

## Influence of Patient Related Factors on Health Seeking Behaviours among Men with Lower Urinary Tract Symptoms attending Surgical Out Patient Clinic at Meru Level Five Hospital, Kenya

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### ABSTRACT

**Background:** Currently there are increased cases of men presenting with Lower Urinary Tract Symptoms (LUTS) especially in low resource countries. These symptoms may or may not be related to prostate cancer and health seeking behaviours are not clear.

**Purpose:** To establish the influence of patient related factors on health seeking behaviours for Lower Urinary Tract Symptoms (LUTS) among men attending surgical outpatient clinic at Meru hospital, Kenya.

**Methods:** Descriptive cross-sectional study design was used. The study population involved 120 men suffering from LUTS, 2 physicians and 2 nurses. Questionnaires and interview guides were used for data collection. Study period was from August 2018 to March 2020.

**Results:** Majority (67.0%) of the patients with LUTS were aged between 61-70 years. Also, the majority (68.8%) of the respondents had primary level of education. The findings also pointed out majority (72.0%) of the patients were farmers with income level of below Ksh. 20,000. Logistic regression was used whereby P-values determine the statistical significance of results with cut off set at ( $p \leq 0.05$ ). The inferential statistics pointed out that patient related factors test items had a statistical significant influence since the p-values were found to be less than 0.05 at 95% confidence interval.

**Conclusion:** There was a significant negative influence of patient related factors such as lack of knowledge, low income levels and distance to health care facilities on health seeking practices. Therefore patients seek medical attention when quality of their lives has been threatened. The study recommends adopting measures of rising awareness on need for seeking early medical attention and initiate outreach health services in underserved areas or through telehealth.

**Keywords:** Factors, Health, Seeking, Behaviours, LUTS.

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**BACKGROUND**

Lower urinary tract symptoms (LUTS) describes 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 ([Parsons, 2010](#)). The human prostate is the cause of Benign Prostate Hyperplasia(BPH) and Prostate Cancer (Pca) which mostly accounts for Lower urinary Tract Symptoms ([Nehilchare et al, 2017](#)). 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, and 2.3 billion in 2018 will be affected 44.7% of men ([Irwin et al, 2011](#)).

A study conducted in Brazil's first countrywide epidemiological study of LUTS, the prevalence of LUTS in men was conveyed to be 69%, with 21% of participants under study revealing moderate-to-severe symptoms that justified treatment consideration ([Soler et al, 2017](#)). A study conducted in Taiwan, revealed that urinary symptoms were the main reason for majority 71.3% of LUTS patients to seek health care services. Other reasons included fear of prostate cancer 8.9%, request by family or friends 1.0% and through physician review 14.9%. Additionally, half of all LUTS patients would wish to reduce the risk of long term complications such as LUTS related surgeries and acute urinary retention ([Huafan et al, 2017](#)). Correspondingly, a population-based study done on Nigerian men who were above the age of 40 years found out that the overall prevalence of LUTS/BPH was 59.1% ([Ojewola et al, 2016](#)). Equally 1 out of 4 men with LUTS/ BPH in Uganda spends money for transport to clinic due to LUTS/ bladder outflow obstruction (BOO) despite low economic resources ([Stothers et al, 2017](#)).

Men hold the belief that blood in urine and painful micturition are the warning signs to seek health care and this delays health seeking care. In addition to this, men believe that urinary symptoms especially dribbling and hesitancy are associated with ageing and that sexual changes are secretive and a taboo ([Michellekinng et al, 2017](#)). This may be a barrier towards seeking health care services. Equally, according to a study done in Nigeria about preventive and treatment of LUTS two thirds 72.1% of the subjects had complications of LUTS/BPH. This was because they presented themselves to the health care late and major reason being poor health seeking behavior which has been due to poor social economic status ([Ugwumba et al, 2014](#)). In Kenya, the health sector through the National Reproductive Health Policy, 2007 and the National Reproductive Health Strategy, 2009-2015 provide the policy framework, with cancers of the reproductive organs being priority components ([Ministry of Health Kenya, 2010](#)). Currently there are no documented studies that have been carried out at Meru Level Five Hospital on determinant of health seeking behavior for Lower urinary tract symptoms (LUTS). This formed the foundation of this study which is to determine the influence of patient related factors on health seeking behaviors of Lower urinary tract symptoms (LUTS) among patients attending surgical outpatient clinic at Meru Level Five Hospital.

In USA there is increased prevalence of LUTS, where by 41% of the total respondents under study had moderate/severe symptoms ([Wallner et al, 2014](#)). In Korea the prevalence of moderate to severe LUTS in those who had not been diagnosed with LUTS was 64.5% ([Jung et al, 2017](#)). In addition, the burden of LUTS is expected to increase mostly in developing regions of Africa at 30.1 -31.1% in 2008 -2018 ([Irwin et al, 2011](#)). In Nigeria the prevalence of LUTS was 66% of the total population under study and the severity increases with increase in age ([Olapade et al, 2015](#)). In Uganda the prevalence of moderate and severe LUTS were 40.5% and 20% respectively in men aged 55 years and above ([Francis et al, 2018](#)). Despite the increase in prevalence of LUTS, extensive research on LUTS, patients'

health seeking behaviors are not well documented. The findings may be used to restructure, strengthen and improve existing LUTS preventive and treatment programs in Meru and other parts of the country.

**OBJECTIVE**

The main aim of the study was to establish 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.

**METHODS**

*Research Design*

The design of the study was descriptive cross-sectional design. The study adopted this method because it allowed gathering of the information without influencing it in any way as it is naturally occurring at a specific point in time, then summarizing, presenting and interpreting the data in a clear way. Both qualitative and quantitative data collection methods were used in the study. These included the use of questionnaires, focused group discussion and key informant interviews. The use of both qualitative and quantitative method was to ensure there is potential reliability of the data as there was more in-depth information.

*Study Area*

The study was carried out at Meru level five hospital surgical outpatient clinic. The clinic attends about 60 LUTS patients per month. The clinic was chosen because it's the referral point for all the patients with LUTS who are referred to Meru teaching and referral hospital from all over Meru County. It's at this clinic where LUTS patients are reviewed and relevant management planned and instituted depending on condition. The researcher was able to assess all LUTS patients referred specifically to this clinic here and those with appointments.

*Study Population*

**Table 1: Study Population**

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Respondents	Population
Patients	120
Physician	2
Nurse	2
<b>TOTAL</b>	<b>124</b>

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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).

**Inclusion Criteria**

The study included male patients who were above 40 years of age with LUTS since mostly LUTS starts above 40 years.

**Exclusion Criteria**

The study excluded patients who had mental illness or neurological diseases which affects bladder emptying, patients with other chronic conditions like diabetes were also excluded.

## **Sampling Procedure**

Sampling is the process of choosing the research units of the target population which are to be included in the study. The study used the census thus sample size was 120 LUTS patients, 2 Physician and 2 nurses.

### *Data Collection Instruments*

The data collection instruments were questionnaires and interview guide. The interview guides were used to collect information from key informants while questionnaires were used to gather information from LUTS patients.

### *Questionnaires*

Semi-structured questionnaires were administered to LUTS patients. The questionnaires contained both closed and open ended questions. Closed questions consisted of a fixed set of questions.

### *Interview guide*

The interview guide was utilized to obtain information from the key informants who were the physicians and nurses working at Meru level five surgical outpatient clinic. The interview guide contained questions on LUTS prevalence in Meru County, the health seeking practices among patients with LUTS, factors that may influence health seeking practices among patients with (LUTS) and the screening options available for LUTS among patients in Meru County. Focused group discussion was conducted to gather more information on social cultural factors influencing health seeking practices for LUTS among selected group of 8 patients who didn't participate in filling of the questionnaires

### *Pretesting of the Instruments*

Pretest of the study was conducted at Embu level five hospitals a neighboring county referral hospital that also has surgical outpatient clinic for patients suffering from LUTS. The results of the pretest were analyzed and the information obtained helped to identify flaws and ambiguities and made improvement to the research instruments..

## **Validity of the Instruments**

To enhance validity of the instruments, the questionnaires and interview guide were reviewed with the help of the supervisors on its relevance to the topic under study.

## **Reliability of Instruments**

To enhance reliability of the data that was collected the researcher employed split-half technique. The data values that was collected during pretesting was operationalized and the numerical scores split into two using 'old number versus even number items' process to get two sets of values which were correlated using Pearson Product Moment Correlation Coefficient and Spearman's Rank Correlation Coefficient to calculate the coefficient of relationship.

## **Data Collection Procedure**

The questionnaires were used to collect data from the respondent where by the principal investigator and assistants read and interpreted the questionnaires to the respondent in a language they understood and filled appropriately for those who were not able to read and write. Those respondents who were able to read and write the questionnaires were explained to them and then administered to them. Administering the questionnaires was done after LUTS patients had been attended by the nurses and physicians at the clinic.

Interview guide was used to collect data from key informants who were the physicians and nurses working at surgical outpatient LUTS clinic Meru level five hospital. Key informants were interviewed when they were free and available.

Focused group discussion was conducted on a clinic day to gather more information on social cultural factors that influence health seeking practices for LUTS, whereby a group of

8 patients who didn't participate in filling of questionnaires were selected and the information collected inform of notes and tapes.

*Data Analysis and Presentation Techniques*

Qualitative and quantitative data analysis techniques was used to analyze the data gathered. The responses were given codes and entered for computer analysis using computer software Statistical Package for Social Sciences (SPSS) version 22. Descriptive analysis was used to analyze quantitative data to generate the mean, standard deviation and frequencies. On inferential analysis, 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. This data was transcribed coded and organized into themes, categories and patterns related to the study objectives and then reported in both descriptive and narrative.

*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 Council of Science and Technology (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. The respondents were also assured of strict confidentiality during the period of study by ensuring that their names didn't appear anywhere. This was also done to de-link the respondents from the information that they had given so that whatever a respondent said could not be used to identify them. The researcher and the assistants read and translated the questionnaires in a language that the patients understood and ticked the information correctly. Informed consent was obtained from the respondents before data collection. Data was stored in safe place where by hard copies were stored in locked cupboard and the soft copies stored in a computer with password.

**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. This was 100% response rate.

*Respondents' Social Demographic Characteristics.*

**Table 2: Demographic Characteristics**

<b>Age Distribution</b>	Frequency	Percent
40-50 years	3	2.7
51-60 years	20	17.9
61-70 years	75	67.0
above 70 years	14	12.5
Total	112	100.0
<b>Religion</b>		
Catholic	72	64.3
Protestants	29	25.9

Muslims	6	5.4
Others	5	4.4
<b>Marital Status</b>		
Married	99	88.4
Single	2	1.8
Widowed	8	7.1
Separated	3	2.7
Total	112	100.0
<b>Level of Education</b>		
None	7	6.3
Primary	77	68.8
Secondary	22	19.5
College	5	4.5
University	1	0.9
Total	112	100.0
<b>Income Level</b>		
below 20,000	87	77.7
20,000-50,000	19	17.0
50,000-100,000	6	5.3
Total	112	100.0
<b>Resident</b>		
Town	32	29.0
Rural	80	71.0
<b>Occupation</b>		
Office work	6	6.0
Business	10	9.0
Casual work	15	13.0
Farmer	81	72.0

**Age of the Respondents.**

The findings indicated that 3(2.7%) of the respondents were aged between 40-50 years, 20 (17.9%) of the respondents were aged between 51-60 years, 75(67.0%) of the respondents were aged between 61-70 years and 14(12.5%) of the respondents were aged 70 years and above (Table 2).

**Religion of Respondents.**

The findings pointed out that 72(64.3%) of the respondents were catholic, 29(25.9%) of the respondents were Protestants, 6(5.4%) of the respondents were Muslims, and 5(4.4%) of the respondents belonged to other religions (Table 2).

**Respondents' Marital Status**

The findings indicated that 99(88.4%) of the respondents were married, 2(1.8%) of the respondents were single, 8(7.1%) of the respondents were widowed, 3(2.7%) of the respondents were separated (Table 2).

**Respondents' Residential Region**

The results indicated that 32(29.0%) of the respondents were from town, and 80(71.0%) of the respondents were from rural regions (Table 2).

**Respondents' Level of Education**

The results pointed out that 7 (6.3%) of the respondents had none of education level, 77(68.8%) of the respondents had primary level of education, 22(19.5%) of the respondents

had secondary level of education, 5(4.5%) of the respondents have college level of education, and 1(0.9%) of the respondents had a university level of education (Table 2).

**Respondents' Occupation**

The results pointed out that 6(6.0%) of the respondents had office work occupation, 10(9.0%) of the respondents had business occupation, 15(13.0%) of the respondents had casual works kind of occupation, and 81(72.0%) of the respondents had farming as their occupation (Table 2).

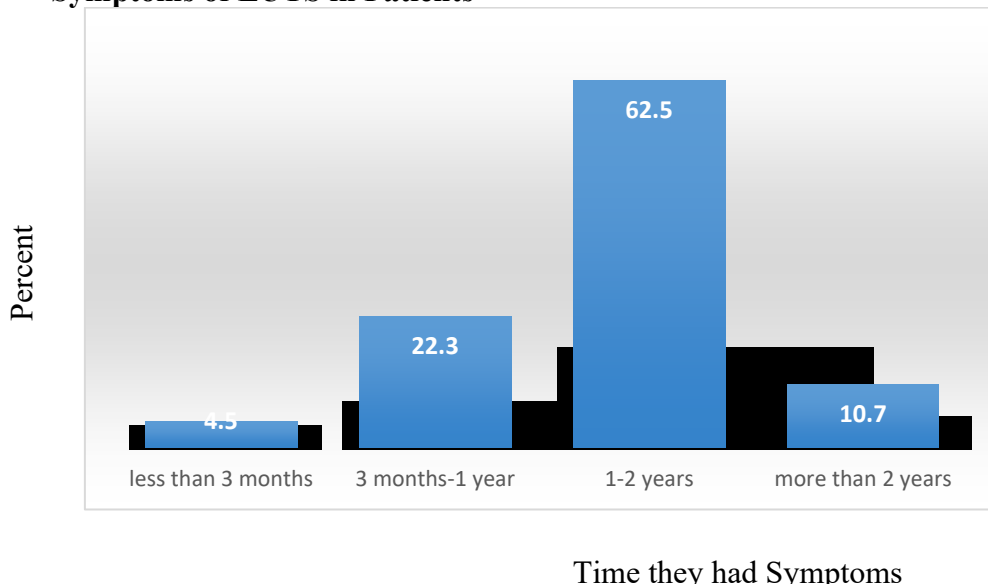
**Respondents' Level of Income**

The results pointed out that 87(77.7%) of the respondents had their income level below Kshs.20, 000, 19(17.0%) of the respondents had their income level between Kshs. 20,000-50,000, 6(5.3%) of the respondents had their income level between Kshs. 50,000-100,000, none of the respondents had their income levels above Kshs. 100,000 (Table 2).

*Health Seeking Practices in LUTS*

The researcher also sought to determine the health seeking practices in LUTS of the patient respondents. The information was analysed and results presented in the subsequent sections:

**Symptoms of LUTS in Patients**



**Figure 1: Symptoms of**

**LUTS**

The researcher sought to determine the length of time the patients have been having the LUTS symptoms. The findings indicated that 5(4.5%) of the respondents had experienced LUTS symptoms for less than 3 months. The results further pointed out that 25(22.3%) of the respondents had LUTS symptoms for between 3 months and 1 year. Moreover, 70(62.5%) of the respondents had experienced the LUTS symptoms for between 1 and 2 years, and 12(10.7%) of the respondents had been in possession of LUTS symptoms for more than 2 years (Figure 1).

The respondents of the key informants on the average time LUTS patient take before seeking health care was 6 months up to 2 years. The key informant responded,

*“men with LUTS usually don't visit health facility immediately they experience the symptoms they take around 6months to 2 years before seeking care until the symptoms are worse (KI A).*

On the prevalence of LUTS in Meru, the key informants responded that it's a common condition.

*“LUTS is a very common condition in Meru among men who are over 40 years of age and above and majority of them are not aware of this condition” (KI C)*

Based on the respondents of focused group discussion on what was their understanding of Lower urinary tract symptoms some said it was weak urine flow, others said it was unable to pass urine while a few felt it was painful urination while some said it was urinating small volume of urine.

The focused group respondents said,

*“Lower urinary tract symptom is condition where one urinates small amount of urine at a time” (FG B).*

*“Lower urinary tract symptom is when one has weak urinary flow which has loss of power” (FG E).*

*“Lower urinary tract symptoms is being unable to urinate while and this may be accompanied by pain” (FG G)*

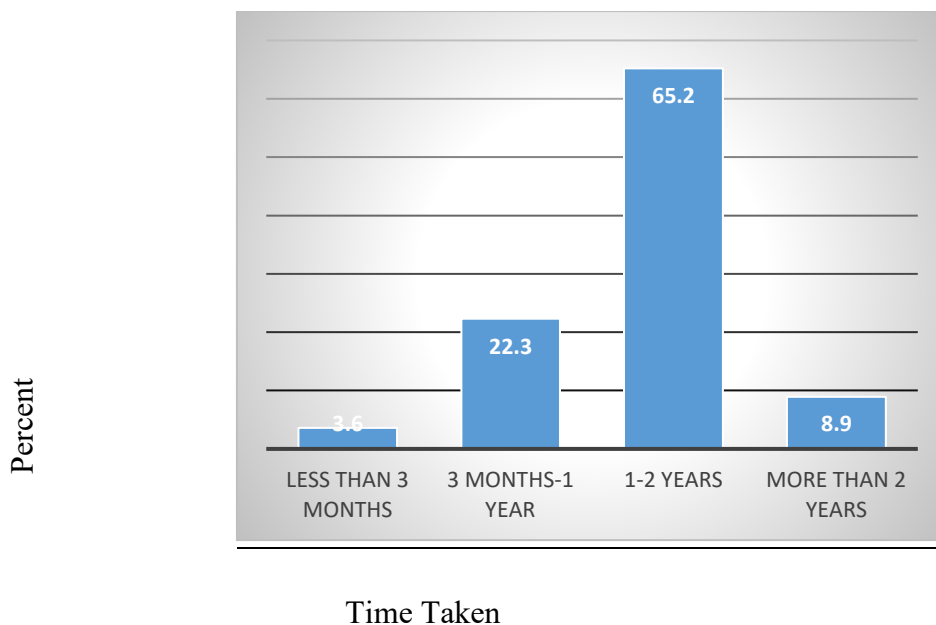
**Medical facility Help for LUTS Patients**

**Table 3: Medical facility**

Medical facility help	Frequency	Percent
No	85	76.0
Yes	27	24.0
Total	112	100.0

The researcher sought to determine whether the LUTS patients sought help from the health care facility immediately when they realized that they had LUTS symptoms.

The findings showed that 85(76.0%) of the respondents declined that they sought for medical help from the health facility, and 27(24.0%) of the respondents agreed that they sought for medical help from the health facility. (Table 3)



**Figure 2: Medical Assistance**



To further determine seeking of help from medical facility for those who didn't do so immediately they experienced the symptoms the researcher sought to assess time duration the respondents took before they sought medical care help from health facility when they experienced the symptoms.

The findings pointed out that 4(3.6%) of the respondents took less than 3 months, 25(22.3%) of the respondents took between 3 months- 1 year, 73(65.2%) of the respondents took above 1 to 2 years, and 10(8.9%) of the respondents took more than 2 years before seeking for medical assistance from the health care facility (Figure 2).

Based on the respondent's views on the focused group discussion, majority noted that they did not seek medical assistance immediately they realized they had lower urinary tract symptoms. They also noted that they were not aware whether the urinary symptoms were a problem. Majority of the focused group also noted that they were not aware whether they had a problem since they just thought it was normal ageing process, some thought it was a normal infection hence visited dispensary where they were treated with antibiotics. at dispensary . They also sought for the information from other person who noted that it was normal. The focused group informants said

*“I was not aware whether the LUTS were a problem” (FG A).*

*“I thought it was a normal ageing process for men” (FD G).*

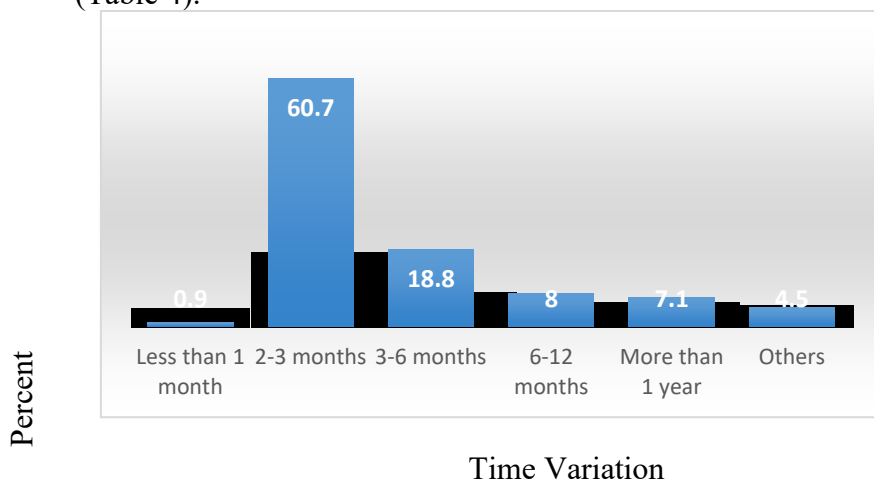
*“When I experienced the symptoms I didn't bother but when it progressed I went to seek information from another elderly man who told me it was normal” (FG C).*

**Adherence to Clinic Appointments**

**Table 4: Clinic Adherence**

Response	Frequency	Percent
No	28	25.0
Yes	84	75.0
Total	112	100.0

The researcher also sought to determine whether the LUTS patients adhered to their clinic appointments. The results showed that 28(25.0%) of the respondents agreed that they did not adhere to their clinic appointments, and the 84(75.0%) of the respondents pointed out that they adhered to their clinic appointments as stipulated by their medical care practitioners (Table 4).



**Figure 3: Time Variation**

The findings indicated that 1(0.9%) of the respondents took a time variance of less than 1 month, 68(60.7%) of the respondents took a time variance of between 2 and 3 months, 21(18.8%) of the respondents took a time variance of between of 3 and 6 months, 9(8.0%) of the respondents indicated that they took a time variance of between 6 and 12 months, 8(7.1%) of the respondents took a time variance of more than 1 year, and 5(4.5%) of the respondents took other time variances (Figure 3).

The reasons that majority of the respondents gave for the variance of not adhering to clinic appointments was financial constraints, long distance to the health facility and others bought over the counter medication to relief symptoms

**Patient Related Factors Influencing Health Seeking Practices in LUTS Patients**

**Table 5: Hindering Factors**

Statement	No	Yes
Lack of information on when to seek for health care	23(19.2%)	97(80.8%)
Screening/testing for LUTS has cultural attachment	91(75.8%)	29(24.2%)
Lack of funds to cater for health care bill	39(21.4%)	88(78.6%)
Men with LUTS prefer traditional treatment over convectional one	81(72.3%)	20(27.7%)
Any other	34(28.3%)	86(71.7%)

The researcher sought to determine the influence of patient related factors on health seeking practices in LUTS. The researcher utilized different test items to test for the influence of patient related factors on health seeking practices in LUTS.

The researcher first sought for the possible patient related factors that hinder people from seeking or getting screening or testing for LUTS. The researcher utilized five test items to determine the possible reasons.

The results pointed out that; 80.8% of respondents agree that they lack information on when to seek for health care, and 19.2% of the respondents declined that they do not lack information on when to seek for health care, 24.2% of the respondents agreed that screening or testing for LUTS has cultural attachment, and 75.8% declined that screening or testing for LUTS has cultural attachment, 78.6% of the respondents agreed that lack of funds to cater for health care bill, and 21.4% of the respondents declined that lack of funds to cater for health care bill hinder people from getting screening or testing for LUTS, 27.7% of the respondents noted that men with LUTS prefer traditional treatment over convectional one, and 72.3% of the respondents declined that mean with LUTS prefer traditional treatment over convectional one, and 71.7% of the respondents agreed that other factors hinder people from getting screening or testing for LUTS, and 28.3% of the respondents declined that other factors hinder people from getting screening or testing for LUTS (Table 5).

Based on the findings of the health practitioners respondent’s views as to why patients with LUTS do not seek screening or testing, it was identified that majority of the patients lack knowledge and awareness about the symptoms and disease adversity, lack of early detection from peripheral facilities, financial constraints on the patients and also noted that patient they fear to loose sexual function after testing and treatment. The key informant said

*“Most men with LUTS lack knowledge and awareness about the symptoms and disease entity and most of peripheral facilities fail to detect the condition early” (KI D).*

*“Most men with LUTS fail to visit health care providers because of financial constraints hence they can’t afford testing and screening services (KI B.)*

Based on the constraints the medical personnel face or encounter as far as offering the quality medical care to LUTS patients, majority of the health respondents noted that patients come to clinic late at every advanced late, the patients lack knowledge on the symptoms and disease entity, and that they don't comply with clinic and disease management due to financial problems. When asked on how the mentioned challenges can be addressed, majority of the medical personnel noted that patient education to create awareness about the disease entity, early screening and testing for LUTS to include digital rectal exam, PSA, and prostate ultrasound. They also noted that addressing of financial problem by introducing insurance covers to cater for all patients in both screening or testing and treatment for example NHIF, and universal health care cover. The key informants said

*“There is need for an elaborate patient education programs to create awareness about the disease entity and instituted measures of early screening for LUTS which will help curve the problem early enough”*  
(KI A)

*“Financial problems should be addressed by introduction of insurance medical schemes and universal health coverage for every citizen”* (KI D)

The researcher also sought for the possible patient related factors that propel men to seeking or getting screening or testing for LUTS treatment. The researcher utilized six test items to ascertain the possible factors that propel people to seeking for LUTS treatment.

The results pointed out that; 69.6% of respondents agree that disturbing symptoms propel them to seek for LUTS screening and treatment, and 30.4% of the respondents declined that disturbing symptoms propel them to seek for LUTS screening and treatment, 70.5% of the respondents agreed that adverse effect on quality of life is the reason to seek screening and treatment, and 29.5% declined that adverse effect on quality of life is the reason to seek screening and treatment, 81.3% of the respondents agreed that fear of having prostate cancer is the reason to seek for screening and LUTS treatment, and 18.7% of the respondents declined that fear of having prostate cancer is the reason to seek for screening and LUTS treatment, 71.4% of the respondents noted that fear of other complications are the reasons for seeking for LUTS screening and treatment, and 28.6% of the respondents declined that fear of other complications are the reasons for seeking for LUTS screening and treatment, and 70.5% of the respondents agreed that fear of embarrassment due to urinary retention is the reason to seek for screening and treatment of LUTS, and 29.5% of the respondents declined that fear of embarrassment due to urinary retention is the reason to seek for screening and treatment of LUTS, and 67.9% of the respondents agreed that other reasons push them to seek for screening and testing for LUTS, and 32.1% of the respondents declined that other reasons make them seek for screening and treatment of LUTS (Table 5).

#### *Factors Influencing Health Seeking Practices in LUTS Patients*

**Table 6: Influencing Factors**

Statement	No	Yes
Disturbing of the symptoms	34(30.4%)	78(69.6%)
Adverse effect on quality of life	39(29.5%)	79(70.5%)
Fear of having prostate cancer	21(18.7%)	91(81.3%)
Fear of other complications	22(28.6%)	80(71.4%)
Fear of embarrassment due to urinary retention	33(29.5%)	79(70.5%)
Any other	36(32.1%)	76(67.9%)

The researcher also sought to determine the factors influencing the health seeking practices of LUTS of the patient respondents. The factors considered included; social cultural factors, patient related factors, and institutional related factors among LUTS patients.

The researcher also sought to determine the influence of these on the health seeking practices of LUTS patients. The researcher carried out logistic analysis and inferential statistics. The findings were discussed under the following subsections.

### **Patient Related Factors and Health Seeking Practices**

Under this section, the researcher utilized several test items including what hinders LUTS patients from seeking test for LUTS, and LUTS patients' opinions on what the reasons as to why people seek LUTS screening and their feelings about screening or testing for LUTS. The researcher carried out logistic analysis to ascertain the influence of the identified patient related factors on the health seeking practices.

The results pointed out that; 80.8% of respondents agree that they lack information on when to seek for health care, and 19.2% of the respondents declined that they do not lack information on when to seek for health care, 24.2% of the respondents agreed that screening or testing for LUTS has cultural attachment, and 75.8% declined that screening or testing for LUTS has cultural attachment, 78.6% of the respondents agreed that lack of funds to cater for health care bill, and 21.4% of the respondents declined that lack of funds to cater for health care bill hinder people from getting screening or testing for LUTS, 27.7% of the respondents noted that men with LUTS prefer traditional treatment over convectional one, and 72.3% of the respondents declined that mean with LUTS prefer traditional treatment over convectional one, and 71.7% of the respondents agreed that other factors hinder people from getting screening or testing for LUTS, and 28.3% of the respondents declined that other factors hinder people from getting screening or testing for LUTS.

Based on the findings of the health practitioners respondent's views as to why patients with LUTS do not seek screening or testing, it was identified that majority of the patients lack knowledge and awareness about the symptoms and disease adversity, lack of early destruction from peripheral facilities, they also noted that they fear to loose sexual function after testing and treatment.

Based on the constraints the medical personnel face or encounter as far as offering the quality medical care to LUTS patients, majority of the health respondents noted that patients come to clinic late at every advanced late, the patients lack knowledge on the symptoms and disease entity, and that they comply with clinic and disease management due to financial problems. When asked on how the mentioned challenges can be addressed, majority of the medical personnel noted that patient education to create awareness about the disease entity, early screening and testing for LUTS to include digital rectal exam, PSA, and prostrate ultrasound. They also noted that addressing of financial problem by introducing insurance covers to cater for all patients in both screening or testing and treatment for example NHIF, and universal health care cover.

The researcher also sought for the possible patient related factors that propel people to seeking or getting screening or testing for LUTS treatment. The researcher utilized six test items to ascertain the possible factors that propel people to seeking for LUTS treatment. The information was analyzed and finings presented (Table 6).

The findings pointed out the possible opinions in regards to reasons as to why people seek for getting screening or testing for LUTS treatment. The results pointed out that; 69.6% of respondents agree that disturbing symptoms propel them to seek for LUTS screening and treatment, and 30.4% of the respondents declined that disturbing symptoms propel them to seek for LUTS screening and treatment, 70.5% of the respondents agreed that adverse effect on quality of life is the reason to seek screening and treatment, and 29.5% declined that

adverse effect on quality of life is the reason to seek screening and treatment, 81.3% of the respondents agreed that fear of having prostate cancer is the reason to seek for screening and LUTS treatment, and 18.7% of the respondents declined that fear of having prostate cancer is the reason to seek for screening and LUTS treatment, 71.4% of the respondents noted that fear of other complications are the reasons for seeking for LUTS screening and treatment, and 28.6% of the respondents declined that fear of other complications are the reasons for seeking for LUTS screening and treatment, and 70.5% of the respondents agreed that fear of embarrassment due to urinary retention is the reason to seek for screening and treatment of LUTS, and 29.5% of the respondents declined that fear of embarrassment due to urinary retention is the reason to seek for screening and treatment of LUTS, and 67.9% of the respondents agreed that other reasons push them to seek for screening and testing for LUTS, and 32.1% of the respondents declined that other reasons make them seek for screening and treatment of LUTS.

To further test for the influence of the patient related factors on health seeking practices, the logistic regression was carried out for every test variable where the p-value was compared with table value at 95% confidence level. The findings depicted that the p-values of; Lack of information on when to seek for health care ( $p=0.000$ ), screening/testing for LUTS has cultural attachment ( $p=0.007$ ), lack of funds to cater for health care bill ( $p=0.001$ ), men with LUTS prefer traditional treatment over convectional one (0.004), disturbing symptoms (0.003), adverse effect on quality of life (0.004), fear of having prostate cancer (0.001), fear of other complications (0.003), Fear of embarrassment due to urinary retention (0.002), and any other factor (0.001) were less than 0.005 except screening/testing for LUTS has cultural attachment ( $p=0.007$ ) $>0.005$  implying that all patient related factors had a statistical significant influence on health seeking practices (Table 6).

**Table 7: Patient Related Factors and Health Seeking Practices**

<b>Statement</b>	<b>No</b>	<b>Yes</b>	<b>P-value</b>
Lack of information on when to seek for health care	23(19.2%)	97(80.8%)	<b>0.000</b>
Screening/testing for LUTS has cultural attachment	91(75.8%)	29(24.2%)	0.007
Lack of funds to cater for health care bill	39(21.4%)	88(78.6%)	<b>0.001</b>
Men with LUTS prefer traditional treatment over convectional one	81(72.3%)	20(27.7%)	<b>0.004</b>
Any other	34(28.3%)	86(71.7%)	<b>0.002</b>
<b>Statement</b>	<b>No</b>	<b>Yes</b>	
Disturbing symptoms	34(30.4%)	78(69.6%)	<b>0.003</b>
Adverse effect on quality of life	39(29.5%)	79(70.5%)	<b>0.004</b>
Fear of having prostate cancer	21(18.7%)	91(81.3%)	<b>0.001</b>
Fear of other complications	22(28.6%)	80(71.4%)	<b>0.003</b>
Fear of embarrassment due to urinary retention	33(29.5%)	79(70.5%)	<b>0.002</b>
Any other	36(32.1%)	76(67.9%)	<b>0.001</b>

**DISCUSSION****Health Seeking Practices**

The findings pointed out that the majority (62.5%) of the respondents had experienced the LUTS symptoms for between 1 and 2 years. It was also determined that majority (76.0%) of the respondents declined that they sought for medical help from the health facility immediately they experienced LUTS symptoms whereby majority (65.2%) of the

respondents took between 1 and 2 years to seek medical assistance. This was in agreement with a study conducted in Nigeria about preventive and treatment of LUTS where two thirds (72.1%) of the subjects had complications of LUTS/BPH. This was because they presented themselves to the health care late and major reason being poor health seeking behavior which has been due to poor social economic status ([Ugwumba et al, 2014](#)). Also, the majority (60.7%) of the respondents took a time variance of between 2 and 3 months before seeking medical help and the majority (75.0%) of the respondents pointed out that they do adhere to their clinic appointments as stipulated by their medical care practitioners. whereas 25% don't adhere to appointment. This was in agreement with a study conducted in Sweden by ([Stranne et al, 2008](#)) which stated that of the men with international prostate symptom score of seven and above only 41% of them had consulted health care providers for their symptoms and that 40% of them didn't seek health care services despite their symptoms Also based on the respondent's views on the focused group discussion, majority noted that they did not seek medical assistance immediately they realized they had lower urinary tract symptoms. They also noted that they were not aware whether the urinary symptoms were a problem. Majority of the focused group also noted that they were not aware whether they had a problem since they just thought it was normal infection hence justified a dispensary when they were directed by the authorities. They also sought for the information from other person who noted that it was normal.

#### **Patient Related Factors and Health Seeking Practices**

The logistic regression was carried out for every test variable where the p-value was compared with table value at 95% confidence level. The findings depicted that the p-values of; Lack of information on when to seek for health care (p=0.000), screening/testing for LUTS has cultural attachment (p=0.007), lack of funds to cater for health care bill (p=0.001), men with LUTS prefer traditional treatment over convectional one (0.004), disturbing symptoms (0.003), adverse effect on quality of life (0.004), fear of having prostate cancer (0.001), fear of other complications (0.003), Fear of embarrassment due to urinary retention (0.002), and any other factor (0.001) were less than 0.005 except screening/testing for LUTS has cultural attachment (p=0.007)>0.005 implying that all patient related factors had a statistical significant influence on health seeking practices. These findings were in agreement with the findings of a study carried out in Taiwan on the health care seeking behaviors in BPH which exhibited that majority of patients (71.3%) reported that disturbing urinary symptoms were the principal reason why they sought medical advice. Other reasons included fear of prostate cancer (8.9%), attendance through physical check-up (14.9%), and a request by family or friends (1.0%). The findings were in agreement with a study done in Nigeria that revealed that the most common reason for seeking health care was disturbing symptoms which was at 58.85% of the respondents, with 37.1% being due to symptoms and fear of complications ([Ojewola et al, 2016](#)). Additionally men hold the belief that changes in sexual functions such as impotence and ejaculatory dysfunction were secretive, humiliating and a taboo, these beliefs impend timely help seeking ([Michellekinng et al, 2017](#)). Therefore the researcher rejected the hypothesis which stated that there are no patient related factors influencing health seeking practices among men with LUTS.

#### *Conclusion*

The research concluded that various factors such as residential proximity to the hospitals, income level, occupation and level of education influences the health seeking behavior among men with LUTS. Factors such as lack of proper knowledge and inadequate income level results to lower health seeking behavior among men with LUTS. In addition, the patients will only be compelled to seek medication or treatment from medical facility if there is adverse effect on the quality of life. Others are long distances from the health care facility

as well as expensive treatment. Moreover factors such as adequate knowledge, higher income level urban residence has positive influence on health seeking behavior among LUTS patients. Therefore, it is recommended that in order to facilitate better health seeking practices, patient related factors such as educating the residents in rural regions on the needs of seeking for medical attention as soon as they notice any disease symptoms. Cascading health services in underserved rural areas through outreach or even telehealth is also recommended.

**CONFLICTS OF INTEREST**

The authors declare no conflict of interest regarding publication of this paper.

**REFERENCES**

- Francis B, Lynn S, Vancouver B, Jonathan B and Adrew J (2018). Prevalence estimates for lower urinary tract symptoms severity among men in Uganda & Sub Saharan Africa based on regional prevalence data. *Canadian urological association journal*. 12(11):447-452. <https://doi.org/10.5489/cuaj.5105>
- HuaFan Y, Alex T, Yi-Hsiu Y and KuoChen K (2017). Health care-seeking behavior in benign prostatic hyperplasia patients. *Journal of urological science* 28(3):169-173 <https://doi.org/10.1016/j.urols.2016.12.003>
- Irwin D, Kopp Z, Agatape B, Milson I and Abram P (2011). Worldwide prevalence of lower urinary tract symptoms, overactive bladder, urinary incontinence and bladder outlet obstruction *BJU International*, 108:1132-1139 <https://doi.org/10.1111/j.1464-410X.2010.09993.x>
- Jung K, Kyu K, Ji N, Bo C and Hong M (2017). Social demographic factors related to lower urinary symptoms in men: A Korean community health survey. *International neurourology journal*. 21(2):143-151 <https://doi.org/10.5213/inj.1732760.380>
- Michellekinng, Arber A and Faithfull S (2017). Routes to diagnosis for men with prostate cancer: men's cultural beliefs about how changes to their bodies and symptoms influence help-seeking actions. *European Journal of Oncology Nursing* 30(1):48-58 <https://doi.org/10.1016/j.ejon.2017.06.005>.
- Ministry of Health Kenya (2010) National Reproductive Health Strategy 2009-2015. <https://www.k4health.org>.
- Nehilchare O, Kasivisvanathan V, Ellis H and Challacombe B (2017). *Anatomy, physiology of large Prostate* (eds). The Big Prostate Springer, Cham. [https://doi.org/10.1007/978-3-319-64704-3\\_1](https://doi.org/10.1007/978-3-319-64704-3_1)
- Ojewola W, Ezekiel S, Olanrewaju S, Ezra O and Taiwo A (2016). Lower urinary tract symptoms: prevalence perceptions and health care seeking behavior amongst Nigerian men. *African journal online. World J Men's Health* .34(3):200-208
- Olapade O, Owoaje E, Lapido M, Fadimu O, Muoka O and Adedeji T (2015). Frequency and patterns of lower urinary tract symptoms in a screened population of men above 40 years in Ibadan south west Nigeria. *Journal of west African college of Surgeons*. 5(4):60-78. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5020885/>
- Parsons J K (2010). Benign prostatic hyperplasia and male lower urinary tract symptoms: Epidemiological risk factors. *Current bladder dysfunction reports* 5(4):212-218. <https://doi.org/10.1007/s11884-010-0067-2>
- Soler R, Gomes C, Averbek M and Koyama M (2017). Prevalence of lower urinary tract symptoms in Brazil. *Journal of Neurology Urodynamics* 37(4):1356-1364 <https://doi.org/10.1002/nau.23446>.
- Stothers L, Adrew J, Francis B, Sharif M and Jonathan B (2017). Association between the severity of obstructive lower urinary tract symptoms and care seeking behavior in rural Africa, *Uganda Public Library of Science France*,12(3): [doi.org/10.1371/journal.pone.0173631](https://doi.org/10.1371/journal.pone.0173631)
- Stranne J, Damber J F, Hammarsten J, Knutson T and Pecker R (2008). One-third of the Swedish male population over 50 years of age suffers from lower urinary tract symptoms. *Scandinavian Journal of Urology and Nephrology* 43(3):199-205 <https://doi.org/10.1080/00365590902833747>



- Ugwumba F, Ozoema O, Okoh A, Echetaba K and Mbadiwe O (2014). Transvesical prostatectomy in the management of benign prostatic hyperplasia in a developing country. *Nigeria journal of clinical practice* 17(6). <https://doi.org/10.4103/1119-3077.144402>
- Wallner L, Slezak J, Loo R, Quinn V, Eeden S and Jacobsen S (2014). Progression and treatment of incidence of Lower urinary tract symptoms among men in the California men's health study. *British Journal of Urology International*. 115(1):127-133. <https://doi.org/10.1111/bju.12810>