



## Benign Prostatic Hyperplasia: Health Seeking Behaviour of patients at a tertiary care hospital.

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### RESEARCH

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### Abstract

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#### Background

Benign Prostatic Hyperplasia is a widely prevalent condition affecting elderly men throughout the world. With increasing life expectancy, there has been a rise in the percentage of elderly men and so for this disease across the globe. There is lack of information about health seeking behaviour of patients with Benign Prostatic Hyperplasia. Therefore the study was designed with the objectives of assessing health-seeking behaviour and the effect of literacy on it among adult and older subjects suffering from Benign Prostatic Hyperplasia attending a tertiary care hospital.

#### Method

A series of 81 patients suffering from Benign Prostatic Hyperplasia above the age of 50 years, attending surgical Out Patient Department of a tertiary care hospital in Delhi, were assessed for their health seeking behaviour using a pre-tested and a modified questionnaire designed for assessing health seeking behaviour.

#### Results

Positive health seeking behaviour of patients was observed in 44%, who reported to a doctor within a month of noticing their problem. A greater proportion of the literates was aware about the symptoms suggestive of enlarged prostate and consulted a qualified health care practitioner as their first action. More literates approached the higher level of health care facility on being referred and had maximum faith in allopathic system of medicine. Also, lesser number of literates had performed *pooja* (Hindi word for worship) or other traditional rituals for relief of their problems.

#### Conclusion

We concluded that majority of subjects suffering from Benign Prostatic Hypertrophy were not aware of their disease and their health-seeking behaviour was poor and could be related to literacy. Our data highlights the need for public awareness program targeting the younger male population so that early detection and treatment can be offered.

#### Key Words

Benign Prostatic Hyperplasia, Health Seeking Behaviour, Awareness.

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### Background

Benign Prostatic Hyperplasia (BPH) refers to the increase in size of the prostate in middle-aged and elderly men. When sufficiently large, resulting prostatic nodules compress the urethral canal to cause partial, or sometimes virtually complete, obstruction of the urethra which interferes with the normal flow of urine. It leads to symptoms of urinary hesitancy, frequent urination, post micturition dribbling, increased risk of urinary tract infections and urinary retention. These symptoms affect the sleep and quality of life of the patients [1]. Post micturition dribbling leads to inconvenience and social embarrassment. These factors affect both physical and mental well being of the person. These obstructive and irritative symptoms can be evaluated using the International Prostate Symptom Score (IPSS) questionnaire, designed to assess the severity of BPH [2].

BPH can be seen in the vast majority of men as they age, particularly over the age of 70 years, around the world. Histological evidence of nodular hyperplasia can be seen in approximately 20% of men 40 years of age, a figure that increases to 70% by age 60 and to 90% by age 70. Only 50% of those who have microscopic evidence of nodular hyperplasia have clinically detectable enlargement of prostate, and of these individuals, only 50% develop clinical symptoms. Nodular hyperplasia of prostate is a problem of enormous magnitude, approximately 30% of white American males over 50 years of age have moderate to severe symptoms [3]. Data on the profile of prostatic symptoms in many Asian countries is lacking. The majority of studies in the literature describe the ethnic variation. A multiracial



urban cohort study in Singapore found that there are inter-ethnic differences in symptoms perception and quantitative assessment of BPH [4]. BPH is a widely prevalent condition affecting elderly men throughout the world. With increasing life expectancy, there has been rise in the percentage of elderly men and so for BPH across the globe [5]. Not only will it cause great morbidity, but will also cause economic and social burden on various countries. In an estimate it was found that direct cost of medical services provided at hospital inpatient and outpatient settings, emergency departments, and physician offices for BPH management in the US exceeds \$1.1 billion annually [6]. Such data is lacking from India where size of the population matter for health burden on health care delivery system.

Surveys on management of benign prostatic hyperplasia reveal disparities between patient priorities and physicians' beliefs. Prevention of progression is an important patient goal. Despite this, physicians appear to underestimate the concerns of patients about long-term outcomes; this is reflected in a preponderance of medical therapy prescriptions aimed at achieving symptom relief [7]. Available treatments and procedures like alpha blockers, 5-alpha reductase inhibitors, transurethral resection of prostate, transurethral needle ablation, transurethral microwave thermotherapy etc. can effectively manage most patients. The large portion of the burden and relief of this disease weighs on the individual. Reluctance to report symptoms or seeking medical care is the primary barrier to treatment of BPH. This suggests a substantial need for community and professional education and health promotion programs [5]. Correlation between IPSS score and Quality of life has been found in patients studied in Gujarat state of India [8]. However, India as a whole lacks a large-scale screening database of patients diagnosed for any prostatic disease and the actual current incidence of BPH will require valid scientific evidence from pooled data [9]. Health seeking behaviour of patients suffering from BPH is still a very less explored topic in India. Being a universal disease and keeping in mind the large population of India, huge burden is expected on public health authorities and society. Therefore the study was designed with the objective of assessing health-seeking behaviour and its association with literacy status of patients suffering from Benign Prostatic Hyperplasia (BPH) attending tertiary care hospital.

## Method

After approval from the ethical committee of the institute, the investigator contacted the Faculty of the Department of Surgery, briefed them about the project, and acquired permission to attend the OPD for collection of data.

This was a case series study conducted over a period of 10 weeks. The desired sample size of 81 patients was determined on the basis of taking the prevalence rate of BPH in general male population to be about 30% and worst acceptable prevalence of 20% with 95% confidence level using formula as  $n = Z^2 \cdot \frac{P(1-P)}{d^2}$  [10]. In the formula n is sample size, P is prevalence (30%), d is absolute precise (10%).

Though patients with lower urinary tract symptoms attended the OPD daily, investigator attended the surgical OPD twice a week, the days on which special urology clinic was held and collected the data. Aims and purpose of the study was explained in Hindi (local language) to each patient, with a diagnosis of BPH, to invite them to be enrolled in the study. Eighty-four patients in total were invited to participate and three potential participants declined consent. Patients above 50 years of age presenting to the OPD with lower urinary tract symptoms were included in the study after their diagnosis of BPH was confirmed by Senior Residents or Faculty Members from the Department of Surgery. One patient was interviewed at one time and after completion of the interview, investigator waited for next patient to include him in the study. In this way maximum possible numbers of patients were interviewed on each day of the OPD attended. On an average, four patients were interviewed on each day. This method may have resulted in missing some of the patients because only the patients who attended the OPD in the presence of the investigator were studied.

A semi-structured, pre-coded questionnaire was designed to elicit the health seeking behaviour. The data is presented in proportions and percentages and non-parametric test of significance were used for comparing differences between literate and respondents with no schooling. A separate form was used to collect the socio-demographic characteristics of the patients.

## Results

Socio-demographic characteristics of the subjects in the present study are given in table 1. It is interesting to find that 26% of the subjects were less than 60 years of age. Majority of subjects were Hindu and living with their spouse. A large percentage of respondents had no schooling (Table 1). Out of 81 patients, only 46% were aware of the symptoms suggesting enlarged prostate even after being diagnosed with BPH. Level of Health seeking behaviour according to their literacy status is presented in the Figure 1.

Only 44.4% reported to a doctor within a month of noticing their problem. On comparing awareness about the symptoms suggestive of enlarged prostate, more of the literate respondents were found to be aware (57.6%) as compared to those with no schooling (13.6%;  $p < 0.05$ ). The first step taken by 74.6% of the literates and 36.4% of those with no schooling, when they noticed symptoms, was to consult the health care practitioners ( $p < 0.05$ ). Similarly, significantly more literate subjects (81.4%) as compared to those with no schooling (31.8%), had approached a qualified practitioner initially ( $p < 0.05$ ). 76.3% of the literates, as compared to 56.3% of the respondents with no schooling, approached the higher level of health care facility to which they were referred ( $p = 0.14$ ). Significantly more literate subjects (62.7%), as compared to respondents with no schooling (9.1%), had



maximum faith in modern system of medicine ( $p < 0.05$ ). Surprisingly both the groups had performed *pooja* (Hindi word for worship) or other rituals for relief of their problem but this was significantly more in respondents with no schooling as compared to literate respondents ( $p < 0.05$ .)

## Discussion

The objective of this study was to assess health-seeking behaviour and its association with literacy status of patients suffering from Benign Prostatic Hyperplasia (BPH) attending tertiary care hospital. Although all patients had come to a hospital suffering from symptoms of BPH, their awareness of Benign Prostatic Hyperplasia (BPH) was poor. Only 46% of the patients were aware of the symptoms suggestive of BPH. Literates were found to have a better level of awareness of symptoms as compared to respondents with no schooling ( $p < 0.05$ ), pointing towards increased awareness with education.

Previous studies reveal disparities between patient priorities and physicians' beliefs concerning the management [6]. This study was aimed at comparing the health seeking behaviour according to literacy level. The first action of a significant proportion of literate patients ( $p = 0.0014$ ) was to consult a doctor after noticing their problem while majority of the respondents with no schooling consulted friends or tried self-medication. This indicates that literacy may be one of the reasons for good health seeking behaviour. Similarly, the majority of literate patients consulted a qualified practitioner while a significant proportion of respondents with no schooling ( $p = 0.0002$ ) consulted non-qualified practitioner. A significant proportion of literate patients complied with the treatment provided by initial practitioner approached, did not perform *pooja* (worship)/ ritual for relief of their medical ailment, had maximum faith in allopathic medicine and planned to continue treatment provided to them at the tertiary hospital while the situation was reverse for respondents with no schooling.

As the study is based on undergraduate research project sponsored by Indian Council of Medical Research, it suffered from a number of limitations such as - single tertiary care hospital based data collection, including only the subjects who were more than 50 years of age, studying only one of the many possible factors which may affect health seeking behaviour. However, all measures were taken to ensure collection of quality data.

This was a small effort to assess health seeking behaviour of patients suffering from Benign Prostatic Hyperplasia. A study, focusing on various factors that can affect the health seeking behaviour of the patients, with a representative sample

involving many hospitals or community based study needs to be carried out to assess the actual health seeking behaviour.

## Conclusion

This study suggests that awareness about the symptoms suggestive of prostatic hypertrophy was poor in the population investigated. Higher educational status appears to improve appropriate health seeking behaviour. Data indicate that there is a need for public health program aimed at both young and elderly population so that patients report to the health care institutions in the early stages of disease.

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**PEER REVIEW**

Not commissioned, Externally peer reviewed.

**CONFLICTS OF INTEREST**

The authors declare that they have no competing interests.

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**Figures and Tables**

Figure 1: Comparison of health seeking behavior according to literacy level

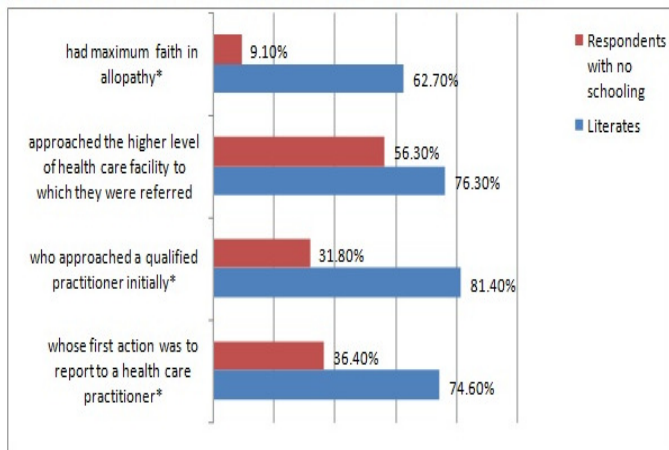


Table 1. Demographic characteristics

Age in years	No.	%age
50-60	21	26
61-70	34	42
> 71	26	32
<b>Education</b>		
Graduate or higher	10	12
High school completion or intermediate or post high school diploma	16	20
Literate or primary school or middle school completion	33	41
No schooling	22	27
<b>Religion</b>		
Hindu	54	67
Muslim	24	30
Sikh and others	3	4
<b>Marital Status</b>		
Living with spouse	69	85
Widower	10	12
Single	2	3