

Risk of COVID-19 Infection among Refugees in Uganda: A case study of Nakivaale Refugee Camp

Introduction

World Health Organization and Ministry of Health declared COVID-19 a global pandemic on 11th March 2020. Effective implementation of COVID-19 preventive strategies requires adequate access to water, sanitation and hygiene (WASH) facilities, promotion of sanitation and hygiene behavioural change, wearing masks, social distancing among other measures. However, unlike in other settings, refugee settlement camps are faced with limited knowledge on COVID-19 transmission/ prevention, inaccessible and limited water facilities, inadequate hand washing facilities, lack of soap, poor sanitation and hygiene practices including poor hand hygiene. These conditions coupled with a high population density and weak health systems highlight challenges for containment, mitigation and control of COVID-19 in the refugee settlement camps. Although, hand washing with soap is one of the low cost effective COVID-19 preventive measures, access to both water and soap remain a big challenge in refugee settings. Similarly, social distancing measures are almost impossible to put in practice at social service points and in households due to the high population. Uganda has so far registered cases of COVID-19 among refugees. These cases reflect the potential dangers of a wide spread outbreak of COVID-19 in refugee settings, if emergency behavioural responses are not instituted immediately. Worse still, some refugees continue to illegally exit and enter the country through the porous border points increasing the risk of infection and potential contacts from the highly affected neighbouring countries such as Democratic Republic of Congo, and Tanzania. Additionally, the refugee communities continue to interact closely with the host communities which can lead to further rapid spread and transmission of COVID-19 to the wider communities. Thus, amidst all circumstances, it is critical to avert an outbreak of COVID-19 in refugee settings. Notably, in the absence of vaccines for COVID-19, it is paramount to assess the self-perceived risk of refugees in a bid to inform design and implementation of behavioural campaign strategies.

Methodology

The project was implemented in Nakivale Refugee camp in Isingiro district. The camp is purposively selected given its confirmed COVID-19 cases. A cross sectional survey was undertaken using both quantitative and qualitative methodologies. Using the KISH sampling size estimation method and accounting for non-response rate and design effect, a sample size of 786 individuals were interviewed. Analysis was done using STATA 15 and it was done at three levels: univariate, bivariate (using pearson chi-square tests) and multivariate using binary logistic regression.

Results

More than half of the respondents were female (52%) with a mean age of 36 years. With regards to self perceived risk of COVID-19 infection, persons who had a disability had a higher likelihood of COVID-19 infection as compared to their counterparts. Similarly, occupation was significantly associated with risk of COVID-19 infection. Teachers, housewives, and the unemployed perceived themselves to be a higher risk as compared to the peasant farmers. Additionally, access to water was the greatest determinant of one's perceived risk to COVID-19 infection among refugees. Notably there was no significant relationship between sex/ gender and risk of COVID-19 infection as both genders could have similar COVID-19 risk perceptions. However, qualitative data highlighted inequalities in potential perceived risk to COVID-19 by gender. From the qualitative data, women were at a higher risk of COVID-19 as compared to the men. Women are the main users of the social service points such as health facilities, food distribution points, water service points and thus are at an increased risk of contracting COVID-19 in the refugee settings as compared to the men. At these social points, social distancing measures can hardly be practiced. Secondly, women are charged with the responsibility of fetching water and due to scarcity of water, most times, it is the women who forego use of water for other household members. Details of the determinants of risk to COVID-19 infection are presented in Table 1 below.

Table 1: Risk of COVID-19 Infection among Refugees

Risk of COVID-19	Odds Ratio	P>z	[95% Conf.	Interval]
Sex				
Female	1.006159	0.98	0.622715	1.625711
Age				
25 - 29	0.8434035	0.653	0.40104	1.77371
30 - 34	0.8426693	0.667	0.386454	1.837456
35 - 39	0.8462306	0.713	0.347979	2.057902
40 - 44	0.7970985	0.643	0.305305	2.081083
45 - 49	1.234594	0.661	0.481684	3.164362
50+	1.165505	0.72	0.505113	2.689301
Household members				
5+	1.178857	0.5	0.731073	1.900912
Education				
Primary	0.7480411	0.257	0.452761	1.235897
Secondary+	1.05685	0.888	0.489235	2.283014
Place of Residence				
Urban	0.6739473	0.74	0.065465	6.938122
Religion				
Protestant	1.339821	0.377	0.700369	2.563105
Pentecostal	0.8486994	0.577	0.476526	1.511545
Muslim	2.237693	0.051	0.997992	5.017346
SDAs	1.569461	0.169	0.825533	2.983777

Others	1			
Disability				
No	0.2692351	0.045	0.074491	0.9731
Marital Status				
Married	1.178662	0.682	0.537007	2.587013
Divorced/ Separated	0.5065856	0.287	0.144987	1.770019
Widowed	1.956423	0.228	0.657416	5.822176
Occupation				
Petty trader	0.7159939	0.58	0.219382	2.336779
Teacher	9.057111	0.037	1.143661	71.72692
Housewife	3.151419	0.021	1.189378	8.350114
Unemployed	2.253618	0.048	1.005456	5.051231
Others	2.593161	0.011	1.240679	5.420004
Tv				
No	1.344394	0.35	0.723183	2.499224
Mobile phone				
No	1.221783	0.411	0.758258	1.968664
Listen to Radio				
Less than once	1.743938	0.394	0.485407	6.265509
Not at all	0.7348217	0.312	0.404167	1.33599
Use internet				
At least once	1.810291	0.645	0.145078	22.58884
Less than once	1.450307	0.819	0.05996	35.08008
Not at all	2.599789	0.391	0.293575	23.02272
Water not available				
No	1.713857	0.016	1.105419	2.657188
Don't Know	0.8623634	0.895	0.094854	7.840194
Challenges in water access				
No	0.8689879	0.79	0.309906	2.436677
_cons	0.1040397	0.11	0.006472	1.672445

In conclusion, extra efforts have to be put in place to address gender concerns of women so as to reduce their perceived and potential risk. More efforts have to be put in place to increase access to water so as to allow for hand washing with soap among refugees. Government of Uganda has to consider persons with disability or persons with special needs (PSNs) in the refugee camps as they have a heightened risk of contracting COVID-19. There is need to design behavioural change strategies if the risk of COVID-19 is to be mitigated.