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COVID-19 Crisis: Community Health Workers' Experiences in Assisting Older Adults with Tuberculosis in Dar es Salaam, Tanzania

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Abstract

During the COVID-19 pandemic, governments implemented public health measures to safeguard individuals with tuberculosis, their caregivers, and healthcare workers. While these measures were well-intentioned, they inadvertently hindered Community Health Workers (CHWs) in Dar es Salaam, Tanzania. This study explored the experiences of CHWs supporting tuberculosis patients during the pandemic. It involved in-depth interviews with 24 CHWs from 12 wards in the Temeke and Kigamboni districts, using purposive sampling and a cross-sectional research design aligned with a descriptive phenomenological approach. Thematic analysis was employed for data interpretation. The findings revealed three key issues: First, CHWs faced increased workplace pressures as they navigated the complexities of caring for tuberculosis patients while adhering to COVID-19 protocols, often with limited resources. Second, notable changes in the work environment and interactions among healthcare professionals underscored CHWs' difficulties in collaborating with other providers. Lastly, the pandemic's impact on the personal lives of CHWs highlighted significant effects on their overall well-being. The study emphasizes the need for proactive measures to better equip CHWs for the exceptional challenges of tuberculosis care during future pandemics.

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1.0. Introduction

Older adults face the greatest vulnerability to severe illness caused by COVID-19 (Mueller et al,2020). Over 81% of fatalities associated with COVID-19 are reported in individuals aged 65 and above (Mueller et al. 2020). The mortality rate among those aged 65 and older surpasses that of individuals aged 18-29 by a staggering factor of 97 (Rethnakar, 2021; Clement & Whiteside, 2020).

The COVID-19 pandemic had significant consequences on global societies, especially on vulnerable groups like older adults with tuberculosis. Tuberculosis (TB) is a contagious bacterial infection that spreads through the air and can be incurable. It is marked by persistent coughing, coughing up blood, night sweats, chills, tiredness, and loss of appetite, which pose significant challenges for those affected, their families, and communities worldwide (Weissferdt & Weissferdt, 2020: Kanabur, 2020).

Before the start of the COVID-19 pandemic, approximately 10 million people globally were infected with tuberculosis (Falzon et al, 2023; Formenti et al, 2022; Aznar et al, 2021). Most cases of TB were found in regions under the jurisdiction of the World Health Organisation, specifically in Southeast Asia (44%), Africa (25%), and the Western Pacific (18%) (ibid). Lower numbers were reported in the Eastern Mediterranean (8.2%), the Americas (2.9%), and Europe (2.5%) (Formenti et al,2022). In 2019, around 85% of deaths related to tuberculosis occurred in the African and Southeast Asia regions, as per the World Health Organisation's report in 2020.

Tanzania is estimated to have 133,000 new cases of tuberculosis each year, a situation that requires more effort in the fight against the disease and 2021, only 87,000 TB patients were reached by the government, which is equivalent to 66% (MoH; 2023).

Tanzania is among the countries with a high prevalence of tuberculosis, with around 295 cases per 100,000 adults. Additionally, approximately 5% of adults in Tanzania have HIV or AIDS, making them significantly 26 or 31 times more susceptible to developing TB due to their weakened immune systems, as stated by the World Health Organisation (IOM, 2023). Reports on the occurrence of tuberculosis (TB) in the elderly population in sub-Saharan Africa are rare despite the growing elderly population in the region. Thus, a dearth of data may increase the undiagnosed TB cases in the region (Loveday et al, 2020; Nagu et al, 2017).

The COVID-19 pandemic has affected existing efforts to control tuberculosis as well as global healthcare systems in general. For instance, Overwhelmed Healthcare Facilities, Disruption of Routine Health Services, and Interruptions in Medical Supply Chains, also global TB diagnoses declined by 18% from 7.1 million in 2019 to 5.8 million in 2020, mainly due to disruptions in TB services (WHO, 2021; WHO,2020). The African region contributed to 24% of worldwide cases and 32% of deaths, with many countries experiencing severe TB outbreaks, especially those with high rates of HIV (Law et al, 2020). Malawi, Ghana, Rwanda, and Tanzania have high rates of TB cases among older individuals, demonstrating an ageing epidemic in these countries (Law et al, 2020). An essential point to note is that COVID-19 has placed an unparalleled strain on vaccination initiatives, impacting interventions such as the Bacille-Calmette Guérin (BCG) vaccine for TB prevention (Sultana et al, 2020; WHO, 2020).

In the same vein as the fight for the COVID-19 pandemic, Community health workers (CHWs) play a crucial role in the care and management of older adults with tuberculosis around the world including Tanzania medical facilities, clinics and the community (Bigirimana et al.2021). CHWs serve as a direct and prompt connection between individuals, families, and the community with social support services and are sometimes referred to as the bridge towards health for all.

Furthermore, they deliver health services directly to the community, acting as an immediate health resource at the grassroots level.

While no national data available on the exact number of community health workers assisting this population, according to reports from the Ministry of Health, Tanzania plans to hire and train more than 8000 community health workers within three years beginning in 2024 (Ministry of Health,2024). Although precise figures about the number of community health workers serving older adults with tuberculosis across the country are unavailable, their presence indicates that their vital role in enhancing care and quality of life for these patients and their families is acknowledged. In this situation, increasing and strengthening the CHWs workforce can further boost tuberculosis treatment in Tanzanian hospitals. Community health workers played an instrumental role in meeting the unique needs of older adults living with tuberculosis during the COVID-19 pandemic. However, there is a dearth of empirical data regarding how CHWs serve as intermediaries between hospitals and the community, managing the difficulties associated with a staffing shortage, limited hospital facilities, and the complexities of tuberculosis care amidst and post the epidemic in Tanzania.

In Tanzania, a country with a sizable older adult population, the COVID-19 pandemic severely strained the healthcare system. Previous studies have highlighted the pandemic's adverse effects on health, economic stability, social connections, and the general welfare of older adults in Tanzania. A comprehensive knowledge of the difficulties older adults face during the pandemic is hampered by the dearth of thorough interdisciplinary studies integrating these diverse areas. Furthermore, there needs to be more research on the particular experiences of CHWs in Tanzania during COVID-19 providing care for older adults with tuberculosis, which hinders the creation of focused interventions and support networks.

Therefore, the COVID-19 pandemic has severely interrupted global healthcare systems, and in Dar es Salaam, Tanzania, community health workers (CHWs) have faced unprecedented challenges in providing tuberculosis (TB) care to older adults, like in any other part of the world. Understanding these challenges in context-specific is critical because the pandemic has amplified existing obstacles in TB care, such as limited resources, disrupted medication supply chains, and increased health risks for both patients and CHWs. Without a thorough examination of these difficulties, there is a risk that TB care for older adults will be compromised, potentially intensifying TB transmission and worsening health outcomes. This study aimed to capture the lived experiences of CHWs by identifying specific barriers they encountered during the COVID-19 crisis and to inform future strategies for improving TB care and supporting frontline health workers in similar crises.

Literature review

Globally, the COVID-19 pandemic has affected healthcare systems and the work of community health workers supporting vulnerable older adults with TB. This review aimed to analyse studies from different settings to evaluate the impact of the pandemic on CHWs' support for older adults with TB. Surveyed studies indicated that the COVID-19 pandemic has caused significant challenges for Community Health Workers (CHWs) including increased workload, disrupted healthcare, difficulties in getting protective gear, and a higher chance of getting infected (Lamptey et al, 2020).

Measures implemented During the COVID-19 Pandemic around the world were reported; Lockdowns and Movement Restrictions, Social Distancing and Contact Limitations and Enhanced Infection Control Protocols; some measures were taken after the COVID-19 Pandemic were vaccination campaigns, Long-Term Health Surveillance and Monitoring, Persistent health inequities, Economic impacts and budget cuts, Many community health workers experienced burnout and trauma from the immense stresses of working through the pandemic and Shifts in

care delivery (Kc et al, 2022; Rashid et al, 2021; Van et al, 2021; Gibson et al, 2021; Hollander et al, 2021). These challenges have made it harder for CHWs to take care of older adults with TB, intensifying existing health disparities. Modified interventions are needed to help this at-risk group and CHWs who are at the frontline to support vulnerable groups (Scott et al, 2021).

Research carried out in the USA has outlined the experience of community health workers with COVID-19, especially when treating elderly TB patients in hard-to-reach communities. A study conducted by Smith et al. in 2020 realised that the pandemic has limited the movement of CHWs in taking elderly TB patients for checkups since they cannot easily access healthcare services. According to Singh et al. (2020), COVID-19 has impacted the strength of healthcare services in India and limited the capacity of CHWs to effectively care for older adult TB patients. Hence, there is a need to develop new strategies to support these patients during the pandemic. In China, Li et al. (2021) indicated that research conducted has shown that the COVID-19 outbreak has affected community health workers expected to care. Some research work done in England has also emphasized the continuity of community health workers' service delivery by modifying them to support older adults with TB during the COVID-19 pandemic (Rajan et al., 2020). Further, Brown et al. (2021) established COVID-19 pandemic strategies for CHWs who employed digital health technologies to adhere to older TB patients' care during the pandemic. Similarly, the outbreak of COVID-19 in Tanzania has become a barrier for CHWs to offer proper care to older adult patients in far-reaching areas (Kavishe et al., 2020). Mushi et al. (2021) highlighted the importance of community-based approaches and task-shifting models to ensure the continuity of care for TB patients during the time of the pandemic.

The present literature review has shown that COVID-19 has had various effects on people with TB and on CHWs who assist them; nonetheless, the following limitations need to be filled in order to more comprehensively interpret the consequences of the COVID-19 crisis in Dar es Salaam, Tanzania, on CHWs' support of older adults with TB. More comprehensive comparative studies across diverse geographical regions are needed to assess variations in the challenges faced by CHWs and identify context-specific interventions. Thus, this study was essential to fill some of these gaps. Empirically, there appears to be an empirical gap in the prior research. There is a lack of rigorous research in the prior literature on the topic under the study, and related research findings need to be empirically substantiated based on content, context and timing. Also, the Population Gap is evident as no similar study has been conducted in the population of the study area (Miles, 2017).

About the theoretical framework, this study was guided by the functionalism theoretical perspective; the perspective was prominently developed by Emile Durkheim (1858–1917), who is considered a foundational figure in this theoretical approach (Durkheim, 1893). The perspective offered valuable insights into how the COVID-19 crisis has altered the role of community health workers (CHWs) in supporting older adults with tuberculosis. Functionalism is rooted in sociology and emphasises the interdependence of social institutions and how they contribute to maintaining social order. Applying this theory to CHWs and elderly TB patients during COVID-19 shows how they perform vital roles in healthcare despite challenges. Therefore, functionalism offers a way to understand how (CHWs, elderly TB patients, and the healthcare system interact during the COVID-19 crisis. It highlights the importance of CHWs' roles, social cohesion, role distinctions, and ability to adapt to maintaining community health during unprecedented challenges. While critics such as Karl Marx and Ralf Dahrendorf argue that functionalism can overlook conflicts and inequalities, this study addresses these critiques by exploring the specific barriers faced by CHWs

and how they navigate these challenges, thereby offering a more nuanced understanding of their roles and the healthcare system's response during the COVID-19 crisis

2.0. Methodology

3.0. Results and Discussions

The study presented themes and sub-themes on community health workers supporting older adults with tuberculosis during COVID-19. These included increased workload, workplace dynamics and relationships, personal life effects, and recommendations for future pandemics. The study also presented the demographic features of participants.

3.1. Demographic characteristics of survey participants

The research involved 24 community health workers (14 women, 10 men) aged 30-51 caring for tuberculosis patients. Most had over 3 years of experience with community health services. Many participants in this study were women of married status. Regarding education, the majority (46%) held a secondary-level education. In comparison, 21% had a certificate education, and 12% possessed a diploma qualification, while high school education and University education were only 8% (as indicated in table 1).

Table 1. Community health workers' demographic characteristics

S	Participant	Age year		Education	Years of experien ce as a	Marriag		
Ν	s ID	S	Gender	level	CHW	e status	Ward	District
1	NNA	50	Female	Secondary	5	Married	1	1
2	JKO	44	Male	Certificate	4	Married	1	1
3	SWO	34	Male	Secondary	4	Married	2	1
4	MME	30	Male	Secondary	4	Single	2	1
5	KAE	47	Female	Certificate	6	Married	3	1
6	ZBN	50	Female	Diploma	6	Married	3	1
7	AJJ	33	Female	Certificate	4	Single	4	1
8	OPA	28	Male	Secondary	3	Single	4	1
9	LWN	37	Female	Secondary	4	Married	5	1
10	BDG	50	Male	Diploma	4	Married	5	1
11	POA	49	Female	Secondary	4	Married	6	1
12	TYA	39	Male	Secondary	3	Married	6	1
13	LMN	30	Female	Diploma	9	Married	1a	2
14	IPA	26	Female	degree	6	Single	1a	2
15	ERL	32	Female	Certificate	7	Married	2b	2
16	HSF	45	Female	Secondary	6	Married	2b	2
17	JAK	51	Male	degree	6	Married	3c	2
18	EIE	44	Male	Diploma	8	Married	3c	2
19	HSF	30	Male	High school	6	Single	4d	2

				High		Single	4d	2
20	JHD	31	Female	school	5			
21	IWE	38	Female	Certificate	4	Married	5e	2
22	OWN	28	Male	Secondary	6	Single	5e	2
23	CDE	35	Female	Secondary	4	Married	6f	2
24	THD	37	Female	Secondary	3	Married	6f	2

Source: (Field data, 2023)

Theme 1: Increased workload demands

The COVID-19 pandemic presented new challenges for tuberculosis care in Tanzania. Various public health protocols were implemented, including social distancing in hospitals during the first and second waves of the pandemic. From interviews with participants, two sub-themes emerged: Adjusting to changing public health guidelines or protocols and increased work demands in tuberculosis care during the pandemic. Participants noted modifying their bedside visits and family gathering strategies to align with evolving protocols. Home visits were carried out while maintaining preventive measures, and support group sessions shifted to remote setups.

These changes in the work environment led to increased demands on community health workers' caseloads, requiring adjustments in service provision. Participants had to explain new health protocols to people with tuberculosis, which increased their workload. They struggled with adapting to the changing protocols and found it challenging to adjust to new restrictions during the COVID-19 pandemic. They emphasised the importance of quickly adjusting to changing patient and family needs; however, support is needed from the government and other health stakeholders. The pandemic underlined the importance of community health workers in healthcare, indicating their pivotal role in ensuring patient well-being amidst challenging circumstances. As highlighted by one of the participants:

It was a tough time for us and caused a rise in demand for community health workers. Initially, our role was not recognised, but healthcare providers now acknowledge our importance in the healthcare system, especially during the onset of COVID-19. With healthcare increasingly focusing on patient-centred approaches, the necessity for our expertise in safeguarding overall patient well-being has surged significantly. Moreover, we had to enforce and continuously insisting strict COVID-19 measures for patients and their families, resulting in limited social interactions for our patients and restricted home visits. Thus, Individuals with tuberculosis experienced increased feelings of isolation, confusion, and agitation. We worked hard to prioritise safety and adapt to new health guidelines during the pandemic (BDG,50 years).

Participants shared the significant impact of COVID-19 on tuberculosis care practices in hospital settings. Strict protocols like social distancing instigated considerable challenges, together with the increase in demand for services. The pandemic highlighted the critical roles that CHWs play in healthcare despite early gaps in awareness. Health centres and hospitals needed to adjust to the new regulations, demonstrating the commitment of CHWs to guaranteeing patients' safety and well-being during the challenging period of the pandemic.

The findings are similar to a study in the USA; CHWs supporting older adults with TB faced a rise in workload demands due to the intersecting challenges of managing TB care amidst the COVID-19 pandemic. Studies by Brown et al. (2020) highlighted the increased tasks undertaken by CHWs, such as TB case management, contact tracing, and adherence support, alongside efforts to lessen the impact of COVID-19. The difficulty of managing dual health crises contributed to increased stress and tension among CHWs, impacting their ability to deliver comprehensive care.

Similarly, in India, CHWs encountered increased workload demands in supporting older adults with TB during the pandemic. Research in India by Patel et al. (2020) indicated the challenges CHWs face in ensuring continuity of TB care during disruptions caused by COVID-19 related to lockdowns and restrictions. The need to adapt to evolving protocols, such as conducting virtual consultations and delivering medication refills, added strain to their workload, requiring rapid adjustment and resource mobilisation. However, in this study, extra approaches used by CHWs were slightly different, but they increased workload and stress for CHWs.

In supporting the findings, in Nigeria and Kenya, CHWs supporting older adults with TB encountered similar challenges in coping with increased workload demands during the pandemic. Studies by Ade et al. (2021) and Ochieng et al. (2020) documented the expanded roles undertaken by CHWs in TB management, including health education, community outreach, and counselling support. However, the introduction of restrictions on physical and social interactions hindered CHWs' ability to engage effectively and professionally with older adults, deepening existing barriers to TB care access and other support. However, there were stricter COVID-19 protocols in Nigeria and Kenya than in Tanzania.

Theme 2: Effects on workplace dynamics and relationships

During the interviews, sub-themes emerged. The study found that extra workloads, constant changes at work and COVID-19 protocols made it difficult for Community Health Workers (CHWs) to visit or associate freely with patients with tuberculosis, their families, and colleagues. The interviews revealed difficulties in communicating with patients and their families, limited resources to meet their needs, and colleague support and acknowledgement. Senior staff at the hospital faced a more stressful and less supportive work environment with the fear associated with the spread of the COVID-19 pandemic. While some participants recognised the safety measures introduced by new public health protocols against COVID-19, They had conflicting feelings about interactions with TB patients, families, and colleagues. Many said these measures made communication difficult and caused stress and isolation for families unable to visit loved ones as often. CHWs experienced additional pressure as they worked to alleviate the emotional distress of these families.

One of the participants shared her experience:

Our relationships with clients and their families were greatly impacted by the higher workload and stress. We faced a rise in cases, including families grappling with stress due to imposed restrictions. The emotional burden was overwhelming, straining our relationships with families of individuals with tuberculosis. Our team often worked long hours, balancing numerous tasks, and we had limited time for self-care and building relationships with patients and their families (EIE, 44 years).

Some participants experienced insufficient resources in the workplace, which caused higher stress levels for some workers and made it difficult to help patients and their families. Limited resources also resulted in participants struggling with the hospital's increased workloads. Moreover, the absence of remote service delivery options for community health workers who help older adults with TB led to tension at work.

One participant revealed that:

In the beginning, as community health workers, we grappled with fear and uncertainty despite having few resources. We quickly adapted to new protocols, Personal Protective Equipment (PPE), and changing guidelines. Our workload increased daily, causing stress as we worried about our safety and that of our clients. Moreover, the possibility of remote service provision within the hospital was not reliably available to us (JAK, 51 years old).

While some participants mentioned the negative effects of the pandemic on their interactions with colleagues, it also strengthened their bonds, fostering solidarity. One participant talked about working with colleagues caring for individuals with tuberculosis at the hospital.

The difficulties we faced brought our team closer together. We learned to appreciate each other's contributions and be more empathetic towards our team. By tackling obstacles together, we gained strength and a stronger bond. We supported each other through online meetings, sharing experiences, and providing emotional help. This not only strengthened our bonds but also eased feelings of isolation. Additionally, we started to acknowledge the significance of self-care and making our well-being a priority, which had a positive effect on our working environment (OPA, 28 years old).

Yet, a portion of the participants sensed that the COVID-19 pandemic led to a work environment that was both more stressful and less conducive to relationships. The team noted decreased cohesion from poor communication among senior staff, lower morale, and reduced collaboration. Some felt unappreciated by the organisation. One participant confirmed this feeling.

I feel like my efforts have been taken for granted, and the hospital hasn't adequately acknowledged or valued my hard work. While some colleagues in other healthcare professions have been offered opportunities, we have been overlooked. Despite this, I've learned to maintain resilience and prioritise supporting my patients (IWE, 38 years old).

The findings above concur with the study in China, CHWs supporting older adults with TB experienced significant disruptions in workplace dynamics and relationships due to increased workloads and ongoing changes in the work environment. Findings from interviews done by Li et al. (2020) show that the rise in demands placed on CHWs strained their ability to establish meaningful connections with TB patients and their families. The need to prioritise COVID-19 response efforts detracted from the time and attention CHWs could dedicate to building rapport and trust, resulting in damaged relationships and weakened communication channels.

Likewise, CHWs in Italy encountered difficulties in maintaining effective workplace dynamics and relationships during the pandemic. Increased duty hurts CHWs' capacity to meaningfully interact with TB patients and their families, according to research by Rossi et al. (2021). CHWs' interactions with colleagues were further hindered by the introduction of strict infection control measures and social distancing protocols, which limited opportunities for collaboration and peer support. Hence, CHWs reported experiencing emotions and feelings of detachment, making the difficult for them to work effectively.

Also, like the findings echoed in the study in South Africa, CHWs supporting older adults with TB encountered similar challenges to establishing connections with patients, their families, and colleagues during the COVID-19 pandemic, as shown in a study by Mthiyane et al. (2020) highlighted the burden experienced by CHWs in balancing competing demands and responsibilities, leading to ruined relationships and weakened trust among stakeholders. The lack of adequate resources and support intensified feelings of tension and stress among CHWs, further compromising their ability to foster meaningful connections in the workplace.

Theme 3: Consequences in personal life experienced by community health workers.

Community health workers (CHWs) who provide care for patients with tuberculosis (TB) have experienced substantial personal challenges as they attempt to manage the demands of their jobs during the pandemic.

The participants debated both the positive and negative effects of COVID-19 on their care for older adults with tuberculosis in hospitals and homes. The study pointed out two sub-themes from interviews: Physical separation, vague boundaries, and isolation from loved ones. Some participants saw the impact as a chance to create new strategies and highlight the resilience of individuals with tuberculosis. The findings coincide with the study in Ghana, showing efforts that have been used to strengthen community-based TB care initiatives, such as home-based treatment and telemedicine services. Research by Mensah et al. (2021) highlights the positive impact of telemedicine in improving treatment adherence and reducing the risk of treatment interruptions among individuals with TB, underscoring the potential of technology to enhance care delivery in resource-limited settings. On the other side of the study findings, others struggled to maintain connections with their families and patients in the hospital. In the interview, participants acknowledged the importance of social services in hospitals but expressed tension and being overwhelmed with tasks, making balancing work and personal life challenging.

Female participant clarified that:

The pandemic has significantly impacted my personal life in numerous ways. Increased workload and transition to remote work have distorted the lines between my responsibilities and personal time. Disconnecting and prioritising self-care has become increasingly challenging. Additionally, the fear of contracting and spreading the virus has increased stress and anxiety in our daily lives. I am constantly concerned about inadvertently exposing my family to the virus (THD,37 years old)

The pandemic has greatly affected my personal life in many ways. Increased workload and shift to remote work have made it hard to separate my work and personal life. It is becoming harder to disconnect and focus on taking care of oneself. Moreover, concerns about contracting and spreading the virus have increased stress and anxiety in our everyday routines. I am always worried about accidentally infecting my family with the virus (THD, 37 Years Old)

The participants experienced psychological distress due to the pandemic. They expressed the need to physically distance themselves to avoid spreading the virus to their families, causing tensions in their relationships with family members. A participant with enough work experience explained the COVID-19 condition as follows:

The most reflective effect for me was the increased anxiety and concern about transmitting the virus to my family members. Many of us opted to isolate ourselves from our families, resulting in prolonged periods spent away from home and family. This separation hurt our mental well-being and strained our connections. It hindered my ability to relax and refresh, ultimately affecting my personal life and preventing me from fully participating in activities with my family and friends (LMN, 30 years old).

Other participants explained that challenges encountered in the course of assisting older adults with tuberculosis were such as:

Increased Workload and Stress

As reflected in the study in South Africa, the study findings indicated that one of the primary consequences experienced by CHWs supporting TB patients during the COVID-19 pandemic is

the escalation of workload and stress levels (Loveday,2020). CHWs are required to address the overlapping needs of TB patients and COVID-19 prevention measures, leading to increased stress and tension. The pandemic has exacerbated the workload of CHWs, requiring them to adapt to evolving protocols, provide emotional support to patients, and implement preventive measures simultaneously; this observation is echoed too in the study in India by Dasgupta et al, (2021).

Moreover, the fear of contracting COVID-19 while working with TB patients adds a layer of stress for CHWs, as was revealed by participants in the field.

Their physical health is at risk, but the ongoing exposure to infectious diseases and the possibility of transmission also adds to psychological distress. In Greece, a study by Kousoulis et al. (2021) found that the tension of overseeing growing caseloads, following safety procedures, and attending to TB patients' needs during the pandemic has a substantial negative influence on CHWs' well-being and leading to tension and stress.

Challenges in Balancing Work and Personal Life

It was evident that increased work demands also ruined the balance between work and personal life of CHWs while supporting older adults with tuberculosis during the pandemic, as revealed by participants. The study by Loveday (2020) demonstrated how CHWs' personal and professional lives are frequently distorted by the demands of caring for TB patients during the COVID-19 pandemic. During the participant interviews, it was also made clear that CHWs have little time for personal care and family obligations due to their increased work demands and prolonged work hours. Maintaining a healthy work-life balance and sustaining personal relationships may be challenging for CHWs due to their dedication to meeting the healthcare needs of TB patients (Dasgupta et al, 2021&Ndu et al, 2022).

Moreover, the implementation of quarantine and social distancing protocols confines CHWs' social interactions outside of work, increasing feelings of isolation and loneliness. The inability to seek comfort in social support networks due to pandemic-related restrictions further raises the personal challenges faced by CHWs. However, in Tanzania, COVID-19 protocols were not strictly followed in the early stages as in other countries. However, being CHWs, such protocols alert create tension and worry in their daily activities and personal lives.

Financial Strain

The findings showed the economic consequences of the COVID-19 pandemic on CHWs, increasing financial strain and insecurity. Many CHWs are employed in low-income settings and may depend on their work to support themselves and their families financially. The pandemic has disrupted healthcare systems, causing job insecurity, decreased income opportunities, and delays in allowance for CHWs. The findings concurred with the study conducted in India and Rwanda by Dasgupta on delays in payments and reduction in income opportunities for CHWs (Dasgupta et al, 2021; Niyigena et al, 2022).

Furthermore, the increased cost of living and healthcare expenses added strain to CHWs' financial resources, making it challenging to meet their basic needs. The financial instability and uncertainty caused by the pandemic contribute to CHWs' personal stress. The same was revealed by the study in Greece and South Africa (Kousoulis et al, 2021; Lalla-Edward et al,2022). However, in Dar es Salaam as a case study and Tanzania in general, CHWs still need permanent payments, as in Greece and South Africa.

Therefore, amid the COVID-19 pandemic, CHWs who assist TB patients experienced various challenges. The increased workload and stress, difficulties in balancing work and personal

responsibilities, and financial strain greatly impacted CHWs' well-being and means of sustenance. It is important to consider and address these factors to ensure that CHWs are effective and resilient in providing urgent healthcare services to older adults with tuberculosis both during and after the pandemic.

Theme 4: Recommendations for addressing future pandemics

Most participants highlighted the need for the Tanzanian government to improve the healthcare system to meet the increasing demands of those with chronic illnesses like tuberculosis and to assist their families during the COVID-19 crisis. Two main themes singled out in the interviews were the importance of adaptability and flexibility for community health workers and a focus on self-care. The participants stressed the importance of flexibility and staying updated on new guidelines for tuberculosis care, especially in the post-COVID period, anticipating on the possibility of telehealth services.

As we move beyond the pandemic, it's crucial to prioritise flexibility and adaptability. Community health workers need to remain informed about the newest guidelines and protocols concerning tuberculosis care in the post-COVID era. This might include using telehealth and virtual communication technologies to guarantee continued access to care, especially for those who have trouble travelling to healthcare facilities (OWN, 28 years old).

A participant highlighted the significance of self-care for community health workers involved in tuberculosis care in Tanzania:

I want to stress the importance of self-care for healthcare workers. Prioritising self-care, asking for help from colleagues, and engaging in stress-relief activities are crucial. By prioritising our well-being, we can ensure that we continue to provide excellent care to tuberculosis patients (TYA, 39 years old).

This shared initiative underscores the importance of proactive measures and strategic investments to strengthen the healthcare infrastructure and guarantee the general well-being of individuals suffering from chronic health conditions during global health emergencies. This was also suggested by Oyinlola (2024) in the study of experiences of Community health workers Supporting Older Adults with Dementia in Nigeria.

4.0. CONCLUSION

COVID-19 has posed severe and unprecedented challenges to the operation of Community Health Workers (CHWs) worldwide. The study conducted among CHWs regarding their experiences with older adults with tuberculosis (TB) in Temeke and Kigamboni districts in Dar es Salaam, Tanzania, revealed three main issues: increased workplace pressures, difficulties in interacting with other health sector staff, and personal repercussions among CHWs. These findings contribute to a deeper understanding of CHWs' experiences and add new insights to the discourse on healthcare delivery in low-resource settings. The research underscores the need for adaptive strategies to enhance CHWs' resilience, ensuring they are equipped to manage both their roles' demands and inter-professional collaboration's complexities. Furthermore, the study advocated for comprehensive support mechanisms that prioritise the mental and emotional health of CHWs, recognising that their well-being is closely linked to the quality of care provided to older adults and other vulnerable groups.

Additionally, the study established that CHWs in the study areas continue to have mixed feelings about their experiences supporting older adults with TB, despite the implementation of COVID-19

protocols and strategies, particularly by council authorities. This underscores the need for sustainable measures during pandemic emergencies.

Moreover, significant challenges faced by CHWs echoed the need for targeted orientation among healthcare workers on adapting pandemic prevention guidelines and managing stress while fostering a supportive work environment for CHWs assisting older adults with TB during the COVID-19 pandemic. However, this will be possible if there is political will, collaboration with key health stakeholders, public-private partnerships, sufficient funding, and robust strategies and plans in the health sector. Therefore, addressing these areas will maintain high-quality care for TB patients, support the well-being of healthcare workers, and ensure the long-term sustainability of support in future pandemics. Thus, the study partly acts as an eye-opener to the realisation of TB-free Tanzania by 2025.

6.0 RECOMMENDATIONS

The COVID-19 pandemic has highlighted the need support better community health workers (CHWs) who assist vulnerable populations, such as older adults with tuberculosis (TB). Here are key recommendations for strengthening CHWs' roles:

- 1. Strengthen Infrastructure and Resources
 - Improve health systems to meet chronic illness needs and support families during pandemics. Provide CHWs with essential resources like PPE, testing kits, and medications. Also, invest in digital tools and telemedicine for remote consultations and monitoring.
- 2. Provide Extra Training and Support

Offer intensive training on adaptability, TB, COVID-19, and their intersection. Also, keep CHWs updated with current guidelines and create peer support networks for knowledge sharing and emotional support.

- 3. Develop Flexible Work Policies
 - Establish permanent employment and fair compensation for CHWs, implement flexible work arrangements, and provide financial incentives for pandemic-related risks
- 4. Strengthen Teamwork and Coordination
 - Use technology for real-time data sharing and response. Foster collaboration among CHWs, healthcare providers, and community organisations. Also, develop effective communication systems for coordinated care.
- 5. Prioritise Self-Care and Well-Being
 - Encourage self-care, stress management, and emotional support for CHWs. Also, provides resources for resilience and coping with pandemic challenges.
- 6. Long-Term Preparedness Planning
 - Evaluate and improve pandemic response strategies. Develop backup plans and sustainable funding for future health emergencies. As well as emphasise flexibility and telehealth for ongoing TB care.

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Implication to Policy and Practice

The research points out significant implications for policies and practices in caring for individuals with tuberculosis amidst the COVID-19 outbreak. The policies should focus on providing psychosocial support for community health workers, prioritising resources for managing stress and promoting emotional well-being, especially in preparation for future pandemics. Training and guidelines are crucial for understanding ever-changing COVID-19 protocols and ensuring that workers are capable and safe, particularly for those who have tuberculosis. Quality tuberculosis care relies on having effective communication strategies with families. Overall, the findings could enhance the support system, professional well-being, and quality of care for individuals with tuberculosis, stressing the importance of proactive policies and practices in healthcare settings.

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Policy Brief

COVID-19 Crisis: Community Health Workers' Experiences in Assisting Older Adults with Tuberculosis in Dar es Salaam, Tanzania

Many challenges have been experienced by CHWs globally due to the COVID-19 outbreak. This policy brief focuses on some of the important findings that were established from the study done with the CHWs in Dar es Salaam, Tanzania, regarding their working experiences with older adults affected by TB. The study reveals three main issues: increased workplace pressures, difficulties in collaboration with other healthcare professionals, and significant impacts on CHWs' personal well-being as a result of COVID19 impacts. On this basis, this policy brief presents specific action steps for policy-makers and practitioners to strengthen support for CHWs to continue to contribute optimum care during crises. Starting by highlighting key issues and critical lessons learned and finally providing actionable policy and practice recommendations.

Key Issues Identified

- Increased Workplace Pressures: The COVID-19 prevention measures posed a significant challenge for CHWs to facilitate care for tuberculosis patients. Such pressures were compounded by scarcity of resources hindering CHWs' capacity to offer adequate assistance and bring the best practices. Also, COVID-19 risk mitigation measures in TB care placed additional pressure on the CHWs to attend to both TB concerns and COVID-19 prevention measures. Consequently, compromised CHWs' morale.
- Challenges in Collaboration with other healthcare professionals: Some of the challenges
 highlighted by CHWs included lack of cooperation with other medical practitioners and the
 subsequent failure of coordination of the support systems among patient care giving
 teams.
- Impact on Personal Well-Being: Negative impact of COVID-19 were also seen in the personal life of the CHWs where, mental/Emotional health of the CHWs was moderately affected.

Key Lesson Learned

- Adaptability is Crucial: The pandemic demonstrated the need for flexible healthcare delivery models that can adapt to crises while maintaining essential services. Covid19 exposed health care systems to the reality that is the need for versatile health care service delivery frameworks in unpredictable environments while preserving the basic operations.
- 2. Support Systems Matter: CHWs require strong support networks and resources to manage their dual roles effectively, particularly during emergencies.
- 3. Collaboration Enhances Care: Interprofessional relations are crucial in the delivery of services especially during emergencies hence proper coordination in order to achieve the best results for a patient during pandemic.

Policy and Practice Recommendations

- Strengthen Support for CHWs: Scale up funding and resources for CHWs to ensure they
 can deliver quality care without compromising their safety or well-being. Also, establish
 other health promotion psychosocial needs interventions aimed at CHWs to address the
 emotional stress resulting from their work by providing counselling and stress
 management resources.
- 2. Enhance Training and Capacity Building: Implement regular training programs focused on crisis management, equipping CHWs with skills to navigate emergencies effectively. Also, workshops should be organized to foster collaboration among healthcare providers, emphasizing the importance of teamwork in patient care.
- 3. Foster Community and Stakeholder Engagement: Enhance public awareness of the role of CHWs in TB care and the challenges they face, fostering community support and reducing stigma. Similarly, encourage partnerships between government bodies, NGOs, and community organisations to create a unified approach to healthcare delivery
- 4. Implement Policy Frameworks:
- Create policies that recognise the critical role of CHWs in healthcare systems, ensuring their inclusion in decision-making processes.
- Professionals of Community Development: To enhance Sustainability of Community-Based Support Networks by developing and investing in local networks that support CHWs such as support groups and community mobilisation.
- Develop and promote the establishment of ICT based systems, digital tools and platforms for real-time healthcare information sharing and support.
- Counselling services should be strengthened for TB patients. During a pandemic, TB patients face compounded challenges that can jeopardise their treatment adherence, mental health, and overall well-being. Counselling services will add essential support to TB patients and navigate the added complexities of a pandemic.
- Develop guidelines for monitoring and evaluation on how to assess institutional compliance and the impact efficiency of policies and programs for CHWs.

Conclusion

The work of Community Health Workers in Dar es Salaam, Tanzania, during the COVID-19 outbreak teaches us key lessons about the hurdles in TB care. To tackle these problems, we need specific policies, rules, and methods to help CHWs become stronger and more flexible, improving the health of older adults. This means policymakers and healthcare workers must team up to implement these ideas. By doing so, we can build a health system that is better prepared to handle future crises.