African Journal of Biology and Medical Research
ISSN: 2689-534X
Volume 8, Issue 1, 2025 (pp. 110-117)
www.abjournals.org

THE IMPACT OF PROSTATE CANCER ON THE QUALITY OF LIFE OF MEN ATTENDING UROLOGY CLINIC IN A TERTIARY TEACHING HOSPITAL

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Cite this article:

Osonuga, A. A., Ubani, C. G., Osonuga, A., Osonuga, O. A., Okoye, G. C., Osonuga, A. C. (2025), The Impact of Prostate Cancer on the Quality of Life of Men Attending Urology Clinic in a Tertiary Teaching Hospital. African Journal of Biology and Medical Research 8(1), 110-117. DOI: 10.52589/AJBMR-SM4SGEIB

Manuscript History

Received: 11 Jan 2025

Accepted: 13 Feb 2025

Published: 3 Apr 2025

ABSTRACT: *Introduction: The diagnosis of any malignancy puts physical, financial, and mental stress on patients. Prostate Cancer is the most common malignancy among men and has variable progression and outcomes. The aim of our study was to investigate the effects of prostate cancer on the quality of life of men over the age of 60 years attending the urology clinic at Olabisi Onabanjo University Teaching Hospital (OOUTH). Methodology: The study was a cross-sectional study involving one hundred and eight (108) men who were voluntarily recruited from the clinic to complete a four-part questionnaire. Results: Most men reported that prostate cancer has had some form of influence on their daily activities (75.9%), with major concerns about altered bowel function (63.0%) and reduction in libido (69.4%). The psychological impact of the disease or treatment was minimal in our study (22.2%). Conclusion: Healthcare practitioners need to be aware of the biopsychosocial effects of the diagnosis, management and complications of prostate cancer, and indeed other chronic/terminal diseases, on the general wellbeing of their patients. These should be actively sorted and managed appropriately to improve the QoL of patients.*

KEYWORDS: Prostate cancer, Urology Clinic, Quality of life, Nigeria.

Article DOI: 10.52589/AJBMR-SM4SGEIB
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INTRODUCTION

Ageing is a biological process that all living things undergo. It is a sequential, cumulative, irreversible, non-pathological process that is common to everyone, ultimately making individuals less able to face the stress of the environment and thus increasing the chance of ill health and death [1].

The process of ageing alone can affect people's quality of life (QOL). This is further compounded by ill health and multiple comorbidities. QOL is an individual's perception of their position in life in terms of personal, environmental, value system in which they live, goals, expectations, standards, and priorities. It is quite subjective and is based on the understanding of different aspects of life. It is a cumulation of one's personal experience. Examining and attempting to improve the QoL of the elderly is fast gaining public attention, especially in the setting of chronic diseases [2-3]. The QoL of an individual is affected by various chronic diseases, including diabetes, hypertension, osteoarthritis, and malignancy, amongst others.

Prostate cancer (CaP) has assumed public health importance because of its increasing incidence worldwide. Its aetiology, like most cancers that afflict humanity, is poorly understood. However, it is exclusively a malignancy affecting men, most especially elderly men. It is ranked as the fourth most common cancer worldwide and the second most diagnosed cancer found in men after colon cancer [4-5].

CaP is a common cause of morbidity and mortality in developed countries, particularly in Europe and North America. It differs from many other solid tumours in that it majorly has a latent course, i.e., the number of men with undetected prostate cancer – far exceeds the number of men diagnosed with or dying from the disease. However, aggressive variants are not uncommon and pose a clinical and public health challenge [6].

Common risk factors for CaP include age, family history, smoking, low socioeconomic status, diet, vitamin D deficiency, exposure to heavy metals and race: it is thought that the incidence of prostate cancer is highest among African men, followed by whites, Asian/Pacific Islanders and American Indian/Alaska Natives [6, 7].

In Africa, the true incidence of prostate cancer is unknown due to underreporting and poor record-keeping of patients' information and management. However, studies have shown that prostate cancer is the leading cancer in terms of incidence and mortality in Sub-Saharan African men. Prostate cancer is diagnosed more often in men between ages 55 to 74 years, with a median age at diagnosis of 66 years [8]

In Nigeria, it is the leading cause of cancer death among Nigerian men and the third leading cause of cancer death in the general population. The lifetime risk of dying from prostate cancer among men is put at 2.5-3%. While the 5-year survival rate among men with localised or regional prostate cancer is nearly 100 percent, the 5-year survival for prostate cancer with distant metastases is 29.8 percent [7-10].

As prostate cancer mortality rates are much lower than incidence rates, the large majority of men who are diagnosed with prostate cancer die of causes other than prostate cancer. Hence, the local symptom(s) from the disease tends to be a burden to many suffers. This, coupled with the burden of other comorbidities they may have, potentially can affect their QoL [6,11].

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The problems of this cohort are further compounded by expensive pharmacological interventions and late presentation of patients to health facilities; hence, many present with advanced stages of the disease, fewer options for treatment, difficulty in accessing specialists for follow-up and inherent social and cultural norms and beliefs [7,8,12,13].

As these patients live longer because most diseases are locally advanced, the QoL of these patients may potentially begin to decline. The aim of this study was to assess the QoL and factors influencing the QoL of patients attending a specialist outpatient clinic in a teaching hospital in southwest Nigeria.

METHODOLOGY

Our study was a descriptive cross-sectional study carried out at the Urology outpatient clinic of the OOUTH, Sagamu, Nigeria, among men with biopsy-proven prostate cancer. One hundred and eight (108) men over the age of 60 years were recruited for this study, using Cochran's formula to calculate the sample size.

The sample size was calculated using Cochran's formula (1977)

$$n_o = \frac{Z^2 pq}{e^2}$$

Where:

- Z is found in the Z table. A 95% confidence level gives us Z values of 1.96
- P is the estimated proportion of the population.
- q is 1-p
- e is the desired level of precision (i.e. the margin of error). We assume we have 95% confidence and 5% precision of error. The value of e is 0.05

The convenience sampling method, which is a non-probability sampling technique, was used. This aided the selection of respondents because the urology clinic day was a specific day (Friday) of the week, and not every man would have an equal chance to be included in the sample. Therefore, the respondents were chosen according to relative ease of access to them and their availability.

A self-administered, structured questionnaire made up of four sections was used for the study. The sections covered questions about:

i. basic demographics,

ii. respondents' knowledge about predisposing factors to Prostate Cancer,

iii. knowledge about the management of Prostate cancer and

iv. the influence of their diagnosis on their QoL. This question relating to this were drawn up from studies done by Nuhu et al. [12], Esper et al. [14], Pickard et al. [15] and Dunn et al. [16,

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which covered domains about functional outcomes (urinary incontinence, urinary irritation and obstruction, bowel, sexual, and vitality and hormonal function), measured with the Expanded Prostate Cancer Index Composite short form (EPIC-26), plus questions about use of interventions for sexual dysfunction). We used a generic HRQOL (assessed with the 5-level EuroQol five dimensions questionnaire [EQ-5D-5L] measuring mobility, self-care, usual activities, pain or discomfort, and anxiety or depression, plus a rating of self-assessed health)

Ethical approval was obtained from the Babcock University Health Research Ethical Committee (BUHREC) and the School's ethical committee. The approval letter was taken to the management of OOUTH and voluntary participants signed the consent form to partake in the study.

RESULTS

Table 1: Demographic Characteristics of the Respondents

Variables	Responses	Frequency (n = 108)	Percentage (%)
Age- Mean Age ($\bar{x}$)= 64.2 years, Standard Deviation = 3.38	60 – 64 years	78	72.2
	65 – 70 years	31	28.7
	Above 70 years	9	8.3
Marital Status	Single	7	6.5
	Married	57	52.8
	Divorced	32	28.6
	Widowed	12	11.1
Religion	Christianity	64	59.3
	Islam	34	31.5
	Traditional	8	7.4
	Others	2	1.9
Ethnicity	Yoruba	88	81.5
	Igbo	12	11.1
	Hausa	5	4.6
	Others	3	2.8
Occupation	Retired	68	63.0
	Businessman	35	32.4
	Others	5	4.6

The mean age of the respondents was 64.2 $\pm$ 3.38 years. Most of the respondents were retired men (63%) between ages 60 – 64 years (72.2%). About half of them (52.8%) were married, with more than half (59.3%) of the respondents being Christians of the Yoruba tribe (81.5%) of Nigeria.

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Figure 1: Pattern of attendance of patients to the Urology clinic

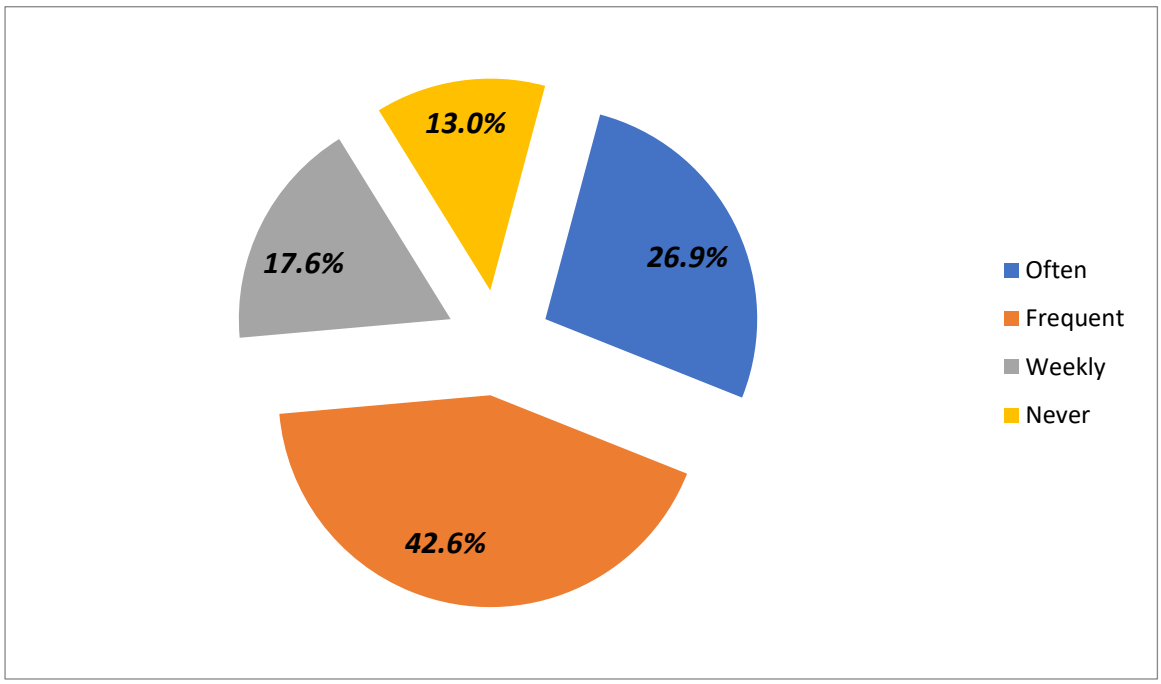

Table 2: Influence of Prostate Cancer diagnosis on the QoL of the respondents

Questions	Yes	No	I don't know
	Freq. (%)	Freq. (%)	Freq. (%)
Prostate Cancer affects my daily activities	82 (75.9)	12 (11.1)	14 (13.0)
Prostate Cancer affects my bowel and urinary function	68 (63.0)	23 (21.3)	17 (15.7)
Prostate Cancer affects my libido and sexual drive	75 (69.4)	15 (13.9)	18 (16.7)
Prostate Cancer affects my mental state and psychological well-being	24 (22.2)	47 (43.5)	37 (34.3)
Warned about side effects of treatment	25 (23.1)	67 (62.1)	16 (14.8)

Most of the respondents (75.9%) said that prostate cancer affects their daily activities. Unfortunately, 62.1% noted they were not warned about the side effects or complication(s) of treatment or the disease progression. Nearly two-thirds (63.0%) indicated their diagnosis interfered with their bowel and urinary function. Another two-thirds (69.4%) reported a decline in libido and sexual drive. Very few respondents (22.2%) felt that the prostate cancer diagnosis took a toll on their mental health.

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DISCUSSION

The aim of this study was to assess the QoL of men with prostate cancer attending a public specialist clinic in southwest Nigeria.

The majority of the respondents (75.9%) reported that prostate cancer affected their daily activities (see Table 2). The outcome measures we used to assess QoL have been described in methods above [12-16,] and our findings were at par with those of a British study [17] and another Nigerian study [12].

The impact of CaP may be due to inconveniences associated with symptoms such as increased frequency of urination, pain while urinating, pelvic pain, back pain and pain in other parts of the body. In advanced stages, the patient may develop a loss of control of the bladder and bowel. This may explain the high (63%) incidence of bladder and bowel dysfunction in our study, as most patients presenting to secondary care in sub–Saharan Africa, including Nigeria, who eventually are confirmed to have cancer tend to present late [7,12,13]. Also, the mainstay of treatment of prostate cancer in Nigeria is surgery, while in more advanced centres, radiotherapy can be offered [18]. Unfortunately, studies have shown that men treated with surgery tend to have mainly urinary and sexual problems, while those treated with external beam radiotherapy reported mainly bowel problems [19].

69.4% said their libido and sexual appetite are also affected. This, again, has been reported in the literature (Hampson). Patients are put on medications coupled with orchidectomy that have the resultant side effects of reduced sexual drive [19,20].

Each of the three common primary therapies for prostate cancer currently available to patients showed a unique pattern of changes in quality of life-related to urinary symptoms, sexual and bowel function, and vitality or hormonal function [20]. From our study, this information probably was not properly communicated to the patients, as over 60% of them reported they were not aware of the side effects of treatment or what to expect from the progression of the disease (see Table 2).

Limited attention has been given to the psychological impact of CaP on the lives of patients living with it [21]. Interestingly, very few patients (22.2%) reported psychological and mental health consequences of their diagnosis (see Table 2). This is similar to the 30% observed among cancer patients in a study by Nuhu et al. [12] and a meta-analysis done by Maggie et al. [12]. We do wonder if the psychological impact of chronic diseases, including malignancies is being downplayed and perhaps needs to be explored further.

Though not explored in this study, some other workers have identified predictors for low QoL in patients with prostate cancer. This includes increasing age, lack of social support and the kind of treatment received [21,22]

The QoL of patients with CaP in southwest Nigeria has been discussed in this study. We advocate for better patient education and access to surveillance and screening to ensure that cases are picked early. Also, psychological support for patients undergoing treatment for CaP or any other malignancy, for that matter, is important as this will improve their biopsychosocial wellbeing.

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