
Characteristics of respondents in the community survey

Characteristics	Kenya		Uganda		Ethiopia		Senegal	
	n = 378	%	n = 278	%	n = 251	%	n = 208	%
Gender								
Male	65	20.8	52	18.7	49	19.5	59	28.4
Female	247	79.2	226	81.3	202	80.5	149	71.6
Location of respondent								
Urban area	12	3.8	0	0.0	7	2.8	93	44.7
Rural setting	300	96.2	278	100.0	244	97.2	115	55.3
Age of respondent (years)								
15–18	70	22.4	143	51.4	56	37.6	55	36.9
19–25	54	17.3	35	12.6	68	45.6	46	30.9
26–35	108	34.6	32	11.5	78	52.3	49	32.9
36–45	54	17.3	46	16.5	41	27.5	46	30.9
Above 45	26	8.3	22	7.9	8	5.4	12	8.1
Level of education								
No education	162	51.9	74	26.6	173	68.9	68	32.7
Completed primary education	43	13.8	84	30.2	29	11.6	20	9.6
Incomplete secondary education	92	29.5	108	38.8	44	17.5	63	30.3
Completed secondary and/or higher education	15	4.8	12	4.3	5	2.0	57	27.4
Marital status								
Married	196	62.8	175	62.9	178	70.9	120	57.7
Separated	8	2.6	4	1.4	0	0.0	0	0.0
Divorced	6	1.9	1	0.4	8	3.2	1	0.5
Widowed	13	4.2	0	0.0	11	4.4	2	1.0
Single	89	28.5	98	35.3	54	21.5	85	40.9
Total	312		278	100.0	251	100.0	208	100.0

Fgm/c And Cefm Cases Before And During Covid-19

In Kenya, before COVID-19, majority of the respondents reported that cases of FGM/C and CEFM were decreasing in Kajiado, Samburu and Marsabit counties ($p < 0.001$). In contrast, during COVID-19, most of the study respondents believed that the pandemic had led to an increase in both FGM/C and CEFM cases ($p < 0.001$) (Table 2). The most common reason given for the increasing number of FGM/C cases was closure of schools (50%), people staying at home for longer including potential victims (25%) and economic losses (39%). Policy makers and implementers alike noted that the increase was likely to be associated with lack of protection given that schools were safe spaces for the girls.

Table 2
Perceived status of FGM/C and CEFM cases before and during COVID-19

% of respondents reporting that FGM/C cases before COVID-19 were:	Kenya			Uganda			Ethiopia			Senegal		
	n = 312	%	P-Value	n = 278	%	P-Value	n = 251	%	P-Value	n = 208	%	P-Value
Same as now	49	15.7	< 0.001	1	0.4	0.216	150	59.8	0.837	13	6.3	0.22
Decreasing	196	62.8		257	92.4		69	27.5		138	66.3	
Increasing	48	15.4		14	5.0		32	12.7		22	10.6	
Don't know/ No response	19	6.1		6	2.2		0	0.0		35	16.8	
% of respondents reporting that FGM/ cases during COVID-19 were:	n = 312	%		n = 278	%		n = 251	%		n = 208	%	
Same as now	51	16.3	< 0.001	30	10.8	0.062	204	81.3	0.126	22	10.6	0.592
Decreasing	81	26.0		228	82.0		46	18.3		134	64.4	
Increasing	171	54.8		19	6.8		1	0.4		5	2.4	
Don't know/ No response	9	2.9		1	0.4		0	0.0		47	22.6	
% Reporting that CEFM cases before COVID-19 were:	n = 312	%		n = 278	%		n = 251	%		n = 208	%	
Same as now	42	13.5	< 0.001	3	1.1	< 0.001	124	49.4	0.655	17	8.2	0.423
Decreasing	193	61.9		234	84.2		75	29.9		129	62.0	
Increasing	67	21.5		40	14.4		52	20.7		27	13.0	
Don't know/ No response	10	3.2		1	0.4		0	0.0		35	16.8	
% Reporting that CEFM cases during COVID-19 were:	n = 312	%		n = 278	%		n = 251	%		n = 208	%	
Same as now	45	14.4	< 0.001	10	3.6	0.111	175	69.7	0.712	26	12.5	0.732
Decreasing	66	21.2		74	26.6		60	23.9		124	59.6	
Increasing	198	63.5		193	69.4		16	6.4		27	13.0	
Don't know/ No response	3	1.0		1	0.4		0	0.0		31	14.9	

“Lack of enforcement and protection, especially those from the boarding schools now, as well as the rescue centres. Since girls are at home, the protection is no more. They are out there, there is no monitoring...they have ample time to practise FGM and child marriage” KII_KEN 01.

Similarly, the increase was likely to be perpetuated by stigma that is associated with teenage pregnancy leading to CEFM as exemplified in the following quote:

“From the cases that I know, you hear a girl has been married off and then you hear that she was already pregnant. So, it is like the marriage was to avoid the stigma. In our community when a girl gives birth and she is not married then you have that kind of stigma that you are a bad girl, you do not have discipline. So, I think to avoid the stigma that comes with having a baby without a husband, then the moment a girl is pregnant they are married off”.

KII_KEN 03

In Uganda, before the pandemic, majority of the respondents reported that cases of FGM/C ($p < 0.216$) and CEFM ($p < 0.062$) were decreasing. During COVID-19, there was a slight increase in the proportion of community members who believed that the pandemic had led to a slight increase in FGM/C cases (from 5–7%) and a substantial increase in CEFM cases (from 14–69%). The common reason given for the increasing number of FGM/C cases was people staying at home for longer including potential victims (50%); while loss of income (59%) was the most common reason given for perceived increase in CEFM cases during COVID-19.

Key informants were ambivalent on FGM/C status with some respondents being of the view that cases had increased and were being performed in secret while others believed the cases had not increased as the season for cutting (December holidays) had not yet reached as exemplified in the following quotes.

“It is increasing, the early marriage compared to the FGM as the law is in place and a few people tend to escape and cut themselves in the bushes. As much as they have tried always to bring in the interventions, but they are still doing it [FGM/C] but not openly. The early marriages are common because the girl child is not going to school.

KII_UG 01.

“Beware that this is the circumcision year and we have not come to the end of the year more so to the climax because it is mostly in December... We do not know what is going to happen between now and December because since the year begun, I have not come across a girl who has been cut, or any women who has been mutilated.

KII_UG 02

The theme of protective effect of schools and the complex interaction of poverty and these practices was evident from discussions as some noted:

“Initially when children were going to school, they had no time but being at home they are idle, and I believe that is one of the key reasons. I believe when children are at school these cases of early pregnancies can be minimized.

KII_UG 04

“Because of COVID-19, there was a lot of poverty because people were locked down. So, when someone gets into such a problem, they would want to go and negotiate [for bride price] because they know at the end of it, they will get something [money]. Which also forces some of them to marry off their daughters early.

In Ethiopia, majority of the respondents were of the view that there were no changes in cases of FGM/C ($p < 0.837$) and CEFM ($p < 0.655$) before COVID-19. The situation was the same during COVID-19 with most of the study respondents believing that the number of FGM/C ($p < 0.126$) and CEFM ($p < 0.712$) cases had not changed. These community level findings appear to contradict results from policymakers and programme implementers who believed that there was an increase in cases of CEFM due to closure of schools but were uncertain about changes in FGM/C cases. A policymaker reported that the steering committee responsible for children and gender issues had reviewed local data on reported cases of CEFM and FGM/C and noted an increase in CEFM cases but not in FGM/C cases.

“Reports on CEFM are coming from police officers, health extension workers, health development army but FGM/C cases are not that much as compared to CEFM. We have reviewed the report with the steering committee from police office, health, judiciary, education, and other offices including NGO’s and FBO...we received more cases of child marriage. KII_ETH 01.

Nonetheless, other key informants noted that FGM/C was practised discreetly, and stakeholders have shifted their focus on COVID-19 more than FGM/C and CEFM and therefore it may be difficult to report such cases. COVID-19 containment measures including restriction of movement could also have affected reporting from the community and key government agencies as explained in the following excerpt:

“After Covid cases were identified in our country, it was very difficult to support and sensitize communities by going house to house. People are focusing on COVID-19 than FGM and CEFM. As a result, we might have missed information about CEFM and FGM. Since communities’ movement was restricted by Covid, police officers might not receive report from health extension workers, and health development army on what is happening in communities. KII_ETH 02

For those who believed the number of CEFM cases were increasing during the pandemic, the most common reason given was people staying at home for longer including potential victims (80%). Qualitative interviews highlighted other reasons that could explain the observed trends in CEFM and FGM/C during COVID-19 such as difficulty in monitoring FGM/C and CEFM during the pandemic which was a hindrance in acquiring accurate statistics.

“Restricted movement during Covid could have facilitated increase in FGM/C and CEFM. However, during that time [COVID-19], people are focusing on COVID-19, and this leads to lack of information about CEFM and FGM. Since community movement is restricted by Covid, police officers might not receive report from health extension workers, and the health development army on what is happening in communities. Therefore, we are missing cases that should have been reported. KII_ETH 02.

In Senegal, there were minimal differences in respondents’ views on whether the number of FGM/C and CEFM cases had changed because of COVID-19. Before COVID-19, majority of the respondents were of the view that cases of FGM/C ($p < 0.220$) and CEFM ($p < 0.423$) were decreasing. Survey respondents were of the view that the number of FGM/C cases were increasing, the most common reason given was people staying at home for longer including potential victims (60%). With regards to CEFM, the most common reason given for increasing cases was reduced efforts in programmes supporting potential victims (26%).

Programme implementers and policymakers observed that there was an increase in the number of FGM/C and CEFM cases due to the COVID-19 restrictions. They were of the view that due to the implementation of COVID-19 prevention guidelines; perpetrators of FGM/C were conducting the practice in secret. They also felt that due to

closure of schools, girls were more at risk of getting pregnant which would lead to CEFM as captured in the following excerpts.

“COVID-19 has blocked all ongoing activities and slowed progress in achieving results. This in return has led to a resurgence of the practice [FGM/C] ... Cutters can excise without people knowing because the practice is done at a very young age; even before the first birthday. This is not controlled because of the COVID-19 restrictions. KII_SEN 01

“Schools have been closed and there is fear that daughters might become pregnant and then get married. Therefore, during this pandemic, there has been a lot of marriages of girls under 18 years of age. KII_SEN 02

There was also the perception that resources were focussed on COVID-19 at the expense of CEFM and FGM/C, and therefore a resurgence in these harmful practices. Other reasons mentioned included lack of monitoring mechanisms that would allow tracking and reporting of FGM/C and CEFM cases.

“Covid has slowed down the efforts that were being made in the prevention of FGM. Covid has hindered awareness raising activities. Evidently, if there are no more awareness-raising activities, people tend to go back to their beliefs...they practise FGM. KII_SEN 03

“Everyone has focused on the pandemic and so FGM/C and CEFM issues have either stalled or been relegated to the back burner... Certainly, the number of cases of FGM/C and CEFM have increased because the situation was favourable to this. KII_SEN 01

Adequacy of the justice and legal system in addressing FGM/C and CEFM

Survey respondents were asked to rate the response of the justice and legal system in addressing FGM/C and CEFM during the COVID-19 pandemic (Table 3). In Kenya, findings showed that over 60% of community members considered the justice and legal system’s response to FGM/C and CEFM cases to be either poor or average. The main barrier to the justice and legal system to respond effectively during the pandemic was inadequate reporting by victims (46%) or challenges of accessing victims due to restrictions and fear of lack of services being offered.

Table 3
Legal system's response in addressing FGM/C and CEFM during COVID-19

	Kenya			Uganda			Ethiopia			Senegal		
	n = 312	%	P-Value	n = 278	%	P-Value	n = 251	%	P-Value	n = 208	%	P-Value
Response of the legal system on FGM/C during COVID-19												
Poor	87	27.9	< 0.001	63	22.7	0.003	9	3.6	0.684	61	36.7	0.794
Average	124	39.7		72	25.9		4	1.6		56	33.7	
Good	86	27.6		143	51.4		236	94.8		49	29.5	
Excellent	13	4.2		0	0.0		0	0.0		0	0.0	
Don't know	2	0.6		0	0.0		0	0.0		0	0.0	
Response of the legal system on CEFM during COVID-19												
Poor	86	27.6	< 0.001	66	23.7	0.133	9	3.7	0.089	63	33.9	0.942
Average	126	40.4		64	23		14	5.7		57	30.6	
Good	82	26.3		148	53.2		223	90.7		66	35.5	
Excellent	16	5.1		0	0.0		0	0.0		0	0.0	
Don't know	2	0.6		0	0.0		0	0.0		0	0.0	

In Uganda, community members' opinions were divided with slightly over half of the respondents being of the view that the justice and legal system's response to FGM/C and CEFM was good, while slightly less than half believing that it is response to FGM/C and CEFM was either poor or average. The main barrier to the justice and legal system to respond effectively during the pandemic was inadequate reporting by victims (40%) and challenges of accessing victims due to restrictions (28%) and fear of lack of services being offered (10%).

Qualitative data indicated that the challenges facing legal and judicial system during COVID-19, include restricted movement which made it impossible to conduct court sessions, lack of reporting from community members and corruption within the police:

"When you look at the judicial system, when COVID-19 came or when we went into this period [lockdown], some activities like court hearing were limited, and in some places, there were no staff, we did not have public transport... Now it means that people who were to attend court, the people who were to get justice from court could not access it. KII_UG 03

"When you look at the police...they have been moving around but, you know police they deal with issues that have been reported, so under COVID-19, you find that many issues were not reported because community members are afraid. The police are also compromised at the community level... the police do not have the guts to reach out to them unless they get the reports. KII_UG 02

In Ethiopia, over 90% of community members considered the justice and legal system's response to FGM/C and CEFM to be good while less than 10%, believed that the justice and legal system's response to FGM/C and CEFM was either average or poor. The main barrier to the justice and legal system to respond effectively during the pandemic was inadequate reporting by victims (41%), fear of lack of services being offered (21%) and challenges of accessing victims due to restrictions (8%). Policymakers and programme implementers detailed how the justice and legal system had rolled out strategies in dealing with FGM/C and CEFM during COVID-19:

"At this point, the government has strong commitment to support girls not to undergo CEFM and FGM/C. The administration office is really helping...it has established steering committee from women, youth and child office, health, education, and police to review and make decisions if any cases or issues are identified. So at least, I can say the government is putting a lot of effort to see FGM/C and CEFM are not totally practised in our zones... So, the police officer gets information from the community and checks in person for validation of the information to start the legal procedures. KIL_ETH 02.

In Senegal, over 60% of community members considered the justice and legal system's response to FGM/C and CEFM cases to be either poor or average. The main barrier to the justice and legal system to respond effectively during the pandemic was inadequate reporting by victims (40%), fear of lack of services being offered (26%) and challenges of accessing victims due to restrictions (16%). Qualitative interviews showed a focus by the government to contain the spread of COVID-19 through introduction of curfews with limited strategy on prevention or response to FGM/C and CEFM.

Adequacy of the health system in addressing FGM/C and CEFM

To assess the adequacy of the health system in addressing FGM/C, community members were asked to compare services that were offered by the health system before and during COVID-19 (Table 4). Respondents were also asked to rate the health system's response. In Kenya, there were perceived difference in services offered before COVID-19 and during the pandemic. For example, before COVID-19, services provided for FGM/C cases included psychological and sexual counselling (52%), rescue (45%) and reintegration back to the community (23%). During COVID-19, there was an increase in psychological and sexual counselling (69%), a reduction in rescue (18%) and reintegration back to the community services (7%), and a remarkable increase in no services offered from 15% (before COVID-19) to 49% (during COVID-19).

Table 4
Health systems and provider's response to FGM/C cases before and during COVID-19

	Kenya			Uganda			Ethiopia			Senegal		
	n = 312	%	P-Value	n = 278	%	P-Value	n = 251	%	P-Value	n = 208	%	P-Value
Services provided for FGM/C cases before COVID-19												
Psychological and sexual counselling	163	52.2	< 0.001	247	88.8	0.282	238	94	0.74	107	51.4	0.235
De-infibulation	7	2.2	0.011	1	0.4	0.631	0	0.0		7	3.4	0.407
Clitoral reconstruction	1	0.3	0.340	1	0.4	0.631	0	0.0		4	1.9	0.348
No services	48	15.4	< 0.001	15	5.4	0.004	43	17.1	0.798	0	0.0	
Rescue	139	44.6	< 0.001	89	32.0	0.587	0	0.0		7	3.4	0.617
Reintegration back to the community	71	22.8	< 0.001	2	0.7	0.003	50	19.9	0.923	13	6.3	0.73
Don't know/No response	14	4.5	0.026	1	0.4	0.631	2	0.8	0.484	12	5.8	0.631
Other	0	0.0		2	0.7	0.255	0	0.0		1	0.5	0.521
Services provided for FGM/C cases during Covid-19												
Psychological and sexual counselling	115	69.3	< 0.001	232	93.5	0.032	103	41.0	0.976	117	56.3	0.713
De-infibulation	24	14.5	< 0.001	1	0.4	0.642	21	8.4	0.973	11	5.3	0.196
Clitoral reconstruction	21	12.7	< 0.001	1	0.4	0.642	21	8.4	0.973	10	4.8	0.403
No services	82	49.4	0.002	0	0.0		0	0.0		47	22.6	0.806
Rescue	29	17.5	< 0.001	44	17.7	0.068	22	8.8	0.886	41	19.7	0.038
Reintegration back to the community	11	6.6	0.001	4	1.6	0.003	62	24.7	0.995	57	27.4	0.053
Don't know/No response	7	4.2	0.031	2	0.8	0.510	114	45.4	0.991	29	13.9	0.731
Other	0	0.0		0	0.0		0	0.0		0	0.0	

	Kenya			Uganda			Ethiopia			Senegal		
	n = 312	%	P-Value	n = 278	%	P-Value	n = 251	%	P-Value	n = 208	%	P-Value
% Rating provider's response to FGM/C during COVID-19 as	n = 312	%		n = 278	%		n = 251	%		n = 208	%	
Poor	101	32.4		46	16.5		14	5.6		50	27.5	
Average	136	43.6	0.001	56	20.1	0.446	25	10	0.772	40	22	0.001
Good	59	18.9		172	61.9		149	59.4		50	27.5	
Excellent	6	1.9		4	1.4		59	23.5		26	14.3	
Don't know/No response	10	3.2		0	0.0		4	1.6		16	8.8	
% Rating provider's response to CEFM during COVID-19 as												
Poor	106	34.0		36	12.9		53	32.3		58	31.9	
Average	135	43.3		63	22.7		27	16.5	< 0.001	37	20.3	< 0.001
Good	57	18.3	< 0.001	176	63.3	0.503	56	34.1		48	26.4	
Excellent	6	1.9		3	1.1		22	13.4		27	14.8	
Don't know/No response	8	2.6		0	0.0		6	3.7		12	6.6	

Generally, over 70% of respondents rated the response of the health system in addressing FGM/C and CEFM during the pandemic as either poor or average. This was likely due to frustrations experienced in offering services to the community because of COVID-19 restrictions:

"This Corona has stopped us so much. We were on the run, planning big things and running around and just having great plans, but all that stopped, and so people are sitting back and just reflecting on their achievements... and just holding unto those achievements...that is a lesson... And then of course... investing in the mental health of human beings is important. That is a lesson that I have learnt. KII_KEN 04

In Uganda, there were minimal changes in services offered before and during COVID-19. Psychological and sexual counselling which was the most common service offered to FGM/C victims marginally increased from 89% before COVID-19 to 94% during the pandemic. There was also a decline in rescue services from 32% before COVID-19 to 18% during the pandemic. Generally, slightly over 60% of respondents rated the response of the health system in

addressing FGM/C and CEFM during the pandemic as good. Although this was the case, key informants underscored the challenges of failure to implement preventive measures at community level due to limitations posed by COVID-19 to healthcare workers in providing services to the community.

In Ethiopia, respondents' assessment of the health system's response to FGM/C and CEFM during the pandemic showed that there was a difference in services offered before COVID-19 and during the pandemic. Specifically, before COVID-19, the most common service provided for FGM/C cases was psychological and sexual counselling (95%) which reduced during the pandemic (41%). There was a slight increase in reintegration of girls back to the community and respondents who reported lack of services during the pandemic. Generally, over 80% of respondents rated the response of the health system in addressing FGM/C during the pandemic as either good or excellent while nearly half of the respondents were of the view that the health system's response on CEFM was either poor or average. It appeared that the government had made efforts to ensure that there was coordination between government agencies including the health system who were given the mandate to make decisions on addressing FGM/C and CEFM cases during COVID-19.

"The health offices and the police are working closely with us. The health system has established structures starting at grass root level using health extension workers and health development armies to respond to FGM/C and CEFM. KIL_ETH 04

In Senegal, there were minimal differences in services offered before and during the pandemic. Before COVID-19, the most common service provided for FGM/C cases included psychological and sexual counselling (51%) which slightly increased to 56% during the pandemic. Notably, there was an increase in the number of services offered from 0% (before COVID-19) to 23% (during COVID-19). Generally, 48% of respondents rated the response of the health system in addressing FGM/C during the pandemic as either poor or average, while 52% rated its response on CEFM as either poor or average. Interviews with programme implementers and policy makers revealed a focus by the ministry of health on containment of the spread of COVID-19 through sanitation and observing social distancing but no strategy on prevention or response to FGM/C and CEFM.

Adequacy of the civil society in addressing FGM/C and CEFM

Findings on the adequacy of the civil society's response in addressing cases of FGM/C and CEFM during COVID-19 are shown in Table 5. In Kenya, over 60% of respondents were of the view that the civil society's response to FGM/C and CEFM was either poor or average. Some of the alternative approaches used by the civil society to reach victims of FGM/C and CEFM during pandemic included dialog forums (45%), radio talk shows (40%) and using local champions as part of risk communication (33%). Interviews with programme implementers and policy makers showed the important role schools play in not only acting as a platform for implementation of interventions but also as a safe space for girls at risk of FGM/C and CEFM.

Table 5
Adequacy of the civil society's response in addressing cases of FGM/C and CEFM during COVID-19

	Kenya			Uganda			Ethiopia			Senegal		
	n = 312	%	P-Value	n = 278	%	P-Value	n = 251	%	P-Value	n = 208	%	P-Value
Response of programme implementers to FGM/C cases during COVID-19												
Poor	69	22.1	< 0.001	62	22.3	0.048	18	7.2	0.651	67	32.2	0.075
Average	135	43.3		42	15.1		30	12.0		46	22.1	
Good	65	20.8		0	0.0		126	50.2		47	22.6	
Excellent	43	13.8		174	62.6		73	29.1		26	12.5	
Don't know/No response	0	0.0		0	0.0		4	1.6		22	10.6	
Response of programme implementers to CEFM cases during COVID-19												
Poor	68	21.8	0.278	57	20.5	0.032	19	7.6	0.792	37	17.8	0.149
Average	174	55.8		50	18.0		34	13.5		70	33.7	
Good	0	0.0		170	61.2		60	23.9		61	29.3	
Excellent	70	22.4		1	0.4		134	53.4		22	10.6	
Don't know/No response	0	0.0		0	0.0		4	1.6		18	8.7	

"If they were in school, we would be able to control because you would have a way of knowing who is here or who has not reported back to school. If they are in school, it is easy to make a report. You see when they are involved with the parent and it is the parents who are encouraging this [FGM/C, CEFM] we may not be able to know exactly where the child is. KII_KEN 06

In Uganda, over 60% of respondents were of the view that the civil society's response to FGM/C and CEFM was either good (61% on CEFM) or excellent (63% on FGM/C). Common alternative approaches used by the civil society to reach victims of FGM/C and CEFM during pandemic was the use of radio talk shows and call centres. Organizations faced challenges such as restrictions on gatherings which meant field staff could not fully interact with community members to implement behaviour change communication interventions. Reduction in funding towards FGM/C and CEFM was also mentioned as a challenge for civil society in addressing FGM/C and CEFM during the pandemic.

"These organizations have also faced the challenge in terms of implementing their activities. They are not allowed to have gatherings, you see, like having gatherings and then spread the information. So, COVID-19 has affected most of their programmes. KII_UG 04.

"Their funding is not always constant. These guys only come to the field when they receive funding... When they do not have the funding, they don't implement the activities... I think that is one of the challenges these organizations are facing during COVID-19 as far as implementing activities to end the FGM/C programme is concerned. KII_UG 06

In Ethiopia, over 70% of respondents were of the view that the civil society's response to FGM/C and CEFM was either good or excellent. Some of the common alternative approaches used by the civil society to reach victims of FGM/C and CEFM during the pandemic included use of call centres (62%) and local champions as part of risk communication (33%). There was good collaboration between the civil society and government agencies in intervening against FGM/C and CEFM during COVID-19. Existence of already established structures in monitoring and reporting played a critical role in ensuring synergy between efforts by the government and civil society as exemplified in the following quote:

"NGOs are working together with health extension workers and health development army structures, the police and judiciary. These are crucial channels for us [NGO] to raise awareness in the community and pass information to the judiciary, health system and the police for further investigation. Non-profit organizations are using these structures to work more efficiently. KII_ETH 06

In Senegal, slightly over half of respondents were of the view that the civil society's response to FGM/C (54%) and CEFM (51%) was either poor or average. Some of the popular alternative approaches used by the civil society to reach victims of FGM/C and CEFM during the pandemic included call centres (61%), radio talk shows (51%) and use of local champions as part of risk communication (42%). Key informants were of the view that COVID-19 guidelines on infection prevention disrupted intervention activities directed towards FGM/C and CEFM. The directive from government that people needed to stay at home and the introduction of curfews limited implementation of programme activities, interaction with community members and monitoring of FGM/C and CEFM:

"COVID-19 prevention measures were a real obstacle to carrying out awareness-raising activities because one of the instructions was "stay at home" and as a result home visits were no longer being made and therefore people who were no longer being controlled and they did what they wanted to do. What we did was to create awareness activities using community radios. KII_SEN 02

Discussion

The study aimed to generate evidence on the impact of COVID-19 pandemic on FGM/C and CEFM in Kenya, Uganda, Ethiopia, and Senegal. Findings showed that in Kenya, the COVID-19 pandemic has contributed to the increase in both FGM/C and CEFM cases. Closure of schools for longer periods, economic losses and people staying at home for longer including potential victims are likely to contribute to the increase in FGM/C and CEFM during COVID-19. In Uganda, the COVID-19 pandemic has contributed to a minimal increase in FGM/C cases and a significant increase in CEFM cases. Economic losses and poverty due to COVID-19 was the most common reason given for perceived increase in CEFM cases during the pandemic. The situation in Ethiopia and Senegal showed that the COVID-19 pandemic had limited effect on changes in FGM/C and CEFM cases with most of the study respondents believing that the number of FGM/C and CEFM cases have remained the same before and during the pandemic. Respondents nonetheless noted that due to the secrecy and stigma associated with these harmful practices, there are challenges of reporting which may mask any changes.

These findings highlight the importance of schools and educational programmes that serve as safe havens protecting girls against harmful traditional practices such as FGM/C and CEFM [23]. They also show how the pandemic has exacerbated the practices due to the economic vulnerability which pushes households to engage in any form of income generating activity including marrying off their young daughters to make ends meet. At the beginning of the COVID-19 pandemic, it was observed that while the depth and severity of the pandemic was still uncertain, it was clear that many households in the COVID-19 affected areas will experience some economic shock due to increased unemployment and the shrinking sources of income [16, 24]. The effect of these economic shocks caused by the pandemic may have introduced economic insecurity and increased stress levels to community members due to the uncertainties which propagate negative wellbeing. In such contexts, economic insecurity can lead to increases in incidence of gender-based violence and violence against children [25–27].

The effect of quarantines that have become common amid the COVID-19 pandemic may also precipitate social effects as evidenced on health emergencies such as SARS, Swine Flu, and influenza which were associated with problematic coping behaviours and psychosocial complications [28–32]. Restriction of movement can be challenging for parenting with increases in abuse meted against children due to a confluence of school closures, stress, fear, and uncertainty [33]. Evidence also shows that quarantines have been generally associated with violence against women and children through increasing their day-to-day exposure to potential perpetrators [27, 34–37].

The impact of COVID-19 on the justice and legal system, health system, and the response of civil society in addressing FGM/C and CEFM varied across the four countries illustrating contextual influences. Overall, the pandemic has negatively affected implementation of interventions by the justice and legal system, health system, and civil societies in preventing FGM/C and CEFM and offering services to those affected by these harmful traditional practices. Literature on the impact of COVID-19 shows that implementation of interventions by organizations especially at the community level have been significantly hampered by the restrictions put in place to contain the pandemic [38]. Closure of schools has led to interruption of programmes that target students while limited funding has meant that interventions have been suspended. Nonetheless, some organizations have tried to innovate with new approaches to address concerns during the pandemic such as the use of mass media to reach the target population [39].

Evidence from prior epidemics such as Ebola outbreak in Liberia and Sierra Leone show that the emergency measures taken to tame the epidemic in both countries negatively affected the operation of organizations implementing interventions [40]. Due to changes in priorities with a focus on saving lives from the epidemic, other important sectors of the society such as gender-based violence were neglected accentuating the already fragile context [18, 40]. Evidence has also shown a reduction in the health services availability and access to first responders for women and girls experiencing violence in times of a crisis such as COVID-19 [27]. For example, to contain the SARS outbreak in Toronto, restrictions were put in place on non-urgent hospital services which led to a substantial reduction in elective procedures and non-SARS emergency visits [41]. The contraction of routine health services also affected the screening and service provision for violence against women cases and a reduction in the supply of essential services for victims of violence. It is important to note that in times of a crisis such as a pandemic, the referral pathways may change leading to failure of complementary health and legal services to address existing and emerging needs of women [42, 43]

Programmatic And Research Implications

Pandemics are associated with fear and uncertainty, provide an environment that can exacerbate various forms of violence against women, girls, and children. Given the study findings, the following are the programmatic and research implications:

- Integrate economic empowerment initiatives and social safety net programmes targeting the vulnerable and poor in the society during and after the pandemic as part of journey towards recovery and resilience. Specifically, programs should target communities that are likely to resort to harmful traditional practices such as CEFM for economic benefits. This may include exploring cash transfers, food voucher payments, and tax reliefs that can build resilience and cushion families from the impact of COVID-19.
- Support informal, online, and mobile platforms in reaching women and girls at risk of FGM/C and CEFM. There is need to ensure that the online and mobile platforms are safe and accessible as not all women and girls. The use of informal support such as friends or family with whom women and girls at risk or survivors may still be in contact with and who may be able to seek help on their behalf is crucial.
- Put in place measures to ensure that legal and judicial officers, healthcare workers and programme implementers have access to all populations in need. There is need to ensure that COVID-19-related movement restrictions are sensitive to the different needs of vulnerable groups in the population such as women and girls at risk of FGM/C and CEFM.
- Enhance outreach efforts by using local champions, influential community or religious leaders and community healthcare workers. The focus should be on reinforcing behaviour change communication messaging on the consequences of harmful traditional practices, especially during the pandemic. The approach should ensure that the leadership role and agency of women and girls are visible, and their participation is fully embraced at all levels of community engagement.
- Strengthen relevant government ministries and agencies to enforce instruments and protocols for preventing and ending FGM/C and CEFM. This should include putting in place mechanisms to ensure that FGM/C and CEFM incidences can be easily monitored and reported during COVID-19. It may also include increasing staff and utilising existing violence prevention and response hotlines and outreach centres.
- Conduct research on gendered implications of public health emergencies such as COVID-19 and effectiveness of alternative approaches used during COVID-19. This will enable evidence generation on public health preparedness and response plans that can mitigate harm to women, girls, and other vulnerable groups. There is need to conduct research on the effectiveness of alternative approaches such as call centres, radio talk shows and the use of local champions as part of risk communication in preventing and responding to FGM/C and CEFM during COVID-19

Study Limitations

Findings from this study should be interpreted with caution bearing in mind the following: First, the study was limited to only four countries in sub-Saharan Africa and therefore findings from these countries cannot be used to generalize for the whole continent. Nonetheless, the four countries represent various regions in sub-Saharan Africa that could highlight unique experiences of COVID-19 on FGM/C and CEFM. Second, this study adopted a cross-sectional design in its data collection which limits inferring causal relationships between COVID-19 and its effect on FGM/C and CEFM. However, the study used a mixed methods approach to triangulate our data sources. This enhanced the generalizability of the study findings.

Conclusions

The COVID-19 pandemic has had varied impact on FGM/C and CEFM across the four focus countries. The pandemic has negatively affected implementation of interventions by the justice and legal system, health system, and civil societies in preventing and responding to FGM/C and CEFM. There is need for innovative approaches in intervening in the various communities to ensure that women and girls at risk or in need of services are reached during the pandemic. Alternative approaches such as the use of call centres, radio talk shows and the use of local champions as part of risk communication are already being implemented. Evidence on how effective these alternative approaches are in preventing and responding to FGM/C and CEFM amid COVID-19 is required.

Abbreviations

FGM/C Female Genital Mutilation/Cutting

CEFM Child Early and Forced Marriage

KII Key Informant Interview

ETH Ethiopia

KEN Kenya

SEN Senegal

UG Uganda

Declarations

Ethics approval and consent to participate

This study sought ethical approval from Amref Ethics and Scientific Review Committee and all participants provided an informed consent before taking part in the study. Married women aged below 18 years were considered emancipated minors. For eligible girls aged below 18 years and living with their parents/guardians, parental/guardian consent was obtained first before obtaining individual assent i.e., informed consent was obtained from parents of participants below 18 years, and individual assent obtained from participants below 18 years. All methods were performed in accordance with the relevant ethical guidelines and regulations.

Consent for publication

Not Applicable

Availability of data and material

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

Competing interests

There are no known competing interests to declare.

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Authors' contributions

Study conceptualization and proposal writing (T.E; D.M; T.A; J.O; D.K); Research field work (S.A; Y.H; K.C; B.M; T.K; L.K; A.W; P.K; M.N; A.G; J.K; M.O), Analysis and interpretation of data (T.E; D.M; T.A; J.O; D.K; S.A; Y.H; K.C; B.M; T.K; L.K; A.W; P.K; M.N; A.G; J.K; M.O), Paper writing (T.E; D.M; T.A; J.O; D.K)

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References

1. Bjalkander, O., L. Bangura, B. Leigh, V. Berggren, S. Bergstrom, and L. Almroth, *Health complications of female genital mutilation in Sierra Leone*. Int J Womens Health, 2012. **4**: p. 321 – 31.
2. Esho, T., S. Kimani, I. Nyamongo, V. Kimani, S. Muniu, C. Kigundu, et al., *The 'heat' goes away: sexual disorders of married women with female genital mutilation/cutting in Kenya*. Reprod Health, 2017. **14**(1): p. 164.
3. Khosla, R., J. Banerjee, D. Chou, L. Say, and S.T. Fried, *Gender equality and human rights approaches to female genital mutilation: a review of international human rights norms and standards*. Reprod Health, 2017. **14**(1): p. 59.
4. WHO. *Female genital mutilation. Fact sheet No 241, Updated February; 2016*. <http://www.who.int/mediacentre/factsheets/fs241/en/>. 2016.
5. Shell-Duncan, B., R. Naik, and C. Feldman-Jacobs, *A State-of-Art-Synthesis of Female Genital Mutilation/Cutting: What Do We Know Now? Population Council*. <http://www.popcouncil.org/EvidencetoEndFGM-C>. 2016.
6. UNICEF, *Female genital mutilation/cutting: A global concern. UNICEF, 1–4*. 2016.
7. Shell-Duncan, B., R. Naik, and C. Feldman-Jacobs, *A State-of-Art-Synthesis of Female Genital Mutilation/Cutting: What Do We Know Now? Population Council*. <http://www.popcouncil.org/EvidencetoEndFGM-C>. 2016.
8. UNICEF, *Early Marriage: A Harmful Traditional Practice, A Statistical Exploration 2005. United Nations Children's Fund*. 2005.
9. Raj, A., N. Saggurti, D. Lawrence, D. Balaiah, and J.G. Silverman, *Association between adolescent marriage and marital violence among young adult women in India*. Int J Gynaecol Obstet, 2010. **110**(1): p. 35 – 9.
10. Singh, R. and U. Vennam, *Factors shaping trajectories to child and early marriage: Evidence from Young Lives in India. Young Lives*. <https://ora.ox.ac.uk/objects/uuid:14005c76-8e23-4817-b74f-64578861af18>. 2016.
11. UNFPA, U., *Accelerating and amplifying change: 2017 Annual Report for the UNFPA-UNICEF Global Programme to Accelerate Action to End Child Marriage*. <https://www.unfpa.org/publications/accelerating-and-amplifying-change>. 2018.

12. Boyden, J., A. Pankhurst, and Y. Tafere, *Child protection and harmful traditional practices: female early marriage and genital modification in Ethiopia*. *Development in Practice*, 2012. **22**(4): p. 510–522.
13. Mackie, G. and J. LeJeune, *Social Dynamics of Abandonment of Harmful Practices: A new look at the theory. Special Series on Social Norms and Harmful Practices, Innocenti Working Paper, 6, 2009–06*. 2009.
14. Karumbi, J., D. Gathara, and J. Muteshi, *Exploring the association between FGMC and Marriage: A review of the evidence*. *Population Council, New York*. 2017.
15. Ghosh, R., M. DUBEY, S. Chatterjee, and S. Dubey, *Impact of COVID-19 on children: special focus on the psychosocial aspect*. *Minerva Pediatrica* 2020 mese;72(0):000–000 DOI: 10.23736/S0026-4946.20.05887-9, 2020.
16. Peterman, A., A. Potts, M. O'Donnell, K. Thompson, N. Shah, S. Oertelt-Prigione, et al., *Pandemics and violence against women and children. Center for Global Development Working Paper, 528*. 2020.
17. Akmal, M., S. Hares, and M. O'Donnell, *Gendered Impacts of COVID-19 School Closures: Insights from Frontline Organizations*. 2020.
18. Fuhrman, S., A. Kalyanpur, S. Friedman, and N.T. Tran, *Gendered implications of the COVID-19 pandemic for policies and programmes in humanitarian settings*. *BMJ Glob Health*, 2020. **5**(5).
19. ANSD/Sénégal, A.N.d.I.S.e.d.I.D.-, & ICF, *Senegal: Enquête Démographique et de Santé Continue (EDS-Continue) 2017*. <https://www.dhsprogram.com/publications/publication-FR345-DHS-Final-Reports.cfm>. 2018.
20. Agency, C.S. and ICF, *Ethiopia Demographic and Health Survey 2016. CSA and ICF*. <https://www.dhsprogram.com/publications/publication-FR328-DHS-Final-Reports.cfm>. 2017.
21. Kenya National Bureau of Statistics, M.o.H., National AIDS Control Council, KEMRI, NCPAD, DHS Program, ICF International, *Kenya Demographic and Health Survey 2014. 2015*. 2015.
22. UBOS and ICF, *Uganda Demographic and Health Survey 2016. UBOS and ICF*. <https://www.dhsprogram.com/publications/publication-fr333-dhs-final-reports.cfm>. 2018.
23. Akmal, M., S. Hares, and M. O'Donnell, *Gendered Impacts of COVID-19 School Closures: Insights from Frontline Organizations*. 2020.
24. Wenham, C., J. Smith, R. Morgan, Gender, and C.-W. Group, *COVID-19: the gendered impacts of the outbreak*. *Lancet*, 2020. **395**(10227): p. 846–848.
25. Doyle, O., C.P. Harmon, J.J. Heckman, and R.E. Tremblay, *Investing in early human development: timing and economic efficiency*. *Econ Hum Biol*, 2009. **7**(1): p. 1–6.
26. Fox, G.L., M.L. Benson, A.A. DeMaris, and J.V. Wyk, *Economic Distress and Intimate Violence: Testing Family Stress and Resources Theories*. *Journal of Marriage and Family*, 2002. **64**(3): p. 793 – 80.
27. Peterman A, Potts A, O'Donnell M, Thompson K, Shah N, Oertelt-Prigione S, et al., *Pandemics and violence against women and children. Center for Global Development working paper. 2020;528*. 2020.
28. Brand, J., D. McKay, M.G. Wheaton, and J.S. Abramowitz, *The relationship between obsessive compulsive beliefs and symptoms, anxiety and disgust sensitivity, and Swine Flu fears*. *J Obsessive Compuls Relat Disord*, 2013. **2**(2): p. 200–206.
29. Lau, J.T., X. Yang, E. Pang, H.Y. Tsui, E. Wong, and Y.K. Wing, *SARS-related perceptions in Hong Kong*. *Emerg Infect Dis*, 2005. **11**(3): p. 417 – 24.
30. Mak, I.W., C.M. Chu, P.C. Pan, M.G. Yiu, and V.L. Chan, *Long-term psychiatric morbidities among SARS survivors*. *Gen Hosp Psychiatry*, 2009. **31**(4): p. 318 – 26.

31. Reissman, D.B., P.J. Watson, R.W. Klomp, T.L. Tanielian, and S.D. Prior, *Pandemic Influenza Preparedness: Adaptive Responses to an Evolving Challenge*. . Journal of Homeland Security and Emergency Management, 2006. **3**(2).
32. Yeung, D.Y. and H.H. Fung, *Age differences in coping and emotional responses toward SARS: a longitudinal study of Hong Kong Chinese*. Aging Ment Health, 2007. **11**(5): p. 579 – 87.
33. Cluver, L., J.M. Lachman, L. Sherr, I. Wessels, E. Krug, S. Rakotomalala, et al., *Parenting in a time of COVID-19*. Lancet, 2020. **395**(10231): p. e64.
34. Falb, K.L., M.C. McCormick, D. Hemenway, K. Anfinson, and J.G. Silverman, *Violence against refugee women along the Thai-Burma border*. Int J Gynaecol Obstet, 2013. **120**(3): p. 279 – 83.
35. Horn, R., *Responses to intimate partner violence in Kakuma refugee camp: refugee interactions with agency systems*. Soc Sci Med, 2010. **70**(1): p. 160-8.
36. Mobarak, M.A. and A. Ramos, *The Effects of Migration on Intimate Partner Violence: Evidence for the Exposure Reduction Theory in Bangladesh*. Working paper, accessed March 19, 2020: <https://sistemas.colmex.mx> 2019.
37. Wako, E., L. Elliott, S. De Jesus, M.E. Zotti, M.H. Swahn, and J. Beltrami, *Conflict, Displacement, and IPV: Findings From Two Congolese Refugee Camps in Rwanda*. Violence Against Women, 2015. **21**(9): p. 1087 – 101.
38. Akmal M, Hares S, and O.D. M., *Gendered Impacts of COVID-19 School Closures: Insights from Frontline Organizations*. 2020. 2020.
39. La Ferrara, E., A. Chong, and S. Duryea, *Soap Operas and Fertility: Evidence from Brazil*. American Economic Journal: Applied Economics, 2012. **4**(4): p. 1–31.
40. Beekman, G., E. Bulte, B. Peters, and M. Voors, *Civil society organisations in Liberia and Sierra Leone during the Ebola epidemic: A cross-section of changes and responses*.. 2015, Netherlands Wageningen University.
41. Schull, M.J., T.A. Stukel, M.J. Vermeulen, M. Zwarenstein, D.A. Alter, D.G. Manuel, et al., *Effect of widespread restrictions on the use of hospital services during an outbreak of severe acute respiratory syndrome*. CMAJ, 2007. **176**(13): p. 1827-32.
42. Perry, J. and T.D. Sayndee, *Social mobilization and the Ebola virus disease in Liberia*.. 20016, Rowman & Littlefield.
43. UNFPA, *The Inter-Agency Minimum Standards for Gender-Based Violence in Emergencies Programming*. <https://www.unfpa.org/minimum-standards>. 2019.