

Predictors of Access to Sexual and Reproductive Health Services by Urban Refugees in Kampala City, Uganda

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Abstract

Background: The influx of over 1.3 million refugees in Uganda, with 80,000 settling in the capacity city Kampala (16), challenges the ability of urban refugees to access Sexual and Reproductive Health services (SRH) and family planning (FP) amidst the multiple uncertainties of a precarious everyday life. Utilization of SRH services remains low among urban refugees even though these services are essential to those of reproductive age and vulnerable to unwanted pregnancies and its consequences and contracting sexually transmitted infections (STIs) including HIV. Mild may-Uganda conducted a multimethod outreach program to establish the predictors of access to SRH services by urban refugees in Kampala city this paper presents.

Methods: A participatory, gender based, community-led, empowerment approach called Gender Action Learning Systems (GALS) was employed to deliver SRH including FP services to urban refugees in Kampala for 2 years. Urban refugees enrolled in GALS were interviewed at the beginning and end of the GALS intervention and quantitative data was collected. Univariate, bivariate, and multivariate analyses were conducted to determine social demographic factors influencing the uptake of SRH services by urban refugees.

Results: The study enrolled 867 participants, with 605 completing the study. Median age was 29 (IQR:22-36) years. There were significant associations between SRH use and age, religion, and education level among the urban refugees. Pentecostal were more likely to take up FP compared to Muslims (Adjusted OR (AOR) 7.9; 95% Confidence Interval (CI) 3.5-18) and those who had primary education were 5 times more likely to use FP compared to those who had no formal education (AOR 5.2; 95% CI 1.5 – 18). Adults aged 20 to 49 years were more likely to use FP compared to adolescents aged 15 to 19 years at both baseline (AOR 6.6; 95% CI 2.7-17) and endpoint (AOR 11; 95% CI 3.4 -36).

Conclusion: Strategies to identify emancipated adolescents among refugees and support them to utilize family planning services need to be designed to successfully integrate newcomers into Uganda's general healthcare services.

Keywords: Refugees, Women of reproductive age, Gender action Learning, Sexual and reproductive health.

Introduction

Bordered by countries with political instability, Uganda is ranked 3rd globally, just below Turkey and Pakistan in welcoming over 1.3 million refugees to its country [1]. Over 80,000 (10%) of these refugees have settled in the capital city of Kampala (16) [2]. While urban refugees have the same right to Sexual and Reproductive Health (SRH) services as all Ugandan citizens, access to quality SRH services has had many obstacles during the humanitarian crisis. Without dedicated infrastructure to support the particular health and social needs of refugees in the urban centers, these vulnerable and equity deserving newcomers struggle to access social and health services [3]. An increasing number of refugees imposes additional burdens on the already fragile health care system in Uganda [4]. By 2016, Uganda's capital, Kampala, hosted an estimated 83,000 persons displaced by conflict, of whom 51 % were women aged 15-49 years who were disproportionately affected [5-7]. Despite Kampala's full range of upscale, average and low-end residential dwellings, almost all urban refugees reside in the low-end slum neighbourhoods of Katwe, Kisenyi, Makindye and Masajja in Kampala and parts of the Wakiso district where there are additional challenges to accessing good health, social and transportation services [7].

Uganda does not meet the family planning (FP) needs of 34% of its population, sadly the highest rate in Sub-Saharan Africa [8]. The estimated prevalence of contraceptive use is 30%, and teenage pregnancy is 24% in Uganda where the urban refugees are integrating with the hosts [9]. This exposes them to host characteristics yet this can result into unsafe abortions that account for 28% of maternal deaths annually [10,11]. Moreover, Uganda still struggles with how to completely integrate SRH and HIV services to enable women access to both services in the same clinic [12]. Uganda is still ranked 10th among countries with the highest numbers of HIV infections with pregnant women [13]. Failure to address the SRH needs of urban refugees, identified as at-risk for HIV, and the majority of whom are women of reproductive age, will further compromise the country's already stressed health care services [14].

There is paucity of evidence about the drivers of access and utilization of SRH among refugees to guide implementations that increase uptake of SRH. While there is an increasing call for providing services to urban refugees in Kampala, most key success indicators for SRH show only slow improvement. Utilization of sexually transmitted infection prevention and management services is still low at 28% [14].

In 2019, Uganda launched the Integrated Refugee Response Plan advocating for the provision of integrated services for both refugees and refugee-host communities in all the refugee-hosting districts [15]. However, refugees who should be integrated into the national system [16] may not receive adequate services due to added barriers such as social and cultural discrimination [7]. To address these challenges met by urban refugees in accessing SRH services, Mildmay Uganda, with funding from Grand Challenges

Canada, implemented a two-year project using the Gender Action Learning Systems (GALS) approach to increase access and use of SRH services among urban refugees [17]. The study focused on building the trust of refugees through peer-community health workers (CHW) to help identify factors that affect their SRH seeking behaviours, the types of SRH services sought and the places where urban refugees seek services. This paper provides demographic characteristics of the urban refugees in Kampala city that predict access to SRH services and we specifically present a case for family planning.

Methods

A quasi-experimental study design, using before and after evaluation of study participants for a participatory, gender based, community-led Gender Action Learning Systems (GALS) intervention included quantitative data collection among the enrolled urban refugees in the SRH study. The data were collected in the capital of Uganda Kampala and specifically in the areas of Katwe, Makindye, Masajja and Namuwongo where the refugees reside. The project enrolled 867 participants to train and learn using the GALS empowerment approach in the participants' neighbourhoods to deliver SRH including family planning services to urban refugees in Kampala between March 2018 and October 2019. The training included building sustainable capacity among urban refugees through peer CHWs that contributed to individual reflections about human needs, taking on collective action to solve communal SRH and life challenges, and gender advocacy for change and community awareness. Urban refugees enrolled in GALS were interviewed at the beginning and end of the GALS intervention and quantitative data were collected. Univariate, bivariate, and multivariate analyses were conducted to determine social demographic factors influencing the uptake of SRH services by urban refugees, specifically in line with family planning.

Study Sites

The study used the Kampala Capital City Authority mapping of urban refugee residents. The selected mapped sites were low-end residential dwellings, where almost all urban refugees reside in the low-end slum neighbourhoods of Katwe, Kisenyi, Makindye and Masajja in Kampala and parts of the Wakiso district.

Population

Data were collected among urban refugees residing in the Kampala and Wakiso districts who consented to participate in the GALS project. The inclusion criteria focused on refugees who consented to voluntarily participate in the study, aged 15 years and above, and residing in the urban areas of Kampala and parts of Wakiso districts.

During data collection, a list of enrolled study participants and geographical locations where these urban refugees reside was generated. These data included the responses of people from South Sudan, Burundi, Somalia, Rwanda and Congo. Identification of participants was made possible through CHWs who were study

contacts and were members themselves of the refugee community they represented.

Study Measurements

The measurement for SRH services in this study were either Family Planning (FP) use or use of health facilities for STI services. The study verified the use of FP among refugees through asking if the refugees had any children or were willing to have any. The study also inquired if the participant had accessed any health facility to ask for any FP method or STI management services and if yes, how often and what were the reasons for seeking for the services at that respective facility with emphasis put to the period of study intervention implementation.

Data Collection Procedure

Data were collected by three research assistants who spoke at least one of the refugee languages, including Swahili, French, and Arabic. Structured study questionnaires were used that had been translated into the three major languages. The questionnaire was also translated to local languages and translated back to English by a different person to ensure consistency and accuracy. Data were collected electronically using the programmed Open Data Kit (ODK) tool. This system allowed offline data collection that could be uploaded on the server at the end of every day. Using these mobile data collection tools on Tablets, data were collected at the start of the GALS project and at the end of project implementation one year later. The data collected included demographic information about the participants, data about reproductive health such as, sexually transmitted infections, family planning services and practices and gender justice.

Data Analysis

Data was analyzed using STATA Version 15. Descriptive summary statistics were conducted for both baseline and endpoint on the characteristics of the study participants. Tests for proportions and chi square tests were used to compare pre and post intervention periods. This was done in order to identify the effect of the intervention for training CHWs to use the GALs approach for reaching urban refugees in an effort to improve utilization of SRH services. Logistic regression analysis was conducted to identify factors associated with access to SRH services by urban refugees. Logistic regression models were generated in order to explore the effects of different characteristics of the study participants on FP use. The

logistic regression model was further used to investigate the effect of gender on FP use, adjusted for age, and vice versa. A model was generated to investigate the effect of religion on FP use adjusted for education level. Additional regression models were generated to investigate the effect of country of origin and education level on FP use and these factors were both adjusted for religion. Finally, in order to control for the confounding effect of multiple variables, all factors gender, religion, country of origin and education level were, all adjusted for age group.

Ethical Considerations

The study ethical clearance and approval was obtained from the Mild may Uganda Research Ethics committee approval ref number: RECREP # 0206-2018 and then research permit from Uganda National Council for Science and Technology SS4795. The study also received official approvals from the Ministry of Health, Kampala Capital City Authority and Office of the Prime Minister responsible for taking care of refugees in Uganda. During the introduction, the purpose of the study was explained to the participants and written informed consent was received before the commencement of data collection. Confidentiality of the shared information and participants was ensured through using participant unique identifiers and by only designated study personnel accessing and identifying data on the participants. Participation in the study was voluntary and people could withdraw at any time.

Results

Social Demographic Characteristics of Participants

There were 867 participants enrolled in the study at baseline, and 605 remaining and interviewed at the end of one year. On arrival to Uganda, the majority 41% (353/867) first settled at a relative's home in Kampala, the least 0.8% (7/867) went directly to a settlement in Kampala and 9% (81/867) first settled in places of worship (church or mosque). The median age was 29 (IQR:22-36) years. There were more women at enrolment although retention of men was higher in the study, as illustrated in Table 1, Socio-demographic characteristics of the study participants. A slight majority (52%) of the refugees had never been married at the start of the study, but this reduced to 50.3% by the end. Retention of those in the age cohort 15 -34 was higher than the older age cohort (35-54) for both men and women. More refugees from Congo and Burundi were retained than from other countries (Table 1).

Table 1: Socio-Demographic Characteristics of the Study Respondents

Characteristic		Baseline (N=867)		Endpoint (N=605)	
		n	(%)	n	(%)
Gender					
	Female	496	57.2	317	52.4
	Male	371	42.8	288	47.6
Age (Years)					
	15-19	138	15.9	100	16.5
	20-24	183	21.1	123	20.3
	25-29	139	16.0	106	17.5
	30-34	143	16.5	105	17.4
	35-39	97	11.2	61	10.1
	40-44	63	7.3	46	7.6
	45-49	101	11.7	46	7.6
	50 +	3	0.3	18	3.0
Country of Origin					
	Burundi	199	23.0	123	20.3
	Congo	321	37.0	287	47.4
	Eritria	6	0.7	1	0.2
	Ethiopian	20	2.3	0	0.0
	Rwanda	13	1.5	15	2.5
	Somalia	155	17.9	132	21.8
	South-Sudan	118	13.6	30	5.0
	Sudan (North)	35	4.0	17	2.8
Education Level					
	No formal education	65	7.5	76	12.6
	Primary	95	11.0	110	18.2
	Post-primary/Vocational	36	4.2	19	3.1
	Secondary (A or O level)	414	47.8	287	47.4
	College (middle level)	84	9.7	38	6.3
	University	157	18.1	70	11.6
	Other	13	1.5	5	0.8
Religion					
	Catholic	208	24.0	112	18.5
	Muslim	200	23.1	153	25.3
	No Religion	7	0.8	0	0.0
	Pentecostal	221	25.5	209	34.6
	Protestant	206	23.8	131	21.6
	Other	25	2.9	0	0.0
Marital Status					
	Currently married / cohabiting	267	30.8	167	27.6
	Never married	451	52.0	304	50.3
	Widowed	74	8.5	68	11.2
	Divorced/Separated	75	8.7	66	10.9

Factors Associated with SRH and Family Planning among Urban Refugees participating in peer led Gender Action Learning Systems in Kampala Uganda

Bivariate analysis showed strong significant association of age, religion, country of origin, education level with SRH use among urban refugees ($p < 0.05$) (Table 2). More refugees at the end of the study (96.1%, 123/128), ranging in age from 20-49, reported using SRH compared to those younger and older cohorts, for both men and women. By end of study, there was a higher association of those of Pentecostal religion 57.0% (73/128 with FP use) than

the other religious denominations. Refugees from Congo (53.9%, 69/128) showed significantly higher SRH services use. Participant's gender was not found to be associated with SRH services uptake in the study (Table 2). Additional analyses focusing on site for accessing STI services revealed that among women with STIs, there was a significant increase in the proportion who accessed nearby government health facilities for STI treatment over the year from 32.6% (29 of 89) to 67.3% (35 of 52), $p < 0.001$ (chi squared test).

Table 2: Showing Factors Associated with SRH and FP Use Among Urban Refugees

	Baseline (N=143 Yes to FP)			Endpoint (N=128 Yes to FP)		
Gender	Proportion	(n/t)	p-value	Proportion	(n/t)	p-value
Female	67.1	(96/143)	0.009	49.2	(63/128)	0.417
Male	32.9	(47/143)		50.8	(65/128)	
Age						
15-19 (Adolescents)	3.5	(5/143)	<0.001	2.3	(3/128)	<0.001
20-49 (Adults)	96.5	(138/143)		96.1	(123/128)	
50+ (Older adults)	0	0		1.6	(2/128)	
Religion						
Muslim	8.4	(12/143)	<0.001	6.3	(8/128)	<0.001
Catholic	30.8	(44/143)		22.7	(29/128)	
Pentecostal	27.3	(39/143)		57.0	(73/128)	
Protestant	28.0	(40/143)		14.1	(18/128)	
No religion	0.7	(1/143)		-	-	
Other	4.9	(7/143)		-	-	
Country of Origin						
Burundi	38.5	(55/143)	<0.001	28.9	(37/128)	<0.001
Congo	34.3	(49/143)		53.9	(69/128)	
Eritrea	0.7	(1/143)		0.8	(1/128)	
Ethiopia	4.9	(7/143)		-	-	
Rwanda	3.5	(5/143)		6.3	(8/128)	
Somalia	4.2	(6/143)		4.7	(6/128)	
South-Sudan	14.0	(20/143)		3.1	(4/128)	
Sudan (North)	-	-		2.3	(3/128)	
Education level						
No formal education	3.5	(5/143)	<0.001	3.1	(4/128)	<0.001
Primary	9.8	(14/143)		20.3	(26/128)	
Post-primary/Vocational	3.5	(5/143)		0	0	
Secondary (A or O level)	36.4	(52/143)		45.3	(58/128)	
College (middle level)	14.0	(20/143)		10.2	(13/128)	
University	32.9	(47/143)		21.1	(27/128)	

Multivariate analysis showed that participants who self-identified as Pentecostal were more likely to take up FP compared to Muslims (Adjusted OR (AOR) 7.9; 95% Confidence Interval (CI) 3.5-18). Participants who had acquired some education of at least primary level were more likely to use FP services compared to those with no education at all (AOR 3.4; 95% CI 1.1-11). Country of origin

and gender were not associated with SRH or FP use among the urban refugees. After adjusting for gender, adults aged 20 to 49 years were more likely to use Family Planning compared to adolescents aged 15 to 19 years at both baseline (AOR 6.6; 95% CI 2.7-17) and endpoint (AOR 11; 95% CI 3.4 -36). After adjusting for religion, participants with primary education were 3 times more likely to

use FP compared to those who had no formal education (AOR 3.4 95%; CI 1.1 – 11), those with college education were more likely to use FP compared to those with no formal education (AOR 4.6; 1.3 – 17) and a similar effect was observed for those university level education (AOR 5.6; 95% CI 1.7 –19). (Table 3). There were findings from additional multivariate analysis with all variables included in a model and adjusted for age group which revealed that at endpoint, education level was the only significant factor predict-

ing FP use. In this model, participants who had primary education were 5 times more likely to use FP compared to those who had no formal education (AOR 5.2; 95% CI 1.5 – 18). Also, participants with college education were more likely to use FP compared to those with no formal education (AOR 4.9; CI 1.2 – 20) and the effect of education and FP use was even higher for participants with university level education (AOR 5.3; 95% CI 1.4 –20).

Table 3: Association between SRH/FP use and sociodemographic characteristics of study participants

Variable	Baseline		Endpoint	
	Crude Odds Ratio (OR) (95%CI)	Adjusted OR (95%CI)	Crude OR (95%CI)	Adjusted OR (95%CI)
Gender				
Female	Ref	Ref	Ref	Ref
Male	0.6 (0.4-0.9)	0.6 (0.4-0.9) ¹	1.2 (0.8-1.7)	1.3 (0.9-1.9) ¹
Age				
15-19 (Adolescents)	Ref	Ref	Ref	Ref
20-49 (Adults)	6.6 (2.6-16)	6.6 (2.7-17) ²	11 (3.4-35)	11 (3.5-36) ²
50+ (Older adults)	-		4.0 (0.6-26)	4.4 (0.7-28)
Religion				
Muslim	Ref	Ref	Ref	Ref
Catholic	4.2 (2.1-8.2)	3.6 (1.8-7.3) ³	6.3 (2.8-14)	4.2 (1.7-10) ³
Pentecostal	3.4 (1.7-6.6)	3.3 (1.6-6.6)	9.7 (4.5-21)	7.9 (3.5-18)
Protestant	3.8 (1.9-7.4)	3.5 (1.7-7.0)	2.9 (1.2-6.9)	2.1 (0.8-5.3)
No religion	2.6 (0.3-23)	2.8 (0.3-26)		
Other	6.1 (2.1-17)	4.7 (1.6-14)		
Country of origin				
Burundi	Ref	Ref	Ref	Ref
Congo	0.5 (0.3-0.8)	0.5 (0.3-0.8) ⁴	0.7 (0.5-1.2)	0.7 (0.4-1.1) ⁴
Eritrea	0.6 (0.1-5.2)	0.7 (0.1-7.3)	-	-
Ethiopia	1.6 (0.6-4.2)	1.8 (0.4-7.5)		
Rwanda	1.9 (0.6-6.0)	2.1 (0.6-6.8)	2.7 (0.9-7.9)	1.8 (0.6-5.7)
Somalia	0.1 (0.05-0.3)	0.2 (0.03-1.04)	0.1 (0.04-0.3)	0.4 (0.05-3.5)
South-Sudan	0.6 (0.3-1.1)	0.6 (0.3-1.0)	0.4 (0.1-1.1)	0.4 (0.1-1.3)
Sudan (North)	0.5 (0.2-1.3)	0.8 (0.1-4.1)	0.5 (0.1-2.0)	1.2 (0.2-6.9)
Education level				
No formal education	Ref	Ref	Ref	Ref
Primary	2.5 (0.9-7.3)	1.4 (0.5-4.3) ⁴	5.6 (1.9-17)	3.4 (1.1-11) ⁴
Post-primary/Vocational	2.3 (0.6-8.6)	1.3 (0.3-5.0)	-	-
Secondary (A or O level)	2.1 (0.8-5.4)	1.1 (0.4-3.0)	4.6 (1.6-13)	2.1 (0.7-6.6)
College (middle level)	4.5 (1.6-13)	2.2 (0.7-6.7)	9.4 (2.8-31)	4.6 (1.3-17)
University	6.2 (2.3-16)	3.2 (1.1-8.9)	11 (3.7-35)	5.6 (1.7-19)

- 1- Adjusted for age
- 2- Adjusted for gender
- 3- Adjusted for education level
- 4- Adjusted for religion
- Omitted by analysis

Discussion

Factors associated with SRH uptake among urban refugees are unlikely to remain static since they may well be influenced by multiple precarious conditions in their lives. This includes any intervention that strengthens a refugee's ability to seek SRH, FP and general health services in the host country. Indeed, this was observed in this study, which included a GALS intervention. Table

3 clearly shows that the majority of participants were generally more inclined to use SRH services at the study endpoint following their participation in the GALS intervention than at baseline across all demographic categories. We suggest this points to the need to maintain successful interventions such as GALS among refugee communities to ensure that they will continue to gain access to important SRH services.

There are more women in the urban refugee populations, the highest proportion of whom are sexually active and with higher risk of conceiving outside of family planning, of contracting STIs, and vulnerable to sexual coercion (3). A majority (between 37%-47%) of the urban refugees in this study were from the Democratic

Republic of the Congo (DRC). They have organized and established residences, training centers for DRC culture and education in Kampala slum areas. Strong leadership within this community readily facilitated the Implementation of the GALS intervention, and the sharing of SRH knowledge which contributed to the high number of Congolese both recruited and retained in the study. Organized urban refugee groups attracted SRH and general service providers to their community where outreach from nearby health facilities helped to reduce refugee fears that they will be left out from services, and not be reported for illegally consuming health-care services to the Uganda MoH national health system since they are not nationals with others having pending registration process [18].

Level of education was highly variable among the refugees, although the majority reported having attained O-Levels and above. This education is usually seen as a stepping stone, enhancing uptake of SRH [19-21]; the refugees coming to Uganda often lack English language skills, instead speaking French, Arabic and Swahili languages, and furthermore, are not familiar with the Ugandan healthcare services. The language barrier and lack of available translators makes communication difficult; refugees who are able to locate health facilities are unable to communicate their needs, often ignored upon arrival, and given inadequate diagnoses by the healthcare providers. These communication gaps affect SRH, FP and general healthcare service uptake by the refugees.

The refugees were found to have similar religions as Ugandans at screening. Some study participants 9% (81/867) reported to places of worship (churches or mosques) as their first point of contact when they reached the city before they dispersed to the slums where they currently reside. Religious beliefs of the refugees in this study are similar to those found in other studies which point out that certain religions downplay some SRH services such as FP with particular consequences for vulnerable women in a foreign country [22-24]. The GALS intervention showed the importance of catering, or tailoring, the program to the religious and cultural beliefs of the community. Community health workers learned, developed and provided extensive skills for integrating local knowledge, beliefs and practices into empowering urban refugees that made the refugees comfortable with their religion and beliefs.

The GALS community-facility linkage approach opened doors to the refugees to access SRH services in public facilities. This linkage addressed the language barrier by introducing Swahili and Arabic translators at health facilities that mainly served urban refugees and enhanced refugee follow up for further management by healthcare providers. The refugee community mobilized among themselves to identify those who could translate to their friends and ensured they were at the facilities to offer the services as well as those to support following up on others for further management.

In this study, the older age group (20-49 years) were more likely to use SRH/FP services compared to their young counterparts (15-19 years) at both baseline and end line. This is similar to what

has been observed in the general population in Uganda from past research where older women were more likely to utilize SRH/FP [25]. Efforts for supporting SRH utilization should be addressed for both the young and older age groups following the negative outcomes that would arise if services were not used despite the finding that the older age category utilized SRH services.

It would be expected that differences in cultural beliefs assumed based on differences in country of origin of the urban refugees would indicate differences in SRH/FP utilization. In this study, there were no significant differences among refugees based on their country of origin. Also, following the study, there were no significant gender differences regarding SRH/FP use in the urban refugee population. Our findings show that mainly social contextual factors drive urban refugee utilization of SRH services in Uganda. These include language barriers of those from non-English speaking countries, cultural beliefs and religion, education, gender and age which are similar to the factors affecting utilization among the host communities. Similar to Ugandan nationals, refugees also want a package of services that meet their needs. Comprehension of refugees' unique contexts, based upon identifying and understanding their SRH preferences and needs, should be the foundation for defining both the appropriate service package as well as the best model for delivering those services. As Uganda progresses towards a better integration of refugee and host health services, hearing directly from the refugees about what they need and how they want to access the services might address the socio-contextual detractors to service uptake.

Limitations

The refugees used languages such as Arabic, Swahili, French, Kinyarwanda, Lingala which are different and not understood by most of the hosts in the country. This is a clear limitation to the study as not all the investigators spoke the languages of the refugees. This was however, managed through recruiting research assistants and other study staff who can speak the respective languages. Translations of tools to the respective languages helped to resolve the problem too. The insufficient time as not all the locations where urban refugees resided were well reached to include all those that participated in the study at intervention due to limited accuracy of registration lists and recorded cell phone numbers that were off at the time of data collection, and finally the self-reported nature of the survey by the refugees following the intervention was a limitation as well. mapping of urban refugee residents.

In addition, the mapping of study sites for the study focused on the low-end residential dwellings in Kampala where urban refugees reside. Therefore, the findings may not be generalizable to all the refugees in Uganda.

Conclusions

The high unmet need for FP in Uganda puts the integration of SRH services including FP and STI treatment paramount if we are to achieve further success in delivering SRH services to urban refugees. There is need for adopting a holistic approach that brings

together the refugee and host communities that can better leverage their Ugandan experience in accessing SRH services. Using the GALs approach, we found that factors associated with SRH use by urban refugees concentrated around contextualized socio-demographic characteristics. Supporting urban refugees through social and economic empowerment using a community engagement model was found to improve SRH access and use. In particular, this was found to be associated with language barriers (not understanding or speaking English), education, religion and economic empowerment that, in many instances, was as simple as enabling refugees to obtain resources for transportation to the service centers.

Finally, offering combined SRH and general healthcare services optimizes urban refugees' uptake as they are overwhelmingly a young population needing assurance of confidentiality when asking for contraception, post-abortion care, and HIV/AIDS services. As advocacy for the integration of refugee healthcare services in Uganda takes center stage, much is needed for these integrated service delivery locations. Urban refugees should be able to seek and access general health services and contraception like any Ugandan. Efforts for supporting SRH utilization should be addressed for both the young and older age groups following the negative outcomes that would arise if services were not used. Access to education and English language programs should be widely promoted among refugees, both of which positively effect SRH service utilization. In the meantime, language translation services and means of getting to the facilities must be made widely available. There should be targeted strategies to identify adolescents who are emancipated in this population and support them to utilize family planning services.

Abbreviations

SRH: Sexual and Reproductive Health;
FP: Family planning; STIs: sexually transmitted infections;
HIV: Human immunodeficiency virus;
GALS: Gender Action Learning Systems;
CHW: Community health workers;
ODK: Open Data Kit;
MoH: Ministry of health;
AIDS: Acquired immunodeficiency syndrome.

Declarations

Ethics approval and consent to participate

The study was funded by Grand Challenges Canada, with local approval granted by the Mild may Uganda Research Ethics committee approval ref number: RECREP # 0206-2018 and then research permit from Uganda National Council for Science and Technology SS4795. During the introduction, the purpose of the study was explained to the participants and written informed consent was received before the commencement of data collection. In this study, all methods were carried out in accordance with relevant guidelines and regulations.

Availability of Data and Material

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

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Author contribution

All authors contributed to various components of the study design, conduct and analysis.

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