BMC Health Services Research

RESEARCH

Open Access

"You go an extra mile": a qualitative study of community health worker perspectives in a health promotion intervention in urban South Africa

Catherine E. Draper[1*], Larske Soepnel[1], Khuthala Mabetha[1], Molebogeng Motlhatlhedi[1], Nokuthula Nkosi[1], Stephen J. Lye[2] and Shane A. Norris[1,3]

Abstract

Background As part of the Healthy Life Trajectories Initiative in South Africa, the *Bukhali* health promotion intervention is being implemented by community health workers (CHW's) with young women in urban Soweto. The perspectives of these CHW's have not been fully explored.

Methods A qualitative study was conducted to describe CHW's perspectives and experiences of delivering the *Bukhali* intervention. Three focus groups were conducted with the 13 CHWs employed at the time of the study, and a thematic approach was taken to data analysis.

Results Themes identified included: contextual realities for participants and CHWs, building relationships with participants, workload, emotional toll, and learning and development. Since they are recruited from Soweto, CHWs experienced similar contextual challenges to participants, and have to manage multiple roles, including health promotion and education, referral and support within the health system, counselling (although out of their scope of work), and data recording. The findings indicate the critical role CHWs play in building relationships with participants, especially establishing trust. Many CHWs spoke about going beyond what was expected in their role, which sometimes involved taking participants to medical facilities, and sharing resources with their participants. They spoke about the emotional toll of managing these relationships, their workload, and particularly the need for resilience and boundaries. CHWs experienced learning and development in their role as positive.

Conclusions These findings provide a voice for these CHWs, but they also offer important learning of the implementation of the *Bukhali* intervention within the context of Soweto, as well as, future potential scale-up of CHW-delivered interventions in South Africa and other low- and middle-income countries.

Keywords Community health workers, Low- and middle-income country, Implementation science

*Correspondence:
Catherine E. Draper
catherine.draper@wits.ac.za
Full list of author information is available at the end of the article

Background

Community health workers (CHWs) have long been incorporated into the health systems of low- and middle-income countries (LMICs) [1, 2] for a range of health issues including communicable- and non-communicable diseases [3–6], maternal and child health [7], and mental health [8, 9]. In LMICs, task-shifting to CHWs is seen as a cost effective strategy within health systems [10, 11], which can promote equity in these countries through the provision of universal health care [12, 13].

In South Africa (SA), CHW programmes have been studied on topics such as diabetes and hypertension [14, 15], lung cancer [16], and palliative care [17]. The incorporation of CHWs into the SA public healthcare system has not been without its challenges, including regional differences in salaries, wage disputes, working conditions, and unionisation [18–20]. However, there are few studies in SA that have explored CHW's perspectives and experiences [21–23]. These are critical to capture within the complex context of SA, and more studies exploring CHW's perspectives and experiences are necessary to contribute to the existing literature in SA to better understand their role in the SA health system. Furthermore, these insights can contribute to the understanding of CHW roles in other LMICs.

Healthy Life Trajectories Initiative

The Healthy Life Trajectories Initiative (HeLTI) is an international consortium developed in partnership with the World Health Organization (WHO) in Canada, India, China, and SA. HeLTI hypothesises that an integrated complex intervention, comprising a continuum of care from preconception, through pregnancy, infancy and early childhood will promote young women's physical and mental health, in order to establish healthier trajectories for themselves and future children. For HeLTI SA, the *Bukhali* randomised controlled trial is being conducted with 18–28-year-old women in Soweto [24]. Soweto is a predominantly low-income, densely populated, urban setting in Johannesburg, and young women face multiple risks to their physical and mental health [25]. The *Bukhali* intervention is delivered by trained CHWs, referred to as 'Health Helpers' (HHs). HHs provide health literacy support, conduct risk screening referral and management support, provide multi-micronutrient supplementation, and support health behaviour change through Healthy Conversation Skills, underpinned by social cognitive theory [26, 27]. During a mix of monthly either in-person or telephonic sessions, they cover topics relating to young women's physical and mental health, as well as, pregnancy and early childhood health and development up to the age of five years for those women who become pregnant [25].

HHs share similar qualifications to CHWs in SA, although they are hired specifically for the trial; their salary levels were benchmarked to government CHWs at the time funding was secured for HeLTI. Similar to other CHW programmes, HHs are female, and have limited formal education. Furthermore, they are intended to have an understanding of the community in which they work based on shared culture, language and lived experiences, as well as the skills and abilities to build trust and gain respect of community members [28]. Table 1 below outlines the typical expectations of CHWs for health promotion and illness prevention, which are broadly consistent across global and local literature [21, 22, 28–31].

Table 1 Community health worker expectations

Typical community health worker expectations	Expected for *Bukhali* Health Helpers
Basic health services (including measurements)	✓
Screening and referral (including pregnancy and HIV)	✓
Facilitation of health service access and navigation	✓
Health education	✓
Health advocacy	✓
Psychosocial support	✓
Home visits	✓
Tracing	✓
Health record keeping	✓
Medication adherence	✓
Distribution of medication	✓
x	Training in Healthy Conversation Skills to support behaviour change
x	Telephonic intervention delivery
x	Working across life course phases

The *Bukhali* process evaluation has thus far explored trial implementation [32–35], as well as participants' perceptions and experiences [36–39]; however, HHs' perspectives have not been fully explored. The aim of this article is to explore and describe their perspectives and experiences as CHWs of delivering the *Bukhali* intervention, in the context of living in Soweto.

Methods

This article draws on a qualitative focus group study conducted with HHs who deliver the intervention, as part of the *Bukhali* trial process evaluation, which is informed by the UK MRC's guidance on process evaluation [40]. The COREQ reporting checklist was used and is included as supplementary material. Ethical approval for these methods was obtained from the Human Research Ethics Committee (Medical) at the University of the Witwatersrand (M190449). All methods were carried out in accordance with relevant ethical guidelines and regulations; all participants gave written informed consent for their involvement in the study. The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation and with the Helsinki Declaration of 1975, as revised in 2008.

Sample and recruitment

All 13 HHs employed at the time of recruitment were requested to take part in a focus group and were approached through their team leader in a combination of face-to-face and WhatsApp interactions to negotiate their participation and convenient time to conduct the focus groups. All HHs agreed to participate, and we believed that there was little coercion involved, given that HHs take part in quarterly focus groups as part of the trial process evaluation, which are an opportunity to share their perceptions about intervention content and delivery, as well as other issues relevant to them. The HHs who participated were all female, and between the ages of 23–35 years.

Data collection

Three focus groups were conducted in March 2023 at the trial site, and were 1 h 35 min, 1 h 58 min, and 3 h 5 min in length. Refreshments were provided, and transport costs were reimbursed since the focus groups were scheduled on off-days so as not to clash with trial activities. A discussion guide [41] was developed by co-authors to cover a range of topics, including HHs perceptions of intervention delivery (reported elsewhere [41]), interactions with participants, role expectations, and experience of being a HH (reported here). The focus groups were facilitated in English by LS and KM (further details provided in COREQ checklist). The discussions were audio recorded and transcribed verbatim. In the debrief discussion after data collection was complete, CD, LS and KM considered the likelihood of any new information emerging from further discussions with the HHs. It was agreed that this was unlikely, given the length of the focus group discussions and the engagement of the HHs in these discussions, and that saturation had therefore been reached.

Data analysis

A codebook thematic approach was taken to the descriptive and exploratory process of data analysis [42–44]. This is a more structured coding approach to qualitative data analysis, with some or all themes determined prior to analysis, but coding reliability is not established. The choice of this approach for analysing the data for this study was influenced by our desire for this structure, but also to align to a qualitative paradigm and non-positivist approach, drawing on the exploratory, flexible and iterative nature of reflexive thematic analysis. Furthermore, we wanted to acknowledge our subjectivity and that a 'correct' interpretation of data is not possible, all of which are accommodated within the codebook approach [42–44]. The data analysis process started with data familiarization amongst co-authors, and the lead author then developed a conceptual outline of potential themes and sub-themes, drawing on the discussion guide, but also allowing for the inclusion of other topics that came up in discussions. This outline was refined based on discussion with co-authors and used to develop a coding framework. Using MAXQDA 2020 (VERBI, GmbH, Berlin), the coding framework was applied to the transcripts to identify relevant portions of the text that corresponded to these codes, and then summarised into themes (full MAXQDA code system available as supplementary material). These themes are: contextual realities for participants and HHs, workload, building relationships with participants, emotional toll, and learning and development.

Data credibility and trustworthiness

With regards to issues of data credibility and trustworthiness in qualitative research, we have applied Tracy's "Big-Tent" criteria of qualitative quality to this study [45]:

> *A worthy topic:* The literature presented in the Introduction makes a case for the exploration of CHW's perspectives and experiences, in the context of SA.
> *Rich rigour:* The study used appropriate sampling, data collection and analysis methods; all authors were able to critique the interpretation and presentation of the findings.

Sincerity: The authors have been transparent in their description of the methods, and the limitations and strengths of the study.
Credibility: This paper presents in-depth descriptions of the themes, while providing concrete detail through the selected quotes.
Resonance: The quotes included have attempted to meaningfully present the participants' voices and experiences in such a way that the reader is affected by their responses.
Significant contribution: Due to the novelty of this work in SA, the authors would content that this study makes a significant contribution to our understanding of CHWs in SA, and has relevance for other LMICs with CHW programmes.
Ethical: Ethical approval for the study has been described above.
Meaningful coherence: This study has achieved what it set out to do. It builds on the *Bukhali* trial's extensive process evaluation, and provides valuable insights for the continued implementation of the *Bukhali* intervention with the trial.

Results

Contextual realities for participants and Health Helpers

In line with previous data collected in this setting, food insecurity, unemployment and poverty were mentioned as contextual realities for participants of the trial. Given that HHs are primarily recruited from Soweto, and most are in the same age group, they also spoke about experiencing similar challenges. This can help them relate to participants, but it can also mean that some things discussed by participants can be triggering, which is discussed further under the emotional toll on HHs (Sect. 3.4). These contextual realities for participants and HHs provide a backdrop to HHs' perspectives and experiences of the trial. HHs shared that participants disclose traumatic events to them, and that they have to hold a space for this trauma, which can mean that they are not able to cover intervention sessions as intended. In addition, some participants do not want to be referred for help, or their abuser is someone at home who they cannot confront.

> *"We connect with them. We are the same age group, so I feel like we are going through the same things as well. It is easy for them to relate with us as well because we are the same age group. Most of us are from Soweto, they are from Soweto. We go through the same things, so it is easy for them to relate to us, and we can relate to them as well… You can get through to them but in the same breath, they become too comfortable and start telling you things that are hectic."*

> *"I couldn't do a session because the participant was crying; I can't force information, she won't even understand what you've been saying because now she's emotional you know, all you have to do is just calm the participant down and let the participant go you know, and you have to follow up."*

Workload

Multiple roles

HHs spoke of numerous roles they are required to play, which include some that are expected as part of the trial (and typical for CHWs, as shown in Table 1, e.g. promoting health)), as well as others that they did not necessarily expect: *"we are superheroes…we are everything"*. They saw themselves as educators, as they are aware that they need to help participants learn and understand the topics covered by the intervention. There was also an expectation for them to be a "*health support system*", which involves reminding participants about clinic visits, knowing their HIV status, pregnancy testing (free HIV and pregnancy testing offered as part of the trial), and providing a safe space for this support, in contrast to the reportedly poor treatment received at public health facilities. In relation to mental health, a key role discussed by HHs was that of counsellor, even though providing this is outside of their scope of work as defined by the trial. However, in reality, they experience that participants want to talk about their personal lives, and that they need to address whatever is relevant to the participants' state of mental health. In some cases, supporting participants in this way can make it challenging (and sometimes not feasible) to cover sessions as planned.

> *"We are expected to respect them especially since they don't really feel comfortable at the clinic, we are expected to give them a safe space where they can be able to share their problems with us, be able to feel free and ask whenever they are not sure, ask whenever they need help and we are expected to not tell them what to do but to help them set a goal or help them get to the point where they want to be."*

> *"I guess we basically have to be everything. We are their sisters, their doctors and counsellors. Basically we are their everything, we are their pillar of strengths."*

> *"Sometimes they are here for a session, but they end*

up talking to you about their personal stuff. Now you need to shift from doing a session to also being a counsellor."

Going beyond what is expected

As part of dealing with these multiple roles, HHs evidently go beyond what is expected and sometimes use their own resources to help participants with their material needs, such as food, transport money, or clothes. This particularly seemed to happen in HHs' early days when they were still navigating boundaries and managing participants' expectations. They were aware that this is not advised because it is not sustainable and oversteps a professional boundary, but they spoke about being moved by the needs of participants and feeling compelled to act, even when their own income was limited. When participants request food, they refer them to non-governmental organisations or churches in the community that assist with food parcels.

"And you will find participants that will call you and you that, 'I don't have food at home, can you give me something? I need to take your supplements'..you are not allowed to do that...We refer them to the NGOs that are around...There is nothing you can do about it. I mean, even if you wanted to help I don't think any of us can afford to."

"I had a participant where she didn't have anyone and she just got a baby...she didn't have clothes for the baby, we had to talk amongst ourselves if maybe you have something can you bring it, can I give the participant and things like that... I know I wasn't supposed to do that, but I'm human at the end of the day and I don't want to see someone suffering if I can do something with it. And I know that it's wrong, but I had to."

Going the extra mile for participants was also due to them requesting assistance with seeking medical help, particularly if participants feel they do not have a family member or friend that they can ask; or because they trusted their HH more. HHs try to help them draw on family members, but given the challenges these young women experience going to the clinic, offering to help them can help to build their relationship and trust. One also spoke about asking her father, a policeman, to help with a participant who was being abused, and they were able to get her the help she needed.

"I had one participant last year who miscarried and I think it happened around 9 at night and then she uh when she see blood she called me first before she tells her parents that something is going on and I was like okay so what's going on now...So are you with someone at home? And she was like ja my sister is around, and I was like okay call your sister and then she called and I had to talk to her sister and say okay something is going on there with [name] can you please help her? And then I had to call them back and to be on the phone until the called the ambulance, ja, they trust us"

Health Helper Expectations

There appeared to be a misalignment between HHs expectations of what their roles would be in the trial, and the typical roles of CHWs (see Table 1). HHs expressed the view that their role extended beyond that which was expected for CHWs employed by the government, and some felt that they had to work to a higher standard within a scientific trial. Their reasons for this included the workload and multiple responsibilities, such as the need to be counsellors (even though not an expected role in the trial), working across multiple phases (preconception, pregnancy, infancy, early childhood), delivering supplements, capturing session data, tracing participants, and testing participants. Linked to this, HHs felt strongly that the salary they receive does not adequately reflect their workload and the expectations within their role. They are aware that the salary was clearly communicated at the time of recruitment, but when the workload became more of a reality, this did not line up with the remuneration they felt they deserve. However, given the challenges of employment opportunities for women in Soweto, many felt they have no choice but to stay with the job.

"This is what I have signed up for...with the little amount that we have, we have responsibilities right, and for you to be happy is for when your family at home is happy you know. If you left no food at home can you be able to listen to someone who is telling you that they have no food you know. You are sitting there in a session you are talking about food and you know you left home with no food...the motivation for you to assist and help the participants it won't be as relevant if you were happy and there were not that kind of a stress at home. You will be able to tackle it and help the participant; but now that you are facing the same challenge you become clueless as well as to what you will help the participant with."

These misalignments between expectations and reality, including the issue of remuneration, are important to note, as these can lead to a sense of discouragement, demotivation and disempowerment amongst HHs, which were evident in the discussions; this can

ultimately hamper the successful delivery of the trial if not addressed. It seems that many HHs may not have been fully aware of what their role as a HH would entail when they took it on, and while knowing that the salary would be low (which is also typical for CHWs), not being clear of what the complexity of their role would make it difficult to accept this salary when they were faced with reality.

Learning, development and support

In spite of these challenges and demands of their role, HHs were consistently positive about their learning and development. Some HHs explicitly mentioned how much they enjoy their job, and that they appreciate the opportunity they get to make a difference in young women's lives. A few mentioned how they had learnt positive things about themselves, particularly in terms of their strengths and the type of work they could do in the future, such as social work.

> *"I really do enjoy my job, despite everything else that comes with it. This is something, for the first time I am actually finding something that I am happy doing…The fact that I get to help people and better their health and so forth, I really enjoy it. It is just those few things that make it difficult to be a Health Helper but beside that, I really enjoy it. I see myself doing this for like, a long time."*

Some mentioned how regular feedback from process evaluation and their team leader helped and motivated them to learn and continually improve. Some of this feedback is provided in regular debriefing meetings with the team. Most predominantly, HHs spoke about gaining knowledge about health, health behaviours and development; interpersonal skills, including how to work with different participants, and to support behaviour change. Some commented on the need to be a good role model for their participants in terms of their own health behaviours, and others mentioned learning new things about pregnancy and infancy.

> *"I personally learnt that you must as a person…you must practice what you preach. Because you find participants that are very challenging that are going to ask you, okay you are telling me about my weight but what about your weight...what are you doing about your weight?"*

HHs often mentioned the Healthy Conversations Skills approach that they have been trained in. This approach emphasises listening more than talking, and supporting the autonomy of participants. A number of HHs spoke about the challenge of needing to unlearn some things that did not align with this approach. Being able to use these skills in their personal relationships, for example, by applying them with their own children and sharing what they have learnt with family members and friends, was mentioned.

> *"…you know when you are so used to a certain way of doing things, you are used to influencing people into being what you want them to be…I'm so used to writing a character you know, you know when you write a character you just want it to be a certain way, it will develop nicely and give you a great story you know. So I was used to that, giving a great story. But when I came here I needed to learn that everyone is a character in their own story. You are just there for a certain aspect of that story, what they do to change their lives isn't up to you, you have to learn to let them deal with it, you have to let them lead their own lives you know. So having learnt that it became easier to do the job you know, it became easier to come to work and not focus on other people's problems."*

> *"Definitely, the healthy conversations we go and use the at home with our families. That's something also that I have taken, you know. Even with infancy, the things that I do with my daughter it is some things that I took from here as well. So yeah, it has helped us."*

On this topic of training, HHs unanimously felt that they were well trained and prepared for their role in terms of delivering the intervention; many felt that their time in the role had helped with this sense of preparation and confidence in their ability (learning 'on the job'), and that the trial process evaluation helped identify areas for improvement. A few requested refresher trainings in Healthy Conversation Skills. The only area where HHs did not feel adequately trained and prepared was providing counselling (mental health support) for participants. Although providing such counselling for participants is not within their scope of work, and not anticipated to be such a priority issue in the planning of the trial, the reality is that their interactions with participants require these skills, or at least additional training. While HHs do offer pre- and post-test counselling for HIV testing, some mentioned that this is still difficult.

> *"[How prepared do you feel, for your role?] Super, super prepared. Yeah. I guess we need to take each day at a time because days are different. We do get training, which is something that also helps us. We do have debriefs, where we talk with someone when we have challenges. That's where we iron things out*

in terms of the participants that have problems and we sort it out."

"So I feel like with everything else you are prepared but you can never be prepared for HIV results....It is difficult, it feels new every time, it feels like you are doing it for the first time every single time that you do it. So, you can never really be prepared. It is tough...You just need to be strong and put your emotions aside. We make sure that the participant is okay, so that they don't go under distress...Sometimes the situation becomes difficult to a point that you end up crying because they start telling you their life problems."

Building relationships with participants

It was evident that HHs' relationships with participants played a potentially more critical role in the intervention compared to other intervention components, although it is possible that the extent of this relationship building was not part of HH's original expectations of their role. They recognised the importance of building these relationships, since participants become more willing to listen and share information about themselves, which helps HHs in their role, and ultimately helps the trial. They also recognised some of the key interpersonal skills they need to use to build these relationships and help participants feel comfortable, such as showing empathy, being friendly, and staying calm in difficult situations. A key part of this relationship building is providing social support for participants, often in the absence of support in participants' home environment. This support plays a crucial role in retaining participants in such a long-term study. One of the recurrent characteristics mentioned with respect to these relationships and support was trust. Apart from this trust being seen to build over time, HHs also spoke about not showing judgement, maintaining confidentiality, and sharing some personal information helping to build this trust.

"Well it's a relationship that we build you know, it's not easy talking to someone you don't know. They're sitting here staring at you, asking you questions, but when tine goes...18 months is a lot of time for you to build a relationship with someone. So step by step you get to the participant gets to open up by listening to you, like how friendly are you, how are you listening to the participant. She becomes open by time and ja, you end up connecting and she will be able to tell you things that she does not share with anyone. So I think it's a relationship that we build the first time that she was here…it's a relationship that we build from scratch."

"I feel like when you also use yourself as an example during the sessions, it builds a relationship because the participant will also think that you are trusting them with something that is personal, so it is easier for them to trust you with whatever that happened to them."

One HH eloquently described this connection, recognising a shared journey with the participants, even when it is known that it will be temporary.:

"I will say that for some participants you will find that to them they develop some type of friendship with you. Remember there are certain things that you would tell your social worker, there are certain things that you would tell your mom, there are certain things that you will tell your friends. So for them to be able to actually cough out the deep things that they have inside of them...they develop a feeling of friendship. So as a Health Helper being friendly allows you to build a deeper connection with most of them…they have this thing of saying whatever I tell this person stays with this person and they won't judge me, they won't tell me I'm lying about what I feel, they won't be looking at me differently the next time that I'm here. They are aware that after a certain time it will end, and they are okay because they will know that it was never meant to last to begin with."

Emotional toll

Need for resilience

In light of the workload and multiple roles mentioned, the mismatch between expectations and reality, and the nature of HHs' relationships with participants, it was not surprising that they spoke about the emotional toll of their work. They expressed the need to be strong and resilient – to be "*super woman*" and "*push through*" – particularly in light of the challenging circumstances that participants face: "*You have to carry on*". Hearing about participants' challenges has taken an emotional toll on them, particularly since they are not counsellors who have been specifically trained to deal with these types of situations, and that providing this type of counselling is not part of their expected role in the trial. Since it was mentioned earlier that the HHs often experience many similar challenges in their own personal lives, putting on "*the brave face*" could be incredibly difficult, especially if they felt triggered by something participants mentioned.

"It is a very hectic job, it is very demanding emo-

tionally and mentally. And no matter how you are feeling…I mean we are all humans, and we are all going through things. No matter how you are feeling in the morning, you still need to show up for the participants."

"You can relate and they can trigger something in you but still need to be strong because you are that person's Health Helper at the end of the day. They can't see you crack. So that's also difficult. Even after having a difficult session you must still continue with your work as per normal. It is hard, every aspect of this job is difficult."

Need for boundaries

Linked to the need for resilience, HHs expressed the need for boundaries, which is also a topic that has been specifically addressed in debrief sessions to support HHs, and appears to resonate well with them. HHs talked about learning this over time, in terms of finding a way to be present and hold space for participants when listening to their challenges, but also not becoming overwhelmed. Some struggled with leaving these challenges behind at work, especially life or death situations. The need for boundaries also applied to HHs finding it difficult to establish their availability within reasonable hours, which did not always match up with participants' expectations. Some battled with pressure they put on themselves to not let down their participants.

"Sometimes it is difficult because all the 150 participants, they all have problems. You get home and they will be like 'are you okay?' and you will say 'mm-hmm.' But you are not because you are thinking about that girl who said she doesn't have food. She tested positive, she is in denial. You don't even know if she's still alive. When you call her, her phone is off. You go to trace her, you don't find her."

"There was a point last year where I was fatigued… emotionally fatigued, because of I couldn't take any more in, because I had already taken so much of others' emotions that I'm dealing with, that it was taking a toll on my own. So after having dealt with that I've managed to put a bridge and say I'm gonna be open, but to a lesser degree than I was before because it takes out a lot of me."

When discussing boundaries, HHs often used the term *"detach"* (or not being *"attached"*) to describe the healthy distance that they needed to maintain for the sake of their own mental health. However, this often feels impossible for them.

"So in most cases…it needs you to be emotionally available but remain untouched...it's very hard managing this because it means that at the moment that I'm sitting with this person I'm going to be open and I'm going to be this free person But the moment they leave I have to make sure that they take their baggage with them. That's me de-attaching myself from their situation. But it's really hard doing that because of there are certain things that you just can't de-attach yourself from."

Healthy coping mechanisms

HHs mentioned other healthy coping mechanisms such as expressing their emotions, sleeping, exercising, goal setting, reading, writing stories, talking to others, and adopting mental strategies to "*refresh their mind*". They also mentioned that teamwork and peer support have helped them to cope with the demands of their role as they drew strength, encouragement, insight, learning, and support from each other and their team leader. This involved working in pairs in their offices, team debriefs, and speaking to their team leader when they need support or for scheduled one-on-one meetings.

"What I do is I talk to someone at home just to cough it out…it helps speaking to someone, it helps, rather than taking everything in by yourself…you can't even sleep because you're thinking about it, you're thinking you could have done something differently, but you can't do anything. So maybe if you can just cough it out like I do, I cough it out."

"Okay so we have these recordings that we do right, I'll go an extra mile and ask for [name's] recording…can I please listen to your recording and see how you do your session. Maybe it could help me…I could change some things that I do wrong or maybe pick up on something and same applies she can do the same, you know. Or when we de-brief we talk amongst ourselves about a challenge or a goal that we can set and then ja, we just talk about it."

Despite these ways of coping, HHs strongly emphasized their need for additional mental health support, not only for their own wellbeing, but also for them to do their job effectively. While there are free services available to them as staff members of the university, these are offered telephonically, and they felt that sessions in person would be more helpful because it is difficult to express yourself over the phone. They argued

Table 2 Counselling skills that could be included into Community Health Worker curricula and inclusion in Healthy Conversation Skills training

Permissible and beneficial counselling skills that can be provided to CHWs	Included in HCS training
Active listening: Teaching CHWs to listen attentively without interrupting, showing empathy, and understanding the participant's concerns and emotions	✓
Empathy and compassion: CHWs to approach participants with empathy, understanding their emotional and social contexts, and responding in a caring and non-judgmental manner	✓
Motivational interviewing: Training CHWs in motivational interviewing techniques can help them encourage behaviour change in areas like smoking cessation, adherence to medication, and healthy lifestyle choices	✓
Crisis intervention: CHWs can be equipped with skills to provide immediate support in crises, such as family violence, substance abuse, or suicidal ideation, and to refer to appropriate services	✓
Health education and promotion: Training CHWs to effectively communicate health information to improve health literacy	✓
Cultural competence: Ensuring that CHWs understand and respect the cultural beliefs and practices of the communities they serve, allowing them to deliver care that is culturally sensitive	✓
Problem-solving techniques: Helping CHWs learn how to guide clients through a structured approach to solving personal or health-related problems	✓
Referral skills: Training on how to recognise cases that need more specialised care and effectively refer clients to appropriate healthcare professionals or services	✓
Confidentiality and ethics: Emphasising the importance of maintaining confidentiality and adhering to ethical standards in all interactions with participants	✓
Basic mental health support: Providing CHWs with the skills to recognize common mental health issues, offer basic support, and know when to refer clients to professional mental health services	x
HIV/AIDS counselling: Given the high prevalence of HIV/AIDS in SA, CHWs should be skilled in pre- and post-test counselling, helping clients understand their HIV status, and providing support for those living with HIV	x
Stress management: Teaching CHWs how to manage their stress and avoid burnout, which is crucial given the challenging environments in which they work	x

CHW Community health worker, *HCS* Healthy Conversation Skills

for the importance of having a mental health professional, e.g. social worker, on site that would be able to support them, and would be available for referrals of participants, given the challenges of mental health referrals to public health facilities, which have been reported elsewhere.

> *"We must also be counselled with some situations that we are facing and that participants are facing, how to monitor it, how to help to tackle it, help to explain everything to it, how to bring it back so that the participant can be able to understand and so that the participant can be able to maintain their mental health."*

Discussion

This article aimed to describe *Bukhali* HHs' perspectives and experiences, and adds to recent LMIC literature that provides a voice to CHW's perspectives and experiences [12, 22, 29, 31, 46–49], highlighting both the benefits and burdens of CHW's roles. Key findings include the complex workload of HHs, how they manage the mental health demands of their work in the context of Soweto (in relation to participants, the positive impact of this work on their own learning and development, and their own wellbeing). *Bukhali* HHs' workload includes what could be classified as more traditional CHW roles, but there appears to be added complexity due to working across phases of the life course, as well as, the perceived need to provide counselling, even though this is beyond the scope of what is expected of HHs. The dynamic of misalignment between HH's expectations and the reality of the job further contributes to this complexity. These findings prompt reflection, both for *Bukhali* and for CHWs more generally, about the need to reconsider incorporating counselling skills into CHW's scope of work, how they are helped to navigate the intersection of the personal and professional, and how they are fully prepared and trained for their multiple and varied roles. These are critical considerations for both the implementation of CHW-delivered interventions, as well as the inclusion of CHWs in community-based services.

The context of this trial in Soweto contributes to a greater than anticipated burden of mental health challenges amongst participants, which has been documented [25, 32], and highlights the need for a more trauma-informed approach [33] not only for the *Bukhali* study but more generally for CHWs in primary care. While currently in SA, counselling skill training is typically not provided, we do provide Healthy Conversation

Skills training for *Bukhali* HHs (see Table 2, drawing on literature on Healthy Conversation Skills and CHWs [26, 27, 50]). However, despite this training, the HHs still do not feel prepared to cope with the complexity of the mental health burden they encountered. This is testimony to a burgeoning mental health epidemic in SA and the need to pair CHW teams with social workers. Conversely, there was reluctance of participants to be referred for professional mental health support is therefore surprising when they clearly are in need of this help. It is possible though that, given the stigma associated with mental health challenges and the dearth of and difficulty to access mental health services in a setting like Soweto, participants may have limited awareness and inclination to access services, and that accessing free telephonic services may also be problematic (e.g. no functional phone to call from, lack of privacy for a telephonic conversation). Added to the mental health burden experienced by participants are the HHs own similar experiences, since they are from the same context and may have faced or currently face many similar mental health challenges and experiences, and the emotional toll of their work. Although this can be triggering and difficult to manage, the HHs' geographic (and social) proximity to participants seems to significantly contribute to the successful relationships that they are able to develop with participants, which could also be positively impacted by their similarity in age, as would be expected [28].

Specifically, the trust built between HHs and participants appears to be a powerful mechanism to attain intervention impact; the value of trust has been emphasised in work with CHWs in SA [21, 23] and India [51, 52]. Trust has also been highlighted from the perspective of *Bukhali* participants in previous qualitative work, along with the potentially stabilising role that HHs can play in the lives of participants which are often characterised by instability in various fronts [36]. This adds to the argument that CHWs have the potential to be "powerful social actors", and not "just another pair of hands" in the health system [53]. However, in *Bukhali*, it seems that the critical role of relationship building to establish trust and fully maximise the HHs potential impact is not without its cost in terms of the emotional toll that relationship building can take.

Also, the issue of renumeration as it relates to recognition for HHs' contribution has been raised in previous research [21, 22, 54–57] and is indeed a challenge we have noted as a critical factor in CHW's motivation, performance and retention. Any future scale-up of CHW-delivered interventions needs to consider this issue of remuneration (and workload) of CHWs to optimise morale and motivation and hence implementation, although the challenges of doing this in resource-constrained settings are recognised, along with the need for political and economic support [58]. Furthermore, as pointed out earlier, CHWs need to be clearly informed and prepared for the various roles they might play, and that they be required to go beyond these roles without additional remuneration in resource-constrained settings.

Given the importance of considering contextual factors that influence the implementation of CHW programmes and performance of CHWs [55, 59], these findings provide valuable understanding of how the Soweto context impacts on the *Bukhali* trial and HHs, but CHWs more generally. Firstly, as in many LMIC contexts, the complexity of multiple roles can impact on the delivery of the intervention as HHs/CHWs are required to flexibly switch between roles, depending on what may be a priority for a participant, what is urgent within a particular phase of a trial, or specific demands with a certain socioeconomic context. To some degree, this relates to the task-shifting associated with CHWs, and just as the ethics of task-shifting need to be considered in terms of the toll this takes on CHWs [48], the toll of this role switching also warrants attention. Potentially, as CHWs become more mainstream within health services, task differentiation and specialisation maybe be useful strategies to counter overburdening CHWs and providing a career development path.

Secondly, the emotional toll of this type of 'front line' work in a context such as Soweto can negatively impact on implementation if HHs/CHWs burn out or do not have the emotional and mental capacity to engage in meaningful interactions with participants mentioned above. While the resilience of HHs/CHWs is admirable, a dependence on this resilience in the context of the intergenerational trauma so prevalent in SA is unhealthy. Continuing to provide training and support on skills such as healthy boundaries and coping mechanisms, including peer support, is critical, along with mental health support for these types of workers. In addition, more formal training on counselling skills could assist in this regard, and is a crucial consideration for future implementation of *Bukhali* and other similar CHW programmes. Addressing the counselling skills of CHWs could not only contribute to their future professional development, but could also assist with the urgent need to address the mental health services gap and help to destigmatise mental health challenges in settings like Soweto, and in SA more broadly.

This increased scope in CHW's skills to address mental health comes with a need for supportive supervisions, and the switching mentioned above would also benefit from supportive supervision. The importance of support for CHWs in challenging settings, like Soweto, has been

highlighted [54, 60], along with supportive supervision for CHWs [23, 55, 61–64]. Our findings indicate that, given the nature of embedded community-based work in resource-constrained settings like Soweto, systems of support (e.g. supervision, peer support, mentoring, professional development opportunities) are critical for scale-up of a CHW-delivered intervention.

Thirdly, HHs' accounts of their own learning and development as a result of their involvement in *Bukhali* indicate that the positive gains of this type of work could be amplified to help counter some of the emotional toll of this work. This could include highlighting the interpersonal skills obtained, the ability to work effectively in multilingual environments, and increased self-awareness. A sense of self-efficacy and enactive mastery, and an increase in self-esteem have previously been identified as mechanisms for improving CHW performance in LMICs [65].

While the focus on CHWs from one intervention could be perceived as a limitation of this study, this has allowed for consideration of unique features of these HHs' experiences in a specific context. As discussed above, these findings have implications for other settings not just in terms of how contextual factors can influence implementation of CHW-delivered interventions, but also, considerations to build into CHW health service programmes. The exploratory nature of the study may be seen as a limitation, but given the importance of highlighting CHWs perceptions and experiences, the study has helped to elucidate relevant issues. The small number of focus groups could also be viewed as a limitation, but all 13 CHWs employed at the time of the data collection were included, and we were able to explore their perspectives in depth.

Conclusions

In conclusion, while the findings of this study have been viewed through the lens of trial implementation and process evaluation, we have attempted to give voice to the *Bukhali* HHs. Since CHWs are an often marginalised and undervalued sector of the healthcare workforce in LMICs, it is therefore important that their perspectives and experiences are shared [49]. In SA, CHWs hold great potential to not only address critical health issues and provide an important health service, but also, can positively impact mental health through the building of trusting relationships and provide much needed support for young women and families. The broadening of CHW's scope of work to include counselling, for which they are appropriately trained and remunerated, should be given serious consideration. Indeed, future research is needed to provide further evidence and implementation learning on the effectiveness of CHW-provided mental health services, within contextual realities [8, 9].

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12913-024-12127-0.

Supplementary Material 1

Supplementary Material 2

Acknowledgements
Not applicable.

Authors' contributions
CED and SAN conceptualised the study; SAN and SJL conceptualised the Bukhali trial; CED, LS, KM, MM, NN and SN contributed to the design of the study methods, including the development of interview guides; LS and KM collected the data; CED led the data analysis, with assistance from LS; CED drafted the first version of the manuscript; all authors commented on and edited the manuscript drafts and approved the final version.

Funding
This work was supported by the South African Medical Research Council, and the Canadian Institutes of Health Research. CD, MM and NT were supported by the South African Medical Research Council. SAN, KM, and LMS were supported by theSouth African DSI/NRF Centre of Excellence in Human Development. Opinions expressed and conclusions arrived at, are those of the author and are not to be attributed to the CoE in Human Development.

Data availability
The authors do not have permission to share the data for this study, due to ethical concerns from the relevant Human Resource Ethics Committee about sharing qualitative interview data outside of the research team due to the risk of potentially identifying participants, but the data can be available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate
Ethical approval was obtained from the Human Research Ethics Committee (Medical) at the University of the Witwatersrand (Ref: M190449). All participants gave written informed consent for their involvement in the interviews (in addition to the trial). All procedures contributing to this work comply with the Helsinki Declaration of 1975, as revised in 2008.

Consent for publication
Not applicable.

Competing interests
The authors declare no competing interests.

Author details
[1]SAMRC/Wits Developmental Pathways for Health Research Unit, Department of Paediatrics, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa. [2]Lunenfeld-Tanenbaum Research Institute, Sinai Health, Toronto and Departments of Obstetrics and Gynecology, Physiology and Medicine, University of Toronto, Toronto, ON, Canada. [3]School of Human Development and Health, University of Southampton, Southampton, UK.

Received: 6 February 2024 Accepted: 17 December 2024
Published online: 23 December 2024

References

1. Perry HB, Zulliger R, Rogers MM. Community health workers in low-, middle-, and high-income countries: an overview of their history,

recent evolution, and current effectiveness. Annu Rev Public Health. 2014;35:399–421.
2. Schneider H, Okello D, Lehmann U. The global pendulum swing towards community health workers in low- and middle-income countries: a scoping review of trends, geographical distribution and programmatic orientations, 2005 to 2014. Hum Resour Health. 2016;14(1):65.
3. Babagoli MA, Nieto-Martínez R, González-Rivas JP, Sivaramakrishnan K, Mechanick JI. Roles for community health workers in diabetes prevention and management in low- and middle-income countries. Cad Saude Publica. 2021;37(10):e00287120.
4. Egbujie BA, Delobelle PA, Levitt N, Puoane T, Sanders D, van Wyk B. Role of community health workers in type 2 diabetes mellitus self-management: A scoping review. PLoS ONE. 2018;13(6):e0198424.
5. Jeet G, Thakur JS, Prinja S, Singh M. Community health workers for non-communicable diseases prevention and control in developing countries: Evidence and implications. PLoS ONE. 2017;12(7):e0180640.
6. Mbuthia GW, Magutah K, Pellowski J. Approaches and outcomes of community health worker's interventions for hypertension management and control in low-income and middle-income countries: systematic review. BMJ Open. 2022;12(4):e053455.
7. Gilmore B, McAuliffe E. Effectiveness of community health workers delivering preventive interventions for maternal and child health in low- and middle-income countries: a systematic review. BMC Public Health. 2013;13:847.
8. Mendenhall E, De Silva MJ, Hanlon C, Petersen I, Shidhaye R, Jordans M, et al. Acceptability and feasibility of using non-specialist health workers to deliver mental health care: stakeholder perceptions from the PRIME district sites in Ethiopia, India, Nepal, South Africa, and Uganda. Soc Sci Med. 1982;2014(118):33–42.
9. Mutamba BB, van Ginneken N, Smith Paintain L, Wandiembe S, Schellenberg D. Roles and effectiveness of lay community health workers in the prevention of mental, neurological and substance use disorders in low and middle income countries: a systematic review. BMC Health Serv Res. 2013;13:412.
10. Thirthalli J. Reflections on task-shifting as a method of reducing treatment gap in low-middle income countries. Asian J Psychiatry. 2015;16:1–2.
11. Vaughan K, Kok MC, Witter S, Dieleman M. Costs and cost-effectiveness of community health workers: evidence from a literature review. Hum Resour Health. 2015;13:71.
12. Ahmed S, Chase LE, Wagnild J, Akhter N, Sturridge S, Clarke A, et al. Community health workers and health equity in low- and middle-income countries: systematic review and recommendations for policy and practice. Int J Equity Health. 2022;21(1):49.
13. Wahl B, Lehtimaki S, Germann S, Schwalbe N. Expanding the use of community health workers in urban settings: a potential strategy for progress towards universal health coverage. Health Policy Plan. 2020;35(1):91–101.
14. Catley D, Puoane T, Tsolekile L, Resnicow K, Fleming K, Hurley EA, et al. Adapting the diabetes prevention program for low and middle-income countries: protocol for a cluster randomised trial to evaluate 'Lifestyle Africa.' BMJ Open. 2019;9(11):e031400.
15. Morris-Paxton AA, Rheeder P, Ewing RMG, Woods D. Detection, referral and control of diabetes and hypertension in the rural Eastern Cape Province of South Africa by community health outreach workers in the rural primary healthcare project: health in every hut. Afr J Prim Health Care Fam Med. 2018;10(1):e1–8.
16. Dlamini SB, Hlongwana KW, Ginindza TG. Lung cancer awareness training experiences of community health workers in KwaZulu-Natal, South Africa. Afr J Prim Health Care Fam Med. 2022;14(1):e1–9.
17. Van Heerden EM, Jenkins LS. The role of community health workers in palliative care in a rural subdistrict in South Africa. Afr J Prim Health Care Fam Med. 2022;14(1):e1–9.
18. Ludolph N. Business. Fate of community health workers uncertain amid battle over minimum wage, working conditions. 2023 [cited 2023 Jul 21]. Available from: https://www.news24.com/fin24/economy/fate-of-community-health-workers-uncertain-amid-battle-over-minimum-wage-working-conditions-20230624
19. Ludolph N. 'They fail us, year in and year out': Why community health workers are ditching unions [Internet]. Bhekisisa. 2023 [cited 2023 Jul 21]. Available from: https://bhekisisa.org/article/2023-01-24-they-fail-us-year-in-and-year-out-why-community-health-workers-are-ditching-unions/
20. van Dyk J. The Mail & Guardian. Why Covid likely won't change the plight of community health workers. 2020 [cited 2023 Jul 21]. Available from: https://mg.co.za/health/2020-11-02-community-health-workers-covid-19-nhi/
21. Murphy JP, Moolla A, Kgowedi S, Mongwenyana C, Mngadi S, Ngcobo N, et al. Community health worker models in South Africa: a qualitative study on policy implementation of the 2018/19 revised framework. Health Policy Plan. 2021;36(4):384–96.
22. Ramukumba MM. Exploration of community health workers' views about in their role and support in primary health care in Northern Cape, South Africa. J Community Health. 2020;45(1):55–62.
23 Hwei TY, Griffiths F, De Kadt J, Nxumalo N, Rwafa T, Malatji H, et al. Integrating community health workers into the formal health system to improve performance: a qualitative study on the role of on-site supervision in the South African programme. BMJ Open. 2019;9(2):e022186.
24. Norris SA, Draper CE, Smuts C, Prioreschi A, Ware LJ, Dennis CL, et al. Building knowledge, optimising physical and mental health, and setting up healthier life trajectories in South African women (Bukhali): a pre-conception randomised control trial part of the Healthy Life Trajectories Initiative (HeLTI). BMJ Open. 2022;12:e059914.
25. Draper CE, Thwala N, Slemming W, Lye SJ, Norris SA. Development, implementation, and process evaluation of Bukhali: an intervention from preconception to early childhood. Glob Implement Res Appl. 2023;3:31–43.https://doi.org/10.1007/s43477-023-00073-8.
26. Barker M, Baird J, Lawrence W, Jarman M, Black C, Barnard K, et al. The Southampton Initiative for Health: A complex intervention to improve the diets and increase the physical activity levels of women from disadvantaged communities. J Health Psychol. 2011;16(1):178–91.
27. Lawrence W, Black C, Tinati T, Cradock S, Begum R, Jarman M, et al. 'Making every contact count': Evaluation of the impact of an intervention to train health and social care practitioners in skills to support health behaviour change. J Health Psychol. 2016;21(2):138–51.
28. Olaniran A, Smith H, Unkels R, Bar-Zeev S, Van Den Broek N. Who is a community health worker? – a systematic review of definitions. Glob Health Action. 2017;10(1):1272223.
29. Mhlongo EM, Lutge E, Adepeju L. The roles, responsibilities and perceptions of community health workers and ward-based primary health care outreach teams: a scoping review. Glob Health Action. 2020;13(1):1806526.
30. Thomas LS, Buch E, Pillay Y. An analysis of the services provided by community health workers within an urban district in South Africa: a key contribution towards universal access to care. Hum Resour Health. 2021;19(1):22.
31. Tsolekile LP, Puoane T, Schneider H, Levitt NS, Steyn K. The roles of community health workers in management of non-communicable diseases in an urban township. Afr J Prim Health Care Fam Med. 2014;6(1). [cited 2023 Aug 22]. Available from: https://phcfm.org/index.php/phcfm/article/view/693
32. Draper CE, Prioreschi A, Ware L, Lye S, Norris S. Pilot implementation of Bukhali: a preconception health trial in South Africa. SAGE Open Med. 2020;8:205031212094054.
33. Draper CE, Mabena G, Motlhatlhedi M, Thwala N, Lawrence W, Weller S, et al. Implementation of Healthy Conversation Skills to support behaviour change in the Bukhali trial in Soweto, South Africa: A process evaluation. SSM - Ment Health. 2022;2:100132.
34. Soepnel L, Draper CE, Mabetha K, Dennis CL, Prioreschi A, Lye SJ, et al. A protocol for monitoring fidelity of a preconception-life course intervention in a middle-income setting: the Healthy Life Trajectories Initiative (HeLTI). South Africa Trials. 2022;23:758.
35. Soepnel L, Draper CE, Mabetha K, Mogashoa L, Mabena G, Motlhatlhedi M, et al. Evaluating implementation of the FIGO nutrition checklist within the Bukhali trial in Soweto, South Africa. Int J Gynecol Obstet. 2023;160(Supplement 1):68–79.
36. Draper C, Motlhatlhedi M, Klingberg S, Mabetha K, Soepnel L, Pentecost M, et al. Young women's health behaviours in context: a qualitative longitudinal study in the Bukhali trial [Internet]. PsyArXiv; 2023 [cited 2023 Jun 21]. Available from: https://osf.io/xfhyn
37 Silubonde TM, Draper CE, Baumgartner J, Ware LJ, Smuts CM, Norris SA. Barriers and facilitators of micronutrient supplementation among non-pregnant women of reproductive age in Johannesburg, South Africa. Shafique K, editor. PLOS Glob Public Health. 2022;2(11):e0001310.

38. Mabetha K, Soepnel LM, Klingberg S, Mabena G, Motlhatlhedi M, Norris SA, et al. Young women's social support networks during pregnancy in Soweto, South Africa. African J Prim Health Care Fam Med. 2024;16(1). Available from: http://www.phcfm.org/index.php/PHCFM/article/view/4146.
39. Mabetha K, Soepnel LM, SSewanyana D, Draper CE, Lye S, Norris SA. A qualitative exploration of the reasons and influencing factors for pregnancy termination among young women in Soweto, South Africa: a Socio-ecological perspective. Reprod Health. 2024;21(1):109.
40 Moore GF, Audrey S, Barker M, Bond L, Bonell C, Hardeman W, et al. Process evaluation of complex interventions: Medical Research Council guidance. BMJ. 2015;350(mar19 6):h1258–h1258.
41 Soepnel LM, Norris SA, Mabetha K, Motlhatlhedi M, Nkosi N, Lye S, et al. A qualitative analysis of community health worker perspectives on the implementation of the preconception and pregnancy phases of the Bukhali randomised controlled trial. Leslie HH, editor. PLOS Glob Public Health. 2024;4(3):e0002578.
42. Braun V, Clarke V. Reflecting on reflexive thematic analysis. Qual Res Sport Exerc Health. 2019;11(4):589–97.
43. Braun V, Clarke V. Can I use TA? Should I use TA? Should I *not* use TA? Comparing reflexive thematic analysis and other pattern-based qualitative analytic approaches. Couns Psychother Res. 2021;21(1):37–47.
44. Braun V, Clarke V. Toward good practice in thematic analysis: Avoiding common problems and be(com)ing a *knowing* researcher. Int J Transgender Health. 2023;24(1):1–6.
45. Tracy SJ. Qualitative quality: eight "Big-Tent" criteria for excellent qualitative research. Qual Inq. 2010;16(10):837–51.
46. Astale T, Abebe T, Mitike G. Workload and emerging challenges of community health workers in low- and middle-income countries: A mixed-methods systematic review. PLoS ONE. 2023;18(3):e0282717.
47. Jatobá A, Bellas HC, Bulhões B, Koster I, Arcuri R, de Carvalho PVR. Assessing community health workers' conditions for delivering care to patients in low-income communities. Appl Ergon. 2020;82:102944.
48. Mundeva H, Snyder J, Ngilangwa DP, Kaida A. Ethics of task shifting in the health workforce: exploring the role of community health workers in HIV service delivery in low- and middle-income countries. BMC Med Ethics. 2018;19(1):71.
49. Musoke D, Nyashanu M, Bugembe H, Lubega GB, O'Donovan J, Halage AA, et al. Contested notions of challenges affecting Community Health Workers in low- and middle-income countries informed by the Silences Framework. Hum Resour Health. 2022;20(1):4.
50. Myers B, Petersen-Williams P, Van Der Westhuizen C, Lund C, Lombard C, Joska JA, et al. Community health worker-delivered counselling for common mental disorders among chronic disease patients in South Africa: a feasibility study. BMJ Open. 2019;9(1):e024277.
51. George M, Pant S, Devasenapathy N, Ghosh-Jerath S, Zodpey S. Motivating and demotivating factors for community health workers: A qualitative study in urban slums of Delhi, India. WHO South-East Asia J Public Health. 2017;6(1):82.
52. Mishra A. 'Trust and teamwork matter': Community health workers' experiences in integrated service delivery in India. Glob Public Health. 2014;9(8):960–74.
53. Kane S, Radkar A, Gadgil M, McPake B. Community health workers as influential health system actors and not 'just another pair of hands.' Int J Health Policy Manag. 2021;10(8):465–74.
54. , Fundira D, Tavengwa NV, Stoltzfus RJ, Kambarami RA, Mbuya MN, Pelletier D, Fundira D, Tavengwa NV, Stoltzfus RJ. Factors associated with community health worker performance differ by task in a multi-tasked setting in rural Zimbabwe. Glob Health Sci Pract. 2016;4(2):238–50.
55. Ogutu M, Muraya K, Mockler D, Darker C. Factors influencing the performance of community health volunteers working within urban informal settlements in low- and middle-income countries: a qualitative meta-synthesis review. Hum Resour Health. 2021;19(1):144.
56. Ormel H, Kok M, Kane S, Ahmed R, Chikaphupha K, Rashid SF, et al. Salaried and voluntary community health workers: exploring how incentives and expectation gaps influence motivation. Hum Resour Health. 2019;17(1):59.
57. Shipton L, Zahidie A, Rabbani F. Motivating and demotivating factors for community health workers engaged in maternal, newborn and child health programs in low and middle-income countries: a systematic review. J Coll Physicians Surg-Pak JCPSP. 2017;27(3):157–65.
58. Pallas SW, Minhas D, Pérez-Escamilla R, Taylor L, Curry L, Bradley EH. Community health workers in low- and middle-income countries: what do we know about scaling up and sustainability? Am J Public Health. 2013;103(7):e74–82.
59. Kok MC, Kane SS, Tulloch O, Ormel H, Theobald S, Dieleman M, et al. How does context influence performance of community health workers in low- and middle-income countries? Evidence from the literature. Health Res Policy Syst. 2015;13:13.
60. Raven J, Wurie H, Idriss A, Bah AJ, Baba A, Nallo G, et al. How should community health workers in fragile contexts be supported: qualitative evidence from Sierra Leone, Liberia and Democratic Republic of Congo. Hum Resour Health. 2020;18(1):58.
61. Hill Z, Dumbaugh M, Benton L, Källander K, Strachan D, ten Asbroek A, et al. Supervising community health workers in low-income countries–a review of impact and implementation issues. Glob Health Action. 2014;7:24085.
62. Kok MC, Dieleman M, Taegtmeyer M, Broerse JEW, Kane SS, Ormel H, et al. Which intervention design factors influence performance of community health workers in low- and middle-income countries? A systematic review. Health Policy Plan. 2015;30(9):1207–27.
63. StansertKatzen L, Dippenaar E, Laurenzi CA, RotheramBorus MJ, le Roux K, Skeen S, et al. Community health workers' experiences of supervision in maternal and child health programmes in low- and middle-income countries: a qualitative evidence synthesis. Health Soc Care Community. 2022;30(6):2170–85.
64. World Health Organization. WHO guideline on health policy and system support to optimize community health worker programmes [Internet]. Geneva: World Health Organization; 2018 [cited 2023 Jul 21]. 112 p. Available from: https://apps.who.int/iris/handle/10665/275474
65. Kane SS, Gerretsen B, Scherpbier R, Dal Poz M, Dieleman M. A realist synthesis of randomised control trials involving use of community health workers for delivering child health interventions in low and middle income countries. BMC Health Serv Res. 2010;10:286.

Publisher's Note