Original Article

Work Related Quality of Life Among Health Care Workers in Sokoto, Northwestern Nigeria

Magaji BA[1,2*], **Abubakar A**[3], **Abubakar RZ**[4], **Bello SA**[1], **Ahmed R**[1], **Adewumi OM**[1], **Bashir Z**[5]

[1] *Department of Community Health, Faculty of Clinical Sciences, College of Health Sciences, Usmanu Danfodiyo University, Sokoto Nigeria.*
[2] *One Health Institute, Usmanu Danfodiyo University, Sokoto Nigeria.* [3] *Department of Psychiatry, Usman Danfodiyo Teaching Hospital, Sokoto Nigeria.*
[4] *Department of Pharmacology and Therapeutics, Faculty of Basic Clinical Sciences, College of Health Sciences, Usmanu Danfodiyo University, Sokoto Nigeria.*
[5] *Department of Pharmaceutical Sciences, Ministry of Health, Sokoto Nigeria.*

Article History
Submitted: 05/04/2025; Accepted: 12/04/2025: Published: 18/04/2025

***Correspondence:** Bello Arkilla Magaji
Email: bello.magaji@udusok.edu.ng

ABSTRACT

Healthcare workers (HCWs) play a vital role in healthcare delivery, but various occupational stressors significantly impact their work-related quality of life (WRQoL). This study assesses WRQoL among HCWs in selected tertiary hospitals in Sokoto, Nigeria, identifying key determinants and providing recommendations for improvement. A descriptive cross-sectional study was conducted among 206 HCWs at Usmanu Danfodiyo University Teaching Hospital (UDUTH) and Specialist Hospital Sokoto (SHS). The WRQoL scale was used to assess different domains, and statistical methods, including Pearson's correlation and regression models, were applied to determine predictors of WRQoL. The findings indicate that WRQoL was moderate among participants, with significant correlations observed between WRQoL and factors such as age, years of experience, and hours worked per week. Nurses reported better WRQoL compared to doctors and pharmacists. High workload, insufficient staffing, and limited career advancement opportunities were identified as major challenges affecting WRQoL. The study also found that increased working hours negatively affected WRQoL, whereas more years of experience correlated positively with better outcomes. Laboratory scientists demonstrated significantly better WRQoL than other professionals. Addressing workload distribution, providing career growth opportunities, and implementing work-life balance strategies are essential measures to improve WRQoL among HCWs. Enhancing workplace conditions and mental health support programs can contribute to overall job satisfaction and healthcare efficiency.

Keywords: Healthcare Workers, Job Satisfaction, Occupational Stress, Work-Related Quality of Life.

INTRODUCTION

Healthcare workers (HCWs) comprise a diverse group of professionals, including physicians, nurses, pharmacists, radiologists, and administrative staff, who provide medical services in a coordinated manner[1]. In Nigeria, the HCW-to-patient ratio is low, averaging 1.95 per 1,000 people[1]. This shortage, combined with socio-political and economic challenges, contributes to stress, burnout, job dissatisfaction, and absenteeism, prompting HCWs to migrate to developed nations like the United States, Canada, and the United Kingdom, further exacerbating the workforce deficit[2].

The World Health Organization (WHO) promotes high Quality of Care (QoC) that is effective, safe, equitable, and patient-centered despite the occupational hardships faced by HCWs[3]. QoC is assessed based on its impact on patient experiences and health outcomes[4]. Creating a positive work environment for HCWs improves their WRQoL and

Article Access
Website: www.wjmbs.org
10.5281/zenodo.15485730

How to cite this article
Magaji BA, Abubakar A, Abubakar RZ, Bello SA, Ahmed R, Adewumi OM, Bashir Z. Work Related Quality of Life Among Health Care Workers in Sokoto, Northwestern Nigeria. West J Med & Biomed Sci. 2025;6(2):66-71. DOI:10.5281/zenodo.15485730.

service delivery. However, healthcare workers (HCWs) face various occupational risks, including physical, chemical, biological, psychosocial, and ergonomic hazards, making them a priority in the WHO's Work Plan (2009–2012, 2014–2019) for workplace safety[5,6].

Work-related quality of life (WRQoL) encompasses workplace conditions, salary, decision-making involvement, and job flexibility. HCWs frequently experience sleep deprivation, stress, and fatigue, negatively impacting WRQoL[7]. A validated WRQoL scale has been adopted in multiple countries, including China and Thailand, proving reliable in assessing WRQoL among registered nurses[8,9]. Studies indicate that HCWs, particularly nurses, report lower WRQoL scores, influenced by work experience, sleep patterns, gastrointestinal health, family harmony, and employment setting[9,10,11].

The justification for the study centers on the need to improve the well-being of healthcare workers in Sokoto State, which directly impacts patient care quality and healthcare outcomes. Furthermore, in the regional context, Sokoto State faces unique challenges in healthcare delivery due to factors such as infrastructure, resource allocation, and cultural considerations. Understanding the WRQoL in this context provides insights into region-specific stressors and coping mechanisms. Therefore, this study aims to examine the perceived work-related quality of life of health care workers in selected tertiary health care institutions in Sokoto state, Nigeria.

MATERIALS AND METHODS

Study Area: The study was conducted at Usmanu Danfodiyo University Teaching Hospital (UDUTH) and Specialist Hospital Sokoto (SHS), both located in Sokoto State, Northwestern Nigeria.

Study Design: A descriptive cross-sectional study was used.

Population and Sampling: The study population included HCWs such as doctors, nurses, pharmacists, laboratory scientists, radiographers, and administrative staff. A stratified random sampling technique was employed, which involved categorizing healthcare workers in UDUTH and Specialist Hospital Sokoto into distinct professional groups (e.g., nurses, doctors, pharmacists) and then proportionally and randomly selecting participants from each group.

Data Collection: A validated 36-item second edition of the WRQoL scale, which has a better psychometric property, was used[8]. Variables assessed included job satisfaction, stress at work, control at work, home-work interface, and working conditions.

Ethical Consideration: Ethical approval was obtained from the Health Research and Ethics Committees of UDUTH and SHS (Reg: UDUTH/HREC/2024/1396/V2). Informed consent was obtained from all participants.

Statistical Analysis: Data were analyzed using SPSS version 27. Pearson correlation and multiple linear regression were used to determine associations between variables.

RESULTS

Participant Socio-demographic Information (n=206)

A total of 291 questionnaires were administered to healthcare workers in UDUTH and SHS. Of these, 206 questionnaires were returned, completed, and correctly filled. The socio-demographic analysis of 206 participants revealed a nearly equal gender distribution, with females constituting 52.4% (n=108) and males 47.6% (n=98). The majority of respondents (n=108, 40.3%) were in the 20-29 age group, followed by 37.9% (n=78) in the 30-39 age bracket. Ethnicity-wise, Hausa/Fulani represented the highest proportion (n=, 126, 61.2%), with Yoruba (n=20, 9.7%), Nupe (n=15, 7.3%), Igbo (n=11, 5.3%), and others (n=34, 16.5%) comprising the rest. Regarding professional designation, nurses (n=65, 31.6%) and doctors (n=58, 28.2%) were the most represented, while pharmacists (n=22, 10.7%) and laboratory scientists (n=15, 7.3%) formed a smaller segment. Notably, 44.2% (n=91) had less than two years of working experience, and 64.6% (n=133) held permanent appointments (Table 1).

Tests for Normality (Kolmogorov-Smirnov and Shapiro-Wilk)

This table assesses the distribution of three key variables: WRQoL, hours worked per week, and years of experience. Both normality tests returned *p*-values < 0.05, indicating that these variables were not normally distributed. Therefore, non-parametric methods were used for subsequent analysis (Table 2).

Correlation Analysis (Kendall's tau-b and Spearman's rho)

This table examines the relationships among years of experience, hours worked per week, and WRQoL. Results from both Kendall's and Spearman's tests revealed a positive correlation between years of experience and WRQoL (Spearman's $\rho = 0.258$, $p < 0.01$) was found. A negative correlation was found between hours worked per week and WRQoL (Spearman's $\rho = -0.160$, $p = 0.022$) (Table 3).

Pearson Correlation Between Age Group and WRQoL

This table shows a statistically significant positive correlation ($r = 0.236$, $p = 0.001$) between age group and WRQoL. This implies that older healthcare workers tend to report higher WRQoL (Table 4).

Logistic Regression for Predictors of WRQoL

This table presents the logistic regression results identifying predictors of good or poor WRQoL. Key findings include: Laboratory scientists had significantly better WRQoL compared to other cadres ($p = 0.007$). Increased work hours per week significantly predicted poorer WRQoL ($p = 0.037$). Other variables such as age, gender, income, and years of experience did not significantly predict WRQoL in the multivariate model (Table 5).

Overall Outcome from WRQoL Domains

This table presents frequency distributions for responses (ranging from Strongly Disagree to Strongly Agree) across seven WRQoL domains: Job and Career Satisfaction (JCS) had the highest positive outcome at 72.8% (n=150). Control at Work (CAW) and Stress at Work (SAW) displayed lower positive outcomes at 36.4% (n=75) and 33.9% (n=70), respectively. The overall WRQoL score indicated that 48.8% (n=100) of respondents had good WRQoL, while 51.2% (n=106) experienced poor WRQoL (Table 6).

Mean and Standard Deviation from Each WRQoL Domain

This table quantifies the central tendency and variability for each WRQoL domain. The highest mean scores were observed in Job and Career Satisfaction (Mean = 3.91) and Employee Engagement (Mean = 3.75). The lowest scores were recorded in Control at Work (Mean = 3.14) and Home-Work Interface (Mean = 3.06) (Table 7).

WRQoL Outcomes Across Socio-demographic Variables

This table compares WRQoL outcomes (good vs. poor) across gender, age, hours worked, designation, and years of experience. Notable findings include the following: Poor WRQoL was more common among younger HCWs, those working >70 hours/week, and pharmacists (n=17, 77.3% reported poor WRQoL). Those with more than 10 years of experience or aged 50–59 had better WRQoL outcomes (Table 8).

Table 1: Participant Socio-demographic data (n=206)

VARIABLES		F	Percentage
Gender	Female	108	52.4%
	Male	98	47.6%
Age group (in years)	20-29	83	40.3%
	30-39	78	37.9%
	40-49	38	18.4%
	50-59	7	3.4%
Ethnicity	Hausa/Fulani	126	61.2%
	Yoruba	20	9.7%
	Igbo	11	5.3%
	Nupe	15	7.3%
	Others	34	16.5%
Designation	Nurse	65	31.6%
	Doctor	58	28.2%
	Pharmacist	22	10.7%
	Laboratory Scientist	15	7.3%
	Others	46	22.3%
Years of Experience	<2	91	44.2%
	3-5	46	22.3%
	6-10	49	23.8%
	>10	20	9.7%
What type of appointment is your current post	Permanent	133	64.6%
	Temporary	73	35.4%
Your approximate monthly income falls in the range of	Less than 160,000 naira	65	31.6%
	161,000-320,000 naira	113	54.9%
	321,000 naira and above	28	13.6%
Hours worked in a week	<30	3	1.5%
	31-40	74	35.9%
	41-50	73	35.4%
	51-60	28	13.6%
	61-70	12	5.8%
	>70	16	7.8%
Days off	0-10	176	85.4%
	11-20	21	10.2%
	21-30	4	1.9%
	>30	5	2.4%

Table 2: Kolmogorov- Smimov and Shapiro-Wilk test for normality of WRQoL, Hours worked per week, and years of experience

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	frequency	p-Value	Statistic	Frequency	p-Value
WRQoL	0.078	206	0.004	0.984	206	0.020
Hours worked per week	0.260	206	<0.001	0.836	206	<0.001
Years of Experience	0.272	206	<0.001	0.811	206	<0.001

The test is significant at $p\text{-Value} \geq 0.05$

Table 3: Kendall's tau b and Spearman's rho correlation between Years of experience, Hours worked per week, and WRQoL

			Years of Experience	Hours Worked per week	WRQoL
Kendall's tau b	Years of Experience	Correlation Coefficient	1.000	-0.129*	0.199**
		Sig. (2-tailed)	.	0.030	<0.001
	Hours worked per week	Correlation Coefficient	-0.129*	1.000	-0.118*
		Sig. (2-tailed)	0.030	.	0.025
	WRQoL	Correlation Coefficient	0.199**	-0.118*	1.000
		Sig. (2-tailed)	<0.001	0.025	.
Spearman's rho	Years of Experience	Correlation Coefficient	1.000	-0.153*	0.258**
		Sig. (2-tailed)	.	0.029	<0.001
	Hours worked per week	Correlation Coefficient	-0.153*	1.000	-0.160*
		Sig. (2-tailed)	0.029	.	0.022
	WRQoL	Correlation Coefficient	0.258**	-.160*	1.000
		Sig. (2-tailed)	<0.001	0.022	.

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Table 4: Pearson correlation test between Age Group and WRQoL

		Age Group	WRQoL
Age Group	Pearson Correlation	1	0.236**
	Sig. p-Value (2-tailed)		0.001
WRQoL	Pearson Correlation	0.236**	1
	Sig. p-Value(2-tailed)	0.001	

**. Correlation is significant at the 0.01 level (2-tailed).

Table 5: Factors that best classify health practitioners with good and poor work-related quality of Life

Predictors	Regression Coefficients(B)	**Odds ratio(β)**	Wald	p-Value
Age (years)	0.142	0.332	0.184	0.668
Gender(reference=male)				
Female	0.023	0.319	0.005	0.943
Designation				
Others (reference)				
Doctors	0.986	0.639	2.381	0.123
Nurses	0.856	0.793	1.164	0.281
Pharmacists	1.149	0.648	3.151	0.076
Lab. Scientists	1.948	0.717	7.380	0.007
Years of Experience	0.241	0.291	0.684	0.408
Monthly Income				
(>321,000 references)				
<160,000	-0.546	0.404	1.830	0.176
161,000-320,000	-0.576	0.591	0.950	0.330
Hours worked per week	-0.338	0.162	4.361	0.037
Constant	-0.647	0.791	0.669	0.413

Table 6: Overall Outcome from the WRQoL Domains

							OUTCOME	
DOMAIN		SD	D	N	A	SA	POOR	GOOD
JCS	F	2	7	47	102	48	56	150
	(%)	(1.0)	(3.4)	(22.8)	(49.5)	(23.3)	(27.2)	(72.8)
CAW	F	7	53	71	55	20	131	75
	(%)	(3.4)	(25.7)	(34.5)	(26.7)	(9.7)	(63.6)	(36.4)
GWB	F	2	23	52	97	32	77	129
	(%)	(1.0)	(11.2)	(25.2)	(47.1)	(15.5)	(37.4)	(62.6)
HWI	F	18	51	60	55	22	129	77
	(%)	(8.7)	(24.8)	(29.1)	(26.7)	(10.7)	(62.6)	(37.4)
SAW	F	13	42	81	59	11	136	70
	(%)	(6.3)	(20.4)	(39.3)	(28.6)	(5.3)	(66.1)	(33.9)
WC	F	6	55	54	48	43	115	91
	(%)	(2.9)	(26.7)	(26.2)	(23.3)	(20.9)	(55.8)	(44.2)
EEN	F	1	16	68	69	52	85	121
	(%)	(0.5)	(7.8)	(33.0)	(33.5)	(25.2)	(41.3)	(58.7)
PERCEPTION	F	21	22	51	82	30	94	112
	(%)	(10.2)	(10.7)	(24.8)	(39.8)	(14.6)	(45.6)	(54.4)
WRQoL SCALE	F	2	24	79	86	14	106	100
	(%)	(1.0)	(11.7)	(38.5)	(42.0)	(6.8)	(51.2)	(48.8)

Job and Career Satisfaction (JCS), Control at Work (CAW), General Well Being (GWB), Home Work Interface (HWI), Stress at Work (SAW), Working Conditions (WC), Employee Engagement (EEN). SD: Strongly Disagree, D: Disagree, N: Neutral, A: Agree, SA: Strongly Disagree, F: Frequency, (%): Percentage.

Table 7: Mean and Standard Deviation from each Domain

DOMAIN	Mean	Std. Deviation
Job and Career Satisfaction (JCS)	3.91	0.82
Control At Work (CAW)	3.13	1.02
General Well Being (GWB)	3.65	0.91
Home Work Interface (HWI)	3.06	1.12
Stress at Work (SAW)	3.06	0.98
Working Conditions (WC)	3.32	1.16
Employee Engagement (EEN)	3.75	0.94
Perception	3.38	1.16
WRQoL SCALE	3.42	0.82

Table 8: WRQoL across the various socio-demographic domains

		WRQoL Outcome			
		Poor		Good	
Parameters		Freq.	(%)	Freq.	(%)
Gender	Female	53	(49.1)	55	(50.9)
	Male	52	(53.6)	45	(46.4)
Age group	20-29	48	(58.5)	34	(41.5)
	30-39	40	(51.3)	38	(48.7)
	40-49	16	(42.1)	22	(57.9)
	50-59	1	(14.3)	6	(85.7)
Hours worked per week	<30	2	(66.7)	1	(33.3)
	31-40	30	(41.1)	43	(58.9)
	41-50	35	(47.9)	38	(52.1)
	51-60	16	(57.1)	12	(42.9)
	61-70	8	(66.7)	4	(33.3)
	>70	14	(87.5)	2	(12.5)
Designation	Doctors	36	(62.1)	22	(37.9)
	Nurses	30	(46.2)	35	(53.8)
	Pharmacists	17	(77.3)	5	(22.7)
	Laboratory Scientists	8	(53.3)	7	(46.7)
	Others	14	(31.1)	31	(68.9)
Years of Experience	<2	55	(61.1)	35	(38.9)
	3-5	21	(45.7)	25	(54.3)
	6-10	25	(51.0)	24	(49.0)
	>10	4	(20.0)	16	(80.0)

DISCUSSION

The study revealed a moderate WRQoL among healthcare workers in Sokoto. Younger HCWs and those with fewer years of experience had lower WRQoL, suggesting that early-career professionals face more challenges adapting to work demands. Stress at work was prevalent, with 33.9% of respondents reporting high stress levels, aligning with previous findings on excessive workload and poor working conditions negatively impacting WRQoL[2]. A positive correlation was found between WRQoL and years of experience (p=0.000), while a negative correlation was observed between WRQoL and hours worked per week (p=0.025), consistent with global trends[7].

Doctors and pharmacists exhibited lower WRQoL scores compared to nurses, possibly due to their increased patient interaction and workload. Comparatively, nurses reported a better WRQoL, likely due to structured shift schedules[9]. The results indicate that improving working conditions, reducing workload, and implementing mental health support measures could significantly enhance

WRQoL.

Work-life balance remains a challenge, as reflected in the homework interface mean score of 3.05. The high stress levels and reported dissatisfaction with work-life balance call for flexible work schedules and organizational interventions to support employees[8]. Addressing remuneration, providing adequate staffing, and ensuring professional development opportunities could help improve motivation and job satisfaction.

Healthcare institutions should prioritize interventions such as reducing work-related stress, fostering teamwork, and improving workplace infrastructure. Policies promoting staff welfare, mental health programs, and career development initiatives should be implemented to mitigate stress and enhance WRQoL[12]. Future research should focus on evaluating targeted interventions aimed at improving WRQoL and determining their effectiveness in different healthcare settings.

CONCLUSION AND RECOMMENDATION

This study highlights the moderate WRQoL among HCWs in tertiary hospitals in Sokoto. Workload and years of experience significantly influenced WRQoL. Addressing these factors through policy interventions can enhance HCW's well-being and improve healthcare service delivery. Future research should explore the impact of targeted interventions on WRQoL outcomes.

Conflict of Interest

The authors declare no conflicts of interest.

REFERENCES

1. Adeloye D, David RA, Olaogun AA, Auta A, Adesokan A, Gadanya M, et al. Health workforce and governance : the crisis in Nigeria. *Hum Resour Health* 2017;1–8.
2. Dubale BW, Friedman LE, Chemali Z, Denninger JW, Mehta DH, Alem A, et al. Systematic review of burnout among healthcare providers in sub-Saharan Africa. *BMC Public Health*. 2019 Sep;19(1):1247.
3. World Health Organization. Quality of care for maternal, newborn, child, and adolescent health. Maternal, Newborn, Child and Adolescent Health, and Ageing. 2021. https://www.who.int/teams/maternal-newborn-child-adolescent-health-and-ageing/quality-of-care.Accessed 15Jan2022.
4. Lohr KN, *Medicare: A Strategy for Quality Assurance* Volume 1. Washington, D.C: National Academies Press; 1990.
5. Barbosa ML, Menezes TN de, Santos SR Dos, Olinda RA, Costa GMC. The quality of life of health professionals working in the prison system. *Cien Saude Colet*. 2018 Apr;23(4):1293–302.
6. Organization WH, for Economic Co-operation O, Development, for Reconstruction IB, Development. Delivering quality health services: a global imperative for universal health coverage. *World Health Organization;* 2018. 93 p.
7. Olawale OO, Taiwo OA, Hesham A. Quality of sleep and well-being of health workers in Najran, Saudi Arabia. *Indian J Psychiatry*. 2017;59(3):347–51.
8. Van Laar D, Edwards JA, Easton S. The Work-Related Quality of Life scale for healthcare workers. *J Adv Nurs.* 2007 Nov;60(3):325–33.
9. Hsu MY, Kernohan G. Dimensions of hospital nurses' quality of working life. *J Adv Nurs*. 2006 Apr;54(1):120–31.
10. Kim SO, Moon SH. Factors influencing turnover intention among male nurses in Korea. *Int J Environ Res Public Health*. 2021;18(18).
11. Matlala NT, Malema RN, Bopape MA, Mphekgwana PM. The perceptions of professional nurses regarding factors affecting the provision of quality health care services at selected rural public clinics in the Capricorn district, Limpopo Province. *African J Prim Heal Care Fam Med*. 2021;13(1):1–8.
12. McFadden P, Ross J, Moriarty J, Mallett J, Schroder H, Ravalier J, et al. The Role of Coping in the Wellbeing and Work-Related Quality of Life of UK Health and Social Care Workers during COVID-19. *Int J Environ Res Public Health*. 2021 Jan;18(2).