

Original Research Article

Predisposing factors that influence access to healthcare by the residents in Kiandutu urban informal settlement, Kiambu county, Kenya

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ABSTRACT

Background: Access to healthcare refers to the ability to get the required medical care from the health service providers when needed. This is further defined into three aspects: availability of the services, affordability of the services, and acceptability of the services. The settings in informal settlements highlight the abject poverty which perpetuates ill health, with the poor being less likely to report health problems and seek medical treatment in the event of illness.

Methods: Analytical cross-sectional design was used to study 318 selected participants from Kiandutu slum in Kiambu County. Data was collected using administered structured questionnaire, focussed group discussion and key informant interview. Quantitative data analysis was conducted using SPSS version 26.0 and involved univariate and bivariate analysis. Chi-square were used to test the significance of the association between the dependent and independent variables ($p < 0.05$). Qualitative data was analyzed by thematic content analysis.

Results: Findings showed that access to healthcare was influenced by religion ($\chi^2=4.193$; $df=1$; $p<0.041$), education level ($\chi^2=7.854$; $df=2$; $p<0.020$).

Conclusions: The study reveals that limited healthcare access in urban informal settlements significantly impacts residents' healthcare use. Education and religion levels are linked to healthcare access. The government should provide friendly health services and health education to improve health awareness in these settlements.

Keywords: Access to healthcare, Health seeking behaviour, Informal settlement

INTRODUCTION

Access to healthcare is the ability of people to get and use available healthcare services which is crucial in reducing the burden of morbidity and mortality.¹⁻³ In the majority of low- and middle-income countries (LMIC), access to healthcare is low. Access to healthcare serves as a proxy measure to UHC hence is used to evaluate the healthcare system and identify key areas that need improvement especially among the urban poor in urban informal settlements.⁴ In 2013, approximately 1 billion people were living in informal settlements worldwide. This is

approximated to rise to 2 billion by 2030.⁵ In Sub-Saharan Africa, 50-80% of urban dwellers were living in informal settlements in 2013.⁵ Informal settlements are characterized by people of low social status, lack of education, and lack of employment along with substandard housing and overcrowding, poor sanitation, and inadequate or no public infrastructure.⁶

In Kenya, about 55% of the urban population lives in informal settlements.⁶ Lack of adequate health facilities in the urban informal settlement has resulted in several substandard clinics that are unable to offer quality

healthcare which has negatively influenced access to healthcare.^{7,8}

According to Kenya health sector strategic plan, despite efforts made by the Government of Kenya to expand the universal healthcare coverage, the prevailing conditions in informal settlements hinder access and utilization of healthcare services.⁹ According to the Centre of Urban Research Innovation, living conditions in Kiandutu urban informal settlement are destitute, and many people are live in poverty.¹⁰ Poor hygiene conditions in Kiandutu urban informal settlement led to high incidence of hygiene related disease and many people could not access healthcare facilities. According to CURI, 2013, 75% of the residents in the Kiandutu urban informal settlement relied on informal care. Kiandutu dispensary, the only Government facility within the informal settlement, provides healthcare services despite the large population in the area.^{9,10}

METHODS

This was an analytical cross-sectional design using both quantitative methods and qualitative methods (use of Key Informant Interviews and Focused Group Discussion) of data collection that was carried out between April 2022 to August 2022. A multi-stage cluster was used to select the study participants. Kiandutu urban informal settlement was purposively selected since it is the largest informal settlement in Kiambu county, selection of households was done through systemic sampling whereby in each household, household heads or spouses were selected to participate with 318 participants selected for the study.

Participants for Key Informant Interviews (KIIs) were local administrator, health facility in-charge, public health officer, village elders, traditional doctors, herbalists, church leaders, and school head teachers while Focus Group Discussions (FGDs) participants were members from health facilities, community self-help groups, business ladies and men, youths, church elders, and teachers who were available during data collection period, and respondents who were willing to participate and consented for the study. Self-administered structured questionnaires were used to collect quantitative data while Key Informant Guide and FGD was used to collect qualitative.

Quantitative data was analyzed using statistical package for social science (SPSS) version 26.0. Descriptive data was presented using frequencies, percentages, means and standard deviation while inferential statistics used chi-square test to measure association between independent and dependent variables. P values less than 0.05 were considered statistically significant.

RESULTS

Socio-demographic characteristics of study respondents

From the findings, two hundred and thirty-four (73.6%) of the respondents were females compared to only eighty-four (26.4%) males. One hundred and forty-five (45.6%) of the respondents aged between 18-29 years. The mean age was 33.12 and standard deviation of 10.74. Two hundred and seventy-four of the respondents (86.2%) were Christians. Two hundred and one of the respondents (63.2%) were married. One hundred and thirty-five of the respondents (42.5%) had at least attained secondary school education. One hundred and thirty-seven of the respondents (43.1%) were self-employed (Table 1).

Table 1: Socio-demographic characteristics of study respondents.

Characteristics	Frequency (n=318)	Percent age (%)
Age ($\mu=33.12$ SD 10.74)		
18-29 years	145	45.6
30-39 years	85	26.7
40-49 years	55	17.3
50 years and above	33	10.4
Gender		
Male	84	26.4
Female	234	73.6
Religion		
Christian	274	86.2
Muslim	44	13.8
Marital status		
Single	65	20.4
Married	201	63.2
Separated	32	10.1
Divorced	3	0.9
Widowed	17	5.3
Education level		
No formal education	15	4.7
Primary	129	40.6
Secondary	135	42.5
Tertiary	39	12.3
Employment		
Unemployed	77	24.2
Self-employed	137	43.1
Employed	86	27.0
Student	18	5.7

Illness experience

Two hundred and sixteen of the respondents (67.9%) reported having experienced an illness during the study recall period of four weeks prior to the study (Figure 1).

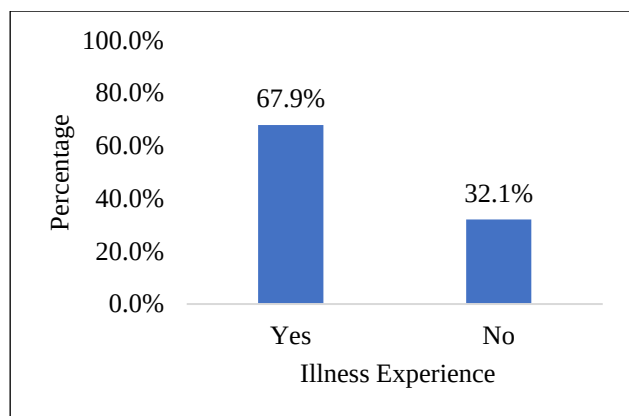


Figure 1: Illness experience among the Kiandutu urban informal settlement residents.

Decision to seek care

One hundred and ninety-five of the respondents (90.3%) who experienced illness during the recall period sought care outside the home while twenty-one of the respondents (9.7%) did not seek care at all (Figure 2).

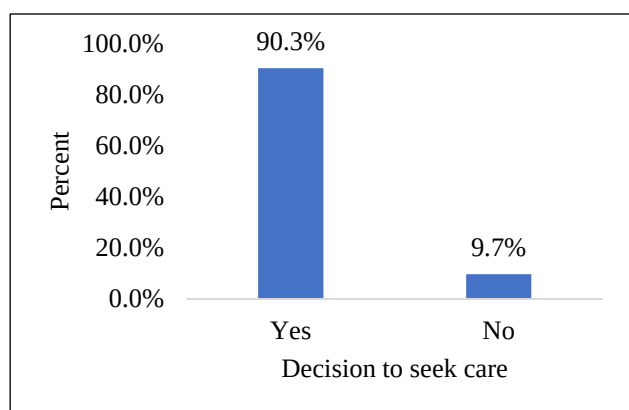


Figure 1: Decision to seek care among the Kiandutu urban informal settlement residents who experienced illness.

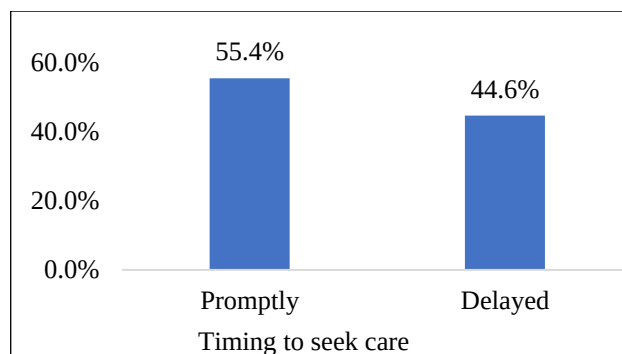


Figure 3: Timing to seek care among Kiandutu urban informal settlement residents.

Timing to seek care

The respondents reported seeking care at different periods of time after experiencing illness. One hundred and eight of the respondents (55.4%) sought care promptly (immediately or next day) while eighty-seven of the respondents (44.6%) delayed seeking care (two days later and beyond). This is illustrated in Figure 3.

Predisposing factors influencing access to healthcare

These are factors which influence the likelihood of the individual to utilize health services which include socio-demographic factors. Eighty of the respondents (41.0%) aged 18-29 years sought care. One hundred and fifty-four of the respondents (79.0%) who sought care were females. One hundred and seventy-one of the respondents (87.7%) who sought care were Christians. One hundred and thirty-two respondents (67.7%) who sought care were married. Ninety-five of the respondents (48.7%) who sought care had attained primary school education. One hundred and seven of the respondents (70.3%) were employed and sought care. Across different predisposing factors, religion ($\chi^2=4.193$; $df=1$; $p=0.041$) and education level ($\chi^2=7.854$; $df=2$; $p=0.021$) were significantly associated with access to healthcare while the rest of the predisposing factors were not associated with access to healthcare.

Table 2: Predisposing factors associated with access to healthcare among Kiandutu urban informal settlement residents.

		Access to healthcare		χ^2 (df)	P value
		Yes N (%)	No N (%)		
Age (years)	18-29	80 (41.0)	8 (38.1)	0.072 (2)	0.965
	30-39	52 (26.7)	6 (28.6)		
	40 and above	63 (32.3)	7 (33.3)		
Gender	Male	41 (21.0)	5 (23.8)	0.088 (1)	0.767
	Female	154 (79.0)	16 (76.2)		
Religion	Christian	171 (87.7)	15 (71.4)	4.193 (1)	0.041
	Muslim	24 (12.3)	6 (28.6)		
Marital status	Single	63 (32.3)	8 (38.1)	0.288 (1)	0.592
	Married	132 (67.7)	13 (61.9)		

Continued.

		Access to healthcare		χ^2 (df)	P value
		Yes	No		
		N (%)	N (%)		
Level of education	Primary and below	95 (48.7)	8 (38.1)	7.854 (2)	0.020
	Secondary	83 (42.6)	7 (33.3)		
	Tertiary	17 (8.7)	6 (28.6)		
Employment	Unemployed	58 (29.7)	8 (38.1)	0.623 (1)	0.430
	Employed	137 (70.3)	13 (61.9)		

DISCUSSION

From the study, the majority of the respondents (90.3%) who experienced an illness sought care outside the home. This shows respondents were aware of the health benefits of seeking care after an illness rather than waiting until the illness becomes worse or their condition deteriorates. This agrees with findings of a study by Jahan conducted among slum dwellers in Dhaka city in Bangladesh which noted, 91.1% of the respondents sought care during their illness.¹¹ In this study, 55.4% of the respondents sought care promptly (same or next day) after experiencing an illness while 44.6% delayed (sought care after two days). This agrees with findings of a study in Lilongwe, Malawi, and Nairobi, Kenya urban informal settlements which noted 53% and 60% of the respondents visited the health facility immediately or the next day after the onset of symptoms respectively.^{12,13} However, the findings of a study in Mumbai urban informal settlement in India noted only 34% of the respondents visited the health facility on the same day after the onset of symptoms.¹⁴

The age of the respondents did not influence access to healthcare. This agrees with findings of studies in an urban informal settlement in Dhaka city in Bangladesh which noted age was not significantly associated with seeking care.¹¹ On contrary, findings of studies in urban informal settlements in Mumbai in India and Nairobi, Kenya noted the age of the respondents was significantly associated with seeking care.^{14,15} The young and older respondents knew the health benefits of seeking care hence took action faster before the illness became severe. However, findings of studies in urban informal settlements in Mumbai in India, Dhaka city in Bangladesh, Uganda, and Nairobi, Kenya noted most of the respondents who visited the health facility for treatment were young with the older people been less likely to seek care when they experience an illness.^{1-3,12} The gender of the respondents did not influence access to healthcare. This agrees with findings of studies in urban informal settlements Nairobi in Kenya, Mumbai in India, and Dhaka city in Bangladesh which noted gender of the respondents was not significantly associated with their seeking care.^{11,14,16}

The marital status of the respondents did not influence their access to healthcare. This agrees with findings of studies in urban informal settlements in Mumbai in India, Nairobi in Kenya, and Dhaka city in Bangladesh which noted marital status had no significant relation with

seeking care.^{4,8,10} Respondents who were married, as well as those who were single, were able to make their own decision to seek care after an illness. Respondents who were married reported they both participated when they decided to seek care. However, findings of studies in urban informal settlements in Uttar and Mumbai, India noted the decision to seek care was mainly made by their spouse.^{1,12} The level of education of the respondents influences their access to healthcare. This agrees with findings of studies in urban informal settlements in Nairobi, Kenya, Mumbai in India, and Dhaka city in Bangladesh which noted education level of the respondents was significantly associated with seeking care.^{4,13,16} Respondents who are less educated may not know the symptoms of the disease hence they do not recognize the severity of a disease thus seek care unlike the more educated who may know about the disease and its complications. This concurs with findings of studies in urban informal settlements Nairobi in Kenya, Dhaka city in Bangladesh, and Mumbai in India which noted respondents who were more educated were more likely to seek care after an illness compared to the less educated.^{11,15-17}

This study has some limitations. The study was largely limited by insecurity which affected the mobility and the safety of the researcher and research assistants. The village elders and community volunteers guided us within the settlement. Language barrier led to a delay in data collection. Questions in the questionnaire were read and translated to the respondents for better understanding. Time to collect the data was also a challenge since most of the household heads were not available during the day could only be found from 5 pm and others during the weekends. The researcher and research assistant decided to visit the households very early in the morning and evening as well as during weekends.

CONCLUSION

It can be concluded from this study that limited access to healthcare in urban informal settlements has a serious impact on the residents in the use of healthcare. Although the sample studied was not representative of all the informal settlements, the situation prevails is the same in most of the informal settlements in our country. Level of education and religion were associated with access to healthcare, and most of the respondents who sought care had acute illness. The Government should provide the residents in urban informal settlement with friendly health

services and make them available in the health facility as well as creating awareness to residents in urban informal settlements through health education on health benefits of seeking care.

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