



Original Article

Knowledge, Awareness and Monitoring Behaviour of Health Numbers among Healthcare Workers in a Tertiary Health Facility in Delta State, Nigeria

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Abstract:

Background: A key component of self-care among healthcare workers is the monitoring of "health numbers," which include indicators such as blood pressure, blood sugar levels, cholesterol levels, body mass index, and stress-related parameters. The objective of this study was to assess the knowledge, awareness, and monitoring behaviour of health numbers among healthcare workers in a tertiary health facility.

Methodology: It was analytical cross-sectional study carried out among 244 healthcare workers in a tertiary health facility in Delta State using a self-administered structured questionnaire. Collected data were entered and analysed using Statistical Package for Social Sciences (SPSS) version 28. Descriptive statistics was used to present continuous and categorical variables, while for inferential statistics, level of significance was set at $p < 0.05$.

Results: The mean ($\pm$ S.D) age of respondents was 31.52 ($\pm$ 8.12) years. Overall, 212 (86.9%) had a good knowledge of health numbers. About three-quarter, 190 (77.9%) were aware of their blood pressure reading; 127 (52.0%) of their body mass index reading; 95 (38.9%) of their blood sugar level reading; and 59 (24.2%) of their cholesterol level. Age was significantly associated with awareness of personal numbers ($p < 0.043$); while age ($p < 0.0048$) and years of working experience ($p < 0.001$) was significantly associated with monitoring of personal health numbers.

Conclusion: This study showed that healthcare workers had a good knowledge of health numbers; however awareness and monitoring of their personal health numbers were generally poor. Blood pressure was the most commonly known and monitored health number. Age and years of experience were significantly associated with monitoring behaviour. The findings highlight a gap between knowledge and practice, emphasizing the need for regular workplace health screening and health promotion programmes among healthcare workers.

Keywords: Awareness, Health numbers, Monitoring Behaviour, Nigeria

1. Introduction

Health is defined as a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity [1]. This definition emphasizes the multidimensional nature of health and underscores the importance of promoting overall well-being. Achieving and maintaining good health therefore requires self-care, which refers to the ability of individuals, families, and communities to promote health, prevent disease, maintain well-being, and cope with illness, with or without the support of a healthcare worker [2,3].

The importance of self-care is particularly relevant among healthcare workers (HCWs), who serve not only as providers of care but also as role models for healthy behaviours. Healthcare workers include physicians, nurses, midwives, public health practitioners, laboratory personnel, community health workers, and other professionals involved in healthcare delivery [3]. Despite their critical role within health systems, the demanding nature of their profession, including long working hours, occupational stress, and exposure to health risks, may compromise their ability to prioritize personal health. Consequently, maintaining good physical and mental health is essential for their well-being and their capacity to deliver safe and high-quality patient care.

An important aspect of self-care among healthcare workers is awareness and regular monitoring of personal “health numbers,” such as blood pressure, blood glucose, cholesterol level, body mass index (BMI), and other indicators of cardiometabolic risk. These measures provide objective information regarding an individual’s health status and risk of chronic diseases, thereby facilitating early detection and timely intervention. Regular monitoring also enables informed decisions about lifestyle modification and healthcare-seeking behaviour. Furthermore, awareness of personal health indicators may encourage healthier practices, including regular physical activity, balanced nutrition, adequate sleep, and routine medical check-ups. Despite their professional knowledge of disease prevention and health promotion, healthcare workers do not always translate this knowledge into consistent personal health-monitoring practices and other preventive behaviours. This discrepancy between professional knowledge and personal practice may increase susceptibility to preventable health conditions and adversely affect overall well-being.

Evidence from previous studies presents mixed findings regarding preventive health practices among healthcare workers. A cross-sectional study conducted at Tamale Teaching Hospital reported high levels of knowledge (90%) and positive perception (98.7%) regarding routine medical check-ups among healthcare workers, with a high prevalence (91.0%) of periodic medical check-up practices [4]. These findings suggest a favourable attitude toward preventive health behaviours in certain settings. However, contrasting findings have been reported elsewhere. A study conducted in a tertiary health facility in Delta State, Nigeria, revealed that although a substantial proportion of doctors (81%) and nurses (64.8%) reported positive perceptions of their health status, uptake of routine screening measures—including blood pressure monitoring, fasting blood sugar tests, and lipid profile assessments—remained low, with many respondents never having undergone such evaluations [5]. Similarly, Abadom and Otene [6], in their assessment of knowledge, practice, and determinants of routine medical screening among healthcare workers at Delta State University Teaching Hospital, found that although many respondents

demonstrated good knowledge of medical screening, only 26.2% engaged in good screening practices. The study further revealed that screening was often undertaken in response to illness rather than as a preventive measure, with cost identified as a major barrier to routine health checks.

Collectively, these findings highlight a persistent gap between knowledge, awareness, and actual health practices among healthcare workers. Although HCWs are expected to possess adequate health literacy, available evidence suggests that such knowledge does not consistently translate into regular monitoring of personal health indicators. This disconnect is concerning because healthcare workers are expected not only to provide care but also to model healthy behaviours for the general population. Assessing healthcare workers’ knowledge, awareness, and monitoring behaviour regarding health numbers is therefore important for understanding this gap, identifying barriers to effective self-monitoring, and informing strategies aimed at improving preventive health practices and overall well-being within this critical workforce. Furthermore, there is a scarcity of studies specifically assessing knowledge, awareness, and monitoring of health numbers among healthcare workers in this setting. This study was therefore conducted to assess the knowledge, awareness, and monitoring behaviour of health numbers—including blood pressure, body mass index, blood cholesterol level, and blood sugar level—among healthcare workers in a tertiary health facility.

2. Materials & Methods

2.1 Study Setting

This study was conducted among clinical healthcare workers in a 180-bed tertiary health facility in Delta State, Nigeria. The hospital has a total workforce of approximately 1,229 clinical and non-clinical staff, of which 587 are clinical healthcare workers.

2.2 Study Design

A descriptive cross-sectional study design was adopted for this study.

2.3 Study Population

The study population comprised clinical healthcare workers employed at the tertiary health facility. Clinical healthcare workers are professionals directly involved in patient care, diagnosis, and treatment. These include physicians, nurses, laboratory scientists/technologists, radiographers, therapists, community health extension workers, and other allied health professionals.

2.4 Sample Size Determination

The sample size was determined using Yamane’s formula for sample size calculation (Yamane, 1967). The calculation for the required sample size;

$$\frac{N}{1 + N.e^2}$$

Where:

n = sample size

N = study population (total number of clinical healthcare workers = 587)

e = level of precision (0.05)

$$n = \frac{587}{1 + 58 * 0.05^2} = 238$$

Therefore, the minimum sample size required for the study was 238 participants.

2.5 Sampling Technique

Although the minimum calculated sample size was 238, all eligible and consenting healthcare workers available during the study period were recruited using a total population sampling approach, resulting in a final sample size of 244 respondents.

2.6 Ethical Consideration

Ethical approval for the study was obtained from the Health Research Ethics Committee of Delta State University Teaching Hospital (DELSUTH), Oghara, Nigeria (Approval Number: HREC/PAN/2024/040/ 0655). Written informed consent was obtained from all participants prior to data collection. Participants were assured of confidentiality and anonymity regarding all information provided. Participation was entirely voluntary, and respondents were informed of their right to decline or withdraw from the study at any stage without any consequences.

2.7 Selection Criteria

2.7.1 Inclusion Criteria: All healthcare workers in the health facility who were willing to participate in the study were included.

2.7.2 Exclusion Criteria: Healthcare workers who were on leave or absent due to illness during the study period were excluded.

2.8 Method and Instrument for Data Collection

Data were collected using a structured self-administered questionnaire developed for the study. The questionnaire consisted of four sections:

Section A: Socio-demographic characteristics of respondents

Section B: Knowledge of health numbers among healthcare workers

Section C: Awareness of personal health numbers

Section D: Frequency of monitoring health numbers

Knowledge of health numbers and respondents' awareness of their health numbers were each assessed using four-item questions. Each correct response was assigned a score of 1, while an incorrect response attracted a score of 0. Total scores were summed and converted into percentages. Respondents who scored <75% were categorized as having poor knowledge/awareness, while those who scored ≥75% were classified as having good knowledge/awareness. Frequency of monitoring health numbers was assessed using a four-point Likert scale: 0 = Rarely/Never, 1 = Yearly, 2 = Monthly, and 3 = Weekly. Respondents who monitored their health numbers yearly, monthly, or weekly were categorized as having good monitoring behaviour, while those who rarely or never monitored their health numbers were classified as having poor monitoring behaviour. The questionnaire was pretested among 30 healthcare workers in two secondary healthcare facilities outside the study area to assess clarity and comprehensibility. Ambiguous and difficult items identified during the pretest were modified before the final questionnaire was administered to the study participants.

2.9 Method of Data Analysis

Data collected were entered and analyzed using the Statistical Package for the Social Sciences (SPSS) version 28. Descriptive statistics were used to summarize categorical variables and presented as frequencies and percentages, while continuous variables were summarized using means and standard deviations. Chi-square tests were used to determine associations between categorical variables. Statistical significance was set at $p < 0.05$.

3. Results

Table 1: Socio—demographic characteristics of respondents (N = 244)

Variable		Frequency (N)	Percentage (%)
Gender	Male	108	44.3
	Female	136	55.7
Age	21 – 30	148	60.7
	31 – 40	60	24.6
	41 – 50	32	13.1
	>50	4	1.6
	Mean ± S.D. = 31.52 ± 8.12		
Marital Status	Single	158	64.8
	Married	83	34.0
	Divorced	2	0.8
	Others	1	0.4
Profession	Physician	109	44.7
	Nurse	71	29.1

Religion	Allied health professional	64	26.2
	Christian	234	96.0
	Islam	5	2.0
	African traditional religion	5	2.0
Years of experience	1 – 5	158	64.8
	6 – 10	42	17.2
	> 10	44	18.0
Mean + S.D. = 5.65 ± 5.88			

A higher proportion of the respondents were female (136; 55.7%), were between the age of 21 – 30 years (148, 60.7%) and the mean age of respondents was 31.52 ± 8.12 years. A higher proportion of respondents were single

(158, 64.8%) and were Physicians (109, 44.7%). Majority was Christians (234, 96.0%) and had working years between 1 – 5 years (158; 64.8%). Table 1.

Table 2: Knowledge of health numbers among respondents (N = 244)

Variable	Frequency	Percentage
Aware of the concept of health numbers		
Yes	236	96.7
No	8	3.3
Knows blood pressure as a component of health numbers		
Yes	223	91.4
No	21	8.6
Knows body mass index as a component of health numbers		
Yes	209	85.7
No	35	14.3
Knows blood sugar level as a component of health numbers		
Yes	194	79.5
No	50	20.5
Overall knowledge of health numbers		
Good	212	86.9
Poor	32	13.1

Nearly all, 236 (96.7%) of the respondents were aware of the concepts of health numbers, 223 (91.4%) are aware of blood pressure as a component of health numbers, 209 (85.7%) were aware of body mass index as a component

of health numbers, 194 (79.5%) aware of blood sugar level as a component of health numbers. Overall, 212 (86.9%) have an overall good knowledge of health numbers. Table 2

Table 3: Awareness of personal health numbers (N = 244)

Variable	Frequency, N	Percentage, %
Aware of your blood pressure readings		
Yes	190	77.9
No	54	22.1
Aware of your body mass index reading		
Yes	127	52.0
No	117	48.0
Aware of your cholesterol level readings		
Yes	59	24.2
No	185	75.8
Aware of your blood sugar level reading		
Yes	95	38.9
No	149	61.1
Overall level of awareness of health numbers		
Good awareness	81	33.2
Poor awareness	163	66.8

About three-quarters, 190 (77.9%) are aware of their blood pressure readings, 127 (52.0%) are aware of their body mass index reading. Only Fifty-nine (24.2%) of the respondents were aware of their cholesterol level readings, and only 95 (38.9%) were aware of their blood

sugar level readings. Overall, 81 (33.2%) had a good level of awareness of their health numbers, while 163 (66.8%) had low level of awareness of their health numbers.

Table 3

Table 4: Frequency of monitoring behaviour of health numbers (N = 244)

Variable	Response	Frequency, N	Percentage, %
How often do you measure or monitor your blood pressure?	Rarely/Never	53	21.7
	Yearly	121	49.6
	Monthly	13	5.3
	Weekly	57	23.4
How often do you measure or monitor your body mass index?	Rarely/Never	116	47.5
	Yearly	101	41.4
	Monthly	8	3.3
	Weekly	19	7.8
How often do you measure or monitor your cholesterol levels?	Rarely/Never	186	76.2
	Yearly	44	18.0
	Monthly	2	0.8
	Weekly	12	4.9
How often do you measure or monitor your blood sugar level?	Rarely/Never	124	50.8
	Yearly	85	34.8
	Monthly	5	2.0
	Weekly	30	12.3
Overall monitoring behaviour	Good monitoring	98	40.2
	Poor monitoring	146	59.8

Table 5: Factors associated with knowledge of health numbers (N = 244)

Variable	Knowledge of Health numbers		χ^2	p-value
	Good knowledge	Poor knowledge		
Gender				
Male	93 (86.1)	15 (13.9)	0.102	0.750
Female	119 (87.5)	17 (12.5)		
Age				
21 – 30	135 (91.2)	13 (8.8)	Fishers exact test	0.003
31 – 40	50 (83.3)	10 (16.7)		
41 – 50	26 (81.2)	6 (18.8)		
>50	1 (25.0)	3 (75.0)		
Marital Status				
Single	144 (91.1)	14 (8.9)	Fishers exact test	0.002
Married	67 (80.7)	16 (19.3)		
Divorced	0 (0.0)	2 (100.0)		
Separated	1 (100.0)	0 (0.0)		
Profession				
Physician	99 (90.8)	10 (9.2)	3.217	0.200
Nurse	58 (81.7)	13 (18.3)		
Allied health professional	55 (85.9)	9 (14.1)		
Religion				
Christian	208 (88.9)	26 (11.1)	Fishers exact test	<0.001
Islam	2 (40.0)	3 (60.0)		
African traditional religion	2 (40.0)	3 (60.0)		
Years of working experience				
1 – 5	142 (89.9)	16 (10.1)	3.527	0.171
6 – 10	34 (81.0)	8 (19.0)		
> 10	36 (81.8)	8 (18.2)		

Table 6: Factors associated with awareness of personal health numbers (N = 244)

Variable	Awareness of Personal Health numbers		χ^2	<i>p</i> -value
	Yes	No		
Gender				
Male	39 (36.1)	69 (63.9)	0.742	0.389
Female	42 (30.9)	94 (69.1)		
Age				
21 – 30	44 (29.7)	104 (70.3)	Fisher's exact test	0.043
31 – 40	20 (33.3)	40 (66.7)		
41 – 50	17 (53.1)	15 (46.9)		
>50	0 (0.0)	4 (100.0)		
Marital Status				
Single	52 (32.9)	106 (67.1)	Fisher's exact test	0.555
Married	28 (33.7)	55 (66.30)		
Divorced	0 (0.0)	2 (100.0)		
Separated, Unmarried (single, divorced, separated)	1 (100.0)	0 (0.0)		
Profession				
Physician	43 (39.4)	66 (60.6)	4.691	0.097
Nurse	23 (32.4)	48 (67.6)		
Allied health professional	15 (23.4)	49 (76.6)		
Religion				
Christian	78 (33.3)	156 (66.7)	Fisher's exact test	0.890
Islam	1 (20.0)	4 (80.0)		
African traditional religion	2 (40.0)	3 (60.0)		
Years of working experience				
1 – 5	47 (29.7)	111 (70.3)	3.829	0.146
6 – 10	14 (33.3)	28 (66.7)		
> 10	20 (45.5)	24 (54.5)		

Table 4 shows the frequency of monitoring behaviour of health numbers. A lower proportion of the participants monitor their blood pressure frequently; 13 (5.3%) monthly and 57 (23.4%) weekly. There was a poor frequency of monitoring body mass index; 8 (3.3%) monthly and 19 (7.8%) weekly. There was a poor monitoring of cholesterol levels; 2 (0.8%) monthly, 12 (4.9%) weekly and poor level of monitoring of blood sugar levels; 5 (2.0%) monthly and 30 (12.3%) weekly. Overall, the majority of respondents, 146 (59.8%) had poor monitoring behaviour of their health numbers, while only 98 (40.2%) had good monitoring behaviour of their health numbers.

Table 5 shows the factors associated with knowledge of health numbers. Gender, profession, and years of working experience were not significantly associated with knowledge of health numbers. A higher proportion of respondents aged 21 – 30 years had good knowledge of health numbers and there was a statistically significant association between age and knowledge of health numbers ($p = 0.003$). Marital status was significantly associated with knowledge of health numbers ($p = 0.002$). Religion was significantly associated with knowledge of health numbers ($p < 0.001$).

Table 6 shows the factors associated with awareness of personal health numbers. Gender, marital status, profession, religion and years of working experience were not significantly associated with awareness of personal health numbers. However, age was significantly associated with awareness of personal health numbers ($p = 0.043$). Awareness of personal health increased with increasing age and a higher proportion of those who were aware of their personal health numbers were between 41 – 50 years.

Table 7 shows the factors associated with monitoring behaviour of health numbers. Gender, marital status, profession, religion, knowledge of health numbers was not significantly associated with monitoring behaviour of health numbers. However, age was significantly associated with monitoring behaviour of health numbers ($p = 0.048$). A higher proportion of those with good monitoring behaviour of health numbers were between the 5th decades of life. Years of working experience is significantly associated with monitoring behaviour of health numbers ($p < 0.001$). A higher proportion of those with more than 10 years working experience had good monitoring behaviour of their health numbers.

In the multivariable logistic regression analysis, age was not significantly associated with poor practice of health monitoring. Compared with respondents aged 21–30 years, those aged 31–40 years (aOR = 2.115; 95% CI: 0.744–6.013; $p = 0.160$), 41–50 years (aOR = 2.992; 95% CI: 0.707–12.665), and those above 50 years (aOR = 1.198; 95% CI: 0.085–16.934) had higher odds of poor practice; however, these associations were not statistically significant. In contrast, years of working experience was

significantly associated with poor practice of health monitoring. Compared with respondents with 1–5 years of experience, those with 6–10 years (aOR = 0.177; 95% CI: 0.060–0.525; $p = 0.002$) and those with more than 10 years of experience (aOR = 0.130; 95% CI: 0.033–0.508; $p = 0.003$) had significantly lower odds of poor practice, indicating better health monitoring practice with increasing years of experience (Table 8).

Table 7: Factors associated with monitoring behaviour of health numbers

Variable	Monitoring behaviour of Health numbers		X ²	p-value
	Good	Poor		
Gender				
Male	46 (42.6)	62 (57.4)	0.476	0.490
Female	52 (38.2)	84 (61.8)		
Age				
21 – 30	50 (33.8)	98 (66.2)	7.819	0.048
31 – 40	28 (46.7)	32 (53.3)		
41 – 50	17 (53.1)	15 (46.9)		
>50	3 (75.0)	1 (25.0)		
Marital Status				
Unmarried	59 (36.6)	102 (63.4)	2.437	0.118
Married	39 (47.0)	44 (53.0)		
Divorced	2 (100.0)	0 (0.0)		
Separated	0 (0.0)	1 (100.0)		
Profession				
Physician	38 (34.9)	71 (65.1)	2.603	0.272
Nurse	30 (42.3)	41 (57.7)		
Allied health professional	30 (46.9)	34 (53.1)		
Religion				
Christian	43 (18.4)	191 (81.6)	Fisher's exact test	0.099
Islam	1 (20.0)	4 (80.0)		
African traditional religion	3 (60.0)	2 (40.0)		
Years of working experience				
1 – 5	48 (30.4)	110 (69.6)	17.891	<0.001
6 – 10	24 (57.1)	18 (42.9)		
> 10	26 (59.1)	18 (40.9)		
Knowledge of Health Numbers				
Good knowledge	87 (41.0)	125 (59.0)	0.514	0.474
Poor knowledge	11 (34.4)	21 (65.6)		

Table 8: Logistic Regression showing determinants of poor practice of health monitoring behaviour

Variable	aOR	Lower C.I.	Upper C.I.	p-value
Age				
21 – 30	Ref			
31 – 40	2.115	0.744	6.013	0.160
41 – 50	2.992	0.707	12.665	
>50	1.198	0.085	16.934	0.894
Years of working experience				
1 – 5	Ref			
6 – 10	0.177	0.060	0.525	0.002
> 10	0.130	0.033	0.508	0.003

4. Discussion

This study assessed the knowledge, awareness, and monitoring behaviour of health numbers among healthcare workers in a tertiary health facility in Southern Nigeria. The predominance of female respondents observed in this study is consistent with previous findings from similar healthcare settings where females constituted the majority of the healthcare workforce [6–8]. However, this finding contrasts with reports from a tertiary healthcare facility in the Federal Capital Territory (FCT), Abuja, where male healthcare workers predominated [9]. The female preponderance observed in the present study may reflect the composition of the healthcare workforce, particularly the large representation of nursing and allied health professions, which are traditionally female-dominated. The mean age of respondents was 31.52 ± 8.12 years, with the majority aged 21–30 years, indicating a predominantly young workforce. This finding aligns with that of Abadom and Otene [6] but contrasts with studies by Muhlare and Downing [7]; Ema and Abubakar [9], where healthcare workers aged 31–40 years predominated. These differences may be attributable to variations in study settings, recruitment patterns, and workforce demographics. Furthermore, the predominance of single respondents in this study may reflect the relatively young age structure of the workforce [10]. Nearly half of respondents were physicians from different specialties, likely reflecting the tertiary nature of the study setting where healthcare professionals across multiple levels of specialization are employed. This finding contrasts with previous studies that reported a predominance of nurses among healthcare workers [7,8], suggesting variability in staff composition across institutions. The relatively short mean duration of work experience (5.65 years) and predominance of respondents with 1–5 years of experience may also reflect the youthful demographic profile of the healthcare workforce.

4.1 Knowledge of Health Numbers

Findings from this study revealed that most respondents were aware of the concept of health numbers and their various components, with more than four-fifths demonstrating good overall knowledge. This finding is consistent with reports from tertiary healthcare facilities in Calabar and Delta State, where healthcare workers demonstrated good knowledge of preventive health practices and routine medical check-ups [6,11]. The high level of knowledge observed may be attributed to the professional background of respondents, routine exposure to health information, and increasing awareness of non-communicable diseases within healthcare settings. Despite the generally good level of knowledge, blood sugar level was the least recognized component of health numbers. This finding suggests a need for increased emphasis on metabolic health awareness among healthcare workers, particularly regarding diabetes prevention and early detection. Age,

marital status, and religion were significantly associated with knowledge of health numbers, suggesting that socio-demographic factors may influence health literacy and preventive health awareness.

4.2 Awareness of Personal Health Numbers

Blood pressure was the most commonly known health number among respondents, with over three-quarters aware of their blood pressure readings. Similar findings were reported by Adamu et al. [12], where blood pressure represented the most recognized personal health indicator among healthcare workers. The high level of awareness may be explained by the ease, affordability, and accessibility of blood pressure monitoring within healthcare facilities, as well as increasing awareness of hypertension and cardiovascular disease risk. In contrast, blood cholesterol level was the least known health number, with fewer than one-quarter of respondents aware of their cholesterol status. This finding agrees with previous studies reporting poor awareness of cholesterol levels among healthcare workers [12]. The low level of awareness may be related to the cost, limited accessibility, and invasive nature of cholesterol testing, as well as the tendency for lipid screening to occur only when clinically indicated.

More than half of respondents were aware of their body mass index (BMI), although this proportion was lower than reports from some studies [12] and higher than findings from Abuja [9]. Variations in awareness may reflect differences in institutional health promotion activities and public health messaging related to overweight and obesity. Nonetheless, the fact that a substantial proportion of healthcare workers were unaware of their BMI highlights the need for improved workplace health promotion strategies. Overall, only one-third of respondents demonstrated good awareness of their personal health numbers. This disparity between knowledge and personal awareness suggests that professional knowledge does not necessarily translate into personal health consciousness or preventive practice. Healthcare workers may therefore educate patients on preventive care while neglecting their own health monitoring behaviours. Although gender, marital status, profession, religion, and years of work experience were not significantly associated with awareness of personal health numbers, age demonstrated a significant association. Older healthcare workers, particularly those aged 41–50 years, were more likely to be aware of their health numbers, possibly due to increased perception of vulnerability to chronic diseases with advancing age.

4.3 Monitoring Behaviour of Health Numbers

Only about two-fifths of respondents demonstrated good monitoring behaviour regarding health numbers. This finding is comparable to previous reports indicating low uptake of routine health monitoring among healthcare workers [6,11]. The persistence of poor monitoring practices despite good knowledge suggests a substantial

gap between knowledge and preventive health behaviour. Factors such as demanding work schedules, burnout, poor institutional wellness culture, and neglect of self-care may contribute to this discrepancy. Previous studies have also identified cost, forgetfulness, and absence of symptoms as barriers to routine screening [6]. Blood pressure was the most frequently monitored health number, with relatively few respondents reporting that they never checked their blood pressure. Similar findings have been reported among healthcare workers in tertiary health facilities and dental settings [9,13]. The relatively high frequency of blood pressure monitoring may be due to ease of access to sphygmomanometers, simplicity of the procedure, and widespread awareness of hypertension-related complications.

Conversely, blood cholesterol level was the least monitored health number, with over three-quarters of respondents rarely or never checking their cholesterol levels. This finding is consistent with reports from similar studies [5,6,9,13] and suggests that cholesterol monitoring remains neglected among healthcare workers. Possible explanations include cost, poor accessibility, and low perceived susceptibility to dyslipidaemia. Given the role of abnormal lipid profiles in cardiovascular morbidity and mortality, regular cholesterol assessment should be encouraged among healthcare workers. A considerable proportion of respondents also rarely monitored their BMI and blood sugar levels. Poor monitoring of these indicators may prevent early identification of unhealthy weight changes and abnormal glucose levels, thereby delaying preventive interventions. Perceived low susceptibility to disease, busy schedules, and lack of symptoms may explain poor monitoring practices.

Gender and profession were not significantly associated with monitoring behaviour in this study, suggesting that poor monitoring practices cut across professional categories and affect both male and female healthcare workers similarly. However, this finding contrasts with previous studies where nurses and female healthcare workers demonstrated better preventive health practices [5,6]. Differences in study population characteristics and

sociocultural factors may explain these variations. Age was significantly associated with monitoring behaviour, with better monitoring practices observed among older respondents. This may reflect greater health consciousness and increasing concern about age-related health risks. However, previous studies have reported inconsistent findings regarding the relationship between age and preventive health practices [12,13,15], suggesting the need for further research. This study did not explore reasons underlying good or poor health monitoring behaviour among healthcare workers, thereby limiting understanding of contextual barriers and facilitators influencing preventive health practices. Future studies should investigate these factors to guide the development of effective institutional wellness policies and interventions. Additionally, the study focused only on selected health numbers—body mass index, blood glucose, blood pressure, and cholesterol levels—while excluding other potentially important health indicators.

5. Conclusion

This study demonstrated that healthcare workers possessed good knowledge of health numbers; however, awareness and monitoring of personal health numbers remained suboptimal. Blood pressure was the most commonly known and monitored health number, whereas blood cholesterol level was the least known and least monitored. Age was significantly associated with awareness and monitoring behaviour, with older healthcare workers demonstrating better monitoring practices. The findings reveal an important gap between knowledge and practice among healthcare workers, emphasizing the need for targeted workplace health promotion interventions. Institutional strategies such as annual staff wellness clinics, periodic workplace screening programmes, and dedicated healthcare worker wellness policies should be strengthened to improve preventive health practices. Professional organizations and healthcare administrators should also promote routine personal health screening as an integral component of occupational health and staff well-being.

Declarations

Consent for publication: We confirm that all participants provided informed consent for the publication of their data in this article. All identifiable information has been anonymised to protect participant confidentiality.

Data availability statement: Data used for this study is available upon request from the corresponding author.

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References

- World Health Organization consolidated guideline on self-care interventions for health: sexual and reproductive health and rights. Geneva: World Health Organization; 2019. Accessed via: <https://iris.who.int/server/api/core/bitstreams/93af23b6-3a95-44b5-8dcb-833d7b21af7b/content>
- Bienassis De K, Slawomirski L, Klazinga N. (2021). The economics of patient safety Part IV: Safety in the workplace: Occupational safety as the bedrock of resilient health systems, OECD Health Working Papers, No. 130. [Internet]. Paris: OECD Publishing; 2021. Available from: <https://econpapers.repec.org/RePEc:oec:elsaad:130-en>
- World Health Organization. Occupational health. World Health Organization, 2022. Accessed via: <https://www.who.int/news-room/factsheets/detail/occupational-health--health-workers>
- Surazu, B, Muktar A, Salifu A. Periodic medical checkup among HCWs: A descriptive cross-sectional survey at a teaching hospital in Ghana. UDS International Journal of Development, 2023; 10(1): 89–97.
- Obiebi IP, Moeteke NS, Eze GU, Umuago IJ. How mindful of their own health are healthcare professionals? perception and practice of personnel in a tertiary hospital in Nigeria. Ghana Med J 2020; 54(4): 215-224. <http://dx.doi.org/10.4314/gmj.v54i4.3>
- Abadom, EG; Otene, CI. Factors Affecting Routine Medical Screening Among Health Workers in a Tertiary Hospital in Delta State. Nigerian Journal of Clinical Practice, 2022; 25(6): 951-959. https://dx.doi.org/10.4103/njcp.njcp_91_22
- Muhlare ML, Downing C. Self-care behaviours and practices of professional nurses working in primary health care clinics. Afr J Prim Health Care Fam Med. 2023; 15(1):4188. <https://dx.doi.org/10.4102/phcfm.v15i1.4188>
- Miller JJ, Lianekhammy J, Pope N, Lee J, Grise-Owens E. Self-care among healthcare social workers: An exploratory study. Soc Work Health Care. 2017; 56(10): 865-883. <https://dx.doi.org/10.1080/00981389.2017.1371100>
- Ema GE, Abubakar D. Assessment of health-seeking behaviour of staff in tertiary health institutions in Federal Capital Territory (FCT), Nigeria. West African Journal of Pharmacy. 2025; 36(1): 26-43. <https://dx.doi.org/10.60787/wajp.vol36no1.373>
- National Population Commission (NPC) [Nigeria] & ICF. Nigeria Demographic and Health Survey 2024. Abuja, Nigeria, and Rockville, Maryland, USA: NPC and ICF. Accessed via: <https://www.dhsprogram.com/pubs/pdf/FR395/FR395.pdf>
- Ojong IN, Nsemo AD, Aji P. Routine Medical Check-up Knowledge, Attitude and Practice among Health Care Workers in a Tertiary Health Facility in Calabar, Cross River State, Nigeria. Global Journal of Health Science, 2020; 12(8): 27-37.
- Adamu H, Yusuf A, Inalegwu CU, Sufi RA, Adamu AN. Factors influencing health-seeking behavior of health workers in a Tertiary Health Institution in Sokoto, Northwest Nigeria. Sahel Med J 2018; 21:162-7.
- Omokhua HA, Ehizele AO. Routine medical check among dental health workers in Edo State. Nig J Dent Res 2020; 5(1): 20-29.
- Oguntoye OO, Yusuf M, Durowade KA. Perception and practice of routine medical check-up by health workers at a tertiary health facility in South-West Nigeria. Int J Med Biomed Res 2017; 6(3): 151-162.
- Lanre-Babalola FO. Routine medical checkups and preventive health knowledge among health professionals in LUTH, Idi Araba, Lagos state. Glob J Appl Manag Soc Sci. 2014; 7:82-8.

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