



## Health Seeking Behavior For Benign Prostate Hyperplasia Among Patients In Kisumu Western Kenya

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### Key Words

Benign Prostate Hyperplasia, Symptoms, Treatment Seeking Behavior, Men

### ABSTRACT

**Objective:** This case series research design assessed the health seeking behavior of Benign Prostrate Hyperplasia patients as a proxy of health conditions among the aged population.

**Methods:** The study evaluated symptoms presented at the visit to Kisumu County Hospital (KCH) Western Kenya, the reasons for delay in seeking care and the complications at the time of seeking care by 100 routine checkup BPH patients above 40 years at the health facility. The data was collected using semi-structured questionnaires.

**Results:** Out of all patients in severe states of BPH, only 15% sought care 6 months after experiencing BPH related symptoms. However, 90% were unaware that BPH is a health condition and didn't promptly seek medical care due to high cost of treatment (40%), untreatable (30%), witchcraft and sexually transmitted diseases (STIs) accounted for 20% and 10% respectively. Due to delayed treatment, 30% of patients suffered from UTI associated with surgical procedures during the removal of prostate glands, 20% developed renal failure, 20% acute abdominal pains including burning sensations, 10% had complete urinary blockage leading to insertion of catheter and 10% obstruction uropathy and 10% general body pains. Despite a significant number of patients having comprehensive health insurance, majority only visited health facilities with severe

conditions when the limited financial support is not useful.

**Conclusion:** These results show that delayed treatment of BPH can lead to complications that escalate the cost of treatments. Therefore, there is need to improve awareness for preventive care and health promotion among the aged population in sub-Saharan Africa.

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## INTRODUCTION

Benign prostatic hyperplasia (BPH) is a non-cancerous increase in size of the prostate (Cunningham *et al.*, 2014). It is a condition common among middle aged and old men and provides a good platform to study neglected health agenda for the old population in sub-Saharan Africa. The condition involves hyperplasia of prostatic stromal and epithelial cells resulting in the formation of large, fairly discrete nodules in the transition zone of the prostate leading to increased resistance to flow of urine from the bladder commonly referred to as "obstruction" (Cunningham *et al.*, 2014). Its symptoms are generally termed as lower urinary tract symptoms. Benign Prostatic Hyperplasia is one of the ten most prominent and costly diseases in men older than 50 years of age (Fenter *et al.*, 2006). Reports indicate that one in three men aged 45 years and above exhibit lower urinary tract symptoms. In fact, the histologic prevalence of BPH which has been examined in several autopsy studies around the world is approximately 10% for men in their 30s, 20% for men in their 40 and reaches 50% to 60% for men in their 60s, 80% to 90% for men in their 70s and 80s (Roehrborn, 2011).

The condition such as BPH results into mortality and its consequences are felt on the young generation since they are the care givers as observed in urban slums where most children are orphaned (UNICEF., 2007). Also, lack of health agenda for older population affects economic stability in particular in the agriculture sector where older population provide labor force (Aboderin & Beard, 2015). The first step on the health agenda for the old populations in sub-Saharan Africa is to enhance seeking care from the available health services at public hospitals. It is however documented that very few of the old population seek health care especially for conditions such as BPH (Jacobsen *et al.*, 1993; Ladha *et al.*, 2009). Most of the patients with BPH stay at home possibly because of its signs and symptoms, cognitive impairment, competing needs and a weak referral system. However, many people visit health facility due to severe symptoms or severe impact on the quality of life (Hunter & Berra-Unamuno, 1997). As much as delay in seeking care is documented, there has been efforts to create awareness on the disease however the impact of these efforts have not been evaluated.

Studies have demonstrated that due to differences in health seeking among races, the complaints are different too (Sarma *et al.*, 2003). It has been shown that men's perception of symptoms, socio-demographic and clinical

factors are determinants of seeking care among these patients (Ojewola *et al.*, 2016). Clinical factors include prevalence of some symptoms, severity of symptoms and degree to which quality of life is affected. However, there is paucity of data on health seeking behavior of BPH patients in western Kenya and which this study sought to address.

## **METHODS**

### **Study setting**

This study was conducted at the outpatient department, surgical clinic and surgical male wards of Kisumu County Referral Hospital in Kisumu County, Kenya. Kisumu town is a port city in Kisumu County, 1,131 m (3,711 ft), above the sea level with a population of 721,082 (2019 census). Hospital is a public health facility located in Northern Sub-location, township location, Winam Division, Kisumu town East constituency in Kisumu County.

### **Study design**

This study adopted a case series research design.

### **Study population and sampling**

The target population for this study included medically confirmed BPH patients aged 40 years and above. The study was carried out on 100 BPH routine checkup patients at the facility between 1<sup>st</sup> June 2018 and 31<sup>st</sup> December 2018.

### **Data collection and analysis**

Data was collected using a semi structured questionnaires and then entered into SPSS version 21. Data was analyzed using descriptive statistics and presented in form of tables, pie charts and graphs.

## **RESULTS**

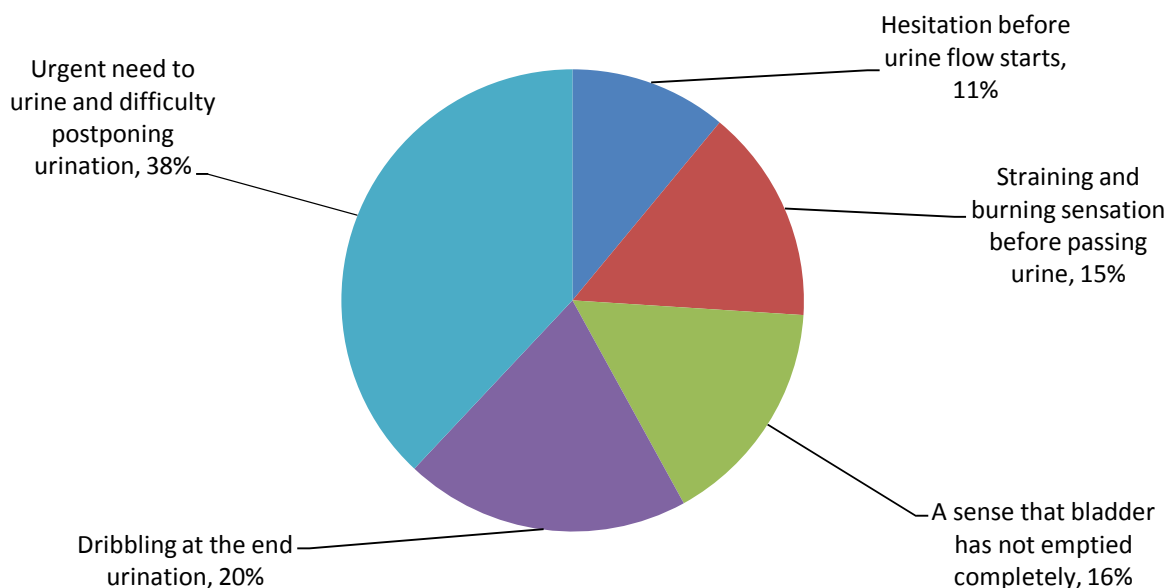
### **Demographic characteristic**

All the study participants were men aged above 40 years. On education, majority (40%) had primary education.

The business men were more affected at 52% as compared to other professions such as public servants at 16% and Jua Kali artisans at 32%. As regards to the monthly income of the respondent, 10% had an income of about Ksh. <10,000. Further, 49% had an income of between Ksh 10,001 to 20,000. In addition, 20% of the study participants had an income of between Ksh 20,001 to 30,000 while 12% had the highest monthly income of between Ksh 30,001 - 40,000 were at 12% .

### Initial symptoms before visiting health facility

The patients who visited Kisumu County Hospital presented various symptoms. The primary BPH symptom reported in this study was urinary urgency and urinary incontinence (38%). Other symptoms included, dribbling at the end of urination or leakage afterwards (20%), a sense that the bladder was not emptied completely (16%), straining and burning sensation when passing urine (15%) and hesitation before urine flow started despite the urgency to urinate (11%) (Figure 1).

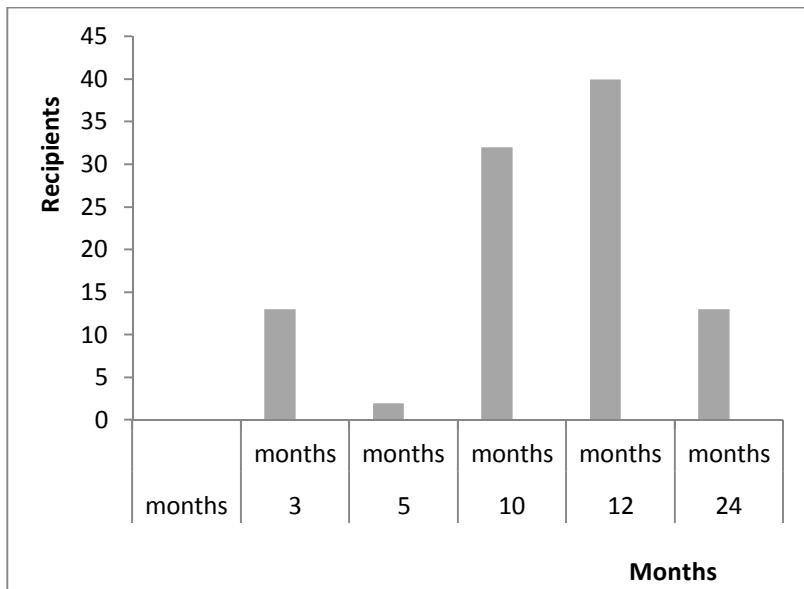


**Figure 1. Symptoms experienced before visiting health facility**

### Duration taken to seek health care Services

The time taken by the patients before seeking health care after the onset of symptoms related to BPH varied among the participants. Majority sought for healthcare after one year (12 months), 32% after 10 months, 13%

after about two years (24 months) despite experiencing difficulty in urination, 13% after 3 months while 2% took 5 months (Figure 2).



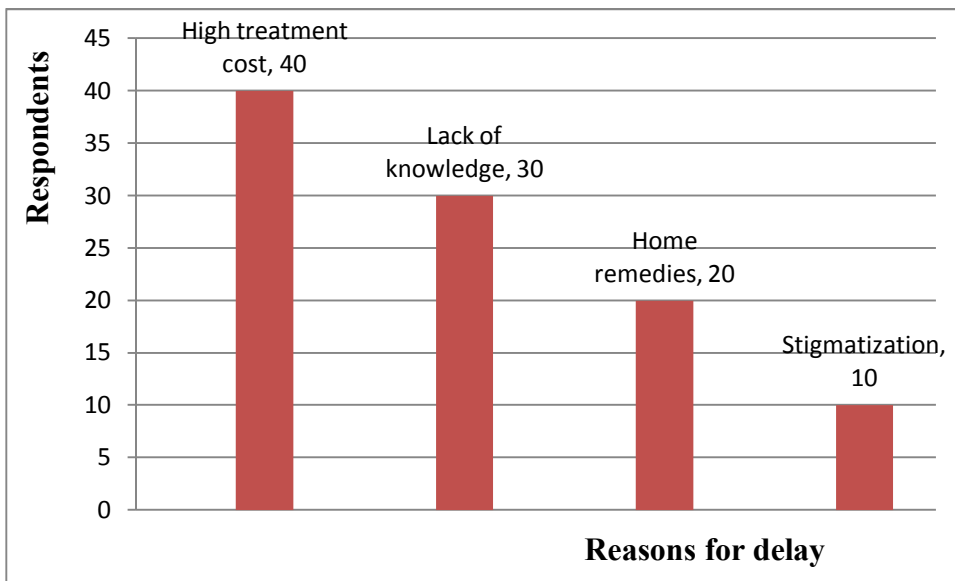
**Figure 2. Time taken to seek health care Services**

**Knowledge on BPH**

Interestingly, 90% of the patients did not know that BPH was a health condition treatable by early detection till after visiting the health facility. Only 8% shared their health conditions with relatives and friends while 2% of the participants did not want to discuss how they learnt about their BPH status.

**Reasons for the delay in seeking healthcare**

As shown in figure 3, about 40% of respondents assumed that the cost of treating BPH was high hence deliberately delayed seeking healthcare. In addition, 30%, lacked awareness that the condition was treatable thus delayed consultation. Moreover, 20% believed that urine blockage was due to witchcraft and therefore preferred traditional medicine and home remedies while 10% thought that urine blockage was due to sexually transmitted disease (STI) therefore feared stigmatization.



**Figure 3. Reasons for delay in seeking healthcare**

### Complications associated with delay in seeking health care

Complications due to delayed BPH treatment as explained by the respondents during the study included; 30% urinary tract infection leading to surgical removal of prostate glands (prostatectomy). In addition, about 20% developed renal failure while 20% complained of acute abdominal pains and burning sensations. Further, 10% developed complete urinary blockage leading to insertion of catheter to facilitate the flow of urine, while other 10% explained that they had developed obstruction uropathy and general body pains (Table 3).

**Table 2. Complications associated with delay in seeking health care**

BPH complications	Frequency (%)
Urinary tract infection	30 (30)
Acute abdominal pain	20 (20)
Renal failure	20 (20)
Complete urine blockage	10 (10)
Obstructive uropathy	10 (10)
General body pains	10 (10)

## **National Health Insurance Cover**

Among the respondents, 30% had not registered with National Health Insurance Finance (NHIF) while 70% were registered. Among those registered with NHIF, 72% reported that NHIF reduced the cost of their drugs enabling them to get the single regimen drugs from the hospital. However, the other 28% not access combined regimen drugs since they were out of stock in the hospital pharmacy. Nevertheless, NHIF reduced admission costs to the wards.

## **DISCUSSION**

Findings from this study show that patients reported to the health facility with severe symptoms of BPH because of delay in seeking health care services. Some of the reasons cited in this study for delay in seeking care includes costly treatment, thought of condition being untreatable, witchcraft or relating the condition to STI. A similar study done in India by Shrivastava *et al.*, (2012) found that, majority of subjects suffering from benign prostatic hypertrophy were not aware of their disease and their health-seeking behavior was poor and could be related to literacy. In general, many patients seek care when bothered by their urinary symptoms and experience interference with their daily activities (Stothers *et al.*, 2017).

Delay in seeking care causes progression of disease resulting into worsening of the symptoms. In this study, delay in seeking medical care among the patients resulted in to complications of BPH such as urinary tract infections culminating into surgical removal of prostate glands, renal failure, acute abdominal pains and burning sensations, complete urinary blockage leading to insertion of catheter, obstruction uropathy and general body pains. A study done by Laura (2016) revealed a similar trend and listed the following as symptoms reported by patients at the diagnosis of BPH; inability to urinate at all, frequent and painful urination, hematuria which is a sign of infection, intense lower abdominal pain and urinary urgency. Unfortunately, at this time of the visit to the health facility the treatment option available is surgical not non-surgical therapy (Staff, 2010). Complicated BPH leads to increased cost of medical care, morbidity and mortality. In this study, the increased cost of medical cover could be due to drug stock out and lack of national health insurance. The delay in seeking care among the old in sub-Saharan African is not only observed among BPH patients, but also in those with several



conditions such as cardiovascular and circulatory diseases, nutritional deficiencies and diabetes (Aboderin & Beard, 2015).

Delay in seeking care for BPH and other conditions strongly suggests a need for a clear health agenda for the old population in sub-Saharan Africa. There is documented increasing rate of non-communicable diseases such as hypertension, (Lloyd-Sherlock *et al.*, 2014), musculoskeletal disease (Clausen *et al.*, 2005), visual impairment (Bekibele & Gureje, 2008), functional limitations (Payne *et al.*, 2013), and depression (Gureje *et al.*, 2007). Also, increasing prevalence of communicable diseases such as HIV (Till Bärnighausen & MIA, 2012). Unfortunately, these are conditions that need proper management at the severe state but with limited health promotion, most affected people hold to the belief that they are as result witchcraft or they are not untreatable or manageable.

We note that this study focused on BPH but the findings are in agreement with several studies elsewhere. We therefore expanded our interpretations of the results to include the poor health seeking behaviors of the elderly persons on other health conditions in order expose the dire need for health agenda. We further note that this was a case series study with limited sample size and therefore the findings may not be applicable to all settings or ethnic groups in Kenya.

With the roll out of Universal Health Care (UHC) in Kenya, emphasis should be focused on screening of the functional status and also timely use of preventive care for the elderly persons (Lau & Kirby, 2009). However, before realizing these health agenda for the old persons, it is important to address the concern of ignorance on available health care services, inequitable access to necessary services, biased universal health coverage with more services available to the younger population, limited services for the chronic care at the health facilities and limited health promotion focused on the old population that contribute to the delay of seeking care.

## **CONCLUSION**

This study shows that delay in seeking health care among old population with BPH results into complications that escalate the cost of treatments. Consequently, there is a need to create awareness for early detection for successful affordable treatments. More importantly, the universal health coverage should be explored for preventive care of the elderly persons in sub-Saharan Africa and elsewhere.

## **Limitations**

Our research enrolled fewer participants and therefore findings need to be interpreted with caution

## **Ethical considerations**

This study was approved by the Board of Post Graduate Studies of Jaramogi Oginga Odinga University of Science and Technology (JOOUST) and the ethical research committee of Jaramogi Oginga Odinga Teaching and Referral Hospital (JOOTRH). Other research approval letter was obtained from the director of Medical Services of Kisumu County. Confidentiality was enhanced by ensuring anonymity of participants whereby the names of the participants were not included in the questionnaires and reports.

## **Consent for publication**

Not applicable

## **Availability of data and material**

All data generated or analyzed during this study are included in this published article.

## **Competing interest**

The authors declare that they have no competing interests.

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