International Journal of Community Medicine and Public Health
Muriuki FM et al. Int J Community Med Public Health. 2023 Mar;10(3):1011-1018
http://www.ijcmph.com
pISSN 2394-6032 | eISSN 2394-6040

DOI: https://dx.doi.org/10.18203/2394-6040.ijcmph20230615

Original Research Article

Influence of health institution related factors on health seeking behaviors among men suffering from lower urinary tract symptoms attending surgical outpatient clinic at a county referral hospital Meru Kenya

Festus M. Muriuki[1]*, Bernard W. Mbithi[2], Sherry Oluchina[2]

[1]School of Nursing Sciences Meru university of Science and Technology, Meru, Kenya
[2]School of Nursing Sciences, Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya

Received: 30 December 2022
Revised: 15 February 2023
Accepted: 16 February 2023

***Correspondence:**
Dr. Festus M. Muriuki,
E-mail: festusmwendia81@gmail.com

ABSTRACT

Background: Currently there is an increase in cases of men presenting with lower urinary tract symptoms (LUTS) especially in low resource countries. The purpose of this study was to establish the influence of health institution related factors on health seeking behaviors among men suffering from LUTS attending surgical outpatient clinic at Meru county referral hospital, Kenya.
Methods: Descriptive cross-sectional study design was used. Population involved 120 men suffering from LUTS, 2 physicians and 2 nurses. The study tools used were questionnaires, key informant interview guides and focus group discussion guides. The quantitative data was analyzed using chi-square test and binary logistic regression. Hypothesis testing was done at an alpha level of significance of 0.05 such that any p-values below the alpha were deemed significant. Qualitative data was analyzed thematically
Results: Health institutional related factors which included adequate personnel 2.57 [95% CI=1.09-6.06, p=0.032], adequate drugs 3.14 [95% CI=1.36-7.23, p=0.007], treated well by the health care workers 2.95 [95% CI=1.18-7.36, p=0.021], short duration time taken to be served in the hospital 2.40 [95% CI=1.12-5.16, p=0.025] and distance to the health facility 2.21 [95% CI=1.01-4.84, p=0.047], significant parameters associated with health seeking behaviors
Conclusions: There was significance influence of health institution related factors on health seeking behaviors among men suffering from LUTS.

Keywords: Health, Institutional, Related, Factors, Health seeking behaviors, LUTS

INTRODUCTION

Lower urinary tract symptoms (LUTS) describe a distinct phenotype of a group of disorders affecting bladder and prostate that share common clinical manifestations to include frequency, urgency, nocturia, difficult in initiating urination, sense of incomplete bladder emptying, decreased force of stream and interrupted stream.[1] Benign prostate hyperplasia (BPH) and prostate cancer (Pca) mostly accounts for LUTS.[2]

According to United States of America, census bureau international data base, it was projected that 1.9 billion persons of the world population (45.2%) were affected by LUTS in 2008.[3] Correspondingly, a population-based study done on Nigerian men who were above the age of 40 years showed that, the overall prevalence of LUTS was 59.1%.[4] A study done in Kenya in a tertiary health facility in western Kenya revealed that the health seeking behaviors of male patients with LUTS was low.[5] Another study done in Singapore, showed that only 28.3% of

males who aged 40 years and above with moderate-to-severe LUTS sought medical help.[6] While in Nigeria, 78.4% of respondents who had mild LUTS didn't seek medical care.[7] Study In Nyamira County in Kenya, showed 87.9% of respondents had never sought medical help.[8] The objective of this study was determine influence of health institution related factors influencing health seeking behaviors among male patients suffering from LUTS attending surgical outpatient clinic at Meru county referral hospital Kenya.

METHODS

Study design

Research design utilized analytical cross-sectional. Both qualitative and quantitative data collection methods were used in study. These included the use of questionnaires, focused group discussion and key informant interviews.

Study area

The study was carried out at Meru county referral hospital surgical outpatient clinic.

Study population

The total population comprised of 124 respondents, 120 men suffering from LUTS, 2 physicians and 2 nurses. The study population was 120 LUTS patients, 2 physician and 2 nurses working at this clinic (Table 1).

Table 1: Study population.

Respondent's	Population
Patients	120
physician	2
Nurse	2
Total	124

Inclusion criteria

The study included male patients who were above 40 years of age suffering from LUTS were included.

Exclusion criteria

Patients who had mental illness or neurological diseases which affect bladder emptying, and patients with other chronic conditions like diabetes were excluded.

Sampling procedure

The study used the census thus sample size was 120 LUTS patients, 2 physicians and 2 nurses.

Study period

The study was carried out august 2018 to march 2020

Data analysis and presentation techniques

Qualitative and quantitative data analysis was used. The responses were analyzed using statistical package for social sciences (SPSS) version 22. Descriptive analysis was used to generate the mean, standard deviation and frequencies. Logistic regressions were used whereby p values were used to determine statistical significance of results with cut off set at $p \leq 0.05$). The results were then presented using frequency distribution tables and charts. Qualitative data was analyzed using qualitative techniques mainly developing and applying codes, identifying themes, patterns and relationships and summarizing the data from direct quotes and selected comments from key informant interviews, and focused group discussion.

Ethical issues

The researcher obtained an introductory letter from Jomo Kenyatta university of agriculture and technology (JKUAT) school of nursing, after which ethical clearance was obtained from Kenya methodist university (KEMU) ethical review committee, national commission for science, technology and innovation (NACOSTI), Meru teaching and referral hospital management and Meru level five surgical outpatient clinic in charge. The researcher ensured that the respondents were informed of the research goals and objectives to minimize suspicion.

RESULTS

The sample for the study was 124 respondents who participated in the study. The respondents who filled the questionnaires were 112 the remaining 8 respondents participated in the focused group discussion. Four (4) key informants who were health workers participated in the study.

Socio-demographic characteristics of men with LUTS

A larger proportion of the respondents (42; 37.5%) aged between 61-70 years, while (34; 30.3) where aged above 70 years, (19; 17%) of the respondents aged between 40-50 years whereas (17; 15.2%) of the respondents aged between 51-60 years. Most of the respondents reported to be Catholics (64; 57.1%), protestants were (30; 26.8%) whereas a small proportion reported to be Muslims (10; 8.9%) as well as Hindu (8; 7.1%). Majority (70; 62.5%) of the respondents indicated that they were married. More than half (68; 60.7%) of the respondents indicated that they lived in urban areas. With respect to education level of the respondents, more than half of the respondents (75; 67%) indicated to have primary school education. A greater majority of the respondents (95; 84.8%) indicated to have informal employment. With respect to income, majority (81; 72.3%) of respondents revealed to earn less than Kshs 20,000 while a smaller proportion (31; 27.7%) of respondents revealed that they were earning Kshs 20,000 and above (Table 2).

Table 2: Socio-demographic characteristics of the study respondents.

Variables	N	Percentages (%)
Age (Years)		
40-50	19	17
51-60	17	15.2
61-70	42	37.5
Above 70	34	30.3
Religion		
Catholic	64	57.1
Protestant	30	26.8
Muslim	10	8.9
Hindu	8	7.1
Marital Status		
Single	34	30.4
Married	70	62.5
Widowed	4	3.6
Separated	4	3.6
Residential		
Rural	68	60.7
Urban	44	39.3
Education		
None	10	8.9
Primary	75	67
Secondary	9	8
Tertiary	18	16.1
Employment		
Informal	95	84.8
Formal	17	15.2
Income (Ksh)		
Less than Kshs 20,000	81	72.3
Kshs 20,000 and above	31	27.7

Association between socio-demographic characteristics and high health seeking behavior

A greater majority of men having a high health seeking behavior was observed among men who were aged above 70 years (31; 91.2%) compared to men who were aged between 40-50 years (9; 47.4%). Men who were aged above 70 years were 11.48 [95% CI=2.59-50.86, p=0.001] times more likely to have high health seeking behavior compared to men who were aged between 40-50 years. A smaller proportion of men having a high health seeking behavior was observed among men who were aged between 61-70 years (8; 19.0%) compared to men who were aged between 40-50 years (9; 47.4%). Men who were aged between 61-70 years were 0.26 [95% CI=0.08-0.86, p=0.026] times more likely to have high health seeking behavior compared to men who were aged between 40-50 years. Similarly, a smaller proportion of men having a high health seeking behavior was observed among men who were aged between 51-60 years (1; 5.9%) compared to men who were aged between 40 – 50 years (9; 47.4%). Men who were aged between 51-60 years were 0.07 [95% CI=0.01-0.63, p=0.018] times more likely to have high health seeking behavior compared to men who were aged between 40-50 years.

A greater majority of men having a high health seeking behavior was observed among men who were married (44; 62.9%) compared to men who were single (2; 5.9%). Men who were married were 27.08 [95% CI=5.99-122.40, p<0.001] times more likely to have high health seeking behavior compared to men who were single. Similarly, a high proportion of men having a high health seeking behavior was observed among men who were widowed (2; 50%) compared to men who were single (2; 5.9%). Men who were widowed were 16.00 [95% CI=1.42-180.90, p=0.025] times more likely to have high health seeking behavior compared to men who were single.

Significantly a higher proportion of men having a high health seeking behavior was observed among men who resided in urban areas (25; 56.8%) compared to men who resided in rural areas (24; 35.3%). Men who resided in urban areas were 2.41 [95% CI=1.11-5.24, p=0.026] times more likely to have had high health seeking behavior compared to men who were residing in rural areas.

A greater majority of men having a high health seeking behavior was observed among men who had tertiary education (16; 88.9%) compared to men who were not educated (1; 10.0%). Men who had tertiary education were 72.00 [95% CI=5.70-908.90, p=0.001] times more likely to have high health seeking behavior compared to men who were not educated. Similarly a high proportion of men having a high health seeking behavior were observed among men who had secondary education (6; 66.7%) compared to men who were not educated (1; 10.0%). Men who had secondary education were 18.00 [95% CI=1.50-216.62, p=0.023] times more likely to have high health seeking behavior compared to men who were not educated (Table 3).

Table 3: Association between socio-demographic characteristics and high health seeking behavior.

Variables	HHSB		LHSB		OR	95%CI		P value
	N	%	N	%		Lower	Upper	
Age (Years)								
40-50	9	47.4	10	52.6	Ref			
51-60	1	5.9	16	94.1	0.07	0.01	0.63	0.018
61-70	8	19	34	81	0.26	0.08	0.86	0.026
Above 70	31	91.2	3	8.8	11.48	2.59	50.86	0.001

Continued.

Variables	HHSB		LHSB		OR	95%CI		P value
	N	%	N	%		Lower	Upper	
Religion								
Catholic	31	48.4	33	51.6	2.82	0.53	15.03	0.225
Protestant	14	46.7	16	53.3	2.62	0.45	15.16	0.281
Muslim	2	20	8	80	0.75	0.08	6.96	0.800
Hindu	2	25	6	75	Ref			
Marital status								
Single	2	5.9	32	94.1	Ref			
Married	44	62.9	26	37.1	27.08	5.99	122.40	<0.001
Widowed	2	50	2	50	16.00	1.42	180.90	0.025
Separated	1	25	3	75	5.33	0.37	77.50	0.220
Residential								
Rural	24	35.3	44	64.7	Ref			0.026
Urban	25	56.8	19	43.2	2.41	1.11	5.24	
Education								
None	1	10	9	90	Ref			
Primary	26	34.7	49	65.3	4.78	0.57	39.79	0.148
Secondary	6	66.7	3	33.3	18.00	1.50	216.62	0.023
Tertiary	16	88.9	2	11.1	72.00	5.70	908.90	0.001
Employment								
Informal	44	46.3	51	53.7	2.07	0.68	6.34	0.202
Formal	5	29.4	12	70.6	Ref			
Income (Ksh)								
Less than Ksh 20,000	38	46.9	43	53.1	1.61	0.68	3.78	0.277
Ksh 20,000 and above	11	35.5	20	64.5	Ref			

Health Institution-related factors influencing health seeking behaviors among men suffering from LUTS

More than half (71; 63.4%) of the respondents indicated that there were adequate drugs. Majority of the respondents (81; 72.3%) indicated they were treated well by the health care workers. Almost half of the respondents (55; 49.1%) indicated that there was short duration time taken to be served in the hospital. Slightly less than half of the respondents (53; 47.3%), indicated there were adequate screening/testing resources. High proportion of the respondents (77; 68.8%), indicated there were adequate personnel. More than a quarter (35; 31.3%) of the respondents indicated that screening/testing methods for LUTS were tedious. Majority (79; 70.5%) of the respondents indicated that treatment was expensive. More than half of the respondents (71; 63.4%) indicated that there was a long distance to the health care facility (Table 4).

Association between institutional-related factors and high health seeking behavior

Binary logistic regression was used to model influence of health institution related factors and health seeking behavior among men suffering from LUTS. Risk factors identified to be significant at $p<0.05$ during bivariate analysis were adjusted in multivariable logistic regression model. Backward conditional stepwise method was specified with removal of variables set at $p<0.05$.

A high proportion of men having a high health seeking behavior was observed among men who indicated that there was adequate drugs (38; 53.5%), compared to men who indicated that there was no adequate drugs (11; 26.8%). Men who indicated that there was adequate drugs were 3.14 [95% CI=1.36-7.23, p=0.007] times, more likely to have high health seeking behavior compared to men who indicated that there was no adequate drugs at the hospital.

Significantly a high proportion of men having a high health seeking behavior was observed among men who indicated that they had been treated well by the health care workers (41; 50.6%), compared to men who indicated that they had not been treated well by the health care workers (8; 25.8%). Men who indicated that they had been treated well by the health care workers were 2.95 [95% CI=1.18-7.36, p=0.021] times, more likely to have high health seeking behavior compared to men who indicated that they had not been treated well by the health care workers.

A high proportion of men having a high health seeking behavior was observed among men who indicated that there were adequate personnel (39; 50.6%), compared to men who indicated that there no adequate personnel (10; 28.6%). Men who indicated that there were adequate personnel were 2.57 [95% CI=1.09-6.06, p=0.032] times, more likely to have high health seeking behavior compared to men who indicated that there were no adequate personnel.

Higher proportion of men having a high health seeking behavior was observed among men who indicated that there was short duration time taken to be served in the hospital (30; 54.5%), compared to men who indicated that there wasn't short duration time taken to be served in the hospital (19; 33.3%). Men who indicated that there was short duration time taken to be served in the hospital were 2.40 [95% CI=1.12-5.16, p=0.025] times, more likely to have high health seeking behavior compared to men who indicated that there wasn't short duration time taken to be served in the hospital.

Significantly a high proportion of men having a high health seeking behavior was observed among men who indicated that treatment was not expensive (20; 83.3%), compared to men who indicated that treatment was not expensive (29; 16.7%). Men who indicated that treatment was not expensive were 10.17 [95% CI=3.18-32.51, p<0.001] times more likely to have high health seeking behavior compared to men who indicated that treatment was not expensive.

A high proportion of men having a high health seeking behavior was observed among men who indicated that there was no long distance to health care facility (23; 56.1%), compared to men who indicated that there was long distance to health care facility (26; 36.6%). Men who indicated that there was no long distance to the health care facility were 2.21 [95% CI=1.01-4.84, p=0.047] times more likely to have high health seeking behavior compared to men who indicated that there was long distance to the health care facility (Table 5).

Table 4: Health Institution-related factors influencing health seeking behaviors among men suffering from LUTS.

Variables	N	Percentages (%)
There are adequate drugs		
No	41	36.6
Yes	71	63.4
Being treated well by the health care workers		
No	31	27.7
Yes	81	72.3
Short duration time taken to be served in the hospital		
No	57	50.9
Yes	55	49.1
Adequate screening/testing resources		
No	59	52.7
Yes	53	47.3
Adequate personnel		
No	35	31.3
Yes	77	68.8
Tedious screening/ testing methods		
No	77	68.8
Yes	35	31.3
Treatment is expensive		
No	33	29.5
Yes	79	70.5
Long distance to the health care facility		
No	41	36.6
Yes	71	63.4

Table 5: Association between health institution-related factors and high health seeking behaviors among men suffering from LUTS.

Variables	HHSB		LHSB		OR	95%CI		P value
	N	%	N	%		Lower	Upper	
Adequate drugs								
No	11	26.8	30	73.2	Ref			0.007
Yes	38	53.5	33	46.5	3.14	1.36	7.23	
Being treated well by the health care workers								
No	8	25.8	23	74.2	Ref			0.021
Yes	41	50.6	40	49.4	2.95	1.18	7.36	
Adequate personnel								
No	10	28.6	25	71.4	Ref			0.032
Yes	39	50.6	38	49.4	2.57	1.09	6.06	

Continued.

Variables	HHSB		LHSB		OR	95%CI		P value
	N	%	N	%		Lower	Upper	
Short duration time taken to be served in the hospital								
No	19	33.3	38	66.7	Ref			0.025
Yes	30	54.5	25	45.5	2.40	1.12	5.16	
Adequate screening/testing resources								
No	23	39	36	61	Ref			0.284
Yes	26	49.1	27	50.9	1.51	0.71	3.19	
Tedious screening/ testing methods								
No	34	44.2	43	55.8	1.05	0.47	2.36	0.898
Yes	15	42.9	20	57.1	Ref			
Treatment is expensive								
No	20	83.3	4	16.7	10.17	3.18	32.51	<0.001
Yes	29	40	59	67	Ref			
Is distance to the health care facility long								
No	23	56.1	18	43.9	2.21	1.01	4.84	0.047
Yes	26	36.6	45	63.4	Ref			

Responses from the key informants and participants during focused group discussion

Health institution related factors that were identified by the key informants and participants during the focused group discussions, two subthemes emerged namely cost of health care and human resource.

Sub-theme 1: Cost of health care.

It came out clearly that the cost of health care influenced health seeking behaviors among male patients with LUTS. This was reported by 48 participants. Specifically, one respondent noted that: *"Hospitals require a lot of money before being treated and getting that money is a problem in these difficult times" Respondent 3 FGD 4.*

Key informants seconded the above sentiments by stating that health care services were expensive and that majority of patients could not afford unless those with medical insurance covers. One of them noted that:

"Health care services in Kenya are expensive therefore most patients can't afford them" KI 3.

Sub-theme 2: health personnel

The respondents in the FGDs reported inadequate health personnel as a barrier for them to seek health care at the health facilities. This was reported by 30 participants. One of the respondents noted that:

"*Hospitals do not have enough doctors and nurses to treat us; sometimes you stay the whole day before you are treated*" *Respondent 3 FGD 1.*

DISCUSSION

Men who indicated that there was adequate drugs were 3.14 [95% CI=1.36-7.23, p=0.007] times, more likely to have high health seeking behavior compared to men who indicated that there was no adequate drugs at the hospital. Men who indicated that there were adequate personnel were 2.57 [95% CI=1.09-6.06, p=0.032] times, more likely to have high health seeking behavior compared to men who indicated that there were no adequate personnel. This was congruent to a study done in Nigeria which showed that 34.5% and 7.1% of respondents reported adequate staffing and availability of drugs respectively were necessary and this had a significant influence on their health seeking behavior.[9]

Men who indicated that they had been treated well by the health care workers were 2.95 [95% CI=1.18-7.36, p=0.021] times, more likely to have high health seeking behavior compared to men who indicated that they had not been treated well by the health care workers. Similarly, those who indicated that there was short duration time taken to be served in the hospital were 2.40 [95% CI=1.12-5.16, p=0.025] times, more likely to have high health seeking behavior compared to men who indicated that there wasn't short duration time taken to be served in the hospital. This was congruent to a study done in primary health care center in Dubai, which showed that waiting time had significant influence on health seeking behavior.[10] The main causes of prolonged waiting time were high workload, insufficient work procedure, employees-supervisor interaction problems and lack of adequate health resources.[10]

Men who indicated that treatment was not expensive were 10.17 [95% CI=3.18-32.51, p<0.001] times more likely to have high health seeking behavior compared to men who indicated that treatment was expensive. This was similar to study done in Meru Kenya on patient related factors influencing health seeking behavior among men suffering from LUTS which revealed that 78.6% (p<0.001) of the respondents agreed that lack of funds to cater for health care bill impended them from seeking health care.[11] This was also congruent to a study done on clinical care for patients with LUTS, which showed that high health care

cost was associated with the low health seeking behavior.[12]

Men who indicated that distance from their home to health care facility was not long were 2.21 [95% CI=1.01-4.84, p=0.047] times more likely to have high health seeking behavior compared to men who indicated that there was long distance to health care facility. Long distance leads to reduced accessibility of health facilities, as patients need to walk for a longer duration of time or use a lot of money to cater for transport cost.[13] This was similar, to a study done in Meru Kenya on Social cultural factors influencing health seeking practices among men suffering from LUTS attending surgical outpatient clinic at a county referral hospital in Kenya which showed that 58.9% (p<(0.001) of them were living within 10-15km from the health care facility and this had negative influence on health seeking behaviour.Also congruent to a study done in Denmark on cancer, which showed that distance had significance influence on health seeking behavior (p=0.02,OR=1). [14]

Therefore, the null hypothesis "there was no significant relationship between health institution related factors and health seeking behaviors among men suffering from LUTS attending surgical outpatient clinic at Meru county referral hospital", was rejected in favor of its alternative hypothesis which stated that "there was a significant relationship between institution-related factors and health seeking behaviors among men suffering from LUTS attending surgical outpatient clinic at Meru county referral hospital ".

Limitation

This study was limited by the fact that it was carried on men with LUTS who attended surgical outpatient clinic but it didn't address those who remained at home without seeking help and those that visited private hospitals for treatment of LUTS.

COCLUSSION

On the influence of health institution-related factors on health seeking behavior among men suffering from LUTS, adequate personnel 2.57 [95% CI=1.09-6.06, p=0.032], adequate drugs were 3.14 [95% CI=1.36-7.23, p=0.007], treated well by the health care workers 2.95 [95% CI=1.18-7.36, p=0.021], short duration time taken to be served in the hospital were 2.40 [95% CI=1.12-5.16, p=0.025] and distance to the health facility 2.21 [95% CI=1.01-4.84, p=0.047],were significant parameters associated with health seeking behavior

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Parsons JK. Benign prostatic hyperplasia and male lower urinary tract symptoms: Epidemiological risk factors. Curr Bladder Dysfunction Rep. 2010;5(4):212-8.
2. Nehilchare O, Kasivisvanathan V, Ellis H, Challacombe B. Anatomy, physiology of large Prostate: The Big Prostate Springer, Cham. 2017.
3. Irwin D, Kopp Z, Agatape B, Milson I, Abram P. Worldwide prevalence of lower urinary tract symptoms, overactive bladder, urinary incontinence and bladder outlet obstruction. BJU Int. 2011;108:1132-9.
4. Ojewola W, Ezekiel S, Olanrewaju S, Ezra O, Taiwo A. Lower urinary tract symptoms: prevalence perceptions and health care seeking behavior amongst Nigerian men. Afr J World J Men's Heal. 2016;34(3):200-8.
5. Musau P, Kemei W, Wakhisi J. Clinical Characteristics of African Men with prostate diseases in a tertiary centre in western Kenya. East Central Afr J Surg. 2014;41(10):89-160.
6. Chong C, Fong L, Lai R, Koh Y, Lau W, Hartmann M, Chia S. The prevalence of lower urinary tract symptoms and treatment-seeking behavior in males over 40 years in Singapore: a community-based study. Prostate cancer and prostatic diseases. Houndmills. 2012;15(3):273-7.
7. Ikene I, Ijeoma O, Chimwe A. Lower urinary tract symptoms in men: challenges to early hospital presentation in a resource-poor health system. BMC Urol. 2020;20(1):87.
8. Matoke VO. Health seeking behavior associated with prostatism among men aged over forty in Nyamira county Kenya. 2018.
9. Latunji A. Factors influencing health-seeking behavior among civil servants in Ibadan, Nigeria. Afr J. 2018;16(1).
10. Aburayya A, Alshurideh M, Albqaeen A, Alawadhi D, Ayadeh I. An investigation of factors affecting patients waiting time in primary health care centers: An assessment study in Dubai. J Growing Sci. 2014;10(6),1265-76.
11. Muriuki FM, Mbithi BW, Oluchina S, Kirigia C. Influence of patient related factors on health seeking behaviors among men with lower urinary tract symptoms attending surgical outpatient clinic at Meru Level Five Hospital, Kenya. Int J Community Med Public Health. 2020;7(10):4118-24.
12. Griffith J, Messersmith E, Gilespie B, Wiseman J, Flynn K, Flynn K et al. Reasons for seeking clinical care for lower urinary tract symptoms. J Urol. 2017;199(2):528-35.
13. Muriuki FM, Mbithi BW. Oluchina S. Social cultural factors influencing health seeking practices among men suffering from lower urinary tract symptoms attending surgical outpatient clinic at a county referral hospital in Kenya. Int J Adv Nursing Studies. 2020;9(1):42-6.

14. Line V, Henrick M, Peter V. Cancer diagnostic delays and travel distance to health services: A nationwide cohort study in Denmark. Cancer Epidemiol. 2019;59(3):115-22.

Cite this article as: Muriuki FM, Mbithi BW, Oluchina S. Influence of health institution related factors on health seeking behaviors among men suffering from lower urinary tract symptoms attending surgical outpatient clinic at a county referral hospital Meru Kenya. Int J Community Med Public Health 2023;10:1011-8.