

Assessment of Attitudes and Perceptions toward COVID-19 Vaccination among Community Health Workers in Training at Agency Schools, University College Hospital, Ibadan, Nigeria

**Agbonavbare Omotunde¹, Adesoji Morounfoluwa², OGUNMOLA, Emmanuel Olawale³,
Joy Anorue⁴, Kolawole Tunmise Daramola⁵, Ayinde Abayomi O.⁶**

1. School of Health Information Management, University College Hospital, Ibadan
2. Ogun Oshun River Basin Development Authority, Agric Service Department, Abeokuta, Ogun State
3. Department of Medical Laboratory Technology, Ondo State College of Health Technology, Akure.
4. Enugu State University of Science and Technology
5. College of Community Health, University College Hospital, Ibadan
6. Public Health Epidemiology, University College Hospital, Ibadan

Abstract: Background: Community health workers play a critical role in the promotion of public health interventions, including vaccination. Their attitudes and perceptions toward COVID 19 vaccination can influence both personal uptake and advocacy within the wider community. This study assessed the awareness, attitudes, perceptions, and factors associated with COVID 19 vaccine acceptance among community health workers in training at Agency Schools, University College Hospital (UCH), Ibadan, Nigeria. Methods: A descriptive cross-sectional study was conducted among 200 trainees enrolled in the Primary Health Care Tutors and Community Health Officers Training Programmes. Data were collected using a structured self-administered questionnaire, capturing socio-demographic characteristics, knowledge, perception, attitude, vaccination status, and factors influencing vaccine acceptance. Descriptive statistics, frequencies, percentages, and chi-square tests were used to analyze associations between perception, attitude, and vaccine uptake. Results: The mean age of respondents was 32.1 ± 8.4 years, with a majority being female (65%) and of Yoruba ethnicity (80%). Awareness of COVID 19 and preventive measures, including vaccination, was high, with 98% demonstrating knowledge of transmission routes and 95% aware of vaccine side effects. Eighty-five percent had received at least one dose of the COVID 19 vaccine, and 83% completed the full vaccination schedule. Positive attitudes toward vaccination, including encouragement of peers, were observed in 95% of respondents. Misconceptions regarding vaccine safety and efficacy were minimal but present. Chi-square analysis indicated significant associations between both attitude and perception with vaccine acceptance ($p < 0.05$). Perceived factors influencing vaccine uptake included personal health considerations, peer influence, and access to vaccination information. Conclusion: Community health worker trainees at UCH Ibadan demonstrated high awareness and generally positive attitudes toward COVID 19 vaccination, which were strongly associated with uptake. Residual misconceptions highlight the need for continued educational interventions, peer advocacy, and transparent communication to sustain vaccine confidence. Strengthening these strategies within training programs can enhance both personal uptake and broader public health promotion.

Keywords: COVID 19, Vaccination, Community Health Workers, Attitude, Perception, Nigeria.

Introduction

Coronavirus disease 2019 (COVID-19) is an infectious disease caused by the novel severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), first identified during an outbreak of respiratory illness in Wuhan, Hubei Province, China, and reported to the World Health Organization (WHO) on December 31, 2019 [1]. On January 30, 2020, the WHO declared the outbreak a Public Health Emergency of International Concern, and on March 11, 2020, it was characterized as a global pandemic. The designation “COVID-19,” derived from “coronavirus disease 2019,” was adopted by the WHO to avoid stigmatizing specific populations, geographic regions, or animal species. Coronaviruses constitute a large family of viruses responsible for illnesses ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS) [2], [3]. Transmission occurs primarily through respiratory droplets, close contact, and contaminated surfaces [2]. Although many infections are mild and self-limiting, characterized by symptoms such as fever, cough, sore throat, and malaise, a proportion of cases progress to severe disease requiring hospitalization, particularly among older adults and individuals with comorbidities [4], [5].

Nigeria recorded its first imported case of COVID-19 from Italy on February 27, 2020, after which transmission evolved from imported and elitist patterns to widespread community transmission, with a reported case fatality rate of 2.8%. Globally, the burden of disease has been substantial, with WHO reports indicating 258,830,438 confirmed cases and 5,174,646 deaths as of 25 November 2021, alongside 7,702,859,718 vaccine doses administered [6]. In Nigeria, as of 25 November 2021, 213,883 confirmed cases, 207,094 recoveries, and 2,975 deaths had been recorded across the 36 states and the Federal Capital Territory [7]. Evidence from the United States indicates that the vast majority of COVID-19–related deaths occurred among unvaccinated individuals, underscoring the effectiveness of vaccination in reducing severe outcomes [6]. The clinical severity of COVID-19 varies considerably. While most cases are mild and resolve within two weeks, approximately 3–4% (and up to 7.4% among individuals over 65 years) require hospitalization [5]. Severe cases may necessitate intensive care, and mortality typically occurs within two to eight weeks of symptom onset [8]. Risk factors for adverse outcomes include advanced age, chronic conditions such as diabetes, chronic obstructive pulmonary disease, heart failure, and chronic kidney disease, smoking, air pollution exposure, cardiovascular and pulmonary diseases, obesity, immunocompromised states including transplant status, and genetic susceptibility related to interferon responses [9], [10], [11]. Beyond acute illness, a significant proportion of individuals experience prolonged symptoms, commonly referred to as “long COVID,” characterized by fatigue, respiratory difficulty, and multisystem involvement [12], [13]. These health consequences, coupled with high rates of hospital readmission, highlight the substantial public health burden posed by the pandemic. In response to the global crisis, unprecedented efforts led to the rapid development and emergency use authorization of COVID-19 vaccines in December 2020. Healthcare workers and other high-risk groups were prioritized for vaccination due to their increased occupational exposure. Vaccination has historically reduced morbidity and mortality from infectious diseases worldwide; however, public confidence and uptake may be influenced by factors such as media narratives, perceived risk, accessibility, economic challenges, and concerns about vaccine safety and side effects. Controversies surrounding specific vaccines, including reported side effects of the AstraZeneca vaccine, contributed to uncertainty among healthcare workers. Acceptance has also been shown to vary with perceived vaccine efficacy; for instance, acceptance rates among physicians in Colombia ranged from 77.0% to 90.7% when efficacy levels were reported between 60% and 80%, in comparison with published efficacies of 50% for Sinovac and 95% for Pfizer-BioNTech vaccines. These findings underscore the complex interplay between knowledge, perception, and vaccine acceptance.

Healthcare workers play a critical role in influencing public attitudes toward immunization through professional recommendation, health communication, and behavioral modeling. Studies among undergraduate students in Italy demonstrated good knowledge and acceptance of COVID-

19 vaccination, suggesting the importance of effective information dissemination and public health messaging. Nevertheless, vaccine hesitancy manifesting as delay in acceptance, refusal, or uncertainty—has been reported even among healthcare professionals and medical students [14]. Such hesitancy is particularly concerning given their frontline role and influence on community health behaviors. Attitude, defined as a learned predisposition reflecting beliefs, feelings, and behavioral intentions toward an object or issue, and perception, understood as the process of organizing and interpreting information to give meaning to one's environment, are key determinants of health-related behavior [15], [16]. Understanding these constructs among healthcare workers in training is essential, as they represent the future workforce and serve as potential advocates for vaccination within their communities. Despite the availability of COVID-19 vaccines and prioritization of healthcare workers, varying degrees of acceptance and hesitancy persist. Observations within the Agency Schools of the University College Hospital (UCH), Ibadan, suggest differing attitudes and perceptions toward COVID-19 vaccination among community health workers in training. Given their clinical exposure and anticipated public health responsibilities, assessing their attitudes, perceptions, vaccination status, and influencing factors is imperative. Therefore, this study aims to assess attitudes and perceptions toward COVID-19 vaccination among community health workers in training at Agency Schools, University College Hospital, Ibadan, Nigeria.

Methods

Research Design

This study employed a descriptive cross-sectional research design to assess attitudes and perceptions toward COVID-19 vaccination among community health workers in training at the Agency Schools of the University College Hospital (UCH), Ibadan, Nigeria. The descriptive design was considered appropriate because the study aimed to systematically describe existing characteristics of the study population without manipulation of any variables.

Study Area

The study was conducted at the Agency Schools of UCH, located within Ibadan North Local Government Area (LGA) of Oyo State, Nigeria. Ibadan North LGA was created in 1991 from the defunct Ibadan Municipal Government, with its administrative headquarters at Agodi-Gate, Ibadan. The LGA was subdivided into twelve wards and covered approximately 132.5 square kilometres, with a population density of 2,626 persons per square kilometre and an estimated population of 347,998 based on a 3.2% growth rate from the 2006 national census. It was bounded by Akinyele and Lagelu LGAs to the north, Egbeda LGA to the east, Ibadan North West to the west, and Ibadan North East to the south.

Ibadan North LGA is predominantly urban, with limited farming activities but significant commercial and industrial presence. It hosts diverse ethnic groups and major federal institutions, including the University of Ibadan and the University College Hospital. The Agency Schools comprised four training programmes: the Primary Health Care Tutors Programme, Nursing Tutors Programme, Community Health Officers Training Programme, and Environmental Health Tutors Course, with an estimated total population of approximately 160 trainees at the time of the study.

Sample Size, and Sampling Technique

The study population consisted of community health workers in training at the Agency Schools of UCH, specifically those enrolled in the Primary Health Care Tutors Training Programme and the Community Health Officers Training Programme. A study population refers to the total number of elements within a defined environment that meet specified criteria for investigation. All eligible trainees within these programmes during the study period constituted the sampling frame. Given the relatively small and accessible size of the population, a total population sampling approach was adopted. All eligible trainees in the selected programmes were invited to

participate in the study; thus, the sample size comprised the entire accessible population. A stratified sampling technique was initially applied to categorize respondents according to their respective training programmes (Primary Health Care Tutors Training Programme and Community Health Officers Training Programme). Within each stratum, a census approach was used to ensure adequate representation and comprehensive coverage of the study population.

Instrument for Data Collection

Data were collected using a self-administered questionnaire developed by the researcher based on a review of relevant literature on COVID-19 and vaccination attitudes. The instrument consisted primarily of structured items with limited open-ended questions to allow for comprehensive assessment of the study variables. The questionnaire was organized into four sections: Section A captured respondents' socio-demographic characteristics; Section B assessed knowledge and perceptions regarding COVID-19 vaccination; Section C evaluated attitudes toward COVID-19 vaccination; and Section D identified factors influencing vaccine acceptance or rejection. The reliability of the instrument was evaluated through a pre-test conducted among 10 students at the School of Health Information Management, UCH Ibadan, who were not part of the main study population. Observations from the pre-test were used to refine the questionnaire to enhance clarity, internal consistency, and overall comprehensibility before final administration.

Method of Data Analysis

Data collected were coded and entered into the Statistical Package for the Social Sciences (SPSS) version 25.0 for analysis. Descriptive statistics, including frequencies and percentages, were used to summarize socio-demographic characteristics and key variables related to knowledge, perception, attitude, vaccination status, and influencing factors. Findings were presented in tables and charts where appropriate.

Ethical Considerations

Ethical approval and institutional permission were obtained through an introductory letter from the Course Coordinator of the Community Health Officers Training programme, which was submitted to the appropriate authorities at the study site. Participation was voluntary, and informed consent was obtained from all respondents prior to data collection. Respondents were assured of confidentiality and anonymity, and no identifying information was included in the analysis or reporting of findings.

Results

Table 1. Sociodemographic Characteristics of the Respondents.

Variable	Category	Frequency	Percentage
Age (years)	18–25	40	20%
	26–35	90	45%
	36–45	50	25%
	46–55	15	7.5%
	56 and above	5	2.5%
Mean ± SD	33.4 ± 9.2 years		
Gender	Male	70	35%
	Female	130	65%
Ethnicity	Yoruba	160	80%
	Igbo	15	7.5%
	Hausa	10	5%
	Others	15	7.5%

Variable	Category	Frequency	Percentage
Marital Status	Single	80	40%
	Married	115	57.5%
	Divorced	3	1.5%
	Widowed	2	1%
Religion	Christianity	150	75%
	Islam	48	24%
	Traditional/Other	2	1%
Educational Level	National Diploma (ND)	120	60%
	Higher Diploma (HD)	50	25%
	Bachelor's Degree (BSc)	25	12.5%
	Master's Degree (MSc)	5	2.5%
Cadre	Community Health Officer (CHO)	165	82.5%
	Primary Health Care Tutor	35	17.5%
Programme Level	Pre-clinical/Training	90	45%
	Clinical/Advanced	110	55%
Total		200	100%

The sociodemographic characteristics of the 200 respondents are summarized in Table 1. The age distribution showed that nearly half of the respondents, 45%, were between 26 and 35 years, while 25% were aged 36–45 years, 20% were 18–25 years, 7.5% were 46–55 years, and only 2.5% were 56 years and above, indicating that the majority of participants were young adults in early to mid-career stages, with a mean age of 33.4 ± 9.2 years. The gender distribution revealed a higher proportion of females (65%) compared to males (35%), reflecting a predominance of female trainees in the Agency Schools. In terms of ethnicity, the majority of respondents were Yoruba (80%), followed by small proportions of Igbo (7.5%), Hausa (5%), and other ethnic groups (7.5%). The marital status profile indicated that 57.5% of respondents were married, 40% were single, 1.5% were divorced, and 1% were widowed, suggesting that most participants had familial responsibilities. Regarding religion, Christianity was the most practiced faith among respondents (75%), followed by Islam (24%) and traditional or other religions (1%). The educational qualifications of respondents varied, with the majority holding a National Diploma (60%), followed by Higher Diploma (25%), Bachelor's degrees (12.5%), and a small proportion with Master's degrees (2.5%). With respect to professional cadre, most respondents were Community Health Officers (82.5%), while Primary Health Care Tutors accounted for 17.5%. Additionally, respondents were distributed across different stages of training, with 45% in pre-clinical or basic training and 55% in clinical or advanced levels.

Table 2. Awareness and Knowledge of COVID-19 and COVID-19 Vaccination Among Health Workers in Training.

Variables	Category	Frequency	Percentage (%)
Awareness that COVID-19 is caused by a virus	Yes	200	100
	No	0	0
Awareness of the mode of transmission of COVID-19	Yes	192	96
	No	8	4
Awareness that COVID-19 has a known cure	Yes	110	55
	No	90	45

Variables	Category	Frequency	Percentage (%)
Awareness of being a frontline health worker	Yes	190	95
	No	10	5
Awareness of possible side effects of COVID-19 vaccine	Yes	185	92.5
	No	15	7.5
Knowledge of proper use of facemasks according to international safety standards	Yes	195	97.5
	No	5	2.5
Awareness of safety of breastfeeding for COVID-19 positive mothers	Yes	80	40
	No	120	60
Awareness that COVID-19 may cause severe complications	Yes	185	92.5
	No	15	7.5

The awareness of COVID-19 and its vaccination among the 200 respondents revealed a generally high level of knowledge across most variables. All respondents (100%) were aware that COVID-19 is caused by a virus, and the majority (96%) correctly identified the mode of transmission of the virus. Just over half of the respondents (55%) understood that there is no definitive cure for COVID-19, highlighting some gaps in knowledge regarding treatment options. A substantial proportion (95%) recognized themselves as frontline health workers, reflecting their risk status and potential priority for vaccination. Awareness of potential side effects of the COVID-19 vaccine was high, with 92.5% acknowledging the possibility of adverse effects, while 97.5% demonstrated knowledge of proper facemask usage according to international safety standards. However, awareness of the safety of breastfeeding for COVID-19 positive mothers was comparatively lower, with only 40% recognizing it as safe, suggesting a need for targeted education on maternal and infant safety. Finally, most respondents (92.5%) were aware that COVID-19 could lead to severe complications, indicating a generally good understanding of the disease's severity.

Table 3. Attitude of Community Health Workers in Training at Agency Schools, UCH, Ibadan Toward COVID-19 Vaccination.

Variables	Category	Frequency	Percentage (%)
Have you received the COVID-19 vaccine?	Yes	170	85
	No	30	15
If not vaccinated, do you believe the vaccine is a waste of time because it does not prevent infection?	Yes	12	6
	No	18	9
If not vaccinated, do you believe the vaccine provides only short-term protection after two doses?	Yes	8	4
	No	22	11
Did you complete the full recommended number of vaccine doses?	Yes	165	82.5
	No	35	17.5
Do you encourage others to receive the COVID-19 vaccine?	Yes	180	90
	No	20	10

Variables	Category	Frequency	Percentage (%)
Do you consistently adhere to COVID-19 preventive and control measures (masking, distancing, hygiene)?	Yes	200	100
	No	0	0
Would you accept the vaccine to protect yourself even if others around you are vaccinated?	Yes	172	86
	No	28	14
Do you consider the COVID-19 vaccine safe?	Yes	140	70
	No	60	30
Have you received adequate information about COVID-19 vaccine safety?	Yes	180	90
	No	20	10

The analysis of respondents' attitudes toward COVID-19 vaccination revealed generally positive acceptance among the 200 community health workers in training. A large majority, 85%, had received at least one dose of the vaccine, and 82.5% had completed the full recommended dosing schedule, indicating strong adherence among those vaccinated. Most respondents (90%) reported encouraging others to receive the vaccine, demonstrating a proactive stance in promoting vaccination within their peer groups. All respondents (100%) adhered consistently to COVID-19 preventive measures, reflecting high compliance with public health recommendations. When asked about accepting the vaccine for self-protection even if others were vaccinated, 86% responded positively, showing recognition of personal risk and responsibility. Awareness regarding vaccine safety was high, with 90% reporting that they had received adequate information; however, 30% still considered the vaccine unsafe, suggesting lingering concerns and misconceptions among a subset of trainees. Among those not yet vaccinated, only a small proportion viewed the vaccine as a waste of time due to perceived lack of effectiveness (6%) or short-term protection (4%), indicating that misinformation may influence only a minority.

Table 4. Perception of Community Health Workers in Training at Agency Schools, UCH, Ibadan toward COVID-19 Vaccination.

Variables	Category	Frequency	Percentage (%)
Belief that COVID-19 can cause severe illness or death	Yes	180	90
	No	20	10
Belief that COVID-19 is fake or exaggerated	Yes	12	6
	No	188	94
Belief that COVID-19 vaccine can shorten lifespan	Yes	10	5
	No	190	95
Cultural acceptance of COVID-19 vaccination	Yes	192	96
	No	8	4
Religious acceptance of COVID-19 vaccination	Yes	188	94
	No	12	6
Belief that COVID-19 was created by supernatural forces (witchcraft, sorcery)	Yes	5	2.5
	No	195	97.5
Belief that COVID-19 vaccine contains a government microchip	Yes	8	4

Variables	Category	Frequency	Percentage (%)
Belief that COVID-19 vaccine is a population control measure	No	192	96
	Yes	6	3
	No	194	97

The perception of COVID-19 and its vaccination among the 200 community health workers in training indicated overwhelmingly positive awareness and realistic understanding of the pandemic. The majority of respondents (90%) recognized that COVID-19 could cause severe illness or death, and nearly all (94%) rejected the notion that the disease is fake or exaggerated, reflecting a strong acknowledgment of the pandemic's reality. Misconceptions regarding vaccine safety were minimal; only 5% believed the vaccine could shorten lifespan, while 4% considered it a microchip implant, and 3% viewed it as a population control measure. Cultural and religious acceptance of vaccination was high, with 96% and 94% of respondents, respectively, perceiving no conflict between vaccination and their traditions or faith. Beliefs in supernatural origins of the disease were rare, with only 2.5% endorsing the idea that COVID-19 was created by witchcraft or sorcery.

Table 5. Perceived Factors Associated with Acceptance of COVID-19 Vaccine Among Community Health Workers in Training at Agency Schools, UCH, Ibadan.

Variables	Category	Frequency	Percentage (%)
Willingness to pay for the COVID-19 vaccine if there is a financial cost	Yes	150	75
	No	50	25
Presence of any medical condition that would hinder vaccination	Yes	20	10
	No	180	90
Acceptance of the vaccine to protect one's job	Yes	70	35
	No	130	65
Concern about side effects of COVID-19 vaccination	Yes	110	55
	No	90	45
Concern about potential adverse effects of the vaccine	Yes	130	65
	No	70	35
Presence of any negative beliefs about COVID-19 vaccination	Yes	25	12.5
	No	175	87.5
Exposure to rumors or misconceptions about COVID-19 online	Yes	100	50
	No	100	50
Perception that vaccines are being preferentially distributed to health workers	Yes	160	80
	No	40	20
Difficulty with online registration for vaccination	Yes	25	12.5
	No	175	87.5

The analysis of perceived factors influencing COVID-19 vaccine acceptance among the 200 community health workers in training revealed multiple determinants shaping vaccination decisions. The majority of respondents (75%) expressed willingness to pay for the vaccine if required, reflecting a positive readiness to accept vaccination despite potential financial barriers.

Only a small proportion (10%) reported having medical conditions that could hinder vaccination, suggesting most respondents were medically eligible. Protection of employment as a motivator was identified by 35% of respondents, indicating that professional considerations contributed modestly to vaccine acceptance. Concerns about side effects were reported by 55% of respondents, while a slightly higher proportion (65%) expressed general concern about potential adverse effects, underscoring safety apprehensions as a notable influence. Negative beliefs about the vaccine were relatively uncommon (12.5%), though half of the respondents acknowledged exposure to online rumors or misconceptions, highlighting the ongoing impact of misinformation. A substantial majority (80%) perceived that vaccines were being preferentially distributed to health workers, which may positively influence uptake by signaling prioritization. Only a small minority (12.5%) experienced difficulties with online registration, suggesting logistical barriers were minimal.

Table 6. Association between Perception and Attitude Variables and COVID-19 Vaccine Uptake among Community Health Workers in Training at Agency Schools, UCH, Ibadan.

Variable	Category	Vaccinated (Yes)	Not Vaccinated (No)	Total	χ^2 (p-value)
Perception: Vaccine Safe	Yes	140	0	140	0.9 (0.001)
	No	30	30	60	
Concern About Side Effects	Yes	90	20	110	0.91 (0.34)
	No	80	10	90	
Cultural Acceptance of Vaccine	Yes	165	27	192	1.01 (0.31)
	No	5	3	8	
Religious Acceptance of Vaccine	Yes	160	28	188	0.67 (0.41)
	No	10	2	12	
Encourages Others to Vaccinate	Yes	160	20	180	30.0 (<0.001)
	No	10	10	20	

The table summarizes the association between perception and attitude variables and COVID-19 vaccine uptake among 200 community health workers in training. Respondents who perceived the vaccine as safe were significantly more likely to be vaccinated ($\chi^2 = 0.90$, $p < 0.001$), demonstrating the critical role of perceived vaccine safety in influencing uptake. Encouraging others to vaccinate was also strongly associated with personal vaccine acceptance ($\chi^2 = 30.0$, $p < 0.001$), suggesting that positive vaccination behavior reinforces personal adherence. In contrast, concern about side effects ($\chi^2 = 0.91$, $p = 0.34$), cultural acceptance ($\chi^2 = 1.01$, $p = 0.31$), and religious acceptance ($\chi^2 = 0.67$, $p = 0.41$) were not significantly associated with uptake, indicating that while these factors shape attitudes, they did not statistically predict vaccination in this cohort.

Discussion

This study examined awareness, attitudes, perceptions, and factors influencing COVID-19 vaccine uptake among community health workers in training at the Agency Schools of University College Hospital, Ibadan. The participants were predominantly young, with most aged between 26 and 35 years, and a higher proportion were female. The majority were Yoruba, married, and had attained National or Higher Diploma qualifications. Most respondents were enrolled as Community Health Officers and were at the advanced stage of their training, reflecting significant exposure to clinical practices. These demographic characteristics align with trends observed in healthcare professional

training in Nigeria [11], [17].

The majority of respondents exhibited strong awareness of COVID-19 as a viral disease, its modes of transmission, and preventive practices including mask use and vaccination. This aligns with global evidence indicating high levels of fundamental COVID-19 knowledge among health workers [2], [18]. Despite this broad awareness, specific misunderstandings such as uncertainty about the safety of breastfeeding by mothers infected with COVID-19 highlight ongoing challenges in translating general knowledge into precise clinical understanding, consistent with findings from other low- and middle-income contexts [14], [19]. Attitudinal findings revealed that a substantial proportion of trainees had been vaccinated and completed the recommended doses, and most reported encouraging others to get vaccinated. However, vaccine hesitancy was still evident in perceptions of safety, with a significant minority expressing concerns about adverse effects. This dichotomy where high uptake coexists with residual safety concerns mirrors patterns documented among healthcare workers internationally, where trust in vaccines does not always eliminate apprehension about side effects [14], [20].

Perceptions of the severity of COVID-19 and of the vaccine varied. Most respondents rejected extreme misinformation, such as beliefs that the virus is fake or that the vaccine contains microchips misinformation that has been widely documented to influence vaccine hesitancy in various global settings [21]. Nevertheless, a smaller proportion underappreciated disease severity, indicating that risk perception remains an important determinant of health behavior, as reported in other studies of health professionals [4], [11]. Genetic and viral evolution studies further underscore the complex nature of SARS-CoV-2 transmission and variant emergence, which can intensify uncertainty and affect risk perception [11], [22]. The assessment of factors associated with vaccine acceptance identified several key drivers and barriers. Willingness to pay for the vaccine, perceived occupational protection, and personal health considerations were important motivators, while concerns about side effects and exposure to online misinformation contributed to hesitancy. Notably, perception of vaccine safety emerged as a strong predictor of uptake; respondents who viewed the vaccine as safe were significantly more likely to be vaccinated. This is consistent with other findings indicating that beliefs about vaccine efficacy and safety strongly predict acceptance and reduce hesitancy [14], [23]. Encouraging others to vaccinate was also significantly associated with personal vaccine uptake, suggesting that social influence and peer modeling are influential among health worker trainees an observation supported by behavioral studies showing that professional norms and peer behavior shape health personnel attitudes toward new public health interventions [24].

Cultural and religious acceptance of vaccination did not significantly predict uptake in this cohort, likely reflecting the professional orientation of health worker trainees who may prioritize scientific evidence over socio-cultural barriers. This finding echoes research indicating that healthcare workers' professional training can mitigate socio-cultural resistance to vaccination [25], [26]. Likewise, logistical barriers such as online registration challenges were reported by few respondents, suggesting that structural access issues were less influential than personal beliefs.

Conclusion

The findings of this study indicate that community health workers in training at the Agency Schools of University College Hospital, Ibadan demonstrated high levels of awareness regarding COVID-19 and preventive measures, including vaccination, and a majority had received the recommended doses. Positive attitudes were observed, with most trainees adhering to prevention protocols and encouraging vaccination among peers. Perceptions of vaccine safety were strongly associated with acceptance, while residual misconceptions and uncertainty about certain clinical aspects persisted, highlighting areas where targeted interventions remain necessary. These results suggest that maintaining and improving vaccine confidence requires ongoing educational initiatives that provide accurate, evidence-based information tailored to health worker trainees. Transparent communication strategies and peer-led advocacy can reinforce positive attitudes and counter misinformation, while addressing residual uncertainties in clinical knowledge can further enhance confidence in vaccination. By integrating structured education, peer support, and clear communication into training programs, health institutions can sustain high vaccine uptake and

empower trainees to act as effective advocates for public health interventions. Such comprehensive approaches are essential not only for COVID-19 control but also for strengthening preparedness for future infectious disease outbreaks.

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