

## Assessment of the Quality of Life of Patients with Benign Prostatic Hyperplasia in Selected Hospitals in Akwa Ibom State, Nigeria

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### Abstract

**Background:** Quality of life (QoL) provides an insight on how patients perceive their well-being, daily functioning and treatment tailored to improve their overall health such as self-care. This study was designed to assess the QoL of patients with Benign prostatic hyperplasia (BPH) in selected hospitals in Akwa Ibom State, Nigeria. **Materials and methods:** This prospective cross-sectional study among 251 patients was conducted in selected hospitals using the World Health Organization Quality of Life-BREF (WHOQOL-BREF) questionnaire. Data on QoL across the main four domains such as physical health, psychological well-being, social relationships, and environmental context were retrieved and analyzed using descriptive statistical tools. **Results:** Out of 251 respondents the majority 83 (33.1%) were within the age group of 60 to 69 years and the least 36 (14.3%) were in the age bracket of 70 years and above. Large proportion 185 (73.7%) of the respondents were married and the least 13 (5.2%) were single. The grand total mean for general quality of life is  $1.97 \pm 0.67$ . The grand mean value for physical well-being is  $2.94 \pm 0.84$ . The grand mean value for psychological well-being is  $2.86 \pm 0.86$ . The grand mean value for social relationship is  $2.65 \pm 0.78$  and the grand mean value of quality of life of patients with BPH in the selected hospitals is  $2.62 \pm 0.69$  indicating moderate level quality of life. However, the patients were not satisfied with their general well-being and quality of life as indicated in low means scores and standard deviation (Mean=1.97, SD=0.67) and environmental well-being (Mean=2.39, SD=0.77) and items in social relationship. **Conclusion:** The quality of life of patients with BPH was found to be moderate generally, indicating that patients were able to maintain satisfactory physical, emotional, and social well-being despite the chronic nature of the condition.

**Keywords:** Benign prostatic hyperplasia, Healthcare, Quality of life.

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## INTRODUCTION

Benign prostatic hyperplasia (BPH) also referred to as Prostatic Hypertrophy is one of the common urological health conditions that significantly affect the quality of life of men worldwide, particularly in advancing age. Globally, BPH prevalence increases with age, with approximately 50% of men aged 60 years and above and up to 90% of men aged 85 years and above affected by the condition [1]. In sub-Saharan African countries which Nigeria is inclusive, BPH constitute a serious health problem with majority of cases occurring from age 50 to 80 years and above. Notable, this condition is reported among men 40 years of age and becoming a growing concern [2].

Benign Prostatic Hyperplasia is a non-cancerous enlargement of the prostate gland which subsequently exerts pressure on the urethra leading to obstructive and irritating lower urinary tract symptoms (LUTS) [2]. The obstructive symptoms include; difficulty starting and maintaining urination (hesitancy), weak urine stream, intermittency and straining during urination, sensation of incomplete bladder emptying and prolonged urination [3,4]. Irritating symptoms are: frequency and urgency in urination, nocturia (night-time urination), Dysuria (discomfort and pains during urination). Additionally, LUTS symptoms can lead to severe complications such as post-void dribbling, acute urinary retention, recurrent urinary tract infections (UTIs), and renal insufficiency [5-7]. These symptoms

significantly impaired the quality of life (QoL) of patients which have impact on their physical, social, and psychological well-being.

The World Health Organization (WHO) defines Quality of life (QOL) as individual perceived well-being, including physical, psychological and social dimension. In healthcare, quality of life provides an insight on how patients perceive their well-being, daily functioning and treatment tailored to improve their overall health such as self-care (WHO, 2021). Quality of life (QoL) is a multidimensional concept that encompasses individuals' physical health, psychological state, level of independence, social relationships, and relationship to salient features of their environment [8]. Despite the significance of QOL determination in healthcare policy decision-making, there has been paucity of information on the QOL of patients with BPH especially in this study location, hence, this study.

## MATERIALS AND METHODS

This cross-sectional study of 251 purposively sampled patients with BPH was carried out at selected hospitals in Akwa-ibom State, Nigeria from August 2025 to February 2026. The inclusion criteria include patients diagnosed with BPH and were agreed to participate in this study. Ethical approval (**RSU/FBMS/REC/25/330**) was obtained from the Human Research and Ethic committee of the Faculty of Basic Medical Sciences, College of Medical Sciences, River State University, Port Harcourt, Nigeria. Permission for this study was also obtained from the study centers. The information obtained were held in strict confident and use for this study only.

In assessing the quality of life of participants, we adopted the World Health Organization Quality of Life-BREF (WHOQOL-BREF) instrument, which enable us to evaluate four major domains such as Physical health, psychological well-being, social relationships, and Environmental context. The WHOQOL-BREF is validated across diverse cultural settings [9-11]. Responses were rated using a 4-point adapted WHOQOL=BREF instrument as :(1) Strongly Agreed (2) Agreed (3) Disagreed (4) Strongly Disagreed [12]. Patients who indicated interest in participating in this study were ushered to a private seating area and were informed orally and in writing about the patterns of the study, and that their participation will involve filling out questionnaire and providing answers to some questions. Each patient filled in the WHOQOL-BREF questionnaire based on their quality of life as at the time of administering the questionnaire and interview. The Nurses and patient's relatives who involved in this study were adequately informed about the study and their consents and supports were duly sought. The researchers administered the questionnaire using one-to-one method and the completed questionnaire was retrieved immediately. Data such as gender, age group, QoL outcome responses were collected using data capture

sheet and analyzed using descriptive statistics (mean standard deviation, tables, frequency, percentages and bar chart) and data processing and analysis were done using Statistical Package for Social Sciences (SPSS) version 20(SPSS, Inc, Chicago, IL USA). The decision mean cut off are; 1.00-1.74 as very low, 1.75-2.49 as low, 2.50-3.24 as moderate, and 3.25-4.00 as high quality of life.

## RESULTS

Out of 251 respondents the majority 83 (33.1%) were within the age group of 60 to 69 years and the least 36 (14.3%) were in the age bracket of 70 years and above. Large proportion 185 (73.7%) of the respondents were married and the least 13 (5.2%) were single. Based on highest educational qualification majority 109 (43.4%) and the least 5 (2%) have no formal education. By occupation 104 (41.1%) were self-employed followed by 46 (18.3%) were retired while 4 (1.6%) were unemployed. The majority 92 (36.7%) earned ₦20,000–₦49,999 monthly and least 19 (7.6%) earned less than ₦20,000 monthly. Based on living condition, majority 107 (42.6%) lived with family and children followed by 106 (42.2%) who lived with their spouses and the least 7 (2.8%) lived with caregivers. On the duration of BPH diagnosis most respondents 90 (35.9%) have been diagnosed for 1-3 years subsequently 85 (33.9%) 4-6 years and least 16 (16.4%) for more than 6 years (Table 1).

The data presented in table 2 indicates that the mean score and standard deviation item on General well-being on statements such as I am satisfied with my quality of life and I fell satisfied with my overall general health condition are  $1.90 \pm 0.70$  and  $1.97 \pm 0.67$ . The grand total mean for general quality of life is  $1.97 \pm 0.67$ . However, the patients were not satisfied with their general well-being and quality of life as indicated in low means scores and standard deviation (Mean=1.97, SD=0.67). The table 2 on physical well-being domain and on statement such as waking up in the night to urinate disturbs my sleep and pain or discomfort while urinating affects my comfort mean value and  $2.92 \pm 0.84$  respectively. The grand mean value for physical well-being is  $2.94 \pm 0.84$ . The table further indicated that the mean and standard deviation value for statement used to determine psychological well-being of patients with BPH such as I feel anxious or worried due to my urinary conditions and I feel depressed because of the chronic nature of BPH are  $3.16 \pm 1.96$  and  $2.64 \pm 0.82$  while my self-esteem (worth) has reduced due to BPH symptoms is  $2.84 \pm 0.70$  respectively. The grand mean value for psychological well-being is  $2.86 \pm 0.86$ (Table 2). Also shows that the mean value and standard deviation for statements used to access social relationships such as I feel anxious discussing my condition with others and my relationship with spouse and friends is affected by urinary condition are  $2.81 \pm 0.79$  and  $2.44 \pm 0.80$ . The grand mean value for social relationship is  $2.65 \pm 0.78$  (Table 2).

The table on Environmental domain on statements such as my work environment is supportive of my condition and I can easily access clean restrooms when I need to urinate  $2.12 \pm 0.84$  respectively. The grand mean for environmental domain is  $2.39 \pm 0.77$ . Finally, the mean and standard deviation value statements on General Health perception such as my overall health has improved since I began treatment for BPH and my current quality of life is good despite my

condition are  $2.86 \pm 0.70$  and  $2.46 \pm 0.68$ . The grand mean value of quality of life of patients with BPH in the selected hospitals is  $2.62 \pm 0.69$  indicating moderate level quality of life (Table 2). However, the patients were not satisfied with their general well-being and quality of life as indicated in low means scores and standard deviation (Mean=1.97, SD=0.67) and environmental well-being (Mean=2.39, SD=0.77) and Items in social relationship (Table 2).

**Table 1: Frequency and percentage distribution of the respondents' socio-demographic variables**

Variables	Categories	Frequency	Percentage (%)
Age	40–49 years	61	24.3
	50–59 years	71	28.3
	60–69 years	83	33.1
	70 years and above	36	14.3
	<b>Total</b>	<b>251</b>	<b>100</b>
Marital Status	Single	13	5.2
	Married	185	73.7
	Divorced	19	7.6
	Widowed	34	13.5
	<b>Total</b>	<b>251</b>	<b>100.0</b>
Highest Educational Qualification	No formal education	5	2.0
	Primary education	34	13.5
	Secondary education	109	43.4
	Tertiary education	103	41.0
	<b>Total</b>	<b>251</b>	<b>100.0</b>
Occupation	Civil servant	44	17.5
	Self-employed	104	41.4
	Farmer	19	7.6
	Trader	34	13.5
	Retired	46	18.3
	Unemployed	4	1.6
	<b>Total</b>	<b>251</b>	<b>100.0</b>
Monthly Income Level (in Naira)	Less than ₦20,000	19	7.6
	₦20,000–₦49,999	92	36.7
	₦50,000–₦99,999	51	20.3
	₦100,000 and above	89	35.5
	<b>Total</b>	<b>251</b>	<b>100.0</b>
Living Condition	Alone	31	12.4
	With spouse	106	42.2
	With children/family	107	42.6
	With caregiver	7	2.8
	<b>Total</b>	<b>251</b>	<b>100.0</b>
Duration of BPH Diagnosis	Less than 1 year	60	23.9
	1–3 years	90	35.9
	4–6 years	85	33.9
	More than 6 years	16	6.4
	<b>Total</b>	<b>251</b>	<b>100.0</b>

**Table 2: Descriptive statistics (Mean & SD) on the Quality of Life of patients with BPH in selected hospitals in Akwa Ibom State**

S/N	Statement	SA	A	D	SD	Mean	SD	Ranking	Decision Rule
<b>A</b>	<b>General well-being</b>								
	BPH affect satisfaction of quality of my life	5	36	140	70	1.90	0.70	21 <sup>st</sup>	low
	Overall general health of life is satisfied despite BPH.	6	37	168	40	2.04	0.63	20 <sup>th</sup>	low
	<b>Grand Total</b>					<b>1.97</b>	<b>0.67</b>		<b>Low</b>
<b>B</b>	<b>Physical Well-being</b>								
	Frequent urination disrupts performance of daily activities.	33	140	52	26	2.72	0.82	9 <sup>th</sup>	Moderate
	Urgency in urinating affects my physical well-being.	34	150	64	3	2.86	0.65	4 <sup>th</sup>	Moderate
	Pain or discomfort while urinating affects general well-being health.	44	155	46	6	2.94	0.67	2 <sup>nd</sup>	Moderate
	Waking up in the night to urinate disrupts quality of sleep.	55	144	29	23	2.92	0.84	3 <sup>rd</sup>	Moderate
	<b>Grand Total</b>					<b>2.86</b>	<b>0.74</b>		<b>Moderate</b>
<b>C</b>	<b>Psychological Well-being</b>								
	BPH lead to feeling of anxious and worried due to urinary discomfort.	64	139	43	5	3.16	1.96	1 <sup>st</sup>	low
	BPH causes feeling of depression because of the chronic nature.	34	104	100	13	2.63	0.78	14 <sup>th</sup>	Moderate
	self-esteem (my worth in life) is reduced due BPH symptoms.	31	163	43	14	2.84	0.70	6 <sup>th</sup>	Moderate
	Feeling of mentally distressed and sadness is associated with unpredictable urinary urges.	31	155	55	10	2.82	0.69	7 <sup>th</sup>	Agreed
	<b>Grand Total</b>					<b>2.86</b>	<b>1.03</b>		<b>Moderate</b>
<b>D</b>	<b>Social Relationships</b>								
	Social outings are restricted due to fear of frequent urination.	30	127	72	22	2.66	0.80	12 <sup>th</sup>	Moderate
	Relationship with the spouse and friends are affected by urinary condition.	21	97	104	29	2.44	0.80	17 <sup>th</sup>	low
	Discussing BPH condition with others is embarrassing	45	127	65	14	2.81	0.79	8 <sup>th</sup>	Moderate
	Participating in social or religious activities is reduced because of BPH symptoms.	20	147	68	16	2.68	0.71	10 <sup>th</sup>	Moderate
	<b>Grand Total</b>					<b>2.65</b>	<b>0.78</b>		<b>Moderate</b>
<b>E</b>	<b>Environmental</b>								
	Clean restrooms are easily accessed when I need to urinate.	25	63	145	18	2.38	0.76	18 <sup>th</sup>	low
	Adequate BPH support is received from healthcare services for managing BPH.	27	126	89	9	2.68	0.71	11 <sup>th</sup>	Moderate
	Work environment is supportive to my condition.	16	56	120	59	2.12	0.84	19 <sup>th</sup>	low
<b>Grand Total</b>					<b>2.39</b>	<b>0.77</b>		<b>Moderate</b>	
<b>F</b>	<b>General Health Perception</b>								
	General health has improved with management and treatment for BPH.	42	136	69	4	2.86	0.70	5 <sup>th</sup>	Moderate
	Satisfied with the care I receive for managing my condition	15	138	93	5	2.65	0.62	13 <sup>th</sup>	Moderate
	Current quality of life is good despite having BPH.	12	107	117	15	2.46	0.68	16 <sup>th</sup>	low
	BPH condition is confidently managed independently.	17	105	109	20	2.53	0.74	15 <sup>th</sup>	Moderate
	<b>Grand Total</b>					<b>2.62</b>	<b>0.69</b>		<b>Moderate</b>

**Key:** SA - Strongly Agreed, A-Agreed, D- Disagreed, SD - Strongly Disagreed

## DISCUSSIONS

The quantitative result of the study indicate quality-of-life of patients with BPH in selected hospitals in Akwa Ibom State is moderately high with the grand mean score of 2.62 which was greater than the cut-off mean score of 2.50. This shows that patients with Benign Prostatic Hyperplasia (BPH) maintain a moderate level of quality of life despite the challenges associated with the condition. Most patients are coping well with the physical and emotional demands of their condition, likely due to effective medical follow-up, family support, and self-care strategies. The relatively high physical and psychological well-being mean scores indicate that patients are able to manage their symptoms effectively, possibly through adherence to prescribed medications, routine check-ups, and lifestyle adjustments such as diet modification and moderate physical activity. However, the patients were not satisfied with their general well-being and quality of life as indicated in low means scores and standard deviation (mean=1.97, SD=0.67) and environmental well-being (mean=2.39, SD=0.77) and Items in social relationship. unsatisfactory level of social relationship well-being implies that patients does to enjoy meaningful interpersonal interactions and support from family due to the impact of the BPH, which contributes negatively affect their overall quality of life. Patients may be adjusting well physically and psychologically; they still face challenges related to their broader living conditions and perceived life satisfaction. These could stem from environmental factors such as limited access to clean toilet, inadequate health facilities, poor housing, or financial constraints that reduce comfort and independence.

The finding is in consonance with Nguyen & Patel [14] on physical limitations and chronic disease self-management among elderly patients who discovered that effective self-care practices are cardinal to management of patients with BPH and improvement of the overall quality of life. The result also concur with the conducted study by An *et al.*, [15], which reported that undermine work routine sleep alterations, stigma, clinic waiting time degrades the quality of life of patients with BPH. Similarly, Husted *et al.*, [16], investigated the lived experiences of men with BPH and how symptom burden influences their quality of life in United Kingdom and their result indicated gradual deterioration of QOL across physical, emotional and social domains QOL losses were emotional (embarrassment, anxiety), relationship (sexual strain), social withdrawal).

## CONCLUSION

The quality of life of patients with BPH was found to be Moderate, indicating that patients were able to maintain moderately satisfactory level of physical, emotional, and social well-being despite the chronic nature of the condition. This may be a result of adherence to medical advice, regular monitoring, and the psychological reassurance provided through healthcare counselling and family support.

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