Quest Journals
Journal of Medical and Dental Science Research
Volume 11~ Issue 6 (2024) pp: 15-23
ISSN(Online) : 2394-076X ISSN (Print):2394-0751
www.questjournals.org

Research Paper

Assessment Of The Level Of Awareness, Attitude And Screening Knowledge Of The Prostate Diseases Among Men Attending Outpatient Clinics Of A Tertiary Health Centre In Aba – South – Eastern Nigeria

IBE U. IBE
CONSULTANT UROLOGIST
DEPARTMENT OF SURGERY,
ABIA STATE UNIVERSITY TEACHING HOSPITAL,
ABA – NIGERIA.

OLIMAH THELMA
DEPARTMENT OF SURGERY,
ABIA STATE UNIVERSITY TEACHING HOSPITAL,
ABA – NIGERIA

CHIKEZIE OBINNA
MEDICAL OFFICER,
MINISTRY OF HEALTH,
UMUAHIA
ABIA STATE – NIGERIA.

ABSTRACT

Prostate diseases are very common among Nigerian men with increasing incidence, morbidity and mortality. Unfortunately, the awareness is low.

The aim of the study is to assess the Awareness, Attitude and Screening Knowledge among men attending the outpatient clinics.

It was a cross – sectional study involving the use of structured questionnaires administered to men attending outpatient clinics.

A total of 370 questionnaires were given out with only 290 completed and returned.

The age range was 33 to 92 years with mean age of 62.5 years.

Of the 290 participants, the 61 – 70 age group had the highest number of 75 (25.86%) while the 91 – 100 age group had the least number of participants at 8 (2.76%).

Of the participants, 23 (7.93%) were not aware of any of the prostate diseases, while 165 participants (56.90%) had knowledge of PSA screening.

Out of this, only 85 (29.31%) had had PSA testing while only 55 (18.17%) had knowledge of the actual significance of PSA testing.

The most common symptom known to participants was Lower Urinary Tract Symptoms (LUTS) with 210 (72.41%).

The most common source of information on prostate diseases came from sufferers (victims) with 85 cases (31.84%).

There was positive correlation between the level of education and the level of awareness.

The level of awareness of the three prostate diseases was found to be abysmally low.

KEYWORDS
Prostate Disease, Awareness, Attitude, Screening, Knowledge and Aba.

***R**eceived 25 May, 2024; **R**evised 04 June, 2024; **A**ccepted 06 June, 2024 © The author(s) 2024.*
P**ublished with open access at **www.questjournals.org

I. INTRODUCTION

The prostate diseases are very common amongst Nigerian men with minimal awareness of them.

While much has been written and known about prostate cancer, not much is known about the other two diseases – Benign Prostatic Hyperplasia (BPH) and Prostatitis with associated morbidity.

Prostate cancer is the most common cancer among Nigerian men (Ikwevowo et al, 2013), with increasing incidence and morbidity in men of black African ancestry (Delong Champs et al, 2007).

The importance of awareness and screening of prostate cancer is to have early detection and therefore reducing morbidity and mortality.

On the other hand, the importance of awareness of BPH and Prostatitis is to have definite diagnosis, reduce morbidity and complications, and offer better quality of life to afflicted men.

The recommended evaluation for prostate diseases includes:
- Prostate Specific Antigen (PSA) Testing.
- Digital Rectal Examination (DRE).
- Ultrasonography Scan.

The normal PSA range is 0 – 4 ng/ml. In BPH and Prostatitis, PSA levels may rise to levels below 10 ng/ml.

Levels of PSA beyond 10 ng/ml maybe suggestive of prostate cancer and maybe an indication for a prostate biopsy procedure with the aim of establishing a definite diagnosis.

The use of PSA as a screening tool is controversial and the variations in sample results from different laboratories is worrisome.

As controversial as PSA screening is, PSA screening is a major tool for creating awareness of the existence of the prostate diseases.

In prostate cancer, PSA is the single most important tool in detecting early cancers which are amenable to curative therapy.

However, false positive and false negative results may be harmful.

Some men never experience symptoms before a major complication and therefore only serial PSA screening can avert this dangerous scenario.

Cancers detected by PSA screening are likely to be early cancers while those detected by symptoms are likely to be advanced at diagnosis and therefore amenable to only palliative management.

Digital Rectal Examination (DRE) is a veritable procedure that gives essential information on the various prostate diseases.

In prostate cancer, on DRE, the prostate maybe found to be hard, nodular with irregular surfaces, with obliterated median sulcus, assymetrical lobes, poor anal sphinteric tone with the rectal mucosa not free and not mobile.

In BPH, DRE gives the findings of the prostate as firm in consistency, smooth with preserved median sulcus, symmetrical lobes, normal anal sphinteric tone and the rectal mucosa is free and mobile.

In Prostatitis, the prostate on DRE may be found to be soft or firm, tender ranging from very tender to appreciable discomfort on palpation.

There may be urethral discharge on prostate massage.

The use of Ultrasonography Scan is also important as it gives a definitive size of the prostate, detects suspicious areas and is able to give reliable information on the pathology of adjacent structures such as:

- Upper tract dilatation
- Bladder wall thickness, diverticulum and calculus formation
- Post void residual urine volume.

Education of the populace is very important in giving them the right information regarding each disease, rather than obtaining false and adulterated information from unorthodox sources.

So far, the level of ignorance is still high even among the highly educated people.

II. METHODOLOGY

The study was a cross sectional one carried out among adult males attending the different clinic departments in the hospital:

- General Outpatient Clinics
- Surgical Outpatient Clinics
- Medical Outpatient Clinics
- Special Surgery Clinics

The study involved the use of structured questionnaires given out by resident doctors to targeted males who completed them and returned.

Those with difficulty completing the questionnaires due to low literate level, were aided by the doctors.

A total of 370 questionnaires were given out but only 290 were duly completed and returned.

The questionnaires were typed in English Language and contained questions and information designed to show awareness of the disease conditions, awareness of symptoms, level of education, sources of awareness, and screening knowledge.

Demographic variables were also obtained.

Data from the completed questionnaires were collated, analyzed, and interpreted.

Inclusion Criteria
Adult males from 30 years and above.

Exclusion Criteria
Males below 30 years were excluded.

III. RESULTS

TABLE 1 SHOWING
DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS (n = 290)

S/N	VARIABLE (Age in Years)	OUTCOME
1	MEAN	
2	RANGE	33 - 92

TABLE 2 SHOWING
AGE GROUP CHARACTERISTICS OF THE PARTICIPANTS (n = 290)

S/N	AGE – RANGE (in years)	NUMBER	PERCENTAGE
1	30 - 40	25	8.62%
2	41 - 50	51	17.59%
3	51 - 60	64	22.07%
4	61 - 70	75	25.86%
5	71 – 80	52	17.93%
6	81 – 90	15	5.17%
7	91 – 100	8	2.76%
	TOTAL	290	100 %

TABLE 3 SHOWING
THE EDUCATIONAL LEVEL OF PARTICIPANTS

S/N	EDUCATION LEVEL	NUMBER	PERCENTAGE
1	PRIMARY EDUCATION AND BELOW	88	30.34%
2	POST PRIMARY LEVEL	108	37.24%
3	POST SECONDARY LEVEL	94	32.41%
	TOTAL	290	100 %

30.34% of the participants had primary education or below it while 37.24% had post primary education. 32.41% had post secondary education.

TABLE 4 SHOWING
THE PATTERN OF THE AWARENESS OF THE PROSTATE DISEASES

S/N	PROSTATE DISEASE	NUMBER	PERCENTAGE
1	THOSE NOT AWARE OF ANY PROSTATE DISEASE	23	7.93%
2	THOSE AWARE OF PROSTATITIS	55	18.97%
3	THOSE AWARE OF BENIGN PROSTATE HYPERPLASIA	85	29.31%
4	THOSE AWARE OF PROSTATE CANCER	174	60%
	N = 290		

Total number of participants was 290. Some had knowledge or were aware of the three (3) diseases of the prostate while some were aware of two (2) disease conditions.

Some were aware of one (1) disease condition while some had no knowledge of any of the disease conditions.

FIGURE 1
BAR CHART SHOWING THE AWARENESS OF THE PROSTATE DISEASE CONDITIONS

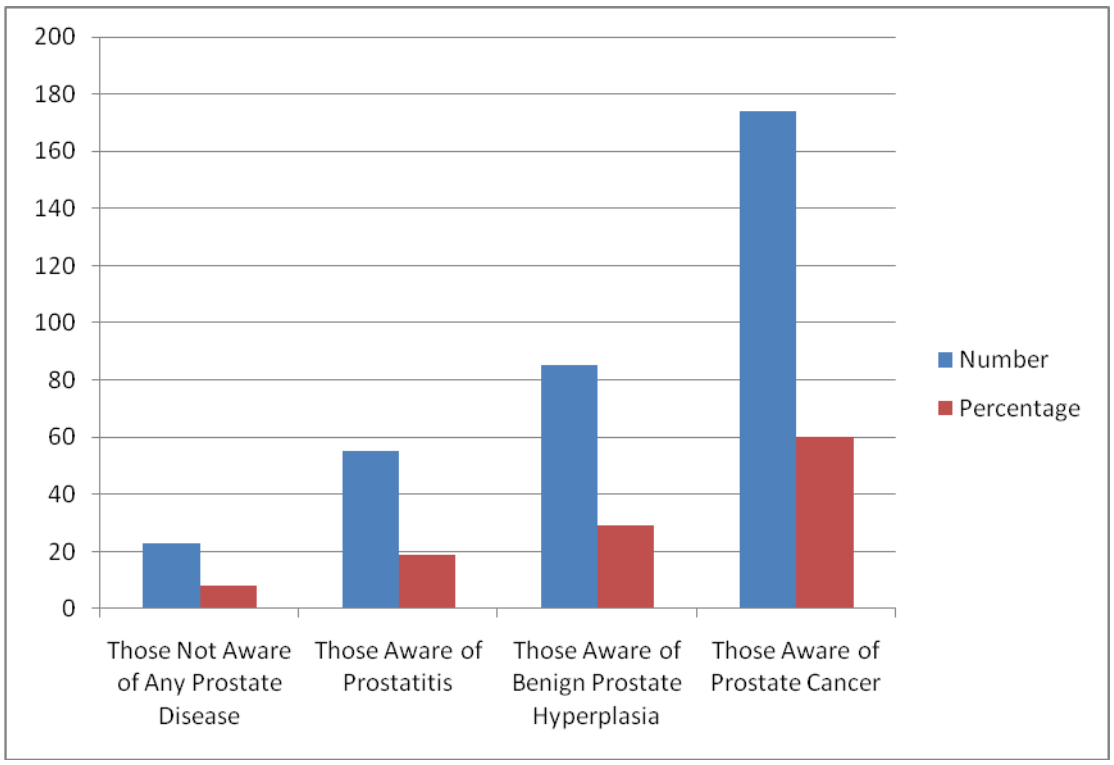

TABLE 5
SHOWING THE CHARACTERISTICS OF PROSTATE SPECIFIC ANTIGEN (PSA)

S/N	PSA CHARACTERISTIC	NUMBER	PERCENTAGE
1	THOSE WHO HAVE KNOWLEDGE OF PSA TESTING	165	56.90%
2	THOSE WHO HAVE UNDERGONE PSA TESTING	85	29.31%
3	THOSE WITH THE KNOWLEDGE OF THE SIGNIFICANCE OF PSA TESTING	55	18.97%
	N = 290		

Out of the 290 participants, about 165 (56.90%) had heard about PSA testing.

Out of the 165 who had heard about PSA testing, only 85 (29.31%) had actually undergone PSA testing while only 55 (18.97%) participants had the knowledge of the significance of PSA testing.

TABLE 6
SHOWING KNOWLEDGE OF THE COMMON SYMPTOMS OF THE PROSTATE DISEASE

S/N	SYMPTOMS	NUMBER	PERCENTAGE
1	LOWER URINARY TRACT SYMPTOMS (LUTS)	210	72.41%
2	LOWER BACK PAINS	90	31.03%
3	GROSS HAEMATURIA	75	25.86%
4	GROSS WEIGHT LOSS	60	20.69%
5	URETHRAL DISCHARGE	20	6.90%
6	DEEP PELVIC / PERINEAL PAINS	15	5.17%
7	ANAEMIA	10	3.45%
8	WEAKNESS OF LOWER LIMBS / PARAPLEGIA	NIL	0%
9	PATHOLOGICAL FRACTURE	NIL	0%

	N = 290		

From Table 6, the only symptoms that the participants had appreciable knowledge of were LUTS, lower back pains, gross hematuria, and gross weight loss.

TABLE 7 - SHOWING THE SOURCES OF INFORMATION ON PROSTATE DISEASE

S/N	SYMPTOMS	NUMBER	PERCENTAGE
1	SUFFERERS / VICTIMS OF PROSTATE DISEASE	85	31.84%
2	HEALTH SEMINARS	74	27.72%
3	NEWS MEDIA	41	15.36%
4	PATIENT RELATION	37	13.86%
5	HEALTH CARE PROVIDERS	30	11.24%
	TOTAL	267	100%

FIGURE 2 –BAR CHART SHOWING THE SOURCES OF INFORMATION

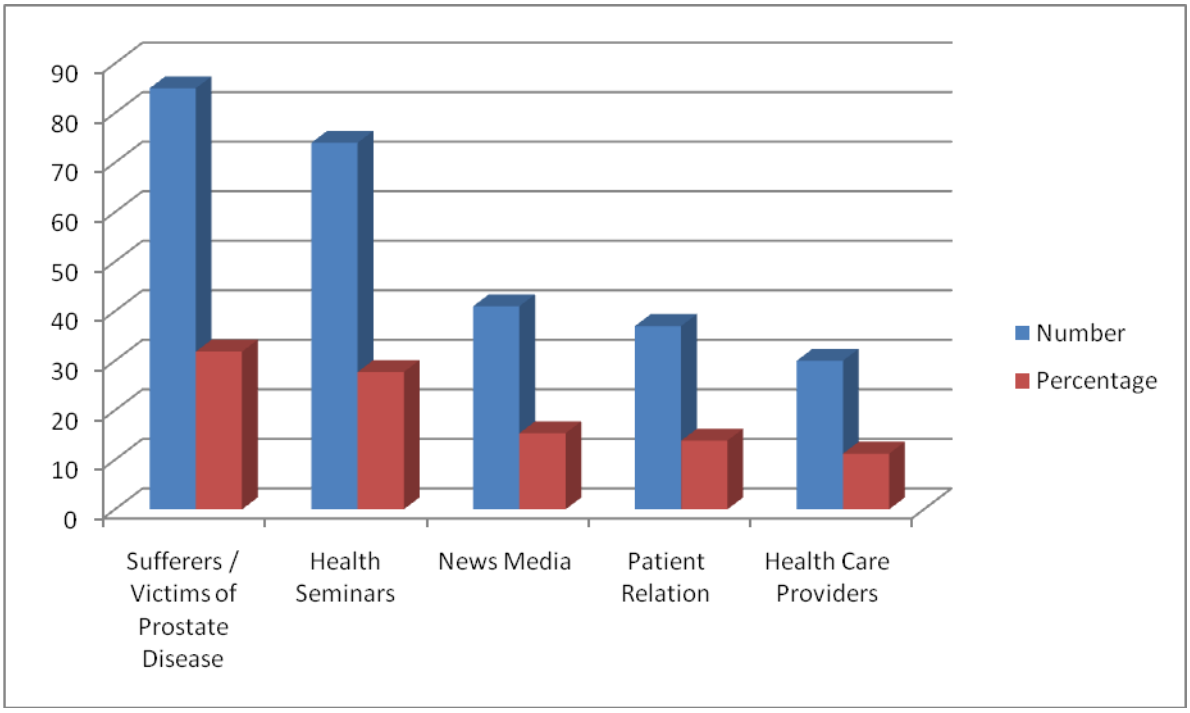

TABLE 8 - SHOWING THE RELATIONSHIP BETWEEN THE EDUCATIONAL LEVEL AND AWARENESS OF PROSTATE DISEASE

S/N	Educational Level	Number of Participants	Number with Awareness	Percentage
1	PRIMARY EDUCATION LEVEL AND BELOW	85	73	82.95%
2	POST PRIMARY LEVEL	108	102	94.44%
3	POST SECONDARY LEVEL	94	92	97.87%

From this table, awareness of prostate diseases was found to be high in the higher educational level.

IV. DISCUSSION

The prevalence of prostate diseases is reportedly high in Nigeria.

Prostate cancer incidence is increasing with increasing morbidity and mortality.

In some cases, BPH may lead to urosepsis, irreversible bladder damage and renal failure and even death.

Prostatitis is a common debilitating urological disease characterized by inflammation of the prostate gland.

Recently, prostatitis has been reported to be the most common urological problem in men below 50 years and the third most common problem in men over 50 years.

The National Institute of Health classified prostatitis into four (4) categories: Categories I, II, III, and IV:
Category I - Acute Bacterial Prostatitis
Category II - Chronic Bacterial Prostatitis
Category III – Chronic Pelvic Pain Syndrome (inflammatory and non inflammatory)
Category IV – Asymptomatic Inflammatory Prostatitis

Modifiable risk factors linked to prostate diseases include:

- Physical inactivity
- Alcohol consumption
- Tobacco smoking.

In a study by Rufus Wale Ojewole et al in 2017, on the knowledge, attitudes and screening practices regarding prostate diseases among men older than 40 years in South West Nigeria, they found out that among the 305 men involved in the study, 145 (47.58%) were aware of prostate cancer while 99 (32.58%) were aware of BPH and 91 (29.58%) were aware of prostatitis.

The main source of information was news media.
Sexually transmitted disease was the most common misconception as the cause of prostate disease.

Only educational and occupational status had significant association with level of knowledge and attitudes of participants whereas educational status was the only factor influencing screening practice.

This study also showed that poverty contributed to poor attitude and screening practices in keeping with other studies that demonstrate a strong link between poverty and mortality from non-communicable diseases.

Other workers have also found out that awareness and PSA screening are low.

A work by Ogundele et al on prostate cancer in a metropolitan setting in Nigeria had only 47% awareness, whereas similar work done in a rural setting in Ogun State, Nigeria, had 39.28% awareness.

In another work on prostate cancer by Agbugui et al in 2013, 71.6% of the respondents had heard about prostate cancer in a metropolitan setting in Nigeria, while only 22% were aware of PSA testing and sadly, only 4.8% had undergone PSA screening.

A similar work on prostate cancer by Uche et al in Aba, South Eastern Nigeria, found out that 77% of health workers had a good knowledge of PSA testing but 71.1% had no previous PSA testing.

With the upsurge in the three prostate diseases, particularly prostate cancer, efforts must be made to create awareness of the diseases, create awareness of their symptoms and create awareness of their screening protocols.

V. CONCLUSION

The study showed very low level of awareness of the three (3) diseases of the prostate.

Low educational level and poverty were significant in the low level of awareness.

VI. RECOMMENDATIONS

1) Health workers should be specially trained to deliver enlightenment on these diseases to patients and the general public.

2) Groups, churches and tertiary schools etc should embark on regular health seminars in an attempt to increase awareness.

REFERENCES

[1]. C.C. Anunobi et al
Prostate diseases in Lagos Nigeria. A histologic study with PSA correlation.
Niger Postgraduate med. J 2011 Jun.

[2]. Chukwunonso ECC Ejike
Towards the prevention and management of prostrate diseases in Nigeria. A frame work.
Malays J. Med. Sci. 2011
July – Sept. 18 (3) 65-70

[3]. Rufus Wale Ojewola, Ezekiel S. Fela Oridota, Olarenwaju Samuel Balogun, Ezra Olatunde Ogundare, Taiwo Opeyemi Alabi, Oluseyi Omotola Banjo, Adeyinka Laoye, Babatunde Adetumbi, Bamidele Oludele Adebayo, Rotimi Oluyombo,
[4]. Knowledge, Attitudes, and Screening Practices Regarding Prostate Diseases Among Men Older Than 40 Years: A Population Based Study in South West Nigeria. PAMJ, Vol. 27, Article 151, 30 June 2017

[5]. Raheem, Nasiru, Dahiru, Aminu M. C.
Histopathological Pattern of Prostate Diseases in Yola, Nigeria. A Five Year Review.
Nigerian Journal of Medicine, 30 (4) P 390 – 393, July – August 2021.

[6]. Matthew Y Kyei, George O. Klufio, Ali Ayamba and Sherif Mohammed.
Traditional Medicines and Alternative Practices in the Management of Prostate Diseases in Southern Ghana.
Ghana Med J 2017 Sept. 51 (3) 128 – 137.

[7]. ED Yeboah, AW Hsingi, S. Mante, JE Mensah, M Y Kyei, J. Yarney, V. Vanderpuye, K. Beecham, Y. Tetfey, RB Biritwum, AA Adjei, R. Gyasi, K. Asante, K N Ampadu, G. O. Klufio, S. Gepi-Attee, C. Owo, D. Kwami, Ahiaku, R. Pandra and M. B. Cook.
Management of Prostate Cancer in Accra, Ghana.
J. West Afri. Coll Surg. 2016 Oct – Dec 6 (4) 31 - 65

[8]. ED Yeboah.
Prevalence of Benign Prostate Hyperplasia and Prostate Cancer in Africans and Africans in Diaspora.
Journal of West Afri. Coll. Surgeons Oct 2016 6 (4): 1 - 30
[9]. Musau, Pius, Kemei, WK and Wakishi J.
Clinical Characteristics of African Men with Prostate Diseases in a Tertiary Centre in Western Kenya.
East and Central African Journal of Surgery, Vol. 19, No. 2 2014, pp 97 – 101.

[10]. Ogunbiyi, J O, Shittu O. B. (1999).
Increased Incidence of Prostate Cancer in Nigeria.
J Natl Med Assoc, 91:159 – 164.
Rogers A. Enemugwem, Beatrice A. Eze, Afalaka Tobin.
[11]. Prostate Cancer Screening, Assessment of Knowledge, and Willingness to Screen Among Men in Obio Akpor Local Government Area of Rivers State, Nigeria.
African Journal of Urology, 25, Article Number 11 (2019).

[12]. Chukwunonso ECC Ejike Lawrence US Ezeanyika
Prevalence of chronic prostatitis symptoms in randomly surveyed adult population of urban community dwelling Nigerian males.
International Journal of Urology Vol. 15, issue 4 P – 34-343 April 2008.
[13]. RW Ojewola, ES Oridota, OS Balogun, JO Alabi, AI Ajayi, TA Olajide, KH Tijani, EA Jeje, MA Ogunjimi, EO Ogundare.
Prevalence of Benign hyperplasia amongst community dwelling men in a South Western Nigeria Rural Setting.
A cross sectional study
African Journal of Urology Vol. 23, issue 2, June 2017 pages 109-115

[14]. Prince Kasango Mwilla, Philippa Essame, Fabienne Witts- Hewinson, Marylyne Yimbo, Mohammed Behnazir.
The Histological prevalence of prostatitis at Potdietstroom Hospital: a cross sectional study.
PAMJ Vol. 47 article 8 09 Jan 2024.

[15]. Adithya G. Rao, Winniecia Dkhar S Sharath, Rajagodal Kadavigere, and Abhimamyu Pradhan.
Knowledge, awareness and practice towards screening for prostate cancer. A systematic review and Meta analysis
Ethiope J. Health Sci 2023 May: 33 (3) 547- 554

[16]. Soum D. Lokeshwar, Benjamin T. Harper, Eric Webb, Andre Jordon, Thomas A. Dykes Durwood E. Neal Jnr, Martha K- Terris and Zachary Klaassen.
Epidermiology and treatment modalities for the management of Benign prostatic hyperplasia.
Transl Androl Urol 2019 Oct. 8 (5) 529- 539.

[17]. Conor M. Devlim, Mathew S Simms Norman J. Maitland.
Benign prostatic hyperplasia – what do we know.
BJU International Vol. 127, issue 4 page 389 – 399 Sept 2020

[18]. Ajepe AA, Babata A, Abiola O.O.
Knowledge of prostate cancer screening among native African Urban Population in Nigeria.
Nig. QJ Hosp. Med. 2010 20:94-6

[19]. Akinremi T.O., Adeniyi A, Oduniya A., Ogo C.N.
Need for and relevance of prostate cancer screening in Nigeria
E cancer medical science 8: 457

[20]. Titilola O. Akinremi, Chidiebere N. Ogo, Ayodeji O. Olutunde 2011.
Review of prostate cancer research in Nigeria.
Infectious Agents and Cancer 6 (Suppl 2): 58.