Article

From Expectation to Action: The Interplay of Health Expectations, Care Quality, and Socio-demographic Moderators in Health-Seeking Behaviour of Health workers

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Abstract
Health-seeking behaviour among health workers is a crucial yet often overlooked aspect of healthcare systems, especially in developing nations. This study investigates the impact of health expectations and perceived health care quality on health-seeking behaviour (HSB) among Nigerian health workers. A cross-sectional survey was conducted among 108 health workers in Ibadan, Nigeria. Structural equation modelling (SEM) was used to assess the relationships between health expectations and health-seeking behaviour (HSB). Health expectations positively predicted perceived health care quality (β = 0.410, p < .001) and HSB (β = 0.268, p = .003). Perceived care quality strongly influenced HSB (β = 0.652, p < .001) and mediated the relationship between health expectations and HSB (β = 0.267, p < .001). Age moderated the effect of health expectations on HSB (β = 0.366, p = .003), indicating a stronger association among older health workers. Ethnicity moderated the relationship between care quality and HSB (β = 0.211, p = .038), while marital status moderated the link between health expectations and HSB (β = -0.320, p < .001). The model demonstrated acceptable fit indices: SRMR = 0.072, NFI = 0.915, and Rms theta = 0.102, indicating a good fit between the hypothesized model and the observed data. The findings underscore the significant roles of health expectations and perceived care quality in shaping HSB among health workers, with socio-demographic factors influencing these dynamics. Tailored interventions that enhance care quality and consider individual expectations and demographic contexts are essential to promote proactive health-seeking behaviours within the health workforce.

Keywords
Health expectations, care quality, socio-demographic factors, health-seeking behaviour, health workers

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Introduction

Healthcare professionals from Nigeria continue migrating in large numbers to foreign nations through a phenomenon known as the "Japa syndrome" which creates a major setback in the country's health sector. The healthcare workforce faces substantial difficulty because foreign professionals leave the system while the local staff population declines (Adamu *et al.*, 2018; Latunji & Akinyemi, 2018). Those healthcare workers who stayed in their positions endure burnout while their bodies and minds suffer from arduous conditions and demanding workload patterns (Adamu *et al.*, 2018). Healthcare professionals with medical knowledge and access to facilities commonly demonstrate unsatisfactory health-seeking behaviours by delaying their contact with medical care even when symptoms occur (Solomon *et al*., 2023; Adamu *et al*., 2018).

Literature suggests that Nigerian healthcare workers abstain from using medical services due to their small expectations of healthcare benefits in combination with unfavourable service quality at medical institutions (Ige *et al*., 2023; Latunji & Akinyemi, 2018; Tanimola & Owoyemi, 2009). Healthcare service utilisation decreases when people face medicine shortages and encounter disrespectful personnel and prolonged waiting durations (Ige *et al*., 2023; Scott *et al*., 2022).

The HSB of Nigerian health workers strongly relies on their sociodemographic characteristics including age together with gender and marital status. Old healthcare professionals demonstrate continuous care of chronic diseases yet recent personnel with occupational responsibilities prioritise their accessibility above personal medical services (Solomon *et al*., 2023; Adamu *et al*., 2018). The influence of gender operates through intricate mechanisms that challenge male workers through societal stigma whereas female health providers encounter impediments caused by parenting duties alongside cultural expectations and many domestic obligations (Ige *et al*., 2023; Latunji & Akinyemi, 2018). Healthcare workers who stay married gain support from spouses to seek prompt care but those who are single or divorced usually lack this help which delays their medical assistance (Solomon *et al*., 2023; Latunji & Akinyemi, 2018). Personal factors and structural challenges that involve financing shortages and fragmented insurance structures and restricted specialty access serve to increase health service barriers for healthcare personnel (Gyuse *et al*., 2023; Scott *et al*., 2022). A knowledge of health risks does not prevent numerous healthcare providers from practising behaviours that harm their wellness as well as threaten the future stability of the healthcare system. The study assesses the connection between health expectations and perceived care quality in Nigerian health worker HB behaviour and investigates the effect of age, gender, and marital status on these relationships. Consequently, despite their

awareness of health risks, many health workers continue to engage in suboptimal health behaviours that undermine their well-being and potentially affect the sustainability of the healthcare system. To address this critical gap, this study aims to examine how health expectation predict perceived health seeking behaviour among health workers; how the perceived health care quality mediates the relationship between health expectation and health-seeking behaviour among health workers; and finally, how sociodemographic variables (age, ethnicity, and marital status) moderate the relationship between health expectation, health care quality, and health-seeking behaviour among health workers.

Literature Review and Theoretical Framework

Health-seeking Behaviour

Health-seeking behavior encompasses a range of actions taken by individuals to maintain or improve their health, including preventive care, self-medication, and professional medical consultations. Previous studies have identified various factors influencing health-seeking behavior, including socio-demographic variables, health beliefs, and access to healthcare services (Bana *et al*., 2016; Adamu *et al*., 2018). Health workers, due to their profession, may have different motivations and barriers to health-seeking behavior compared to the general population, making it essential to study their unique circumstances. HSB is a complex and paradoxical phenomenon among healthcare professionals, particularly in Nigeria. Despite being custodians of care, many healthcare professionals delay or avoid seeking medical help due to occupational stress, high workloads, and a tendency to normalize symptoms or self-medicate (Ogunyemi *et al*., 2021).

Health Expectations

Health expectations are beliefs about future health status, including optimism regarding health outcomes. Higher health expectations are associated with increased engagement in health-promoting behaviors (Jabar, 2019). A study by Lichtenstein and Wadden (2022) indicated that healthcare workers with optimistic health expectations were more likely to adhere to health recommendations and utilize preventive services. Conversely, negative health expectations can deter individuals from seeking necessary health care, resulting in poorer health outcomes.

Perceived Health Care Quality

Perceived quality of health refers to an individual's subjective evaluation of their health status. Research has shown that positive perceptions of health can lead to better health-seeking behaviours. For instance, individuals who view their health positively are more likely to engage in preventive healthcare measures (Gandi & Dachalson, 2020). A study by Pender *et al*. (2021) found that health

professionals who rated their health quality highly were more proactive in seeking medical advice and participating in health screenings.

Theoretical Framework

The study adopted the Health Belief Model (HBM) and the Andersen Behavioral. HMB is Model of Health Services, which holds that personal beliefs about health risks and the perceived advantages of engaging in health-related activities impact individual health behaviours (Rosenstock, 1974). The Andersen Behavioral Model of Health Services Use is a sociological approach to healthcare utilization, focusing on three main domains: predisposing characteristics, enabling resources, and need factors. Predisposing characteristics include demographic variables like age, gender, and ethnicity. Enabling resources include income, insurance, and perceived service quality. Need factors reflect an individual's perceived and actual health status.

Perceived healthcare quality influences health workers' perceptions of the system's effectiveness. Sociodemographic characteristics also influence personal health beliefs and behaviors. In this study, health expectations align closely with the need factors, as they represent the internal drive or recognition of a health need that could prompt care-seeking behaviour Perceived healthcare quality serves as an enabling factor, determining whether a health worker believes the system can meet their needs effectively. If services are perceived as inaccessible, poorly staffed, or under-resourced, even high expectations may not translate into action (Akande *et al*., 2024). Additionally, sociodemographic characteristics—including age, gender, marital status, and ethnicity—are considered predisposing factors that influence personal health beliefs, cultural norms, and behavioural tendencies).

The Andersen model is particularly relevant in the Nigerian context, where disparities in access and trust in the healthcare system are shaped by socio-economic and cultural diversity (Amedari & Ejidike, 2021). It allows for a nuanced understanding of how structural and individual factors converge to influence care-seeking decisions (Eke *et al*., 2021; Grace & Joel, 2024). Moreover, the model supports the study’s hypothesized mediating and moderating relationships by acknowledging that enabling and predisposing variables can interact with perceived need and expectations to influence outcomes (Babitsch *et al*., 2012; Andersen, 1995).

Synthesis of Theoretical Perspectives

Together, the Health Belief Model and the Andersen Behavioral Model provide a comprehensive framework for understanding the complex web of factors that

influence the health-seeking behaviour of health workers in Nigeria (Saka *et al*., 2021; Olasehinde, 2018). While the HBM offers insight into individual cognitive and motivational processes, the Andersen model places these behaviours within a broader social and systemic context (Champion & Skinner, 2008; Andersen, 1995). By integrating these two perspectives, this study is able to capture both the internal and external influences on health workers' decisions to seek care (Babitsch *et al*., 2012; Adamu *et al*., 2018).

This theoretical foundation not only guides the conceptual model of the study but also supports the analysis of how health expectations and perceived care quality interact to shape HSB, with sociodemographic characteristics moderating these pathways (Saka *et al*., 2021; Oyebade *et al*., 2022). Ultimately, the combined framework offers valuable insights for designing interventions aimed at improving the well-being of Nigeria's healthcare workforce (Samuel & Orukwowu, 2025; Amedari & Ejidike, 2021).

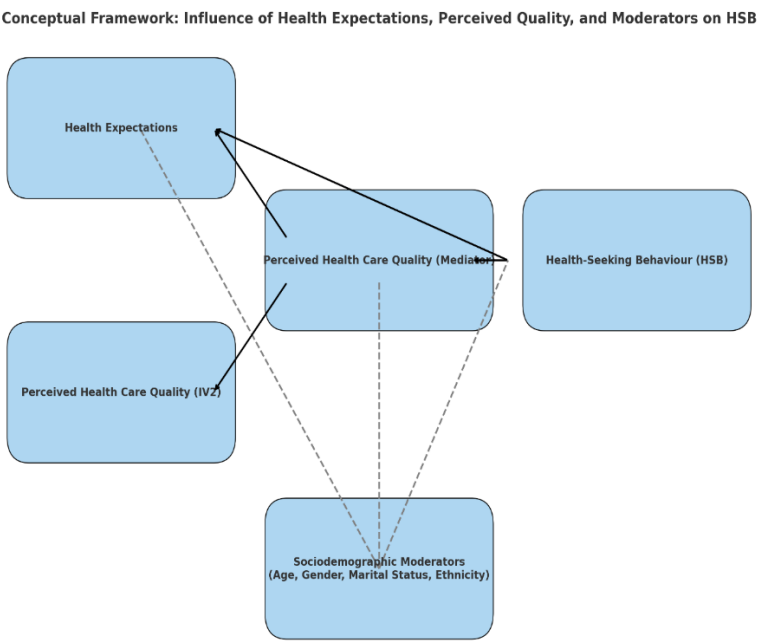


Fig. 1

Methodology

Study Design

A cross-sectional survey was conducted to examine the interrelationships between health-seeking behaviour, health expectations, and perceived quality of health in a cohort of healthcare professionals. This design permitted simultaneous measurement of all key constructs at one point in time, there by

facilitating the investigation of associations and predictive pathways without the temporal or logistical constraints of longitudinal follow-up. A systematic evaluation through this research methodology reveals comprehensive insights about the combined effects of worker expectations combined with system quality along with individual circumstances thus providing evidence to develop targeted health improvement strategies for Nigerian healthcare professionals.

Participants and Sample Size Estimation

A total of 108 healthcare workers from multiple hospitals and clinics in Ibadan, Nigeria, were enrolled. Prior to data collection, a priori power analysis was performed using G*Power 3.1 (Faul *et al*., 2009). Assuming a medium effect size ($f^2 = 0.15$) for multiple regression, alpha set at 0.05, and power ($1–\beta$) of 0.80, the minimum required sample was estimated at 89 participants. To allow for potential incomplete responses and to strengthen subgroup analyses by gender, age, ethnicity, and professional role, we targeted and achieved a sample of 108. Participants were recruited via convenience sampling, with inclusion criteria requiring current clinical or administrative employment and at least one year of professional experience. This method was chosen based on the availability, accessibility, and willingness of the participant.

The final sample comprised 32 men and 76 women, aged 21 to 50 years (M = 35.6, SD = 8.5), and represented four ethnic groups—Yoruba (74.1%), Igbo (12.0%), Hausa (4.6%), and other (9.3%). Marital status categories included single (38.0%), married (56.5%), and separated (5.6%), and religious affiliations were Christian (69.4%), Muslim (28.7%), and traditional (1.9%). Professionally, nurses (34.3%) formed the largest group, followed by allied health and support staff (49.1%), doctors (9.3%), and pharmacists (7.4%).

Method of Data Collection

Data collection was conducted through the administration of structured questionnaires to participants at their respective healthcare facilities. Prior to participation, informed consent was obtained from all participants, they were assured of the confidentiality of their responses and informed of their right to withdraw from the study at any time without penalty. Questionnaires were distributed and completed in a controlled environment to minimize distractions and ensure data quality. Questionnaires were checked for completeness upon return; incomplete or inconsistent responses were excluded from analysis.

Measures

Health-Seeking Behaviour: Participants completed the 12-item Health-Seeking Behavior Scale (Kıraç & Öztürk, 2021), which assesses three dimensions—online, professional, and traditional help-seeking—on a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). Higher totals reflect greater engagement in health-seeking actions. Sample items include "I visit a health professional as soon as I feel unwell" and "I consult family members before seeking formal healthcare." Original validation yielded Cronbach's α = .85, composite reliability = .87, construct validity (CFI = .95; RMSEA = .047), convergent validity (AVE = .52), and discriminant validity (HTMT < .85; Fornell–Larcker criterion satisfied; Kıraç & Öztürk, 2021).

Health Expectations: The 10-item Health Expectation Scale (Kowalski et al., 2015) gauges optimism about current and future health on a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) was used. Sample items are "I expect to remain in good health for many years" and "I believe that minor health setbacks will resolve quickly." higher scores reflect more positive expectations. In its original validation, the HES demonstrated high internal consistency (α = .88), composite reliability (ρc = .90), unidimensional construct validity (CFI = .96; RMSEA = .042), convergent validity (AVE = .52), and discriminant validity (HTMT < .80; Fornell–Larcker criterion satisfied)

Perceived Quality of Health: An 8-item scale adapted from Gandi (2018) and validated by Gandi and Dachalson (2020) used to rate respondents subjective health status on a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). Sample items include "My general health is excellent" and "I rarely experience health problems that interfere with daily activities." Initial validation reported Cronbach's α = .83 (Gandi, 2018) and α = .85 (Gandi & Dachalson, 2020), composite reliability = .85, construct validity (CFI = .94; RMSEA = .058), convergent validity (AVE = .48), and discriminant validity (HTMT < .85; Fornell–Larcker criterion satisfied).

Method of Data Analysis

Data cleaning and descriptive statistics were conducted using SPSS v25. Reliability and validity of each scale were assessed via Cronbach's alpha, composite reliability, and average variance extracted (AVE). Partial least squares structural equation modeling (PLS-SEM) was performed in SmartPLS v3.3.3 to evaluate measurement and structural models. The measurement model was evaluated for reliability and validity through the assessment of composite reliability, Cronbach's alpha, and average variance extracted (AVE). Discriminant validity was assessed using the Fornell-Larcker criterion and the heterotrait-monotrait (HTMT) ratio. The structural model was examined to evaluate the hypothesized relationships among health expectations, perceived

quality of health, and health-seeking behaviour. Path coefficients, t-values, and p-values were calculated to determine the significance of the relationships. Model fit was assessed using the standardized root mean square residual (SRMR), d ULS, d_G, chi-square, and the normed fit index (NFI). Moderation and mediation analyses were conducted to explore the potential moderating effects of age, ethnicity, and marital status on the relationships between the constructs was assessed further with PROCESS 4.0 (Hayes, 2022). Hypothesized paths and interaction (moderation) effects for age, ethnicity, and marital status were tested via bootstrapping (5,000 resamples), with significance determined at $p < .05$.

Results

Table 1: Demographic Characteristics of the respondents (N = 108)

Variables	Response category	Frequency	%
Gender	Male	32	29.6%
	Female	76	70.4%
Ethnicity	Yoruba	80	74.1%
	Hausa	5	4.6%
	Igbo	13	12.0%
	Others	10	9.3%
Marital status	Single	41	38.0%
	Married	61	56.5%
	Separated	6	5.6%
	Divorced	0	0.0%
Religion	Christian	75	69.4%
	Islam	31	28.7%
	Traditional	2	1.9%
Profession	Doctor	10	9.3%
	Nurse	37	34.3%
	Pharmacist	8	7.4%
	Others	53	49.1%
Age2	21-30 years	43	39.8%
	31-40 years	44	40.7%
	41-50 years	21	19.4%

Table 1 presents the demographic distribution of the study participants. The demographic profile of the respondents presents a diverse mix across several key variables. A majority of the participants were female (70.4%), while males constituted 29.6% of the sample. Ethnically, most respondents identified as Yoruba (74.1%), with smaller proportions identifying as Igbo (12.0%), Hausa (4.6%), and other ethnic groups (9.3%). In terms of marital status, 56.5% were

married, 38.0% were single, and a small percentage were separated (5.6%), with no respondents reporting as divorced. The religious distribution showed a strong Christian majority (69.4%), followed by Muslims (28.7%) and a small fraction practicing traditional religions (1.9%). Professionally, the respondents were primarily nurses (34.3%) and those in the "Others" category, which likely includes allied health professionals and administrative staff (49.1%). Doctors (9.3%) and pharmacists (7.4%) represented smaller segments. The age distribution was fairly even between those aged 21–30 years (39.8%) and 31–40 years (40.7%), with a smaller group aged 41–50 years (19.4%).

Table 2: Descriptive Statistics for Main Study Variables (N = 108)

Variables	N	Minimum	Maximum	Mean	SD
Health seeking behaviour	108	13	26	18.86	3.72
Health expectation	108	30	64	45.06	8.33
Perceived quality of health	108	24	64	43.23	9.28
Age	108	23	53	35.56	8.45

Descriptive analyses were conducted to assess the central tendencies and variability of the main study variables. The results, summarized in Table 2, indicate that participants reported moderately high levels of health-seeking behaviour, health expectations, and perceived quality of health. The average age of respondents was approximately 35.56 years (SD = 8.45), with ages ranging from 23 to 53 years.

Table 3: Model Fit and Reliability

	Saturated model	**Estimated model**
SRMR	0.145	0.101
d_ULS	4.387	4.484
d_G	3.360	3.370
Chi-square	1189.090	1203.631
NFI	0.813	0.804

The model fit indices suggest the estimated model has a reasonable fit, with a lower SRMR (0.101) compared to the saturated model (0.145), though chi-square values are high, which is common in SEM with large samples. Reliability measures, including Cronbach's alpha and composite reliability, indicate good internal consistency for the constructs Health Care Quality, Health.

Table 4: Reliability and Convergent Validity Indices for Study Constructs (N = 108)

Variables	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Health Care Quality	0.800	0.806	0.857	0.500
Health Expectation	0.849	0.873	0.883	0.501
Health Seeking Behaviour	0.707	0.717	0.769	0.541

As shown in Table 4, Cronbach's alpha coefficients for all constructs exceeded the commonly accepted threshold of 0.70, indicating acceptable to good internal consistency (Nunnally & Bernstein, 1994). Composite reliability (values also met or exceeded the recommended value of 0.70, supporting the reliability of the constructs (Hair *et al*., 2019). Furthermore, the Average Variance Extracted (AVE) for all constructs was approximately 0.50 or above, suggesting an adequate level of convergent validity (Fornell & Larcker, 1981).

Discriminant validity was assessed using two widely accepted criteria: the Fornell-Larcker criterion and the Heterotrait-Monotrait Ratio (HTMT) of correlations. As presented in Table 3.

Table 5: Fornell-Larcker Criterion Values for Discriminant Validity

Variables	1	2	3	4	5	6
Age	1.000					
Ethnicity	0.075	1.000				
Health Care Quality	-0.001	-0.120	0.707			
Health Expectation	-0.146	-0.059	0.410	0.700		
Health Seeking Behaviour	-0.009	-0.085	0.526	0.515	0.735	
Marital status	0.513	0.054	-0.005	-0.112	0.050	1.000

Note. Diagonal values in bold indicate the square root of AVE for each construct.

According to the Fornell-Larcker criterion, the square root of the Average Variance Extracted (AVE) for each latent construct should be greater than the correlation coefficients involving that construct and others (Fornell & Larcker, 1981). As presented in Table 4, the diagonal elements (square roots of AVEs) are greater than the off-diagonal inter-construct correlations, providing strong evidence of discriminant validity.

Table 6: Heterotrait-Monotrait Ratio (HTMT) Matrix for Discriminant Validity

Variables		1	2	3	4	5	6	7	8	9	10	11	12
1.	Age	-											
2.	Ethnicity	0.075	-										
3.	Health Care Quality	0.115	0.127	-									
4.	Health Expectation	0.193	0.147	0.523	-								
5.	Health Seeking Behaviour	0.048	0.118	0.522	0.664	-							
6.	Ms	0.513	0.054	0.099	0.164	0.100	-						
7.	Age x Health Care Quality	0.223	0.052	0.069	0.281	0.173	0.023	-					
8.	Age x Health Expectation	0.496	0.024	0.232	0.148	0.297	0.290	0.493	-				
9.	Ethnicity x Health Care Quality	0.054	0.212	0.531	0.142	0.217	0.147	0.227	0.031	-			
10.	Ethnicity x Health Expectation	0.027	0.074	0.147	0.250	0.221	0.031	0.058	0.027	0.488	-		
11.	Ms x Health Expectation	0.269	0.027	0.125	0.138	0.238	0.089	0.318	0.547	0.058	0.056		
12.	Ms x Health C Quality	0.021	0.125	0.148	0.084	0.025	0.020	0.723	0.304	0.034	0.040	0.371	-

To further validate construct distinctiveness, the HTMT ratio was computed. HTMT values below 0.85 are generally considered acceptable indicators of discriminant validity (Henseler, Ringle, & Sarstedt, 2015). Table 6 presents the HTMT matrix, which includes interactions with sociodemographic moderators. The majority of HTMT values fall below 0.85, suggesting adequate discriminant validity across the constructs. However, some values, such as 0.723 for the interaction term *Ms* × *Health Care Quality*, approach the threshold and warrant careful interpretation depending on the contextual tolerance for multicollinearity.

H1: Health expectation will significantly predict perceived health-seeking behaviour among health workers

Paths	β	SD	T - value	P values	95%Cl ul ll		F^2	R^2
Health Expectation -> Health Care Quality	0.410	0.059	6.890	0.000	0.325	0.566	0.202	0.168
Health Care Quality -> Health Seeking Behaviour	0.652	0.143	4.549	0.000	0.317	0.886	0.612	0.711
Health Expectation -> Health Seeking Behaviour	0.268	0.090	2.960	0.003	0.111	0.462	0.138	
Age -> Health Seeking Behaviour	0.027	0.083	0.324	0.746	-0.139	0.190		
Ethnicity -> Health Seeking Behaviour	0.036	0.061	0.593	0.553	-0.091	0.151	0.004	
Ms -> Health Seeking Behaviour	0.159	0.087	1.824	0.068	-0.009	0.331	0.055	
Mediation								
Health Expectation -> Health Care Quality -> Health Seeking Behaviour	0.267	0.065	4.131	0.000	0.147	0.401		
Moderation								
Age x Health Care Quality -> Health Seeking Behaviour	-0.043	0.153	0.282	0.778	-0.391	0.219	0.001	
Age x Health Expectation -> Health Seeking Behaviour	0.366	0.122	2.992	0.003	0.154	0.639	0.144	
Ethnicity x Health Care Quality -> Health Seeking Behaviour	0.211	0.102	2.073	0.038	0.014	0.400	0.039	
Ethnicity x Health Expectation -> Health Seeking Behaviour	-0.027	0.082	0.334	0.738	-0.189	0.133	0.001	
Ms x Health Expectation -> Health Seeking Behaviour	-0.320	0.072	4.478	0.000	-0.468	-0.183	0.203	
Ms x Health Care Quality -> Health Seeking Behaviour	-0.076	0.119	0.637	0.524	-0.299	0.172	0.005	

The analysis revealed a statistically significant direct relationship between health expectation and health-seeking behaviour among health workers. Specifically, health expectation positively predicted health-seeking behaviour with a standardized path coefficient (β) of 0.268, a standard deviation (SD) of 0.090, a *t*-value of 2.960, and a *p*-value of 0.003. The 95% confidence interval ranged from 0.111 to 0.462, indicating a moderate but robust effect. Additionally, the effect size (f^2) was calculated at 0.138, suggesting a small to medium practical significance. This result supports the hypothesis that higher levels of health expectation among health workers are associated with increased likelihood of engaging in health-seeking behaviours.

H2: Perceived health care quality will significantly mediate the relationship between health expectation and health-seeking behaviour

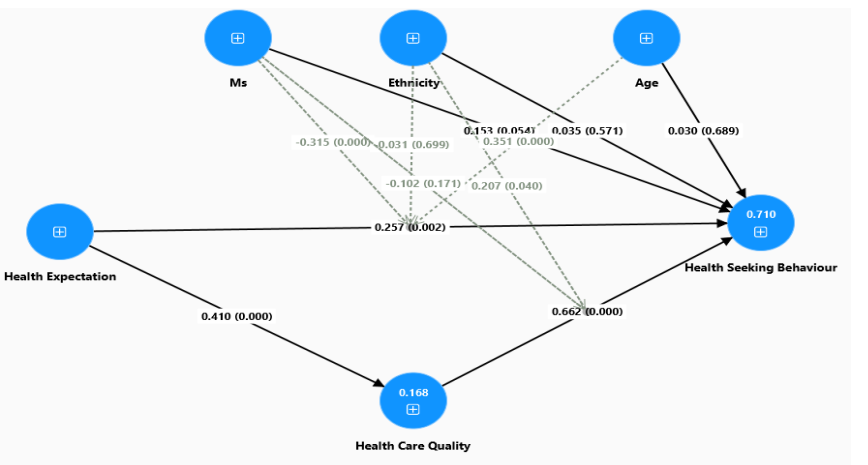
Mediating Effect

Path	Indirect Effect (a×b)	Direct Effect (c′)	Total Effect (a×b + c′)	VAF (%)	Mediation Type	Sobel Z	Sobel p-value
Health Expectation → Health Care Quality → Health-Seeking Behaviour	0.267	0.268	0.535	49.91%	Partial Complementary Mediation	2.405	0.0162

A mediation analysis confirmed the position of perceived health care quality to act as a link between health expectation and health-seeking behaviour. Significant output from this analysis demonstrates why health care quality acts as a critical influence on health-related behaviours. The research confirmed that health expectation serves as a strong predictor of perceived health care quality based on $\beta = 0.410$ (SD = 0.059, $t = 6.890$, $p < 0.001$). The confidence interval spanned from 0.325 to 0.566. Higher health expectations result in patients evaluating healthcare services at better levels. The analysis shows health expectation significantly influences perceptions of health care quality ($R^2 = 0.168$) with an effect size of $f^2 = 0.202$. This indicates that health expectation acts as a substantial predictor for how patients evaluate their received health services. Health care quality emerged as a vital predictor of health-seeking behaviour because participants demonstrated a strong connection ($\beta = 0.652$, SD = 0.143, $t = 4.549$, $p < 0.001$) with an effect size ($f^2 = 0.612$) showing an R^2 of 0.711 indicating health care quality accounted for 71.1% of health-seeking behaviour. People who perceive better healthcare quality show increased

engagement toward proactive health-seeking actions because of their positive service perceptions. Health care quality acted as a strong intermediate force linking health expectation to health-seeking behaviour according to the statistical findings ($\beta = 0.267$, SD = 0.065, $t = 4.131$, $p < 0.001$). Perceived health care quality acts as a significant path by which health expectation leads patients toward health-seeking behaviour according to the calculated confidence interval (0.147 to 0.401). The study evidence verifies Hypothesis Two which states that health care quality functions as a mediator between health expectation and health-seeking behavior. The Variance Accounted For calculation resulted in 49.91% indicating that health care quality establishes a partial mediation of 50% between health expectation and health-seeking behaviour. The VAF measurement range of 20% to 80% indicates that health care quality shows partial mediation. The total impact of health expectation on health-seeking actions results from its direct pathway together with its indirect pathway which passes through health care quality standards. The Sobel Z-value reached 2.405 while the p-value was 0.0162 using the Sobel test to validate the statistical validity of the mediation process. The complementary positive nature emerged as the resulting mediation effect. Health expectation impacts health-seeking behavior in two ways because it directly affects patient behavior while using health care quality as an intermediary step. High health expectations lead people to see healthcare services as excellent quality thereby driving them to adopt health-seeking activities.

Hypothesis Three (H3): Sociodemographic variables (age, ethnicity, and marital status) will significantly moderate the relationship between health expectation, perceived health care quality, and health-seeking behaviour



H3a: Age as a Moderator

Two interaction terms involving age were examined. First, the interaction between age and health expectation on health-seeking behaviour was statistically significant ($\beta = 0.366$, SD = 0.122, $t = 2.992$, $p = 0.003$), with a 95% confidence interval between 0.154 and 0.639, and an effect size of $f^2 = 0.144$. This result suggests that age strengthens the positive relationship between health expectation and health-seeking behaviour—indicating that older health workers are more likely to act upon their health expectations. The graphical representations were generated to further illustrate the nature of significant interaction effects. These plots help to visualise age, moderate the relationships between predictor variables (health expectation and health care quality) and the outcome variable (health-seeking behaviour).

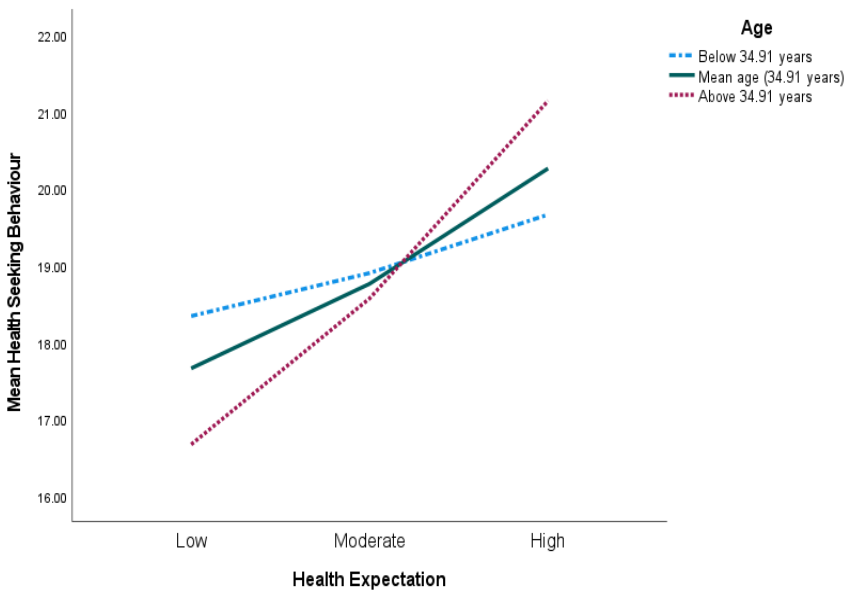


Fig. 2: Interaction effect of Health Expectation and Age on Mean Health-Seeking Behaviour

Health expectation and health-seeking behaviour show a different linkage based on how old the participants are according to their responses. People who are older than 34.91 years show a stronger upward trend of health-seeking actions when their health expectations increase compared to those who are younger. People aged below 34.91 demonstrate weak sensitivity in their health-seeking actions to changes in health expectation levels. Results showed no statistical

connection between patient age and health care quality perception effects on health-seeking behavior (β = -0.043, SD = 0.153, t = 0.282, p = 0.778; f^2 = 0.001). The research indicates age does not influenced substantial differences in how perceived health care quality impacts individuals' health-seeking decisions. Therefore, Hypothesis 3a is partially supported.

H3b: Ethnicity as a moderator

When ethnicity was examined as a moderator, the interaction between ethnicity and perceived health care quality was found to be statistically significant (β = 0.211, SD = 0.102, *t* = 2.073, *p* = 0.038), with a 95% confidence interval from 0.014 to 0.400 and a small effect size (f^2 = 0.039). This indicates that ethnicity moderates the relationship between perceived care quality and health-seeking behaviour—suggesting that individuals from different ethnic backgrounds may perceive and respond to health care quality differently. The graphical representations were generated to further illustrate the nature of significant interaction effects. These plots help to visualise age, moderate the relationships between predictor variables (health expectation and health care quality) and the outcome variable (health-seeking behaviour).

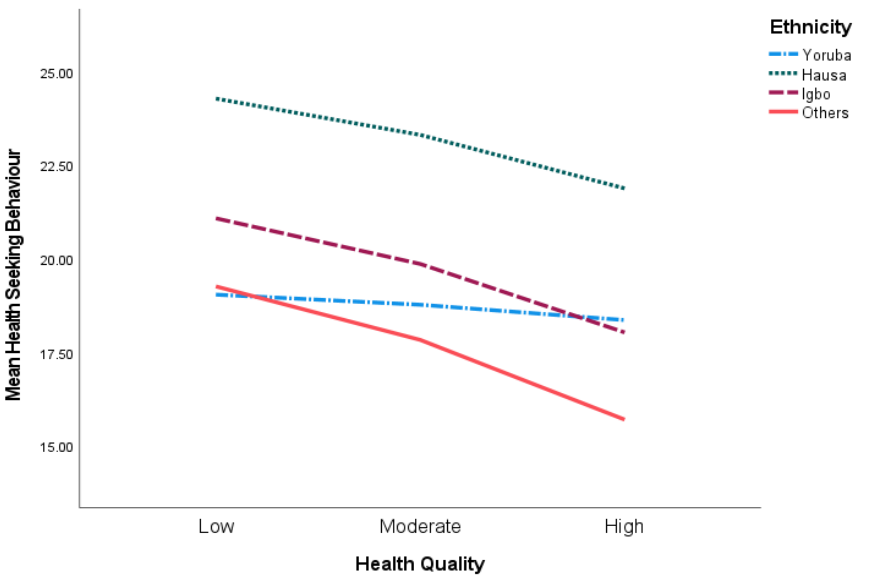


Fig. 3: Interaction effect of Health Care Quality and Ethnicity on Mean Health-Seeking Behaviour

The chart demonstrates how ethnicity controls the connexon between health care quality and health-seeking choices. The health-seeking actions of Hausa people remain consistent throughout varying health care standards but minority groups decrease their activity when they perceive improvements in quality. Respondents

from the Yoruba background exhibit minimal changes in their behaviour when care quality rises or decreases at various levels of assessment. The study results show ethnicity shapes the effect of perceived quality on health-seeking behaviours which substantiates what was previously detected (β = 0.211, p = .038*). This studied found no significant connection between ethnicity and health expectation based on their results (β = -0.027, SD = 0.082, t = 0.334, p = 0.738) indicating a minimal effect size (f^2 = 0.001). Ethnicity does not affect the impact that health expectation has on individual health seeking behaviour. Hypothesis 3b holds partial validation from the research findings.

Hypothesis 3c: Marital Status as a Moderator

The results showed marital status served as a significant factor that weakened the link between health expectation and health-seeking behaviour (β = -0.320, SD = 0.072, t = 4.478, p < 0.001). The study established that marital status acted as a significant moderator between health expectation and health-seeking behaviour with an effect size of f^2=0.203 and confidence interval results from -0.468 to -0.183. When participants are married, they show weaker relationships between their health expectations and the way they choose to behave regarding their health. The new responsibilities as well as changes in health-care dynamics within marriages could explain this finding. Visual representations helped explain the character of the significant interaction effects between variables. The visualizations demonstrate marital status while they act as moderators that influence the connection between the predictor variables with health-seeking behaviour and health expectation along with health care quality.

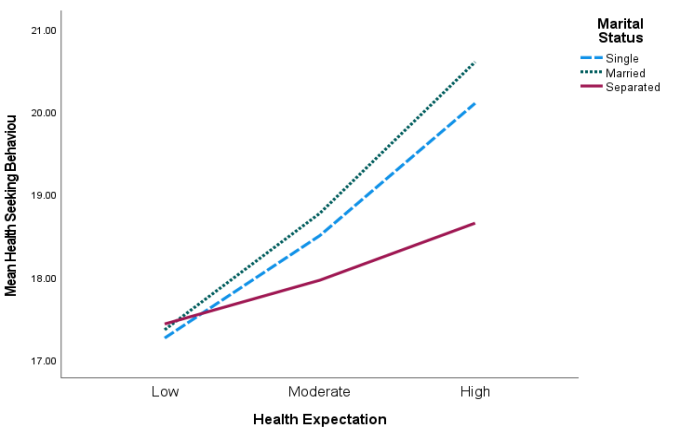


Fig. 4: Interaction effect of Health Expectation and Marital Status on Mean Health-Seeking Behaviour

The figure 4 shows that marital status serves as a moderator to establish how health expectation levels relate to health-seeking conduct. Health-seeking actions increase more dramatically when married persons have higher expectations regarding their health while those who are single have the next highest responsive levels but separated individuals show minimal changes. The dramatic rise in health expectations generates limited effects on the health-seeking activities of separated people as demonstrated by their flat slope. The analysis confirmed the earlier significant negative effect ($\beta = -0.320$, $p < .001$) which showed marital status decreases health expectations impact on behavioural outcomes. The findings support a limited aspect of Hypothesis 3c.

Discussion of Findings

Health expectations together with perceived health care quality and health-seeking behaviour relationships received investigation under analysis of age ethnicity and marital status effects. The research study showed that health expectations directly influence patient health-seeking actions. Health professionals who maintain higher health expectations exhibit more proactive health care behaviour patterns. Alissa *et al.* (2025) observed that Saudi Arabian women along with other population groups show increased health service utilisation when they have high health expectations. Patients in the Nigerian healthcare system who possessed greater health expectations demonstrated faster and more consistent use of formal medical services according to Akande *et al*. (2024). Health-seeking behaviours are greatly influenced by how individuals expect their health status to develop according to research results. The public health community should focus on managing expectations because it creates better associations between people's health care needs and available accessible quality healthcare services. Creating this approach would lead to improved health maintenance behaviour among patients who start medical care soon after symptoms appear.

The researchers conducted a mediation analysis to verify whether healthcare quality perception functions as a linkage variable connecting health expectation to health-seeking practises. Health expectation demonstrated a notable strength of association with perceived health care quality according to research results. Workers with higher health expectations tend to view health services as superior. Research confirms that individual expectations determine how they judge health care services. The evaluation of available health services' quality demonstrates a strong association with health-seeking actions because participants who possess faith in the quality of health services choose to use them during healthcare needs. Research results shows that perceived health care quality significantly links health expectation and health-seeking behaviour because it functions as a significant mediator between these variables.

Van der Kruk et al. (2022) reveal that patient perceptions of health care quality operate as an essential pathway which connects their health expectations to their health-seeking actions especially within Low- and Middle-Income

Countries. Patient health service utilisation requires closing the gap between expectation and perception of care quality in Nigerian healthcare settings according to Akande et al. (2022). The Deloitte (2025) report demonstrates that patient expectations now significantly influence how care quality is perceived worldwide thus leading health systems to provide technical excellence and patient-centred services according to expectations. Health worker interventions for improving health-seeking behaviours should emphasise both health care expectation management and the development of responsive healthcare services and strong patient relationships with persistent communication between providers and patients.

Age acted as a substantial determinant which influenced the connection between patients' expected health treatment and their actual health-seeking actions according to the research findings. Study findings discovered older adults more prone to practise what they expect regarding their health in comparison to their younger peers. Older health workers show increased awareness and are more prone to illnesses which drives them to seek medical care upon perceiving healthcare needs. Research by Olasehinde (2024) demonstrates that elderly people in Nigeria commonly practise improved health-seeking behaviours because they acquire numerous life lessons from their past and develop better health risk perception and deal with chronic diseases. The Deloitte (2025) report demonstrates worldwide that ageing persons actively seek healthcare because of higher health consciousness and their age-related medical conditions. The research results suggest that health care promotion initiatives need to develop age-specific approaches for maximising health service utilisation. The development of targeted products for population segments serves as a better method to sustain health service usage across life stages. The research results show ethnicity operates as an essential variable affecting the connexion between patient assessments of health care standard and their subsequent health service utilisation. Each ethnic group behaves uniquely regarding health care quality perception since their responses guide their formal health service usage activities. Cultural identities merged with ethnic affiliations shape Nigerian beliefs and healthcare actions about health due to ethnic groups keeping separate traditional biomedical health systems and formal health institution trust levels according to the Lancet Nigeria Commission (2022). The research by Alissa *et al.* (2025) established that Saudi women's healthcare behaviour is influenced by their cultural beliefs because tribal and ethnic traditions define medical treatment interaction approaches. Healthcare practises must integrate cultural competence because evidence from research demonstrates its necessity. Health systems achieve effective public health programme development through cultivated awareness of cultural and ethnic differences between health staff and patients.

Health expectations and health-seeking behaviour have their relationship significantly influenced by marital status according to the study. Couples in marital unions exhibited a higher frequency of active health care behaviour than unmarried individuals did when they translated their health expectations. People with spouses tend to engage in health services because their relationships provide emotional backings and encouraging support along with potential financial assistance and practical help. The conclusions of Olasehinde (2024) confirm that marital status influences health decision-making in Nigeria through the positive impact spouses create in healthcare decision support for their partners. Research by Alissa *et al*. (2025) demonstrated Saudi women who were married showed better health-seeking practises as evidence that personal relationships affect individuals' health action responses. The research demonstrates that health outcomes could possibly be improved through family-centred health solutions. Medical marketing initiatives and staff wellness programmes targeting medical professionals should establish family-oriented support structures together with spouse-focused health behaviour strategies which recognise the natural health settings among healthcare workers.

Policy Implications and Recommendation for Practice

Health sector policies should incorporate structured programmes aimed at managing health expectations among healthcare workers. Such programmes can improve early engagement with formal health services and reduce the tendency toward informal or delayed care-seeking behaviours.

Policymakers should encourage family-inclusive health policies, such as couple-based insurance schemes and family-friendly occupational health services, to leverage the positive influence of marital support on health-seeking behaviours.

Health institutions should adopt differentiated strategies based on the age of their workforce. For example, health promotion activities for older professionals could focus on chronic disease prevention, while digital health tools may be more effective for younger staff. Frontline healthcare systems should prioritise respectful communication, confidentiality, and consistent responsiveness to boost trust and perceived care quality—critical mediators in health-seeking behaviour. Health facilities should create wellness initiatives that actively involve spouses in preventive care and health education, recognising the role of marital support in motivating health service use.

Limitations and Future Research

The research serves its purpose as a research instrument but researchers should acknowledge specific limitations within the design. The collection of data at one specific period creates difficulties when establishing cause-effect relationships while feedback obtained from study participants may lack full credibility. Longitudinal research methods should be employed in future studies to connect

variables causally although they should also include evaluation of social class variables and educational background effects. Qualitative research methods have the ability to uncover how health expectations interact with assessments of quality toward producing behavioural adjustments among diverse population segments.

Conclusion

The research demonstrates that health expectations and perceived health care quality influence health-seeking behaviour strongly and age and ethnicity together with marital status influence this relationship. The research demonstrates how individual expectations alongside perceptions together with sociodemographic contexts need consideration for creating successful interventions to enhance health service utilisation rates. There is need to develop targeted health promotion interventions that integrate expectation management, culturally competent care, and family-oriented support, especially tailored by age, ethnicity, and marital status, to enhance proactive health-seeking behaviour among health workers. This consideration addresses the central roles that health expectations, perceived care quality, and socio-demographic moderators (age, ethnicity, marital status) play in shaping health behaviour. By aligning healthcare services with these psychosocial and demographic realities, institutions can foster earlier, more consistent, and more appropriate use of health services—ultimately improving health outcomes among health professionals.

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