Interaction between Facility-Based and Community-Based Teams in Cape Town: a Realist Perspective

Brucher Cédric, Universiteit Gent

Van Droogenbroeck Lotte, Universiteit Gent

Promotor: Prof. Dr. Peter Decat, Universiteit Gent
Prof. Dr. Tasleem Ras, University of Cape Town

Co-promotor: Dr. Vanden Bossche Dorien, Universiteit Gent

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Abstract (NL)

Achtergrond
In Zuid-Afrika wordt het Community-Oriented Primary Care (COPC) model gebruikt om de samenwerking tussen zorgverleners in een zorginstelling enerzijds en de gezondheidswerkers in de gemeenschap anderzijds, waaronder de Community Health Workers (CHWs), te bevorderen. Ondanks het langdurige bestaan van dit model blijven er knelpunten aanwezig, zoals beperkte erkenning van CHW's, onduidelijke taakverdeling en beperkte terugkoppeling bij doorverwijzingen. Inzicht in de factoren die de interactie tussen deze twee zorgteams beïnvloeden is essentieel om patiëntenzorg en integratie van de CHW's in het zorgsysteem te bevorderen.

Doelstelling
Het verkennen van contextuele en dynamische factoren die de interactie beïnvloeden tussen de zorgteams, werkzaam in de zorginstelling en in de omliggende gemeenschappen in Kaapstad.

Setting
Twee regio's in Kaapstad, Zuid-Afrika: Atlantis (rondom het Wesfleur Hospital) en gebieden rond het False Bay Hospital (Masiphumelele, Fish Hoek en Ocean View).

Methoden
Voor deze kwalitatieve studie werden 17 diepte-interviews afgenomen, met in totaal 21 deelnemers, en observaties van interacties tussen de zorgteams uitgevoerd door de twee onderzoekers. Deelnemers waren zorgverleners uit de zorginstelling en gezondheidswerkers in de gemeenschap verbonden aan een niet-gouvernementele organisatie (NGO). Een thematische analyse werd toegepast op de verzamelde data, met een benadering volgens de principes van realist evaluatie.

Resultaten
Interacties zoals gezamenlijke zaalrondes en huisbezoeken, multidisciplinaire vergaderingen, een open-deurbeleid en het gebruik van communicatie via Whatsapp, werden als waardevol ervaren. Regelmatige contacten droegen bij aan het opbouwen van interpersoonlijke relaties, het verminderen van machtsverhoudingen, het verduidelijken van rolverdeling en het verlagen van communicatiedrempels, wat de patiëntenzorg en follow-up verbeterde. Contextuele factoren zoals werkdruk, opleiding en geografische nabijheid konden de uitkomsten beïnvloeden.

Conclusie
Effectieve interactie tussen zorgteams vereist regelmatige contacten, persoonlijke connecties, duidelijke taakverdeling en aandacht voor machtsverhoudingen. Verschillende vormen van samenwerking versterkten zowel de zorgkwaliteit als de samenhang binnen het team, terwijl ze tevens mogelijkheden boden voor transformatief leren.

Bijdrage
Deze studie identificeerde mechanismen die samenwerking tussen zorgteams bevorderen, met nadruk op interpersoonlijke relaties, machtsverhoudingen en duidelijke rolverdeling. De bevindingen bieden handvatten voor het versterken van COPC, het stimuleren van interprofessionele samenwerking en het verbeteren van de kwaliteit van zorg.

Abstract (ENG)

Background
In South Africa, the Community-Oriented Primary Care (COPC) model promotes collaboration between facility- and community-based teams, including community health workers (CHWs). Despite the long history of COPC, challenges persist, including limited recognition of CHWs, misunderstanding job specifications, and shortcomings in the referral system. Understanding factors influencing team interaction is critical for improving patient care and health system integration.

Aim
To explore the contextual and dynamic factors that influence interactions between facility-based and community-based healthcare teams in Cape Town.

Setting
Two healthcare nodes in Cape Town: Atlantis (around Wesfleur Hospital) and underserved areas around False Bay Hospital (Masiphumelele, Fish Hoek, and Ocean View).

Methods
A qualitative study was conducted using in-depth interviews and direct observations of team interactions. Data were analyzed thematically using a realist evaluation approach. Participants included both community-based and facility-based staff.

Results
Interactions such as joint ward rounds, multidisciplinary meetings, home visits, open-door policies, and instant messaging were perceived as beneficial. Participants indicated that regular engagements helped building interpersonal relationships, leveled out power dynamics, clarified roles, and lowered communication barriers, improving patient care and follow-up. Contextual factors such as workload, training, and geographical proximity influenced outcomes.

Conclusion
Effective interaction required regular engagement, personal connections, role clarity, and attention to power dynamics. Collaborative practices enhanced patient care and team cohesion, with transformative learning opportunities further strengthening outcomes.

Contribution
This study highlighted mechanisms that facilitate collaboration, emphasizing interpersonal relationships, power dynamics, and role clarification. Findings informed strategies for integrating community-oriented care, promoting interprofessional cooperation, and improving quality of care.

Introduction

In South Africa, the COPC model (Community-Oriented Primary Care) is implemented as an approach to primary healthcare. COPC emphasizes involving the community in healthcare decisions and practices. The community-based services (CBS) largely include community health workers (CHWs), who have a long and evolving history in South Africa's health system (1). CHWs are front-line health workers, who provide health education and referrals for a wide range of services (2). They act as a bridge between communities and health or social services, facilitating access to care (2,3). The strategy of implementing CHWs has gradually shifted from a fragmented, disease-specific approach to a more integrated care aiming to achieve Universal Health Coverage through the incorporation of CHW programmes into formal health systems (4,5). A framework was developed based on literature in the Metro Health Services, Cape Town, South Africa for implementation of the COPC model. The framework consists of 10 interrelated elements; community- and facility-based teamwork is one of these 10 elements (6). Emphasizing this teamwork is essential to facilitate the integration of community-based teams in the existing healthcare settings.

Facility-based teams involve healthcare professionals in healthcare institutions, such as doctors, nurses, and other paramedical staff. These teams often focus on curative care and specialized treatments. On the other hand, community-based workers include community health workers, professional nurses, non-governmental organization (NGO) managers and volunteers who are directly engaged with the community. The research of Mash et al. states that these teams need to build a relationship and function as an integrated team, which requires regular meetings, coordinated activities, training plans and designated time to discuss problems, challenges and review information of the health needs of the community (6). This interaction between community- and facility-based teams is essential to provide a seamless healthcare experience (7).

Despite the programmes' long history, there have been numerous challenges mentioned. CHWs have conveyed feelings of not always being respected and integrated into the facility (8), with their job specifications often misunderstood by other staff members. There is mistrust between facility staff and the CHWs, which can undermine the cooperation. However, a strong and supportive relationship with facility management, through knowledge and integration of community-based care and facility-based clinical services, was reported as an indication to success in CHWs' work (9,10).

Previous research indicates that building relationships among healthcare workers at various levels of the health system serves as a critical enabler of the effectiveness of community-based teams (11). These relationships need to be based on trust and recognition, as well as on encouragement and capacitation of the CHWs. Additionally, effective leadership, supportive supervision, and mentoring are essential for the success of CHW programmes. Regular feedback, performance evaluations, and continuous professional development contribute to maintaining high levels of motivation, accountability, and quality of service delivery (11).

Insufficient integration within the healthcare system, however, continues to create demotivating work conditions for CHWs (12). Challenges include inconsistent remuneration, limited access to essential resources and equipment, and insufficient logistical support, all of which hinder the ability of CHWs to meet community health needs effectively (12,13). Furthermore, the limited training and professional development opportunities for CHWs have been identified as key factors that compromise the effectiveness and sustainability of the COPC system (11). Challenges also arise in referral systems, where the absence of consistent back-referrals from facilities to the community limits continuity of care and reinforces perceptions of CHWs as 'inferior' to facility staff (14). Strengthening referral pathways and promoting recognition of CHWs' critical role within the healthcare system are therefore essential for improving integration, teamwork, and ultimately patient outcomes.

Strengthening the synergy between facility- and community-based teamwork could potentially enhance access to quality care for all communities, thereby improving health outcomes. To this end there have been different healthcare sites that set up interventions to improve interaction between facility and community-based teams. This study addresses the gap in understanding how contextual and dynamic factors shape the interaction between facility- and community-based teams within the COPC model in Cape Town.

Methods

The research is a qualitative study. The data were collected through in-depth interviews with healthcare workers, and observations of interactions between facility- and community-based teams. The data were evaluated using a thematic analysis, from a realist perspective. Realist Evaluation is a research methodology that focuses on understanding how interventions work in different contexts and for whom, by exploring the underlying mechanisms. Our initial hypothesis, based on a review of the literature and exploratory discussions with the local supervisor in South Africa, was that the observed interactions would strengthen the synergy between both teams. Based on our results, this hypothesis was then refined and structured around context, mechanism and outcome (CMO, Figure 1).

Setting

The specific areas that were subject in this project are Atlantis (area around Wesfleur Hospital) and the underserved areas of Masiphumelele, Fish Hoek and Ocean View (area around False Bay hospital), Cape Town, South-Africa. There were two data sources: in-depth interviews with respondents, and direct observations of interactions between facility and community-based healthcare workers. In each node, staff had implemented informal ways to improve facility-community-based services (CBS) interactions, besides the regular referral pathways from facility to CBS and back. In Atlantis, they started weekly multidisciplinary ward rounds (MDT ward rounds) where staff from the CBS are invited on the ward round in the facility. They have an open-door policy for the CBS workers, where they can just walk into the facility with questions and they are communicating via WhatsApp/smartphone if necessary. In False Bay Hospital, monthly communication meetings and monthly multidisciplinary meetings (MDT meetings) have been implemented. In this last area they also have active WhatsApp groups with both facility- and community-based workers to have a form of instant communication. Lastly they started sending out family physician registrars on home visits together with the community-based team every two weeks.

Study population and sampling strategy

All healthcare workers involved in community-based health services in these two settings formed the study population and were purposively selected. Inclusion criteria are: CHW or Professional Nurse or Non-Governmental Organization (NGO) manager or Family Physician or Social worker or Hospital manager or Physiotherapist. Staff not directly involved in delivering community-based healthcare were excluded.

Data collection

The respondents were contacted in the period of April and May 2024. Once informed consent was provided, the researchers agreed with the respondent on a time and place for the interview, which was conducted in English, and lasted for approximately 60 minutes. An interview guide has been developed, based on the study objectives. Interviews were audio-recorded and transcribed, until data saturation was reached, which occurred at a total of 17 interviews and 21 participants (Table 1), as two interviews were held with more than one person at a time. Observations of meetings commenced once informed consent had been obtained from all participants. Observations were conducted by two researchers,

who independently recorded notes and compared their observations to include both perspectives and examine potential differences in interpretation, this enhanced the credibility and reliability of the interpretive findings.

Data analysis

The collected data, including interview transcripts and field notes from observations, were analyzed using thematic analysis. Coding was conducted inductively, allowing themes to emerge naturally from participants' narratives. After themes were identified, the context-mechanism-outcome (CMO) configuration was used to guide interpretation and explore how interventions functioned in different settings and for whom. Coding was iterative, with multiple rounds of review to ensure consistency and reliability. Observations primarily served to contextualize the interview data. NVivo software was used to support data organization, coding, and theme development. To ensure the trustworthiness of this qualitative study, we applied Lincoln and Guba's four principles throughout the research process (15). Credibility was strengthened through member checking, triangulation of data sources (interviews and observations), and the use of two independent researchers during observations to minimize individual interpretive bias. To enhance dependability, the research process was systematically documented. Methodological decisions, changes to the research design, and analytical steps were recorded to ensure transparency and traceability. Confirmability was enhanced through reflexive discussions within the research team, in which preliminary analyses were critically reviewed to reduce the influence of researcher assumptions. Transferability was ensured by providing descriptions of the study settings, participant characteristics, and contextual factors, allowing readers to judge the applicability of the findings to other COPC environments.

Ethical considerations

For this research ethical approval was obtained at the University of Ghent (reference number: THE–2024–0082) and at Cape Town University (reference number: HREC REF 199/2024) as the participants were South-African. All respondents were given an overview of the ethical aspects and asked written informed consent before the interviews took place. Oral consent was asked before observations of meetings took place. The interviews were audio-recorded and transcribed, where all identifying elements have been removed, rendering the data anonymous. In the presentation of the findings, all participant quotes were anonymized. However, to ensure clarity, it will still be indicated whether the participant is part of a facility- or a community-based team (as facility-worker or CBS-worker respectively), without mentioning their specific professional role.

Results

The study sample, described in Table 1, consisted of 21 health professionals, the majority of whom were women (n = 17). Demographic information of one participant is missing. Participants ranged in age from their late twenties to mid-sixties, with the largest proportion falling within the 40–49 age group. The group included a diverse range of roles, including medical doctors, nurses, community health workers, physiotherapists, social workers, and managerial or coordination roles. Most participants reported between 6 and 10 years of experience working within COPC, although COPC experience ranged from 1 to 18 years across the sample.

Demographic information	Participants n = 21		Participants n = 21
Age		**Gender**	
<30 years	2	*Male*	5
30–39 years	5	*Female*	16
40–49 years	8		
50–59 years	4	**Professional roles**	
60+ years	1	*Medical doctors / Registrars*	7
Missing	1(-)	*Nurses (Sisters / Professional nurses)*	3
		Community Health Workers (CHWs)	4
Years of experience in COPC		*Social workers*	2
0–5 years	7	*Physiotherapists*	2
6–10 years	11	*Facility manager*	1
11–15 years	1	*NGO manager*	1
16+ years	1	*CBS coordinator*	1
Missing	1(-)		

Table 1: Demographic information of study participants.

The formal and informal interaction opportunities were perceived to be of great value for both teams, as highlighted by the participants. Each interaction is associated with a set of enablers and challenges that manifest throughout the implementation process. Throughout the analysis from a realist perspective, three themes emerged as important mechanisms influencing the interaction between the community- and the facility-based team. Each mechanism was observed in the two different areas, affected by a range of contextual factors leading to multiple outcomes (Figure 1). The first mechanism, **personal connection**, serves as the foundation for the other two mechanisms: **power dynamics** and **role clarification**. The personal interactions emerging from these engagements play a crucial role in fostering stronger and more effective professional relationships.

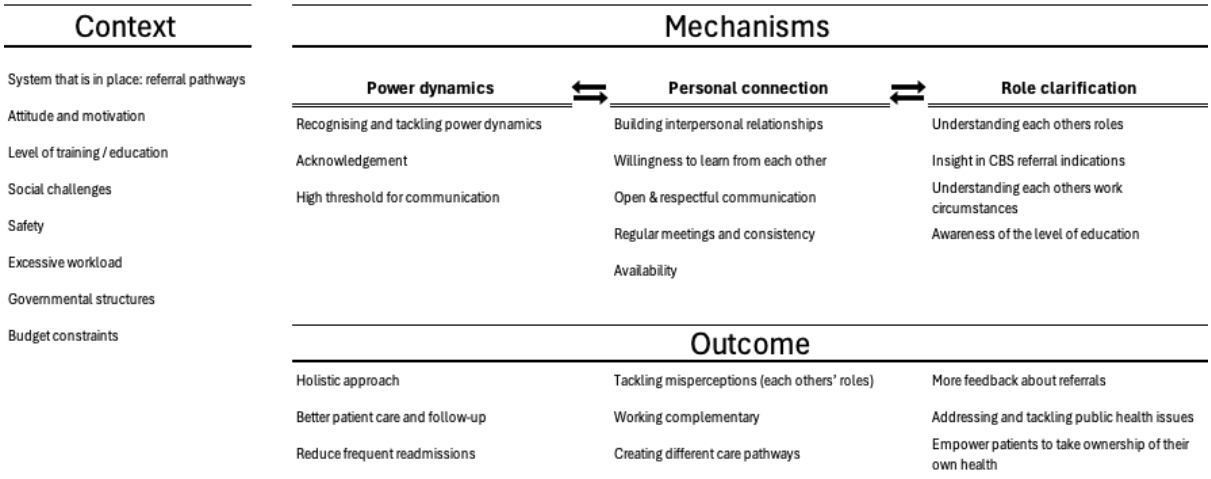


Figure 1: Refined CMO model based on results

Personal connections

Human interaction is essential to build interpersonal relationships. The direct and physical nature of MDT meetings and ward rounds were perceived beneficial to improve relationships between facility- and community-based teams. The participants indicated that this type of human interaction is essential to build better interpersonal relationships. Knowing each other personally leads to more trust and better communication.

'...the communities where the facility has a very good relationship with the community, it works well, where there's conflict or lack of trust or just kind of a distrust, then it doesn't work as well.' (CBS worker)

'So my key thing is, what you take home here, what makes an MDT is connection.' (Facility worker)

Regular meetings and consistency is important. The physical interventions enabled regular interaction between facility- and community-based teams. Regular interaction makes it easier for both teams to communicate, it lowers the threshold for communication, it strengthens the information exchange and makes the CBS team feel more supported. It can be challenging to guarantee consistency in regular (physical) meetings. Contextual factors of importance are the *excessive workload* in the facility and *physical proximity*. It appears to be more difficult to maintain frequent meetings in contexts where the NGO is located furthest from the facility. Moreover, there seemed to be conflicting perceptions between the teams regarding each other's availability for regular meetings.

'Initially, those ward rounds were every week. But then what we found was it was very difficult for the NGOs to meet at that particular time, or weekly. (...) It would actually be nice to have it a weekly thing. But because they are out in the community, we have to understand that.' (Facility worker)

'The pressure on the facility staff to see more patients, makes it quite difficult for them to carve out the time to meet regularly with CBS. And then that can be problematic because then CBS feels a bit like "but we have all these patients that we are needing to see and provide care for, but you're not kind of meeting us to support us when we say there are issues". So that kind of pressure on the whole health system really can impact the relationship.' (CBS worker)

The positive attitude and motivation of the CBS workers is a contextual factor influencing this good working relationship. The CBS originates out of the needs of the community. They know the community very well. Facility workers experienced that the CBS workers go over and beyond in their work. Their *availability* for the facility staff via WhatsApp is positively influencing the working relationship.

'My team is excellent because they stay in the area where they work and they don't complain if a request is after hours.' (CBS worker)

'... they really do go above and beyond with regards to what their role and function is. And they're always available. This is a fantastic part. Our CBS team, even after hours, will even just acknowledge that they're not busy on the ground, but they have acknowledged and they will prioritize.' (Facility worker)

The various interactions facilitate connection and contribute to the development of strong working relationships. However, the interviews highlighted an important consideration: being aware of power dynamics is essential in these interactions.

Power dynamics

While there is broad recognition within the facility of the importance of community-based services, CHWs often do not feel fully recognized as part of the healthcare system. Several reported feeling overlooked and lacking respect, appreciation and trust from facility-based staff, despite wearing uniforms that formally identify them as CHWs.

‘They really don’t acknowledge us as CHWs. It's almost like a mistrust communication. That's my feeling. (...) Most of us feel like they don’t acknowledge us. They don’t appreciate us.’ (CBS worker)

‘…when we are coming to ask something about the medication of the client, I also have to wait. So, I think maybe they can just see, if you have your uniform, okay, this one is… we are working together. When we start to go back, they say “hey, you must wait, you must wait…”’ (CBS worker)

Recognising and tackling power dynamics is an important interaction facilitator. Integrating facility- and community-based teams, with each their own internal hierarchical structure, leads to certain dynamics during interactions. Being aware of these dynamics when working together as a team can influence the interaction positively.

‘I think we underestimate the degree of power play. Sometimes it's unspoken, but you have to recognize it as a leader in your team, you must be able to have that insight and recognize it.’ (Facility worker)

“We are community health workers. But when we work together with clients, there's no one that says: “I'm a doctor, I'm a nurse, you are the carer”, we are equal. They don't divide us. It's whereby I feel all right when I work with the hospital.’ (CBS worker)

We've observed active effort to tackle this power play. More specifically, during MDT meetings and ward rounds, they intend to include all role players by speaking the same language and create an open environment where every person should feel like they can ask questions to clarify. The physician doesn’t always need to be the leading person on the team.

‘So when you come to one of our ward rounds, you'll see it's active participation. It's not doctor-centric. The doctor only comes in when they need to discuss the patient from a clinical point of view. (...) We've kind of leveled out the power dynamics. Before, it was like “doctor runs everything”. The doctor would speak medical terms. Now the other MDT members say: “what do you mean by that?”, “what do you, you know, explain the clinical term?”’ (Facility worker)

Facility-based as well as community-based workers agreed that there’s a lot to learn from each other and the environment during these physical meetings should reflect that. A certain *willingness to learn from each other* could be expected from all participants.

‘So really coming in as a student and wanting to learn from the community-based workers, because they have a well of knowledge surrounding the community and what goes on on the ground. And we don't have that because we're in the hospitals.’ (Facility worker)

Open and respectful communication facilitates better interaction between facility-based and community-based services. When teams engage in open dialogue, they create space to clarify expectations, address challenges, and build mutual trust.

‘So I think sometimes it's about that constant being in communication with the other, so meeting regularly, being able to kind of say “look, I expected you to do this and you weren't able to do it. What happened? How can we better support each other next time?” (...) So I think being in constant communication.’ (Facility worker)

‘It's not going to work if you are not verbalizing or communicating your needs clearly. That's where everything can go haywire.’ (CBS worker)

‘And they will always say thank you for what we do. (...) And thank you is enough at the end of the day.’ (CBS worker)

On the other hand*, CBS workers can experience a high threshold to reach out to the facility*, depending on hierarchical structures and power dynamics. They expressed concern about disturbing doctors.

*‘We haven't used it for anything other than referrals and feedback. *hesitating* Doctors are busy so you don't want to disturb them in their daily activities so I would get permission first before I would “I'm here in the community now what can I do here”- type of interaction.’ (CBS worker)*

‘... even our professional nurses, they have to go through the system and cannot just arrive at the hospital to maybe just maybe speak to the social worker or just have a quick chat with one of the doctors. It doesn't work that way.’ (CBS worker)

Physical proximity of the CBS team to the facility is a contextual factor influencing this threshold for communication. In one region, where the CBS office is located right next to the facility, there is this open-door policy where the CBS nurses can walk into the facility and ask questions easily. These circumstances and the personal connections they’ve built during the weekly MDT ward rounds have lowered the threshold for communication. In the other region, where the CBS team was not located near the facility, the threshold for communication was higher. There’s no open-door policy and there’s no habit of using WhatsApp for quick questions from the community. The existing system of referring patients can be very time consuming when needing a quick answer to small problems or in urgent situations.

‘What I've noticed is basically people... the system in place is more an open-door policy. So, it's anytime, any moment, and nobody complains.’ (Facility worker)

Establishing a platform for direct communication was suggested to lower the threshold for the CBS workers to reach out with quick questions on issues in the community.

‘Sometimes it's just needed to get that quick answer, so we just need that platform where we can just pop this to someone and ask “what can we do in this case”. I know they're all busy and it's not always possible but that would be a good help for us.’ (CBS worker)

‘So we don't have the capacity to send our doctors out, but there is a future move to having our doctors manage particular nodes. So instead of me taking all of the calls, you link up a certain CBS node with one of our medical officers.’ (Facility worker)

Role clarification

The final key theme that emerged was role clarification, a challenge previously reported in the literature. Our findings show that frequent interactions and personal connections are essential to establish a shared understanding of each others’ roles. Participants highlighted that recognizing each other as complementary partners facilitates collaboration between facility- and community-based teams.

‘As long as each understands, this is what I bring to the table. This is what you bring to the table. How can we, whatever that is, make it work? Because it's a make-work situation.’ (CBS worker)

‘So I think it's that understanding of the different levels and roles and realizing that not one area can do everything. We need each other. And so to find each other and to find our distinct roles.’ (CBS worker)

For the facility staff it is important to have *clear insight in the indications for CBS referrals* and to know what is possible on the ground.

> *'And then also the package of care that CBS delivers. In the beginning, it was very blurry. We didn't know what they were doing. But now when you open up the referral form, it clearly states what referrals, for example, you can send for women's health, what referrals you can send for mental health.' (Facility worker)*

> *'So far, it has been a positive experience. You become more familiar with the patients' context by going out and seeing them in the community and also seeing what the NGO can do for them and what they are doing for them and what they can't do for them. It's also very important to know.' (Facility worker)*

Both teams lack insight on the circumstances the other team is working in. On the community side, the difficulty of locating patients, organising follow-up or reaching out to defaulters, is not always fully understood. Social challenges, safety concerns and lack of resources are contextual factors affecting their daily work.

> *'… they need to understand the community is raw. Our carers need to walk through gangs sitting on the corners. They need to walk past dogs that's chasing them, things like that. In one area, there's actually baboons instead of dogs. That might sound as a joke but it's a reality for the carers that are on the ground and sometimes it's not really understood, the challenges that our team needs to go through in order to get to that specific client.' (CBS worker)*

> *'But we do come first. That's the message they tell us: "You first. You must go after your safety. If you don't feel comfortable, don't go there." Because you know, in our area, there are gun shootings.' (CBS worker)*

On the other hand, facility-based staff must navigate complex governmental structures, which are often not fully understood by community-based teams. At the same time, high workload within facilities contributes to long waiting times for patients, which can create frustration for the CBS when referring patients. In addition, registrars accompanying CHWs on home visits are frequently approached not only with clinical problems but also by CHWs or other CBS staff seeking advice for their own health. As many CBS workers come from the same vulnerable communities they serve, they might lack access to adequate health care and information themselves, leading them to turn to registrars as an accessible source of care and guidance.

> *'Definitely the kind of more rural grounds where possible, the CBS team can get involved in the ward rounds that happen within the hospital, so that they can also understand the pressures faced by the hospital.' (CBS worker)*

> *'And a challenge initially also was that we thought that we were going to be taking care of… or only seeing patients. But in the end, we were seeing quite a lot of carers and staff members as well, which we just adjusted to.' (Facility worker)*

Home visits added value both to collaboration between facility- and community-based teams and to the work of each team individually. They helped facility staff better understand CBS workers' roles, while CBS workers benefited from direct support. In several interviews, participants suggested that this model could be strengthened by *increasing the presence of facility staff in the community*—for example, through regular outreach activities, scheduled rotations for home visits, or by positioning staff in satellite facilities closer to the community.

Unawareness about the level of training of CHWs by the facility is a challenge for interaction. CHWs usually received limited education before working in the field. They have no formal clinical training as opposed to the other role players at the facility or CBS, which should be considered an important contextual factor influencing the role clarification-mechanism. Specifically during the home visits, this issue came up. The COPC course did not prepare the registrars clearly in what to expect from the community-based services.

> *'Key factors at the MDT meeting, they need to understand we are not on their level. So our feedback, our understanding is basic and they need to maybe just simplify things many times for us to also understand and be present.' (NGO manager)*

> *'I think initially we came in thinking that there are sisters and then there's carers, and we thought that the carers had like an array of training, like a lot of medical training before going into individuals' homes.' (Facility worker)*

The COPC module during the registrars' training which partly prepares them to work in the field is perceived helpful but there's still space for improvement, specifically when it comes to the interaction with CBS workers. Being more aware of their specific level of training could facilitate better interaction.

> *'So I think actually formalizing it as part of registrar training to go into the community and work with a non-profit organization and serve the community in that way. I think formalizing it as something part of COPC would help a lot. Specifically regarding the interaction between us and the nurses or us and the community-based workers.' (Facility worker)*

Although having received little education, it was mentioned that the CBS is open for training sessions. Registrars reported identifying knowledge gaps and organised health talks on topics as a response.

> *'But the CBS workers were really open to us, providing any kind of education, any talk we gave, they were like "thank you, doctors, we're so happy that you came to speak to us".' (Facility worker)*

Outcomes of the interventions

The following findings were mentioned by participants as benefits they experienced resulting from improved interaction between facility- and community-based teams. These outcomes reflect participants' own interpretations and experiences, rather than objectively measured effects.

Most respondents perceived that the interactions had contributed to improved patient care and better follow-up. According to participants, collaborative work on complex cases through a holistic approach enabled the teams to reduce the frequency of readmissions and shorten hospital stays. They emphasized that these outcomes were influenced by contextual factors, including the possibility to operate within budget constraints, which was seen as enabling them to provide care effectively despite limited resources.

> *'And I also think for those high-risk patients, coming together and making more of a comprehensive plan is what is very ideal.'*

> *'So it allows us to kind of work within the budget constraints, but still provide an excellent service to the people that need it the most.'*

Secondly, respondents indicated that the interaction clarified the roles of different actors and alleviated the sense of working in isolation. Participants highlighted the value of working complementary, which

allowed them to create different care pathways. They also reported that this interaction facilitated the flow of feedback from the community to the facility.

> *'It's more a matter of saying we need both. And so let community-based services do what they do best, which is the kind of promotion, prevention, wellness, to enable the facilities to do what they do best, which is the basic primary health care services.'*

> *'So I couldn't do that. I couldn't be without the team. I struggled. So I couldn't do that alone thing. The alone thing was mentally not right for me.'*

Third, participants mentioned that collaboration within the COPC system made it easier to address and tackle public health issues. Some respondents also emphasized that such collaboration could empower community members to take greater ownership of their own health.

> *'So for example, if the community identifies teenage pregnancy as a problem, then they want to see that the health facility is addressing that problem in some way. And COPC allows us in the health facility to hear and understand what the community has identified as health issues.'*

> *'Taking health systems and services into the community, literally into the community. Not the old everything in an institution, take it back where it belongs. And then people will take more ownership of their own health.'*

Discussion

Main findings

This study explores the interaction between community- and facility-based teams in the Cape Town District Health Services. A good working interaction potentially leads to beneficial outcomes for patients, health care workers and health care systems. The observed interactions (MDT meetings and ward rounds, home visits in the community by registrars and communication via WhatsApp) activate mechanisms within a specific context, contributing to a better interaction between the teams. This research identified three mechanisms that are important contributors to improve interactions; personal connections, power dynamics and role clarification, being influenced by facilitating or inhibiting factors.

The new hypothesis arising from this research is that strengthening the interaction between facility- and community-based teams through regular and consistent engagements, enables the development of interpersonal relationships, which can level out power dynamics, clarify roles and lower the threshold for communication, ultimately leading to improved patient care and follow-up.

Hierarchical dynamics

Recognising and tackling power dynamics appears to be relevant when examining interactions between facility- and community-based teams. Previous research has shown that challenges may arise when CHWs lack a senior or present supervisor to mediate between them and facility staff. For example, CHWs sometimes do not receive feedback regarding patient referrals to clinics because nurses perceive them as "inferior" (14). Findings from this research similarly indicate that CHWs occasionally feel that they are not fully recognised as equal healthcare workers; even when wearing uniforms, they are sometimes required to queue alongside patients, which hinders their work and can be frustrating for them. As stated in the research of LeBan et al., the lack of respect that some CHWs face from health professionals may stem from existing inequalities in gender, socioeconomic status, and education, which are often intensified by paternalistic and hierarchical dynamics (16). Understanding these

dynamics more in depth requires looking beyond individual behaviour and examining the institutional and societal structures that sustain inequality, which exceeds the focus of this study.

Looking into the individual behaviour of possible changes, efforts must be made from the facility side to level out these power dynamics by acknowledging differences in educational backgrounds and trying to create a more equal working environment (17). Facility staff reported trying to adopt a humble attitude during home visits, recognising the value of CBS teams and acknowledging the CBS workers' expertise and deeper understanding of the community context. In addition, the facility staff makes an effort to use an inclusive and comprehensible language during meetings and to integrate the CBS team into the decision-making processes for complex cases, thereby enhancing their professional empowerment and recognition as actors in care provision.

As building interprofessional relationships represents another mechanism influencing these interactions, it is important to ensure that CBS workers are known within the facilities with which they are working. One way to facilitate this is to include (more) CBS workers systematically in monthly MDT meetings or weekly MDT ward rounds, and to create additional opportunities for facility and community staff to interact and build relationships.

Instant communication

Instant communication, through open-door policies, WhatsApp messages, or direct questions during home visits, lowered the threshold for communication between community- and facility-based staff. For the CBS, being able to "just ask a quick question" reduced feelings of isolation and supported timely decision-making in the field, thereby enhancing responsiveness to patient needs.

At the same time, potential risks can emerge. For facility-based staff, frequent interruptions or constant messaging may add to already high workloads and fragment their workflow (18). If expectations around communication are unclear, organizational strain can develop, especially regarding availability outside of working hours or managing multiple simultaneous problems.

Instant messaging platforms such as WhatsApp can also raise concerns about patient privacy, as sensitive health information may be shared on channels that are not adequately protected. Patients have the right to expect that information disclosed to health professionals will be treated as privileged and kept strictly confidential (19). WhatsApp uses end-to-end encryption, only the communicating parties can access the content of the messages. However, it does not secure metadata, unencrypted cloud backups, or messages stored on compromised devices. Other problems rising when using WhatsApp as a communication tool are internet connectivity issues and the lack of reporting shared information in the medical record (18).

The VulaApp has been used in South-Africa since 2014. This application is the preferred option regarding safety of patient information (20). Although the use of Vula is inconsistent for now, a standardised use in referral pathways and feedback mechanisms can be recommended to improve the continuum of care (21). Future research could explore the use of the VulaApp in the interactions between community- and facility-based workers.

Lastly, the remark can be made that there is a risk that CBS workers may become overly reliant on immediate feedback rather than building confidence in their own judgment when they can access expert opinions with a single message.

To harness the benefits of instant communication while mitigating these risks, structural solutions are being explored. In one region, the planned creation of a CBS node, where a medical officer would be designated as a direct point of contact, is expected to sustain accessibility. The choice of

communication tool for this CBS node should be further examined to ensure confidentiality and maintain a manageable workload.

Educational level

Education emerged as a domain where interactions between facility- and community-based teams revealed both strengths and gaps. When registrars accompanied CBS workers during home visits, they realized that they lacked clarity about the CBS teams' scope of work and their medical knowledge. Working side by side exposed the limits of CHWs' training and made visible the challenges CHWs' face in identifying and reporting significant health problems.

CHWs typically receive only limited medical training before entering the field, yet they carry the responsibility of reporting serious health concerns. This mismatch between role expectations and knowledge base can result in under-recognition of critical issues. Recent literature highlights that these gaps are not only educational but also structural: the lack of formalised roles and contracts for CHWs undermines their professional status and limits opportunities for standardized, competency-based training (22). In response to this problem, registrars and family medicine consultants attempted to bridge these gaps informally by giving on-the-spot health talks when problems arose, which supported CHWs in the short term but placed an additional burden on already burdened facility staff.

Operating in the raw communities around Cape Town also posed safety challenges: CBS workers sometimes walk long distances without adequate transportation and face hazards such as stray dogs, baboons, bad weather conditions, and the risk of theft, particularly when carrying devices or wearing uniforms (23). While CBS workers are instructed to prioritize their own safety, awareness of these conditions by facility-based staff is limited, highlighting another dimension of support needed in collaborative work.

Two implications arise from this pattern. First, preparing facility-based professionals for collaboration with CBS workers could be strengthened, for example through mandatory field exposure for registrars or greater emphasis on community-based service in COPC training, fostering better appreciation of CBS workers' capabilities, limitations and working conditions. Second, reliance on informal, reactive teaching highlights the absence of structured educational support for CHWs, leaving them dependent on sporadic input from facility staff and risking inequities in knowledge acquisition.

These interactions can also be understood through the transformative learning theory, where individuals critically reflect on assumptions and, through experience and dialogue, shift their perspectives (24,25). In the district health context, joint activities such as home visits and multidisciplinary meetings offer opportunities for reflection-in-action, allowing professionals to learn with and from each other while questioning hierarchies and role boundaries (26,27). Facility-based staff may adjust assumptions about CBS workers' roles, while CBS workers gain exposure to medical expertise, broadening their clinical perspective. Embedding transformative learning principles into CHWs' education could move beyond ad hoc teaching toward a structured model of co-learning, supported by institutional recognition and reflective feedback mechanisms (28).

Future research could explore how and under what conditions transformative learning occurs in interprofessional primary health care, helping to systematically leverage workplace-based learning to strengthen collaboration, mutual respect, and quality of care.

Strengths and limitations

A key limitation of this study concerns the positionality of the research team. Fieldwork was conducted by Belgian general practice trainees under joint supervision from Ghent University and the University of Cape Town. As visiting researchers, we acknowledge potential power imbalances and the risk of

“helicopter research.” To address this, we aimed for equitable collaboration by co-developing research questions with local stakeholders, obtaining dual ethical approval, and engaging local supervisors throughout data collection and analysis. In addition, we conducted member checking sessions with participants to validate interpretations and enhance the credibility and contextual relevance of the findings. While our outsider status may have constrained our cultural immersion, it also offered comparative insights and opportunities for reciprocal learning between health systems.

Methodologically, this research’s qualitative study design enabled in-depth exploration of interactions between facility- and community-based teams, but its small sample size and context-specific focus limit the transferability of results. The findings should therefore be interpreted as analytically generalisable, offering theoretical insights rather than statistically generalisable conclusions. Data were collected within a limited timeframe, which prevents assessment of changes over time. The presence of researchers during observations may have influenced participant behaviour. Despite these limitations, the use of multiple data sources, a realist analytic framework, and iterative validation processes strengthen the trustworthiness and explanatory power of the findings.

Suggestions for further research

Future research could further explore how communication technologies, such as WhatsApp or other digital platforms, can best facilitate interaction between facility- and community-based services, while addressing potential concerns regarding patient confidentiality, professional boundaries, and workload. In addition, studies could examine the feasibility and impact of integrating home visits by facility-based clinicians into routine care, including their effects on interprofessional collaboration and continuity of care. Another promising area for investigation concerns the role of satellite facilities or decentralized service hubs within communities, and how these might strengthen the interface between facility- and community-based teams.

Conclusion

Interaction between facility- and community-based health care teams requires effort from both parties on several aspects, including building interpersonal relationships, organising frequent interactions, tackling power dynamics and understanding each other’s roles. We’ve observed a great willingness to work on the interaction from both teams, and a sustainability of these engagement. A good working interaction leads to beneficial outcomes, for patients, health care workers and health care systems.

References

1. van Ginneken N, Lewin S, Berridge V. The emergence of community health worker programmes in the late apartheid era in South Africa: An historical analysis. Soc Sci Med. 2010 Sep;71(6-3):1110–8. doi: 10.1016/j.socscimed.2010.06.009.
2. WHO guideline on health policy and system support to optimize community health worker programmes. Geneva: World Health Organization; 2018. Available from: https://www.who.int/publications/i/item/9789241550369.
3. Vanden Bossche D, Lagaert S, Willems S, Decat P. Community health workers as a strategy to tackle psychosocial suffering due to physical distancing: A randomized controlled trial. Int J Environ Res Public Health. 2021 Mar 17;18(6):1–16. doi: 10.3390/ijerph18063097.
4. Hodgins S, Kok M, Musoke D, et al. Community health workers at the dawn of a new era: 1. Introduction: tensions confronting large-scale CHW programmes. Health Res Policy Syst. 2021 Oct 12;19(Suppl3):1–21. doi: 10.1186/s12961-021-00752-8.
5. Tulenko K, Møgedal S, Afzal MM, et al. Community health workers for universal health-care coverage: from fragmentation to synergy. Bull World Health Organ. 2013 Nov 1;91(11):847–52. doi: 10.2471/BLT.13.118745.

6. Mash R, Goliath C, Mahomed H, Reid S, Hellenberg D, Perez G. A framework for implementation of community-orientated primary care in the Metro Health Services, Cape Town, South Africa. Afr J Prim Health Care Fam Med. 2020 Dec 18;12(1):1–5. doi: 10.4102/phcfm.v12i1.2632.
7. Franklin CM, Bernhardt JM, Lopez RP, Long-Middleton ER, Davis S. Interprofessional Teamwork and Collaboration Between Community Health Workers and Healthcare Teams: An Integrative Review. Health Serv Res Manag Epidemiol. 2015 Mar 16;2:1–9. doi:10.1177/2333392815573312.
8. Austin-Evelyn K, Rabkin M, MacHeka T, et al. Community health worker perspectives on a new primary health care initiative in the Eastern Cape of South Africa. PLoS One. 2017 Mar 1;12(3):e0173863. doi: 10.1371/journal.pone.0173863.
9. Murphy JP, Moolla A, Kgowedi S, 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 May 1;36(4):384–96. doi: 10.1093/heapol/czaa172.
10. Anstey Watkins J, Griffiths F, Goudge J. Community health workers' efforts to build health system trust in marginalised communities: a qualitative study from South Africa. BMJ Open. 2021 May 19;11(5):e044065. doi: 10.1136/bmjopen-2020-044065.
11. 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 Dec 31;13(1):1806526. doi: 10.1080/16549716.2020.1806526.
12. Tseng YH, Griffiths F, De Kadt J, 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 Feb 1;9(2):e022186. doi:10.1136/bmjopen-2018-022186.
13. 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. 2019 Aug 7;45(1):55–62. doi: 10.1007/s10900-019-00711-z.
14. Malatji H, Griffiths F, Goudge J. Community-orientated primary health care: Exploring the interface between community health worker programmes, the health system and communities in South Africa. PLoS Glob Public Health. 2023 Feb 14;3(9):e0000881. doi: 10.1371/journal.pgph.0000881.
15. Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic Inquiry. Beverly Hills, CA: Sage Publications, Inc.
16. LeBan K, Kok M, Perry HB. Community health workers at the dawn of a new era: 9. CHWs' relationships with the health system and communities. Health Res Policy Syst. 2021 Oct 12;19(Suppl3):116. doi: 10.1186/s12961-021-00756-4.
17. Singh PK, Singh S, Ahmad S, Singh VK, Kumar R. Navigating power dynamics and hierarchies in medical education: Enhancing faculty experiences and institutional culture. J Postgrad Med. 2025 Apr 1;71(2):82-90. doi:10.4103/jpgm.jpgm_728_24.
18. Opperman CJ, Janse van Vuuren M. WhatsApp in a clinical setting: The good, the bad and the law. S Afr J Bioeth Law. 2018 Nov;11(2):102–3. doi:10.7196/SAJBL.2018.v11i2.643.
19. Kubheka B. Ethical and legal perspectives on use of social media by health professionals in South Africa. S Afr Med J. 2017 Apr 25;107(5):386–9. doi: 10.7196/SAMJ.2017.v107i5.12047.
20. Steyn L, Mash RJ, Hendricks G. Use of the Vula App to refer patients in the West Coast District: A descriptive exploratory qualitative study. S Afr Fam Pract. 2022 Apr 25;64(1):e1-e9. doi: 10.4102/safp.v64i1.5491.
21. Gloster P, Mash R, Swartz S. Investigating the effect of the Vula Mobile app on coordination of care and capacity building in district health services, Cape Town: Convergent mixed methods study. 2021 Sep 22;63(1):e1-e13. doi: 10.4102/safp.v63i1.5251.
22. Miranda AV, Praha RD, Sirmareza T, et al. Professionalisation of Community Health Workers: Time for a Formal Contract. *Int J Health Plann Manage*. 2025 May;40(3):783-787. doi:10.1002/hpm.3897.
23. Mhlanga NL, Mabunda SA. Challenges in non-communicable disease mitigation among community health workers: A scoping review. J Public Health Afr [Internet]. 2025 Oct 31;(16)1:1494. doi: 10.4102/jphia.v16i1.1494.

24. Mezirow J. Transformative Learning: Theory to Practice. New Dir Adult Contin Educ. 1997 Jun;1997(74):5–12.
25. Jack Mezirow, Edward W. Taylor, and Associates. Transformative Learning in Practice. San Francisco: Jossey-Bass; 2009.
26. Edward W. Taylor, Patricia Cranton, and Associates. The handbook of transformative learning: Theory, research, and practice. San Francisco: Jossey-Bass; 2012.
27. Knud Illeris. Transformative Learning and Identity. J Transform Educ. 2014;12(2):148-163. doi:10.1177/1541344614548423.
28. Billett S. Learning in the workplace. Routledge; 2020.