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RESEARCH ARTICLE OPEN ACCESS

Knowledge of the National Health Act among Physicians in two Tertiary Hospitals in Southern Nigeria

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Abstract
Objective: Knowledge of provisions of the National Health Act among physicians and stakeholders is pivotal to its successful implementation. This study aimed to assess the knowledge of the National Health Act (NHA) among Physicians in two tertiary hospitals in Nigeria.
Methods: This was a cross-sectional study conducted in two tertiary hospitals in Southern Nigeria. The consecutively recruited eligible respondents were assessed for knowledge of NHA using a 24-item self-administered close-ended structured questionnaire. The total obtainable score was 26. Those with <13 points had poor knowledge, 13-21 points had good knowledge and >21 points had excellent knowledge. Data were analyzed using SPSS version 21 software. P-value of < 0.05 was taken as significant.
Results: One hundred and ninety-five doctors with a male: female ratio of 1.9:1 participated in the study. The majority (91.8%) were ≤40 years and 129(66.2%) of the participants were ≤ 10 years post qualification. The frequency of correctly answered questions ranged between 7.7% - 89.2%. According to overall knowledge scores; 64.6% had poor knowledge; 35.4% had good knowledge and none had excellent scores. There was no statistically significant association between knowledge of NHA and gender, age, and number of years post-qualification (p > 0.05).
Conclusion: This study showed that only about a third of the participants had good knowledge of key provisions of the NHA. We strongly recommend that relevant sections of the Act should be incorporated into the medical curriculum both at the undergraduate and postgraduate levels.

Keywords: National Health Act, Assessment, Knowledge, Medical Doctor, Nigeria

Plain English Summary

In Nigeria, the National Health Act (NHA) was approved in 2014 as the first law to regulate and strengthen the healthcare system. The physicians are major stakeholders in achieving a strong health system and improving the right to health in Nigeria through the implementation of this Act. The knowledge of physicians about important aspects of the NHA is important in achieving the desired intention of this act. The knowledge of Physicians in two hospitals was assessed. It was observed that the majority of the Physicians did not have adequate knowledge of this important Act. The age, gender, and years of experience post-qualification of the Physicians did not influence their depth of knowledge of the Act. Knowledge was only adequate in about a third of the Physicians that participated in the study. We strongly recommend that relevant sections of the Act should be incorporated into the medical curriculum both at the undergraduate and postgraduate levels. This will equip the Physicians with adequate knowledge of the Act which will help strengthen our healthcare system.

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Background

The ability to effectively guarantee citizens' access to comprehensive care is dependent on the presence of a well-regulated health care system that not only recognizes the right to health but also charts a clear course as to how the right is to be attained. The Nigerian Constitution does not recognize an enforceable right of citizens to health (1). Nevertheless, the right is enforceable under the African Charter which has been domesticated as an act of the National Assembly of the country and thus, an extant and valid law (2).

The enactment of the National Health Act (NHA) in 2014 as the first comprehensive law to regulate the healthcare system in Nigeria was a step in the right direction toward building a strong health system and toward strengthening the realization of the right to health in Nigeria (3). Before the enactment of the NHA, the health system in Nigeria was largely policy based with numerous policy documents made over the years to regulate different aspects of health, without any rallying point. Although policies, orders, and guidelines serve as clear and positive indications of the willingness of the government to actualize certain goals which are made for the benefit of its citizens, they have no firm legal basis unless made pursuant to specific powers delegated under extant laws or made within the boundaries of constitutional or statutory authority (4, 5). The Act thus provides a firm legal basis for the regulation, development, and management of Nigeria's health system (3).

The NHA establishes a national health system that recognizes, protects, promotes, and fulfills the rights of citizens to have access to health care services (6). Despite the laudable move of the enactment of the NHA toward strengthening health systems in Nigeria, in tandem with universal trends, the success of the implementation of the NHA is, however, strongly dependent on the level of knowledge of provisions of the Act by major stakeholders such as physicians. The reports from previous studies conducted in Southwest and Northern Nigeria showed that the level of awareness of NHA is high among health care professionals. Their main sources of information about NHA were mass media, professional colleagues, associations, and unions (7, 8).

Surprisingly, the knowledge of NHA among health care practitioners was poor despite having a high level of awareness and good perception of the act (7, 8). However, these studies only assessed knowledge of some aspects of the NHA. A comprehensive assessment of the NHA is important to identify specific knowledge gaps particularly as it relates to the rights of users and the obligations and responsibilities of health care practitioners under the Act.

The aim of this study, therefore, was to assess the level of knowledge of physicians on provisions of the NHA in Nigeria in two tertiary hospitals. The findings of this study will also help in making recommendations toward strengthening the Nigerian health care system and improving the health care service delivery system through the NHA.

Methods

Study Area and Study Design

This was a cross-sectional descriptive study that assessed knowledge of NHA among medical doctors at the University of Medical Sciences Teaching Hospital (UNIMEDTH) in Ondo City and the University of Benin Teaching Hospital (UBTH) Benin City, Edo State. These two hospitals are tertiary health institutions that are located in the Southern part of Nigeria. The study was carried out over 2 months between September 2019 and October 2019.

Study Population and Sample Size Calculation

The sample size was determined using the Cochran formula (9). The prevalence of good knowledge of NHA from a previous study was 14.6% (10), and an error margin of 5% and a 95% confidence interval were used for the sample size calculation. The sample size was 210 after the inclusion of a 10% non-response rate. The respondents were recruited from the participating institutions by proportionate allocation based on their respective staff strength using a ratio of 2:1 for UBTH and UNIMEDTH, respectively. Doctors who had current registration with the Nigerian Medical and Dental Council and were willing to participate were included in the study. However, Doctors who were acutely ill during the study period were excluded from the study.

Sampling and Data collection tool

The study respondents were consecutively recruited in UBTH and UNIMEDTH, using a convenience sampling method. Knowledge of NHA was assessed through the use of a self-administered close-ended structured questionnaire that had 26 questions. The questionnaire was derived from the NHA document by the researchers. The questionnaire had sections A and B. Section A consisted of questions on age, gender, and the number of years post-first medical degree. Section B consisted of 26 questions that assessed some provisions of NHA including certificate of standards, rights of patients and

health workers, complaints laying procedures, and industrial disputes.

Data Management and Analysis

Data generated were analyzed using the Statistical Package for the Social Sciences for window version 17.0 (SPSS Inc., Chicago, IL, USA). Missing data for individual variables occurred randomly and were automatically excluded during data analysis by the statistical software. A score of 1 point was given to each correctly answered question and the total score was calculated for each respondent. The maximum score obtainable was 26 points and those with < 13 points had poor knowledge, 13-21 points had good knowledge and >21 points had excellent knowledge

Univariate analysis was used in the description of the demographic characteristics of the study population. Discrete variables were presented as frequency and percentages. The Chi-square test was used to determine the significance of observed differences for categorical variables. P-value of < 0.05 was taken as statistically significant.

Results

There were 195 participants in this study comprising 127 (65.1%) males and 68 (34.9%) females. Ninety-one (46.7%) of the participants were between the ages of 21-30 years, 88 (45.1%) were between 31- 40 years and the remaining 16(8.2%) were above 40 years. One hundred and twenty-nine (66.2%) of the participants had between 1-10 years post qualification experience as medical doctors (Table 1).

Table 1: Socio-demographic Characteristics of Study Participants (N=195)

Characteristics	Frequency (%)
Gender	
Male	127(65.1)
Female	68(34.9)
Age in years	
21-30	91(46.7)
31-40	88(45.1)
41-50	15(7.7)
51-60	1(0.5)
Number of years post-qualification	
<1	48(24.6)
1-10	129(66.2)
11-20	17(8.7)
20-30	1(0.5)

The frequency of correctly answered questions ranged between 7.7% - 89.2%. The least correctly answered questions were on the time frame for resolution of the industrial dispute to prevent the health sector from shut down under NHA (7.7%); verbal assault as a ground for a health worker to refuse emergency treatment of patients (12.3%); whether government hospitals require a certificate of standards (17.4%). The most correctly answered questions were on patients' rights; entitlement of patients to know all available treatment options (88.7%); right of patients to refuse treatments even after being told the implications (89.2%) and the duty of physicians to disclose risk, cost, benefits and consequences of treatment to patients (81.2%) (Table 2).

Table 2: Knowledge of National Health Act among Respondents (N=195)

Variable	Frequency of Correct Answer n (%)
Basic minimum package for health services in the NHA	48(24.6)
Awareness of the Certificate of Standards	39(20.0)
Requirement of Certificate of Standard for operation in government hospitals	34(17.4)
Requirement of Certificate of Standard for operation in private hospitals	34(17.4)
Certificate of Standards as a punishable offense	34(17.4)
Refusal of Patient for emergency treatment	36(18.5)
Physical abuse of health personnel as a reasonable ground to refuse to give emergency treatment to a patient under the Act	46(23.6)
Verbal abuse of health personnel as a reasonable ground to refuse to give emergency treatment to a patient under the Act	24(12.3)

Sexual abuse of health personnel as a reasonable ground to refuse to give emergency treatment to a patient under the Act	63(32.3)
Refusal to provide emergency treatment constitutes a crime	79(40.5)
Are practitioners allowed to seek exemption from the treatment of patients	122(62.6)
Practitioners have to disclose the health status of patients to them	135(69.2)
Practitioners have to disclose the health status of patients to them even where it appears not to be in the best interest of the patient	44(22.6)
Practitioners have to disclose the risk, cost, benefits, and consequences of treatment to patients	158(81.0)
Patients are entitled to know all available options for treatment	173(88.7)
Patients are to choose options of treatment they desire	157(80.5)
Medical practitioners are to choose and decide the best option of treatment for a patient	82(42.1)
Patients have a right to refuse treatment options even after being told implications	174(89.2)
Private hospitals should display the rights of patients and duties of providers	139(71.3)
Government hospitals should display the rights of patients and duties of providers	145(74.4)
Obtain authorization from patients to use their health records for study or research	148(75.9)
Will patient's authorization be necessary where the identity of the user is not reflected in the study or research?	56(28.7)
Private Hospitals must necessarily display complaint laying procedure	117(60.0)
Government Hospitals must display complaint laying procedure	121(62.1)
National Health Act regulates industrial disputes and strikes	40(20.5)
The given time frame for resolution of industrial disputes to prevent total shut down of the health sector is	15(7.7)

According to overall knowledge scores, 64.6% had poor knowledge; 35.4% had good knowledge and none had excellent scores (Figure 1). There was no significant association between knowledge of NHA and gender, age, and the number of years post-qualification (p >0.05) (Table 3).

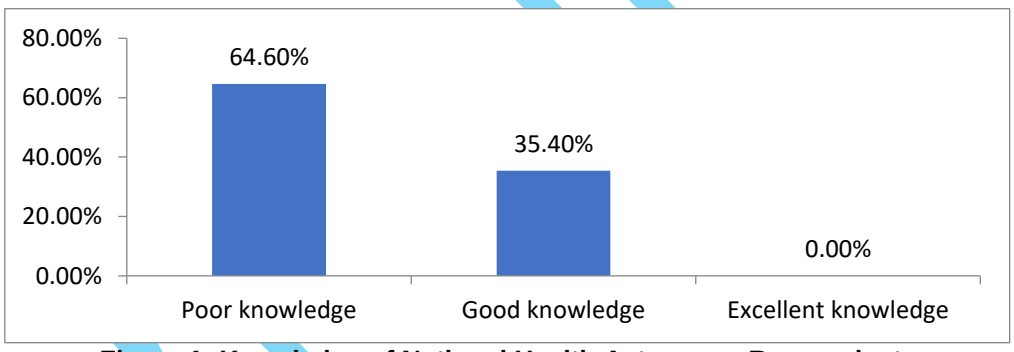

Figure 1: Knowledge of National Health Act among Respondents

Table 3: Knowledge of National Health Act by Socio-demographic Characteristics of Respondents (N=195)

	Poor Knowledge N (%)	Good Knowledge N (%)	P-value
Gender			
Male	81(64.8)	46(36.2)	0.756
Female	45(66.2)	23(33.8)	
Age (years)			
21-30	59(64.8)	32(35.2)	
31-40	57(64.8)	31(35.2)	0.603
41-50	10(66.7)	5(33.3)	
51-60	0(0)	1(100)	
Number of years post qualification			
<1	33(68.8)	15(31.3)	
1-10	83(64.3)	46(35.7)	0.486

11-20	10(58.8)	7(41.2)
21-30	0(0)	1(100)

Discussion

This study showed that the majority of physicians did not have a good knowledge of NHA even though it was enacted 5 years before conducting this present study. It also identified areas of significant knowledge gap in NHA which could be targeted for educational programs.

There were more male participants in this study which is similar to some previous studies that assessed health care practitioners' knowledge of NHA in Nigeria (11, 12). The majority (91.8%) of the participants in this present study were in their 3rd and 4th decades of life which is at variance with findings of previous studies conducted in Nigeria where there were older health care practitioners who participated in the study (7, 8). This could be explained by the fact that the present study was conducted among physicians in teaching hospitals where young doctors who are mainly house officers and residents constitute a significant proportion of the workforce unlike the respondents in the previous studies. About a tenth of the participants in this study had more than 10 years post-first medical degree experience which is in contrast to the report of a previous study where about 64% of their study participants had more than 10 years post-qualification experience (7). However, this is not surprising because the participants in our study as earlier stated were younger compared to those in the previous studies.

Less than 20% of the respondents provided the right answers about certificate of standards which is defined by the International Standards Organization (ISO) as documents that provide requirements, specifications, guidelines, or characteristics that can be used consistently to ensure that materials, products, processes, and services are fit for their purpose (13). Reports in 2018 showed that no private or government hospital in Nigeria offering health care services had obtained the certificate of standard as stipulated by the NHA despite being a punishable offense under the NHA to operate a health institution without this certificate (14).

The most correctly answered questions among the health care practitioners were on the provisions that protect patients' rights. These aspects included confidentiality of patient information; patients' right to have access to information about their health, all available treatment options and consequences; and the right to make informed decisions as related to their health. For instance, about 90% of the participants knew that patients should be provided with all available treatment options and that patients have the right to refuse treatment even after being adequately informed about the implications. The good knowledge demonstrated in these areas may be related to the fact that these are also part of medical ethics included in both undergraduate and postgraduate medical curricula in Nigeria. It is expected that all Nigerian medical graduates would have undertaken courses in medical ethics which extensively incorporate these areas.

Surprisingly, it was found that the physicians were not knowledgeable in the aspects of the NHA that protected some of their rights. Some aspects of the NHA protect the interest of the physicians which seems to be a clear departure from the usual norm of protecting patients who are considered vulnerable in the medical practitioner and patient relationship, especially from the viewpoint of medical ethics. This was corroborated by a previous report where it was described as being 'one-sided' (15). Less than a third of these practitioners were aware that physical, verbal, or sexual abuse of health care practitioners may be reasonable ground to refuse emergency treatment of patients after a report has been made to the appropriate authority. Workplace violence against health care workers and its associated adverse effects on the health sector has been recently brought to the limelight by the World Health Organization (11). It has been reported that it hurts the psychological and physical well-being; productivity and job satisfaction of health care workers (11). Even though not reported on most occasions, previous studies showed the magnitude of this problem. Workplace violence was reported among 58.2% and 56.4% of health care workers in studies done in Ethiopia and China, respectively (12, 16).

The respondents in this study also demonstrated poor knowledge in the area of NHA that regulates industrial disputes. The implication of this is that practitioners can easily run afoul of the provisions of the Act and thereby disrupt the availability of essential and qualitative healthcare services.

In the overall assessment, about 35% of the participants in this present study had adequate knowledge of the NHA. This is higher than about 26% reported in a similar study that was conducted in Ogun State, Southwest Nigeria in 2016 (8). This difference in the level of knowledge may be possibly explained by the differences in the demographic characteristics of study participants. Unlike our study which

involved only medical practitioners, the study done in Ogun state included physicians and other health care professionals such as nurses and pharmacists (8). However, in a more recent study conducted in Sokoto State (7), adequate knowledge was reported in 60% of their study participants who were medical practitioners across all the States in Nigeria. The difference in the level of knowledge in our study and these previous studies (7, 8) may also be partly explained by the difference in the tools used for the assessment of knowledge of NHA among the different respondents.

There was no significant association between knowledge of NHA and gender, number of years post-first medical degree qualification, and age in this present study. This is similar to previous reports from studies conducted in both Sokoto and Ogun States (7, 8). The implication of this is that all physicians should be targeted in professional development programs aimed at improving knowledge about NHA irrespective of their age or professional experience.

There is an urgent need to start implementing the NHA which has an overall aim of strengthening the health care system and ensuring that there is the delivery of qualitative health care to Nigerians while ensuring the rights of both patients and healthcare workers are well guaranteed.

Conclusion

This study showed that only about a third of the participants had good knowledge of key provisions of the NHA. This Act must be given more publicity. Relevant sections of the Act should be incorporated into the medical curriculum both at undergraduate and postgraduate levels so that all doctors will be familiar with the provisions of this Act. Continuous professional development modules should also be organized to educate practitioners on the key provisions and issues covered by the NHA. This will help achieve the aim of strengthening Nigeria's healthcare system toward the progressive realization of the right to health of citizens and achieving the UHC goal.

List of Abbreviations

NHA: National Health Act
SDG: Sustainable Development Goal
UHC: Universal Health Coverage
WHO: World Health Organization

Declarations

Declarations, Ethics approval, and Consent to Participate

Ethical approval with Protocol Number ADM/E22/A/VOL.VII/14830934 was obtained from the Ethics and Research Committee of the University of Benin Teaching Hospital for this study. Informed consent was obtained from each participant. All questionnaires were coded (without names), and confidentiality of responses was ensured throughout the study.

Consent for publication

All the authors gave consent for the publication of the work under the creative commons Attribution-Non-Commercial 4.0 license.

Availability of data and materials

The data and materials associated with this research will be made available by the corresponding author upon reasonable request.

Competing interests

The authors have no competing interests to declare.

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Authors' Contributions

All authors were involved in conceptualization, literature review, and data collection. AOA was involved in data analysis and interpretation. All authors contributed to the final draft of the manuscript.

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