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"…considered 'essential workers', so we report to work and serve the community": experiences of community health workers during COVID-19 pandemic in the Eastern Cape, South Africa

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Abstract

Background Community health workers (CHWs) played an essential part in providing health services to the communities they served prior to and during the COVID-19 pandemic, and they had some positive impact on community/household health service promotion and delivery. Nonetheless, restricted movement and social isolation made it challenging for community members to access CHW services, which are normally provided in person. We explore community health workers' opinions on the impact of COVID-19 on their responsibilities, clients, and communities in South Africa's Eastern Cape.

Methods Using a semi-structured interview guide, we conducted individual ($n=10$) and focus group discussions ($n=13$) with 23 community health workers. Participants were community health workers servicing three Black township communities in Buffalo Municipality District, Eastern Cape, South Africa. Transcripts from audiotaped and transcribed verbatim interviews were analysed thematically using Atlas.ti.

Results The COVID-19 had an impact on the CHWs' job-related activities, the clients' health, and caused disruptions in community social and economic activities, all of these had a negative impact on population health. COVID-19 had detrimental effects on the clients' health in various ways, including restricted movement and fear of contracting the virus, isolation and deaths created anxiety and terror, or refusal to attend clinics for routine medical check-ups and treatment. Furthermore, CHWs claimed that COVID-19 affected community livelihoods, exacerbating food insecurity and job insecurity. The vast majority of CHWs, who were predominantly women, had to balance their employment workload tasks with domestic responsibilities, which added extra pressure and burden. In addition, many individuals experienced personal loss and bereavement. However, the clients and the community exhibited remarkable resilience and perseverance despite the multifaceted obstacles faced by the COVID-19 pandemic.

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Conclusion Financial hardships, unemployment, and work disruptions or changes created by the COVID-19 pandemic triggered stress, sadness, worry, and terror among the CHWs. The client's health conditions were adversely affected, as some clients refrained from visiting clinics for their medications and treatment because of restricted movements, concerns about contracting the virus, and isolation, all of which contributed to their anxiety and fear. The social isolation and quarantine, as well as food and job insecurity, all had an impact on the community's social and economic life. Despite the COVID-19 risks and stressors, CHWs demonstrated resilience during the COVID-19 pandemic burden and emphasising their importance as "essential workers" in community health care which further underscores the need to provide CHWs with adequate resources and training in preparation for future pandemics.

Keywords Community Health workers, Clients, COVID-19 pandemic, Challenges

Contributions to the literature

- The study highlights the dimension of the demographic and socio-economic variables of the healthcare earnings which was made worse by COVID-19 pandemic thereby created financial hardships for many CHWs who were laid off and became unemployed during the period.
- The study emphasizes the importance of community health workers in delivering health care to the communities they serve before and during the COVID-19 pandemic.
- The increased workload of the CHWs caused stress, anxiety, and fear of contracting Covid-19 and transmitting it to families at home.

Background

The worldwide Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) or COVID-19 pandemic affected all economic sectors [1]. Various measures were implemented worldwide to combat the spread of the virus. In March 2020, in response to the COVID-19 pandemic, the South African government declared it a national disaster [2, 3]. In addition, there were a series of lockdowns as the various waves of infections spread across the country [3, 4], and movement was restricted except for work and health-related purposes, as well as the purchase of essential foods. Uniquely, frontline health workers were required to combat, treat, and care for COVID-19 patients in hospitals. To supplement the health staff shortage, community health workers (CHWs) were reassigned to alternative duties or, in certain instances, recruited to assist with the prevention and control of the COVID-19 epidemic in South Africa.

Community health workers serve marginalised, rural, and remote communities in a variety of health-related capacities. CHWs identify the health needs of the population they serve, particularly for women and the elderly/disabled, collect epidemiological data on various health issues, schedule consultations, deliver medications to patients in their homes, vaccinate underserved communities, promote health education, and conduct advocacy and sensitization on disease prevention [5]. However, the duties and responsibilities of CHWs vary based on the prevalent health system and health determinants in a country or region. Despite the significance and centrality of community health workers to the success of health system strengthening, their roles are somewhat undervalued or neglected, thereby making them vulnerable frontline health workers. During the COVID-19 pandemic, when CHWs performed duties beyond their regimental responsibilities, their vulnerability increased. Community health workers (CHWs) performed a variety of roles outside of their regular schedules. These include administering medications to patients at home, contact tracing COVID-19 cases, monitoring of people who are at risk at home, epidemiological surveillance, community education, and support for COVID-19 patients [6, 7]. In India and Ethiopia, CHWs were involved in promoting COVID-19 vaccination and its uptake [8, 9], and in Ethiopia, they were also involved in vaccine delivery [8].

In South Africa, CHWs conduct a variety of health care functions or responsibilities. They were accountable for undertaking household visits, providing health education and advocacy, delivering maternal and child health services, and determining the vaccination status of children. Other activities include palliative care, registration of pregnancies, social care and referrals, and administration of chronic TB medicines and ARVs. During the COVID-19 pandemic, however, CHWs were burdened with additional responsibilities beyond their traditional tasks, which include COVID-19 education to communities, identifying cases and tracing contacts, and distributing medications to individuals' homes. During the COVID-19 pandemic, they, like other health care professionals (doctors, nurses, EMTs, etc.), confronted a variety of challenges. Previous research examining roles played by CHWs in various contexts has revealed that CHWs faced a variety of challenges. These include fear of contracting COVID-19 [10–12], stigmatisation and distrust, perceived as infectious and informers by the community [7, 11, 12]. They also expressed lack of resources (transport, PPE, lights and lab equipment) [11, 12], and exhaustion due to extra responsibilities [7, 11, 12], which was more glaring among female CHW worker because they

must balance their workload with domestic responsibilities; thus, putting them under more stress. Despite these contextual challenges, whether supported or not, CHWs maintain their resilience to continue supporting community members [7, 10, 12]. The literature has affirmed the role played by CHWs during the COVID-19 epidemic exemplified the ever-present, noble, and strategic function of CHWs in providing care and support to the community, particularly during disease outbreaks. It also emphasises the need to recognise, integrate, and harmonise the training and employment status of community health workers (CHWs) as formally appointed health workers within the national systems. CHWs are indisputable components of the workforce, connecting and reaching marginalised rural populations on a variety of health issues. Therefore, they require support with adequate resources and motivation, as well as a reconfiguration of their responsibilities, skills, and working conditions to enable them to work more effectively and efficiently.

Notably, environmental contexts may have varying effects on how CHWs navigate their experiences while striving to provide community and health care services throughout the COVID-19 pandemic. Examining the experiences of community health workers (CHWs) operating within a specific geographic area is of utmost importance from a public health perspective. This exploration would serve as a foundation for developing context-specific strategies and policies in preparation for potential future crises of similar pandemics. Furthermore, it offers valuable insights into most effective means of supporting CHWs, who already face significant vulnerabilities, before such crises. Additionally, CHWs play a crucial role in increasing public adherence to infection control measures through health education and advocacy [11, 13]. Importantly, CHWs performs other varying roles and tasks during the COVID-19 across different geographical settings. The shift or added responsibilities that were assigned to CHWs during the COVID-19 affected their routine service delivery. Most qualitative studies investigating the experiences of COVID-19 among health workers, tend to beam their focus on doctors' and nurses', in neglect of other health professionals, particularly the CHWs who were already vulnerable before the advent of the pandemic; this is apparent in the context of South Africa. Thus, we seek to explore the experiences and perspectives of CHWs on how they, their clients, and the communities they serve experienced the COVID-19 pandemic in the Eastern Cape, South Africa.

Methods

Research design and setting

This qualitative, exploratory, and contextual study explored the experiences of CHWs roles, as well as how affected their clients and communities they served and interacted with during the COVID-19 pandemic. The CHWs were purposively sampled from three conveniently selected community health centres, Nontyatyambo and Duncan Village Day Hospitals, as well as the John Dube clinic in Buffalo City Metropolitan Municipality, Eastern Cape Province. These community health clinics, with 29 CHWs, are primarily located in underprivileged Black township settlements. Among the poorer provinces in South Africa is the Eastern Cape [14], owing to the past injustices of apartheid government policy, which compelled Black South Africans to reside in sparsely populated, remote, and underdeveloped areas [15]. It is a province with limited resources and services, with most of the population living far from healthcare clinics [15].

Participants

Community health workers who have at least three years working experience as a community health worker, ≥18 years (legal age of consent in South Africa) and could speak and communicate in English were recruited as potential participants. The CHWs were invited to participate in both individual interviews ($n=10$) and focus group discussions ($n=13$).

Data collection procedure

Individual and focus group discussions interviews were conducted at the clinics from February to March 2023. Participants signed informed consent form prior to data collection. We reached out to them on their personal cell phones, asking for the best dates, times, and locations for their face-to-face interview. The health facility manager designated a quiet room for conducting individual and FGD interviews at the selected health facilities. The interview guide contains open-ended questions probing about the experiences and perspectives of CHWs roles, and how clients and communities were affected by the COVID-19 pandemic (Supplementary file 1). On average, the interviews lasted 45–60 min. Interviews were audio- recorded and notes taken with the participants' permission. Participants were asked to freely share their views beyond what was in the interview guide. In addition, FGDs were conducted with 13 participants for approximately 1 h 20 min. Similarly, with the permission of the participants, the FGDs were audio recorded and transcribed verbatim. Even though the FGDs were large, the moderator established a ground rule for the conversation that no one should interrupt the other while speaking and that everyone should respect each other's viewpoints. Furthermore, there was an audio recording that accurately captured the participants opinions and points of view without imposing their own interpretations or biases. By recording and transcribing the data

verbatim, it reduces the researchers impact during the data analysis process.

Data analysis

The data were analysed using the thematic analytical framework and steps as proposed by Braun and Clarke [16]. We transcribed verbatim the individual and FGD interviews with the CHWs from their audio recordings. We organised the data using inductive analysis and coded the transcripts based on themes that emerged from the data. We assigned codes to the text's sections after carefully reading the transcripts. We used the initial data coding to establish the initial themes. Then, the themes were refined and reviewed to identify the main themes and sub-themes pertaining to impact of COVID-19 on CHWs responsibilities, clients, and communities.

Table 1 Demographic profile of the participants ($n=23$)

Variables	*n*
Sex	
Male	8
Female	15
Education level	
Grade 11	1
Grade 12	16
Diploma	6
Marital status	
Married	4
Single	17
Widowed	2
Number of children	
One child	9
Two-three and above	12
None	2
Does anyone else live with you?	
Yes	14
No	9
Who else live in your household?	
Mother	2
Grandmother/children	13
None	8
Main source of income for your family	
Yes	23
No	-
Monthly stipend or salary earned	
R2200	1
R4000	14
R4020	1
R4050	3
R4100	1
R4200	2
R4300	1
How long have you worked as a CHW for the health district?	
2–10 years	17
11–20 years	6
Community served	
Duncan Village	5
Scenery Village	5
Mdantsane	13

Data trustworthiness

We implemented many steps to confirm the trustworthiness of the data. Enough time was allotted for data collection and extensive engagement with respondents to build rapport between the research team and the participants. Data were obtained from respondents in three distinct rural areas, allowing for varied views and potentially increasing data dependability. The interviews were audio-recorded and transcribed verbatim. The recorded data was played back several times to ensure correct transcription of the participants' responses. A clear and complete description of data collection and analysis, demographic aspects of the participants, and their perspectives and experiences were provided via excerpts or quotes. In addition, a detailed description of the research method was supplied, as was the preservation of an audit trail with field notes of all actions during the study and decisions important to all phases of the study. To verify correctness and validity, all transcriptions were double-checked with the audio-recorded interviews. Further, the study team's involvement in the creation of codes and themes improved trustworthiness.

Ethical issues

Beside the ethical approval obtained from University of Fort Hare Health Research Ethics Committee (Ref#2020=10=10=GoonD=ObasanjoI), permission was sought from the Eastern Cape Department of Health Research Ethics Committee. Informed consent was obtained from all the participants prior to data collection. In compliance with ethical principles to protect the information of study participants, the data was anonymized and kept confidential. All participants signed an informed consent before taking part in the study.

Results

The ages of the participants were between 24 and 61 years. All other participants characteristics are in Table 1.

The data identified three main themes with their corresponding sub-themes on the effects of COVID-19 pandemic relating to: (i) CHWs job-related/responsibilities; (ii) clients' health conditions; and (iii) community life disruptions. The summary of these themes and sub-themes are presented in Table 2.

CHWs job-related issues/responsibilities

Financial hardships, employment disruptions, and changes to work hours are some of the ways that the

Table 2 Summary of themes and sub-themes about the effects of COVID-19 on job, clients, and the community

Themes	Sub-themes
CHWs job-related issues/responsibilities	Finance hardships
	Employment disruption
	Work schedule disruption
Clients' health conditions	Deteriorated health conditions
	Fear
	Social isolation
Community life disruptions	Loss of life
	Food insecurity
	Job insecurity

COVID-19 pandemic has affected CHWs' obligations and job-related issues.

Finance

Regarding the state of their finances during the COVID-19 pandemic, the CHWs expressed contradictory opinions. For some, COVID-19 brought about financial hardship because of unemployment. Others, however, reported financial stability because of exposure to multiple other employment opportunities during the COVID-19 pandemic, which had a positive impact on their finances. They maintained:

> *"It was terrible. During the COVID lockdown, I was at home and didn't get paid for eight months" (CHWs 1& 5).*

> *" During COVID-19, food was very expensive, and many people died" (CHWs 9 &10).*

Employment disruption

Although some of the CHWs reported that the COVID-19 pandemic did not affect their employment, they reported that some of their colleagues in the private sector lost their jobs. They stated thus:

> *"Well, I didn't lose my job, but a lot of people have, especially in the private sector. And they are the main source of income for the family. It wasn't until after COVID that I got back to work and started getting my pay" (CHWs 1–5).*

Work schedule disruption

The participants asserted that their work schedules have been disrupted by the COVID-19 pandemic.

> *"It also affected our clients, because some of them stopped coming to clinics for check-ups and treatment" (CHWs 1–5).*

Clients' health conditions

Some of the participants discussed the deteriorating health of their clients during COVID-19 because of restricted movement and fear of contracting the virus, as well as the effect of being isolated due to COVID-19. They indicated that this created anxiety and dread in their clients, and as a result, a lot of them refused to visit the clinics for their regular medical check-ups and treatment. Consequently, many clients passed away during the COVID-19 pandemic, either because of the virus itself or because they were unable to keep medical appointments.

Deteriorated health conditions

Five participants reported that the devastating impact of COVID-19 on the clients' health conditions were severe. They indicated that some of their clients stopped coming to the clinics for routine health examinations and treatment, which may have had a significant impact on their health conditions, given that some of the clients suffer from chronic illness. Consequently, many of the clients died during the COVID-19 era, while others died as a direct consequence of the virus. They claimed thus:

> *"It also affected our clients, because some of them stopped coming to the clinics for treatment. They think that people get COVID-19 while they are staying at the medical centre. This makes their situation worse, and some of them have died because of complications from COVID-19" (CHW 1–5).*

This viewpoint was echoed by some participants during the focus discussion groups as well.

> *"It hurt so much because so many people had died from the COVID-19. Many of my patients died from complications caused by COVID-19. There was no food, no activity, and things were very bad in the community" (FGD 1, CHW 7).*

> *"During COVID-19, many of my clients have restricted mobility, so they depend on me to bring their prescription drugs back from the clinic. We work for the public because we are considered "essential workers" and are expected to be at our jobs. Since we are very important to the community, I would say that our services were most needed then. We travel to rural and semi-rural places to educate*

people about COVID-19 and give them their medications" (CHW 9, FGD 1).

Fear

Participants reported that some of their clients declined attending clinics during the COVID-19 epidemic out of concern about contracting the virus in health-care settings. They maintained as follows:

"I, too, wasn't working as a community health worker at the time. During COVID-19, things got complicated. COVID-19 hurt a lot of people, and the fear that it gave them was worse than the sickness itself" (FGD, CHW 4, 7, 10).

Social isolation

CHWs indicated that COVID-19 restricted clients' movement because of social distancing measures and that social activities were curtailed in the community, while those who contracted COVID-19 were quarantined and isolated. The feeling and uncertainties of being infected with the virus created fear and worry in the clients.

"To be honest, I was afraid of getting too close to clients who had COVID-19. I don't want to get it and then pass it on to my family" (CHW 2–6, 9, FGD).

"As health workers, we have no choice but to reach out to clients who were isolated to give them medications" (CHW 7–6, 10, FGD).

"COVID-19 affected social gatherings and ceremonies like birthdays, weddings, funerals, graduations, and parties" (CHW 1–4, 8, FGD).

Community life disruptions

CHWs maintained that COVID-19 caused death, food insecurity, and job insecurity.

Loss of life

The COVID-19 caused the deaths of several people in the community.

"A lot of people died during this time. It was horrible " (CHW 6–10).

"COVID-19 was a disaster. Many people died, and some…lost their lives because of COVID-19 related illnesses. Movement was limited during this time, which affected many of people" (CHW 4, FGD).

Food insecurity

The COVID-19 affected the price of food and there was food insecurity, as some clients have no food and were hungry.

"Food prices have been high during COVID-19 " (CHW 9–10).

"It affected a lot of people. People were hungry, jobs were lost, and loved ones died, but we made it through" (CHW 4, FGD).

"It was really sad that so many people died during COVID. Many of my clients died because of COVID-19 problems. They were going hungry because there wasn't enough food and they couldn't move around in the community" (CHW 7, FGD).

Job insecurity

Some clients lost their jobs because of the COVID-19 pandemic. One participant stated:

"Well, I didn't lose my job, but a lot of other people did, especially in the private sector. Some of them were their families' only source of income" (CHW 1–5).

Discussion

The CHWs reported work-related obstacles and disruptions in their routine job responsibilities. The COVID-19 pandemic created financial hardships for some CHWs that were not unemployed during the period, yet others were able to achieve financial stability because of additional job opportunities during the pandemic. They expressed concern for their laid-off colleagues in the private sector. The factor that made it possible for CHWs to receive increased compensation or remuneration during COVID-19 [17] was taking on additional responsibilities outside of their normal duties. Like our study, however, some CHWs reported negative financial [12, 18–20]. Notably, almost all CHWs in this study earned less than R4000 ($223) per month and serve as the primary source

of income for their families. Given this scenario, some CHWs engage in other petty businesses and menial jobs to meet their family's financial needs; however, the effect of the COVID-19 lockdown and restricted movement measure impeded their ability to secure food for their families due to job insecurity and a lack of availability/high price of foods in the market. Additionally, as a global trend, the majority of CHWs in this study are women who must balance employment and household duties, causing them extra pressure and burden.

Our findings revealed that CHWs face serious impediments at work during the pandemic. Their work-life balance changed, and they had to adjust to the changes in their regular work schedules. Some of them were reassigned to conduct COVID-19 duties, such as patient screening, medication administration, contact tracing, COVID-19 health education and advocacy, etc. [12, 17, 21–23]. Our findings revealed similar experiences of CHWs transitioning to the COVID-19 extra work demands, besides their normal work schedules. In India and Ethiopia, community health workers were involved in promoting COVID-19 vaccination as well as raising awareness [8, 21].

The increased workload of the CHWs resulted in stress, anxiety, and fear of contracting Covid-19 and its subsequent transmission to families at home. Other studies [12, 22–24] have reported on the fear of contracting Covid-19 and family transmission. As alluded to in other studies [18, 25–27] our findings suggests that financial, employment, and work disruptions or changes may have affected CHWs' well-being in terms of stress, depression, anxiety, and fear. According to a review by Bhaumik et al. [17], the roles and responsibilities of CHWs underwent a dramatic shift from their normal work when CHWs were assigned to various aspects of COVID-19 contact tracing, which ultimately affected their routine service delivery. Similarly, Chemali et al. [28] found that, due to a mismatch between work and life [27, 29], CHWs had to adjust to the disruption of their normal work schedule [18, 30, 31]. This situation, characterised by insufficient resources and a lack of training, places community health workers in a precarious position of vulnerability, as they work with vulnerable populations, thereby exacerbating their precariousness. Employing extra staff and providing adequate material resources would reduce the workload of CHWs during and after an outbreak of an epidemic. Also, recognising CHW as an important pillar to be used during pandemic to help in the prevention and control of pandemics, attention should be accorded to them accordingly.

The literature has affirmed that the role played by CHWs during the COVID-19 clearly demonstrated the ever, noble, and strategic role of CHWs in providing care and support to the community, especially during disease crises [12, 17, 21, 32–34]. According to the CHWs, COVID-19 had devastating effects on the health of their clients. They reported that some clients stopped attending clinics for routine health examinations and treatment, which has dire consequences for clients with chronic illnesses. The limited mobility and fear of contracting the virus, as well as the isolation caused by COVID-19, caused anxiety and fear in clients. Consequently, most clients refused to visit the clinics for their routine medical examinations and treatment. CHWs reported that some clients died, either as a result of the virus or their inability to keep their medical appointments. Consistent with our finding, other studies found patients refrained from accessing healthcare institutions due to fear of contracting the virus, stigma and deaths of patients [6, 11, 12]. In studies conducted in Brazil [6] and Nigeria [12], clients dreaded community health workers (CHWs) as potential virus carriers, and CHWs likewise feared contracting the virus from clients. This may have been discouraging to community health workers, given the effort and risk they took in serving the people, only to be viewed with suspicion and stigmatisation. Obviously, this type of scenario could disrupt the working relationship between CHWs and clients. The morale and confidence of the CHWs in providing routine healthcare services were negatively impacted.

Additionally, the pandemic appears to have exacerbated issues related to food insecurity and unemployment within the community. The COVID-19 forced people to close their businesses. Additionally, the prices of food items increased. In addition to the financial hardships caused by COVID-19, many individuals experienced personal loss and bereavement as an indirect result of the virus. However, individuals exhibited remarkable resilience and endeavoured to persevere through the multifaceted challenges posed by the COVID-19 pandemic. Previous research has also elucidated comparable observations about the sociocultural and economic ramifications of the COVID-19 pandemic on community dynamics in different settings [11, 12]. Regardless of the COVID-19 community-related challenges, the CHWs expressed their happiness and willingness to serve their communities, and the community was aware of their responsibilities.

According to the CHWs, "*.due to limited mobility, many of our clients rely on. to bring their prescribed medication back from the clinic." Because we are considered 'essential workers,' we go to work and serve the community. our services were particularly important throughout that period because the community relies on us so heavily*" (FGD 1, CHW 9). This demonstrates the community's recognition of the role of community health workers. CHWs interface with the community on health and social issues and are increasingly recognised as having the potential

to reduce the burden of non-communicable diseases and strengthen primary healthcare [35, 36]. Efforts to integrate CHW programmes with community and health institutions are therefore desirable. Such an initiative would accelerate the attainability of the universal health coverage's goals and further enhance population health.

Limitations of the study

Due to the study's limited sample size, the findings cannot be applied to other settings. Furthermore, the dynamics during the COVID-19 pandemic in terms of prevention and control may manifest differently across various geographic contexts, resulting in distinct experiences and consequences. However, the purpose of this study was to gain insight into the investigated phenomenon; therefore, the small sample size is irrelevant. Nonetheless, the strength of this research derives from the use of a qualitative approach, which yields rich data on CHWs' experiences and perspectives on their roles during the COVID-19, as well as the effects the COVID-19 has on clients and communities. We conducted both individual and focus group interviews, which enhanced the interpretation and credibility of the findings.

Recommendations

Evidently, CHWs cannot be used during pandemics and then discarded. It is therefore necessary to formalise the jobs that CHWs perform, appointment and training them should form part of the statutory health personnel within the health system. Efforts to integrate CHW programmes with community and health institutions are therefore desirable. Such an initiative would accelerate the attainability of the universal health coverage's goals and further enhance population health.

Conclusion

Our study connects with other studies demonstrating the efforts and resilience of CHWs during the COVID-19 pandemic, including the devastating experiences of clients and communities and their resilience-building strategies. Financial difficulties, unemployment, and work disruptions or changes cause stress, depression, anxiety, and fear among the CHWs. This situation, coupled with inadequate resources and a lack of training, puts community health workers in a vulnerable position. In addition, clients stopped seeking medical treatment because of restricted movements, concerns about contracting the virus, and isolation, all of which contributed to their anxiety and fear. COVID-19 disrupted the community's economic and social life by causing social isolation, food and employment insecurity. Despite the COVID-19 risks and stressors, CHWs displayed a commendable level of dedication and resilience in fighting the spread and prevention of the COVID-19; this demonstrates their essential function in community health care. This study highlights the need to provide CHWs with adequate resources and training in preparation for future pandemics.

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12913-024-11756-9.

Supplementary Material 1. Study Interview Guide.

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Authors' contributions

IO and DTG were involved in the initial conception, and proposal drafting, UBO were involve with data collection and data transcription, DTG and UBO were involve with the drafting of the manuscript, IO edited the manuscript. All authors read the final manuscript and gave their approval.

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Data availability

No datasets were generated or analysed during the current study.

Declarations

Ethics approval and consent to participate

All procedure were carried out in conformity with the Declaration of Helsinki. The study was approved by Human Research Ethics Committee of the University of Fort Hare (Ref#2020 = 10 = 10 = GoonD = Obasanjol) and permission was also granted by the Eastern Cape provincial Department of Health. All subjects provided informed consent.

Consent for publication

Not applicable because all data were anonymized during the analysis phase.

Competing interests

The authors declare no competing interests.

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