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Exploring inter-professional collaboration between community health workers and health care providers in two clinics in the City of Johannesburg district

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A research report submitted to the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree of Master of Public Health (MPH) in the School of Public Health

Johannesburg, May 2024

DECLARATION

I, Dorah Dorothea Bokaba, declare that this research report is my own work. This work has not been submitted before for any other degree or examination at this or any other University. This report is submitted for the degree of Master of Public Health at the University of the Witwatersrand, Johannesburg.

Signature of candidate:

Date: 22 May 2024

Signed at: Kempton Park

DEDICATION

I dedicate this paper to my daughters Koketso, Retshepile and Reagile who provided me with a sense of enthusiasm and perseverance in ensuring I see this process to the end.

I further dedicate to my granddaughters Luhle and Luniko, who continue to inspire me to want to give my all in everything I do.

LIST OF ABBREVIATIONS AND ACRONYMS

ASHAs	Accredited Social Health Activists
CHCPs	Community Health Care Providers
CHW	Community Health Worker
CoJ	City of Johannesburg
COPC	Community Orientated Primary Care
COVID 19	Coronavirus disease 2019
DCST	District Clinical Specialist Teams
DoH	Department Of Health
FWAs	Family Welfare Assistants
HAs	Health Assistants
HCP	Health Care Providers
HRH	Human Resources for Health
IMCI	Integrated management of childhood illnesses
IPC	Inter-Professional Collaboration
LMICs	Low- to Middle-Income Countries
NCDs	Non-Communicable Diseases
NGOs	Non-Governmental Organisations
OPM	Operational Manager
OTL	Outreach Team Leader
PHC	Primary Health Care
TB	Tuberculosis
VHT	Village Health Teams
WBPHCOTs	Ward-Based Primary Healthcare Outreach Teams

ABSTRACT

Background: Large-scale community health worker (CHW) programmes gained renewed interest over time. This was more pronounced during the emergence of the Coronavirus disease 2019 (COVID-19) pandemic, with CHWs exemplifying the role of task-shifting to alleviate already fragile and resource-scarce health systems. Many low- to middle-income countries (LMICs), including South Africa, implemented CHW programmes to complement health workforce. Thus, health care providers (HCPs) including professional nurses, health promoters, allied health workers, operational manager clinic, social workers, and CHWs are expected to collaborate with CHWs to provide health care service.

Aim: The aim of the study was to explore inter-professional collaborations (IPC) between CHWs and HCPs in two primary health care (PHC) facilities in the City of Johannesburg, Gauteng Province.

Methodology: This study used an exploratory qualitative design. In-depth semi-structured interviews were conducted with purposively sampled CHWs (n=12) and HCPs (n=10) in two PHC facilities from two sub-districts. All interviews were transcribed verbatim. Thematic content analysis was used to analyse the data.

Results: Team structures were reported to be centred around the CHWs and Outreach team leader (OTLs), however other HCPs like nurses, health promoters, and social workers also played a role. Reporting procedures were hierarchical, with CHWs reporting to OTLs, who reported to operational managers (OPMs). CHWs were at the bottom of the hierarchy with the reporting structures being described as challenging as they were related to power dynamics. Communication was poor and with unplanned meetings. Participants suggested the need for improved support and communication to strengthen IPCs.

Conclusion: IPC between the HCPs and CHW is critical in ensuring patient care continuity. Some dimensions of IPC, such as shared responsibility and mutual understanding of roles by team members, were evident. The communication processes showed some weaknesses, including the consequences in power relations. In order to enhance the contribution of CHWs in PHC and universal health coverage (UHC), it is necessary to explore ways to strengthen IPC between HCPs and CHWs.

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TABLE OF CONTENTS

DECLARATION ..... **I**

DEDICATION ..... **II**

LIST OF ABBREVIATIONS AND ACRONYMS ..... **III**

ABSTRACT ..... **IV**

ACKNOWLEDGEMENTS ..... **V**

TABLE OF CONTENTS ..... **VI**

LIST OF FIGURES ..... **X**

LIST OF TABLES ..... **X**

CHAPTER 1: INTRODUCTION **1**

1.1 Background **1**

1.2 Problem statement **3**

1.3 Justification for the study **3**

1.4 Study aim and objectives **4**

1.5 Literature review **4**

1.5.1 Community health worker programmes in low- and middle-income countries 5

1.5.1.1 The evolution of community health worker programmes 5

1.5.1.2 Scaling up of community health worker programmes and achievements in low- to middle-income countries 6

1.5.1.3 Challenges and constraints in community health worker programmes in low- and middle-income countries 8

1.5.2 The context of community health worker programmes in South Africa 9

1.5.3 Overview of inter-professional collaboration amongst health care providers 11

1.5.3.1 The enabling factors of inter-professional collaboration 12

1.5.3.2 The constraining factors of inter-professional collaboration 14

CHAPTER 2: METHODOLOGY **16**

2.1 Introduction **16**

2.2 Study design **16**

2.3 Study site **16**

2.4 Study population **17**

2.5 Study sample **18**

2.6 Data collection **19**
2.6.1 In-depth interviews 19

2.7 Pilot study **20**

2.8 Data management and analysis **20**
2.8.1 Data management 20
2.8.2 Data analysis 21

2.9 Rigour in research **21**
2.9.1 Trustworthiness 21

2.10 Researcher reflexivity **22**

2.11 Ethical considerations **23**

CHAPTER 3: RESULTS **24**

3.1 Introduction **24**

3.2 Demographic profile of the participants **25**

3.3 Nature of the team establishment and structures **25**
3.3.1 Team composition 25
3.3.2 Reporting structures 27

3.4 CHW roles and responsibilities **29**
3.4.1 Perceptions of roles and responsibilities 29
3.4.2CHW roles – Creating a link between patients and the health system 31
1.5.4 Shared responsibility 34

3.5 Team functioning **36**
3.5.1 HCP – CHW relationship dynamics 36
3.5.2 Established systems of working 38
3.5.3 Feedback procedures 40
3.5.4 Communication 40

3.6 Challenges of inter-professional collaboration **42**
3.6.1 Power dynamics 42
3.6.2 Conflict and conflict resolution 43

3.7 Enablers of inter-professional collaboration **46**
3.7.1 Gaining knowledge 46

3.7.2 Improved communication 47
3.7.3 Supporting the CHWs and the CHW programme 48

3.8 Summary 49

CHAPTER 4: DISCUSSION 51

4.1 Introduction 51

4.2 Nature of team establishment and structures 51
4.2.1 Team composition and reporting structures 51

4.3 Recognition of roles and responsibilities 53

4.4Team functioning 54
4.4.1 Established systems of working 54
4.4.2 Shared responsibility 54
4.4.3 Nature of communication and feedback procedures 55
4.4.4 Conflicts and conflict resolution 56
4.4.5 Power dynamics 57

4.6 Study limitations 57

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS 59

5.1 Introduction 59

5.2 Conclusion 59

5.3 Recommendations 60

5.4 Implications for future research 61

6. REFERENCES 63

APPENDIX A: ETHICS CLEARANCE CERTIFICATE 75

APPENDIX B: PLAGIARISM DECLARATION 77

APPENDIX C: INTERVIEW GUIDE FOR COMMUNITY HEALTH WORKERS 78

APPENDIX D: INTERVIEW GUIDE FOR HEALTH CARE PROFESSIONALS 84

APPENDIX E: INFORMATION SHEET 89

APPENDIX F: CONSENT FORMS FOR INTERVIEWS 91

APPENDIX G: CONSENT FORM FOR AUDIO (TO BE TAPE-RECORDED) 92

APPENDIX H: ETHICS APPROVAL FROM JOHANNESBURG HEALTH DISTRICT 93

APPENDIX I: TURNITIN REPORT 95

LIST OF FIGURES

Figure 1: Domains of inter-professional collaboration 12
Figure 2: Map of the City of Johannesburg (Source: municipalities.co.za) 17

LIST OF TABLES

Table 1: Study Sample 18
Table 2: Summary of Themes and Sub-themes 24

CHAPTER 1: INTRODUCTION

1.1 Background

Large-scale community health worker (CHW) programmes have gained renewed interest over time. This was more pronounced during the emergence of the COVID-19 pandemic, where the role of CHWs can exemplify the role of task-shifting to alleviate already fragile and resource-scarce health systems (1–3). Moreover, the 72nd World Health Assembly's declaration on the relevance of CHW programmes in achieving universal health coverage (UHC) is a testimony to this renewed recognition (4).

Many low- to middle-income countries (LMICs), including South Africa, have implemented CHW programmes to help complement the health workforce where human resources for health shortages remain a challenge (5–7). The definition of CHWs varies across different countries and settings. They are defined broadly as any health worker who performs activities related to healthcare delivery, has been trained in some way in the context of intervention, and does not hold a formal or paraprofessional certificate or tertiary education degree (8,9). However, in South Africa, the Policy Framework and Strategy for Ward-based Primary Healthcare Outreach Teams (WBPHCOT) defines them as lay health workers recruited, trained and working in the community in various health and social development services (10). This research locates itself within this definition.

CHWs are vital to improving health care accessibility and coverage at the community and household level in LMICs (11). They help increase the availability of and access to basic health services in areas with limited or no access to health services (5,12). Literature demonstrates that both CHWs and health care professionals (HCPs) are important for strengthening the health system in terms of its ability to respond to the health care needs of its population (10). Inter-professional collaboration (IPC) in healthcare is said to be crucial because the majority of activities are carried out in teams (12). The World Health Organization defines IPC as occurring "when HCPs from different professional backgrounds work together towards a similar goal of improving patient health care" (13 p13). For the purpose of this study the HCPs referred to are the professional nurses (PNs), outreach team leaders (OTLs) operational managers (OPMs) and health promoters (HPs).

Patient care cannot be left solely to HCPs if population health outcomes are to be improved, particularly in the LMICs where shortages of human resources for health (HRH) persists

(12,14). IPC is gaining popularity since it has been shown to increase the quality of health-care delivery (15,16). CHWs not integrated into the primary health care (PHC) system may risk weaker referrals and poor health outcomes (5,17). This is particularly because they tend to be subjected to poor supervision and lack of support by facility-based health care providers (17,18). Formal collaborations between all health system actors, including CHWs, are said to be crucial to the health system's ability to improve health outcomes of its population (17,19).

CHW programmes were introduced in the 1940s but gained some traction in the 1970s and 1980s (10). The South African healthcare system over time continued to face many challenges including shortages with HCPs and an increasing quadruple disease burden (NCDs, HIV/AIDS and TB, other communicable diseases, and injury and trauma) (20,21). The increased burden of disease led to the revitalisation of the CHW programme which was particularly needed in underserved communities (21,22). The South African government introduced PHC Re-engineering, a model aimed at revitalizing and strengthening PHCs (23). The model was aimed to establish population-oriented health care, address social determinants of health to reduce mortality and morbidity, and strengthening district health system (DHS) (22).

Part of the strengthening the health system and its ability to respond to the population needs was also through shifting some roles to CHWs (24). Related to part of the objective of PHC Re-engineering, the South African government launched the Policy Framework and Strategy for Ward-based Primary Healthcare Outreach Teams (WBPHCOTs) in 2018 (10). The teams compromised of the 6- 10 CHWs, health promoter and OTL (10). The OTLs are directly responsible for the supervision of the CHWs (10). The CHWs within the WBPHCOT are linked to PHC clinics and, therefore, work very closely with the HCPs in those facilities. Within those facilities, they ordinarily work very closely with professional nurses in different services such as maternal and child health, the Tuberculosis (TB) programme, and chronic disease management, including non-communicable diseases (NCDs) and HIV/AIDS. According to Assegaai and Schneider, attaching CHWs to health facilities adds additional management and service responsibilities to already overstretched and strained nurses, leading to strained relationships between these two cadres in the facilities (25).

There is a shared responsibility for health care provision between CHWs and HCPs, with HCPs providing health care at health facilities whilst CHWs extend care to households at community level; hence, calls for strengthening inter-professional collaboration (IPC) between these two cadres. Strong relationships between HCPs and CHWs may benefit how the community

perceives and interacts with CHWs (9,17). Moreover, WBPHCOTs are projected to be key in the proposed National Health Insurance in South Africa (17); therefore, their acceptance and buy-in by HCPs in health facilities are important for this endeavour. This study sought to examine the inter-professional relationships between CHWs and HCPs in two PHC facilities in the City of Johannesburg district (CoJ) in the Gauteng Province.

1.2 Problem statement

CHWs have a range of roles in LMICs to help improve general population health outcomes (26). If population health outcomes are to be improved, health care cannot be provided by the HCPs alone, especially in LMICs where there are human resources for health shortages (12,14,19). South Africa has a history of CHWs providing services in the PHC. Historically, CHWs in South Africa initially gained momentum through their provision of services, mostly in HIV and TB programmes through Non-Governmental Organisations (NGOs) and Faith-Based Organisations. Through the revision of the national CHW programme via the WBPHCOTs policy framework and strategy, their roles have been broadened to be more comprehensive in scope, to include health promotion, prevention, and screening (11). However, questions exist on how CHWs are integrated into health facilities and the extent of the IPC with HCPs.

Literature notes that challenges exist in the inter-professional relationship between HCPs and CHWs (17). CHWs are attached to PHC facilities, adding management responsibilities to already overstretched and strained nurses. As a result, the relationships between HCPs in facilities and CHWs are said to be strained and unsupportive (25). Challenges may exist due to poor communication between CHWs and HCPs, poor levels of respect by the HCPs to the CHWs, and lack of recognition of the roles of the CHWs by the HCPs (14). These challenges compromise the extent to which IPC can occur. The level of collaboration that exists between HCPs and CHWs may directly impact the quality of patient care, affecting the health outcomes of communities (20).

1.3 Justification for the study

It is evident that both CHWs and HCPs are an important part of the health system in strengthening the PHC. For this reason, redesigning the current health care workforce is necessary to accommodate and integrate the CHWs in the health system (19). With the increasing disease burden and the shortage of human resources for health, HCPs cannot continue to deliver healthcare alone (19). CHWs have become integral in helping HCPs to

improve the overall health outcomes of the communities (19). Moreover, it is reported that the acceptability of CHWs as part of the health system relies on the perspective of other HCPs regarding their roles (10). Strong collaboration between HCPs and CHWs has the potential to improve access and strengthen service delivery to communities (19).

Several studies have been conducted on CHWs, ranging from evaluating programmes to understanding their roles and responsibilities, and despite the literature recognising their contribution to successful population outcomes as part of those teams in health facilities, empirical research to understand the nature of IPC between CHWs and HCPs and the dynamics of those collaborations is limited. This study, therefore, sought to explore the IPC between CHWs and HCPs in a district in the Gauteng Province, South Africa.

1.4 Study aim and objectives

This study aimed to explore IPC between CHWs and HCPs in two PHC facilities in the CoJ, Gauteng Province.

The objectives were:

- To identify the CHW and HCP team establishment and structures in two health care facilities in the CoJ.
- To examine the nature and extent of IPC between CHWs and HCPs in two health facilities in the CoJ (focusing on the dimensions of IPC: shared power, effective group function and communication).
- To explore the factors that constrain or enable IPC between CHWs and HCPs in two health facilities in the CoJ.

1.5 Literature review

This section reviews and presents literature that is related to the study. The literature reviewed focuses on IPC in South Africa's health sector. This section is divided into three sub-sections. The first sub-section,1.5.1, reviews and discusses literature on the history and evolution of the CHW programme in LMICs, whilst the second sub-section,1.5.2, discusses the history of the CHW programme in South Africa. Lastly, sub-section 1.5.3 reviews literature on the overview of IPC in the health care sector.

1.5.1 Community health worker programmes in low- and middle-income countries

1.5.1.1 The evolution of community health worker programmes

CHWs are important to strengthen PHC provision, as highlighted in the Alma Ata Declaration of 1978 (4,27,28). They are noted as instrumental in providing PHC because they ensure improved access to care for underserved communities (29–31). Similar to many other LMICs, South Africa's CHW programme, has been guided by the principles of the Alma Ata Declaration as it emphasises their importance in PHC by extending health care services to the communities (10). The Alma Ata Declaration emphasised a comprehensive approach to PHC. This was, along with its call for governments to ensure adequate health for its citizens where communities have agency to participate as individuals and collectively in deciding and implementing own health care (32). PHC was outlined as important in achieving better health outcomes for communities by ensuring that healthcare is accessible, acceptable, and affordable for all (4). CHWs deliver PHC directly to communities through health education, health promotion activities, and preventative services, ensuring that health care is more accessible (4). Thus, the role of CHWs aligns with the goals of universal health coverage: to ensure that communities have access to quality health care at an affordable cost and without incurring any financial risk (4).

Globally, several countries have implemented CHW programmes successfully in response to increasing health care needs and to cover more underserved communities. The concept of the CHW, where community members are empowered to provide specific health care services, started in China in the 1950s (33). They were trained for three months to record births and deaths and give health education (33). This community-based endeavour evolved into the 'barefoot doctors' programme (32,34). They were responsible for providing basic health care, including immunisations, health education, environmental sanitation, and first aid to rural communities and some agricultural workers (33,35) .

Many CHW programmes in LMICs followed and were established in the 1970s following the adoption of the PHC approach by the World Health Organization as part of the Alma Ata Declaration, thus cementing the role of CHWs in this approach (8,36). Countries such as Malawi, Tanzania, Indonesia, India, Zimbabwe, Nepal, and Honduras established government-led CHW programmes (33,37). However, because of the problems related to the cost of the programme, lack of political commitment, poor training of the CHWs, and financial hardships in the majority of the LMICs, the interest in these programmes declined in the 1980s but gained renewed interest in the 1990s (5,8,37–39).

1.5.1.2 Scaling up of community health worker programmes and achievements in low- to middle-income countries

Over the years, several LMICs recognised the importance of scaling up their CHW programmes to address healthcare challenges effectively and achieve UHC (40). This includes efforts to reduce preventable maternal and child deaths by the year 2030, as per United Nations Sustainable Development Goals (SDGs) to ensure healthy lives and promote well-being for all ages (goal 3) (41). A successful scale-up and sustaining an effective CHW programme requires strong leadership, planning tailored to the local environment context, and financial support from the authorities (40). This includes adequate costing and the availability of funds for the scale-up and sustainability of the programme (41).

In 1994, following its Community Health Agents programme, Brazil launched the Family Health Strategy to restructure its PHC services to focus on families and communities (38,42,43). This strategy aimed to integrate healthcare services with public health actions, thus promoting a holistic approach to healthcare (42,43). The team included a physician, a nurse, an auxiliary nurse, and four to six CHWs, each CHW responsible for 750 individuals (43,44). The CHWs were responsible for registering and enrolling new patients, adherence counselling patients on chronic medications, preventative and promotive services, and social motivation (44). This resulted in improved access to health care and improved health outcomes (43). The infant mortality rate decreased due to a reported increase in breastfeeding and a delay in introducing bottle feeding (26,42). Macinko et al. also found that the infant mortality rate also decreased in areas where more CHWs were allocated (45).

India has the largest female-only CHW programme, known as Accredited Social Health Activists (ASHAs), launched in 2005 (46,47). They conduct follow-up visits of pregnant women, identify health needs, conduct deliveries, and provide postnatal care and referrals to health facilities (14,47). This programme's team comprises three cadres of CHWs: the ASHAs, Auxiliary Nurse Midwives (ANMs), Anganwadi Workers, including medical officers (46,47). The ANMs provide supervision, training, and support, are part of the integrated child development services, and work with ASHAs in children's growth monitoring and nutrition (47). The medical officers provide medical expertise and support to ASHAs (48). They were reportedly successful in reducing barriers to service delivery, improving the rate of deliveries in health facilities, immunisation coverage and three-day postnatal visits, thus reducing preventable maternal and infants deaths (14,46,47).

In 1994, Bangladesh strengthened and scaled up its CHW programme by increasing the number of CHWs to improve primary health services care and increase access to care (40). The CHW programme has various cadres employed by NGOs and the government. These includes the Health Assistants (HAs), Family Welfare Assistants (FWAs), and Community Health care Providers (CHCPs) (49,50). The HAs are responsible for supporting the expanded programme of immunisation and disease surveillance (49). The FWAs are responsible for visiting households to promote family planning and distribute birth control pills and condoms, whilst the CHCPs are responsible for health education, treatment of minor ailments, and first aid (40,49,50).

Bangladesh scaled up its community-based programme to include family planning, national oral rehydration therapy, and national TB programmes. This resulted in decreased fertility rates and increased the utilisation of oral rehydration therapy by community members (40). The CHWs visited households and screened for TB, collecting sputum from individuals with a cough of more than three weeks (40). They also provided direct observed treatment to those diagnosed with active TB, improving case detection and treatment success rates (40).

Sierra Leone and Liberia have been marred by political conflict, a shortage of health professionals, and increased disease outbreaks like Ebola (51). In Sierra Leone, a revised CHW policy was launched in 2017 to strengthen health care. Additional CHWs were trained to provide services that included reproductive services, maternal and child health, integrated management of childhood illnesses (IMCI), and infection control (51). The CHWs are supervised by peer supervisors (51). In Liberia, the revised National Community Health Services Policy was implemented in 2016. It focuses on the development of community HAs trained to deliver preventative and curative services, including disease surveillance (44). Each Community Health Services supervisor supervises ten community HAs (44). The CHWs in both countries were helping in raising awareness, promoting preventative measures, and tracing contacts to isolate them during the Ebola outbreak, thus helping to curb the spread of disease (48).

CHWs' ability to achieve the goals of extending health care to communities in their respective countries was to some extent possible due to their collaborations with HCPs in health care facilities they were linked to.

1.5.1.3 Challenges and constraints in community health worker programmes in low- and middle-income countries

Whilst CHW programmes have effectively provided care to households, especially in underserved communities, some challenges have been encountered. The common challenges reported were poor remuneration, lack of training, limited supervision, lack of recognition and disrespect by HCPs, and the shortage and lack of medical equipment for patient examinations (5,52,53).

In a study done in Malawi, poor remuneration and disparities in incentives were cited as contributing to CHWs being demotivated to do their work diligently (17,42). Similarly, in a multi-country study done in Bangladesh, Indonesia, Ethiopia, Kenya, and Mozambique, remuneration that the CHWs perceived as unfair and low, delayed payments, and or failure to be paid were highlighted as demotivating factors (42). Non-financial rewards, such as consistently providing working tools, are also important in motivating CHWs (42). In a study done in Ghana, the CHWs felt aggrieved that they had no raincoats and T-shirts that would indicate that they were appreciated (42).

Supervision is a critical component for effective management of CHW programmes. It is defined as a process of guiding, monitoring, and coaching workers to promote compliance with standards of practice and ensure the delivery of quality care service (28,54). Problems with poor quality and irregular supervision were a common challenge reported in Ethiopia, Malawi, Mozambique, and Kenya, leading to CHWs complaining that they were not adequately supported by the health system (14). Limited supervision of CHWs makes the programme difficult to manage and may result in poor work quality (55,56).

CHWs require additional ongoing training because they are taking on more responsibilities and addressing and managing increasingly more complex health issues (57). In a multi-country review, Ethiopia, Malawi, Mozambique, and Kenya cited a lack of training as a challenge and a barrier to CHWs performing their work effectively (17,57). Schleiff et al. suggested that the training plan for CHWs must include all those involved in the CHW programme, that is, the supervisors and the HCPs, for the programme's overall improvement (58).

Literature reported other challenges that affect CHWs' performance and the programme's effectiveness. These include HCP's failure to recognise their roles and the lack of acceptance (5,12). When the roles and responsibilities of CHWs are unclear, it can create doubts about their competencies and may lead to disrespect from the HCPs (17).

ASHAs from India and CHWs in Uganda reported that sometimes facilities fail to provide quality care to patients they refer from communities (17). The HCPs are reportedly rude to them at times, delay providing care, or are often disrespectful, compromising the CHWs' legitimacy with the community (17). In Malawi, CHWs complained that poor communication between them and the HCPs led to their poor performance (17).

1.5.2 The context of community health worker programmes in South Africa

In the 1940s, Dr Sidney Kark and his wife initiated a small-scale health centre, the Pholela Community Orientated Programme, where PHC approach called Community Orientated Primary Care (COPC) was established (39,59). This COPC model became the pioneer for CHW programmes that followed. COPC is a holistic approach that bridges the gaps between people, healthcare systems and services in a specific geographical area (60). It is based on an understanding that the health of individuals is influenced by social environment (59). Initiating the model in KwaZulu-Natal, in a rural place called Pholela, they aimed to address health problems of the local community, and the care offered was mostly curative (59). They also gathered epidemiological data from the communities to develop healthcare services that catered to the unique needs of the communities (57). The health centre had teams of a family physician, a nurse, and a health educator (57,59). In addition, individuals were selected from the community and trained to be health workers at the health centre (59).

The programme failed to expand because the then-apartheid government withdrew its project support to limit the contribution that might develop African people (39,57,59). In the 1970s, CHW programmes were reinitiated by civil society and faith-based organisations in response to the inequitable distribution of health services by the government. These community-based initiatives ran up to the 1990s (39). In 1994, with the newly democratically elected government, the CHW programme collapsed as it was not included in the National Health Plan (39).

However, in the 1990s, CHW programmes rapidly grew due to the increased burden of HIV/AIDS (61.62). Community-based care models re-emerged in response to the need for extensive HIV management and care, HIV counsellors for counselling and testing, home-based carers to care for the sick in the communities, peer educators for health education, and direct observed treatment supporters for the affected (63). Donors and NGOs supported the HIV management programme and provided training and development (14,61). CHWs were trained to provide health education and awareness about HIV prevention methods, regular testing and care, and support to those infected (63).

In response to the increasing quadruple disease burden (NCDs, HIV/AIDS and TB, other communicable diseases, and injury and trauma), the South African government recognised the need to strengthen the health system (23). As a result, they launched a model for re-engineering PHC in 2011 to strengthen the District Health Systems' responsiveness to the population's needs (64). This model is based on the notion of community-based care, which includes comprehensive health care services such as health promotion, prevention and early detection, antenatal and postpartum care, as well as psychosocial support at the community, family, and individual levels (23). The model had three streams: WBPHCOTs, school health teams, and District Clinical Specialist Teams (DCSTs).

In 2018, the South African National Department of Health (NDoH) launched the Policy Framework (10). The policy framework clarified, outlined, and highlighted the roles and responsibilities of CHWs and HCPs (10). They are required to work in teams under the supervision of an outreach team leader (OTL), who can be a professional nurse or an enrolled nurse (10). Each team is attached to a PHC facility, ideally made up of six to ten CHWs (10). The teams provide health education, promote healthy behaviours, register households, identify community health needs, attend to minor health problems, provide adherence support to those on chronic medication, and link households and communities to healthcare (65,66). There is an expectation for CHWs to scale-up towards comprehensive services, thus taking on more roles, which will necessitate more collaborative teamwork with a variety of HCPs (1).

In South Africa, the management of CHWs varies across different provinces (66). In Limpopo, the Western Cape and Mpumalanga, they are supported and managed by NGOs, whilst in Gauteng, Northwest, and KwaZulu-Natal, the cadre is managed and supported by the DoH (66). In the Eastern Cape, some CHWs are managed by the DoH, whilst others are volunteers and managed by NGOs (67).

There is evidence in the literature that the South African health system has improved following the introduction of CHWs (68). CHWs are instrumental in reducing the quadruple disease burden (68). In a study done in Ekurhuleni, one of Gauteng's metropolitan municipalities, by Thomas et al., there was evidence of a decline in malnutrition rates in children, an increase in pregnancy management, TB, HIV, and NCD screening, and improved health-seeking behaviours following referrals by CHWs (68). Increased screening and referral lead to early diagnosis and management, thus preventing complications (2). However, the results also showed some challenges. For instance, few patients were linked to care for NCDs, TB, and

HIV, which may have been related to the shortage of HCPs (62). The tracing of HIV and NCD defaulters was not very successful due to the highly mobile communities (68). Common challenges experienced by CHWs were difficult working environments, equipment shortages, poor remuneration, poor training, inadequate resources and working equipment, and shortages of OTLs and CHWs (68). This also included a lack of or poor supervision and poor acceptance from HCPs (55,66,69). The challenges experienced by the CHW programme threaten the achievement of the objectives of the programme (66).

1.5.3 Overview of inter-professional collaboration amongst health care providers

Patient care has evolved and is no longer provided exclusively by HCPs through task-shifting. CHWs are integrated into health systems to extend PHC services to households and communities (19). Global human resources for health challenges especially in the LMICs, render the integration of CHWs into inter-professional teams important to improve access and patient outcomes (13,19,36). CHWs facilitate relationships with community members and have cultural awareness and experience in health promotion, prevention, and screening (19). Considering the central role that HCPs, particularly nurses, and CHWs play in providing PHC services, collaboration between them and recognising the role of CHWs remains vital for the IPC to be effective and successful (17).

The World Health Organization defines IPC as "occurring when HCPs from different professional backgrounds work together towards a similar goal of improving patient health care" (13 p13). It is said to be essential in the daily practice of health care as it helps strengthen the health system's ability to react to the population's needs (12,44,70). Inter-professionality is the development of coherent practice between professionals from different disciplines (19). Whilst collaboration describes the action of working towards a common goal in a spirit of harmony and trust amongst professionals from different disciplines (19). Collaboration between disciplines promotes collective problem-solving and improves overall patient care (13,71).

Literature offers a range of frameworks that describe the dimensions of IPC (19,72.73). These dimensions are deemed to enable IPC to yield better performance in working environments with multiple disciplines. A review by Franklin et al. highlighted the key domains of IPC as a shared understanding of roles and norms, open team functioning, mutual respect, and interconnectedness in team functioning (19). Soemantri et al. included relationships among team members, team relationships with the community, coordination and role delegation,

decision-making and dispute resolution, leadership, mission, and patient involvement as IPC's domains (73). In a scoping review by Sirimsi et al, other domains identified as important included mutual respect between the participants, effective communication including feedback, shared decision making, recognition of roles and responsibilities, teamwork and coordination, and conflict resolution (72). A summary of the different domains of IPC is provided in Figure *1*.

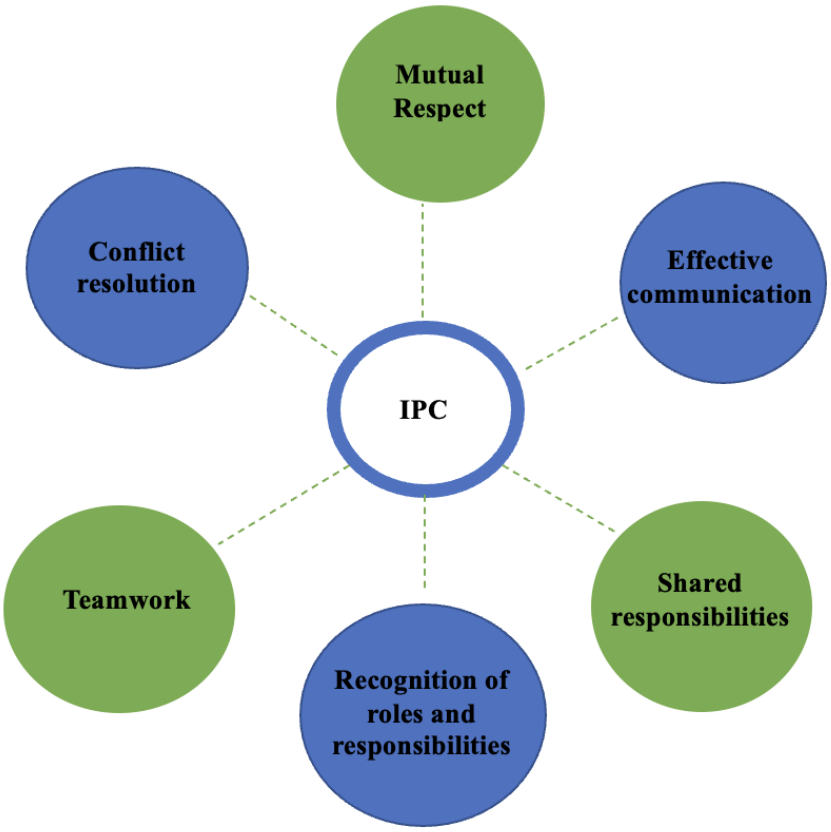


Figure 1: Domains of inter-professional collaboration

1.5.3.1 The enabling factors of inter-professional collaboration

There is a growing interest in IPC in health care because of its ability to ensure the provision of quality and efficient health care (15,16). IPC amongst health care workers is said to improve relationships between them and their understanding of each other's roles (15,74). It benefits health care workers by ensuring they achieve more results than they could have if done individually, thus providing services to more people (15,16).

IPC is most effective when the communication is favourable, formal, and informal and facilitates respect for each other's diverse opinions (19,75). To strengthen collaboration, regular communication among team members through scheduled meetings, debriefing sessions, or conferences is reportedly required (19). Teams should consciously set aside time for regular meetings to facilitate information sharing (71). Knowledge of each other's roles and responsibilities in the team improves communication and collaboration (71). Communication is the process by which team goals will be defined, plans on service delivery discussed, and a review of goals achieved shared (75,76).

Team members have specific expertise and experiences pertinent to the health care process; therefore, teams must learn to work together to make educated decisions effectively (76). Respect for each other's views and differences promotes collaboration, leading to improved quality of patient care (71,73). Opportunities to learn and develop within the profession motivate employees, thus ensuring better performance of their duties and fostering better collaborations (75).

Several studies have investigated IPC among a range of other healthcare workers, such as physicians, nurses, dentists, and other allied HCPs. Literature shows that IPC helps improve standards of health care, minimise duplication of services, better use of resources and reduces delays in care (71). An improvement in access to oral health care was reported in a study done between dental hygienists and HCPs in rural areas of Canada (71). It is reported that the improvement was realised because there was mutual respect, trust, communication, and information sharing among the dental hygienists and HCPs (71). Speciality nurses produce high-quality care and decrease the number of patients with unmet needs because of collaboration between physicians and them (77). To improve communication regarding patient care, they shared communication tools, such as interconnected electronic patient records, resulting in reduced incidences of adverse events, medical errors, and accidents (77–79). The physicians also trained the nurses, transferring their skills so they could provide services that were only provided by physicians (77).

There is convincing evidence indicating that IPC between HCPs and CHWs enhances health care provision (9,12). In Hawaii and Samoa, the CHWs were used to educate patients with diabetes mellitus on self-management (80). The study outcomes showed that the patients were better controlled, learned to manage their condition, and showed appreciation for the CHWs (80). CHWs were part of a PHC team led by a nurse case manager (80). The success of the IPC

was due to a shared understanding of roles and the fact they worked towards a common goal (14,80). Furthermore, a study in Ethiopia, Kenya, Mozambique, and Malawi illustrated that CHWs who received support from HCPs improved their skills and felt part of a team, which improved the relationships (9).

Considering the roles that CHWs assume in health care facilities, a study was conducted in one of South Africa's provinces, Limpopo, on collaboration between nurses and CHWs in managing NCDs. The study showed that improved communication between the two cadres was beneficial to patient care (21). It also highlighted that the collaboration of CHWs and HCPs is necessary and important in patient management (21).

A study in a South African hospital suggested that better outcomes in children with malnutrition can be achieved with collaborations between HCPs and CHWs, among other interventions (81). CHWs helped with a community-based follow-up of the cases referred by HCPs, ensuring they did not default on their follow-up visits (81). This further highlights the importance of IPC between CHWs and HCPs.

1.5.3.2 The constraining factors of inter-professional collaboration

IPC is not without its dynamics and complexities, with HCPs often overlooking its importance (70,71). Some factors may act as barriers to the successful implementation of IPC and may compromise the process. For instance, a study done in Iran to review IPC between nurses and physicians showed inequitable power distributions, where physicians were dominant over nurses (82,83). This resulted in physicians being perceived to have more power than others and being considered decision-makers, and nurses' opinions being neglected (77,82).

Failure to recognise each other's roles and not valuing each other's contribution can be a barrier to effective IPC (73,76). This may cause tensions amongst team members and demotivation because their work is undermined and not valued. Not knowing each other's roles can affect the quality of IPC in teams (71). Moreover, failure to communicate with each other may harm patients or the community to whom they are providing health care (76). Considering the importance of communication amongst teams, failure to schedule regular meetings to communicate among team members can likely lead to weak collaborations (76). Supper et al. noted that communication failures may be due to power dynamics and the hierarchical nature of relationships that exists within the group members (77). Communication failures often lead to conflict, team members arguing amongst themselves, or other members agreeing to solutions

even though they do not agree (76). Regular conflict among team members has also been noted to compromise collaborations and, therefore, patient care (76).

In a study in Ethiopia, IPC between nurses and physicians was affected by staff shortages and increased workload (12). Some nurses and midwives in the study found the physician to display disruptive behaviours in the IPC relationships (12). Furthermore, it was evident that IPC was impacted by the participants' attitudes towards collaboration and professional cultures, including beliefs, values, customs and stereotypes, educational status, and awareness of each other's roles (12). The HCPs with negative attitudes towards collaboration with physicians were less likely to collaborate with them than those with positive attitudes (12).

It is, therefore, evident that a health system can benefit from the CHWs' broad knowledge of the community and its dynamics through improved cooperation and communication between the CHWs and HCPs (9). CHWs in South Africa are gradually taking on more comprehensive roles in the health system based on the current policy. This is shaping the nature of their relationships with HCPs at the facility level. Consequently, the current study explored IPC between CHWs and HCPs and how it could influence CHWs' ability to realise their intended role in communities and the health care system.

CHAPTER 2: METHODOLOGY

2.1 Introduction

This chapter discusses the research methods used to address the study's aims and objectives. It first discusses the study design and then describes the study site and study population. After that, the chapter reflects on the sampling methods used to select the participants, followed by a description of the data collection and piloting processes. It then discusses data management and data analysis. The chapter also describes the researcher's positionality in the research process in terms of reflexivity. Lastly, the chapter addresses the trustworthiness of the data, the limitations, and the ethical principles that were considered during the study.

2.2 Study design

A study design is a set of methods used to collect and analyse data to answer our research question (84). The study adopted an exploratory qualitative research design. The researcher chose the exploratory research design because it used open ended questions, allowing participants to respond and give accounts in their own words (85). Considering that the study looks at the HCPs and CHWs' personal experiences, views, and ideas on the nature of IPC between them, this study design was deemed appropriate. This helped the researcher to gain more insight into the participants' views on the subject.

The qualitative research methods used were in-depth interviews. The in-depth interview was valuable in helping the researcher explore the participants' experiences and their understanding of the nature of IPC in an in-depth manner (86,87). In-depth interviews provide more detailed information than other methods because they are conducted in a relaxed atmosphere (86). There is a closer relationship between the participants and researcher, and using open-ended questions may help in reducing response bias, improving data collected (88). Qualitative research methods were, therefore, deemed appropriate for the study as they enabled the researcher to explore the underlying views, dynamics, and nuances involved in IPC between HCPs and CHWs.

2.3 Study site

The study was conducted in the CoJ in the Gauteng Province. The CoJ is a municipal district with an estimated population of 5.87 million people with 1 925 389 estimated households (89,90). The population growth due to rapid urbanisation and in-migration (89,91,92) is putting

enormous demands on health facilities; hence, using CHWs to achieve improved population health is necessary.

Two health facilities were purposively selected in two different sub-districts. The sub-districts and the facilities were selected due to the convenience of distance as the researcher resides not far from them. In addition, they were found to be appropriate for the study as they had active WBPHCOTs. The health facilities are in Sub districts A and E, and for anonymity, will be called Clinic 1 and Clinic 2 for the current study. Clinic 1 is situated in the northwest of Johannesburg with a catchment population of 73691 (93), whilst Clinic 2 is situated in the northeast of Johannesburg with a catchment population of 66362 (93).

The selected facilities are PHC clinics, providing comprehensive services that include chronic care, maternal and child health, and acute services. They are both located in urban townships that have formal and informal housing settlements (89).



Figure 2: Map of the City of Johannesburg (Source: municipalities.co.za)

2.4 Study population

The study population included all CHWs in each of the selected clinics. All CHWs were included (12 from Clinic 1 and 18 from Clinic 2), considering that the participation was voluntary, and some could have refused to participate. It also included HCPs, namely facility

managers, professional nurses, OTLs, and health promoters. They were purposefully selected considering their role in each clinic, particularly in relation to the CHWs. The HCPs worked very closely with the CHWs in instances of regular patient referrals.

2.5 Study sample

Sampling is the process of selecting potential participants who can provide informative data on the research topic (94). HCPs were purposefully selected in the respective clinics. Purposive sampling was the preferred method for the HCPs because they were likely to provide rich data (94). This was because they have relevant knowledge and experience working with CHWs and could provide perspectives that illuminate lived experiences of collaborations between them and CHWs.

HCPs were selected from the programmes that CHWs play a role in as part of their responsibilities. One professional nurse was invited from each programme: chronic care (NCDs and HIV/AIDS), maternal and child health, and TB services, totalling three professional nurses from each clinic. Only four of the six professional nurses invited agreed to participate in the study. One health promoter was included from each facility. The health promoters work closely with the CHWs as they accompany them on household visits. One OPM, found in each clinic was included as they oversee the clinic's daily operations where the CHWs are stationed. The two OTLs, one from each clinic, were included as study participants as they supervise the CHWs daily. This resulted in ten HCPs participating in the study.

Although all CHWs were invited to participate in the study, several refused to be interviewed, resulting in 12 participating, six from each clinic. The study, therefore, included 22 participants in total. Table 1 summarises the final study sample.

Table 1: Study Sample

Study participants	**Number**
Community health workers	12
*Facility managers	2
*Professional nurses	4
*Outreach team leaders	2
*Health promoters	2
Total	**22**

* Health care providers

2.6 Data collection

2.6.1 In-depth interviews

In-depth interviews are a method of data collection where the interviewer asks the participant questions using an interview guide (95). The current study's data was collected using a face-to-face interaction. The interviews were conducted between July 2021 and October 2021. Prior to data collection, the researcher received permission to access the clinics from the Deputy Director of Regional Health. The researcher called each clinic's OPM to set up an appointment to explain the purpose of the study. When the researcher arrived at the facility, she introduced herself and explained the purpose of the study. The OPM permitted the researcher to introduce the study to the CHWs. The OPM informed the HCPs about the study and introduced the researcher to them. The researcher then made appointments with the participants who volunteered to participate. Each facility offered a private space where the in-depth interviews were conducted.

The researcher conducted all in-depth interviews with the CHWs and HCPs using a semi-structured interview guide (Appendix C and Appendix D respectively). The interview guides for both the CHWs and the HCP were based on the original objectives of the study. The guides were also informed by a broad range of literature that captured the primary dimensions constituting IPC between a diverse range of health professional cadres. The interview guide explored the nature of team establishments and structures among the CHWs and HCPs; emerging from these questions, the perceptions of CHWs' and HCP's roles in the IPC were further examined. The questions also explored the nature of IPC and the interactions and relationship dynamics between the CHWs and HCPs, including the factors that constrained or strengthened IPC between them. Prior to conducting the interviews, the participants were provided with an information sheet explaining the nature of the study (Appendix E).

The participants were also asked to give written consent for both the interview (Appendix F) and for the audio recording of the interview (Appendix G). The interviews were recorded using a cell phone and were 30 to 45 minutes long. They were scheduled in consultation with the participants to minimise disruption of work activities. They were conducted in a place of their choice that offered privacy. The interviews were conducted in English, Sepedi, and Zulu according to the participant's comfort. This was possible because the researcher is proficient in all those languages.

Field notes were written and included the description of the setting, the participant's non-verbal cues, and any relevant contextual dynamics that could prove useful in the analysis. These details assisted the researcher in reflecting on the nuances of the interviewees. These notes assisted the researcher to describe the context and non-verbal communication which added to the richness of data.

2.7 Pilot study

A pilot study tests the research methods and data collection tools on a smaller scale before the main study is done (96,97). A pilot study was, therefore, conducted to pre-test the interview guides to ensure they addressed the research question satisfactorily (97). The interviews were conducted with three CHWs and three HCPs who were not part of the sample population. They were from a facility in Diepsloot located on the northern side of Johannesburg, which was not part of the primary study and was selected based on its similar characteristics to the health facilities selected in the study. Data from the pilot study were not included in the study's final data analysis.

The pilot study provided several lessons. For instance, during the interviews, the researcher observed if the participants could easily understand the questions and the length of the interviews. It emerged that some of the questions in the interview guide were unclear. The researcher found this exercise beneficial as she could amend some of the questions to develop an interview guide that was comprehensive and appropriate for the research question. Moreover, the pilot study helped the researcher to practise interviewing and probing skills, which were very helpful techniques used during the primary interviews.

2.8 Data management and analysis

2.8.1 Data management

The audio recordings from the in-depth interviews were assigned a unique code after each interview. The assigned codes were unique to each participant and were only identifiable by the researcher. All data from the in-depth interviews were transcribed verbatim in Microsoft Word. Interviews conducted in vernacular language were transcribed into English by an independent transcriber. The back translation was done by an independent researcher to ensure credibility.

To ensure quality assurance and accuracy, the researcher read the transcriptions line-by-line whilst listening to the audio recordings to identify any discrepancies and errors. The transcripts

were stored in a computer file under a secure encrypted password to ensure confidentiality. The password was known by the researcher and the supervisor only. These were also stored on a backup hard drive. The digital recordings of all interviews, transcripts, and field notes were kept in a lockable cupboard.

2.8.2 Data analysis

After completing the transcriptions, the researcher checked and cleaned them to ensure accuracy and identify any errors. Thematic content analysis using a deductive and inductive approach was used to analyse the data from the in-depth interviews. Thematic analysis helps the researcher find, examine, organise, explain, and report themes found within data (98). The field notes were incorporated into the data and triangulated to ensure the credibility of the data. The researcher read and reread the transcripts to familiarise herself with the text and identify predetermined themes and any emergent themes. Codes were identified and developed, then categorised into major themes and subthemes based on the study's objectives. Any divergent and emergent themes were checked against the original themes and transcripts. Submission of multiple drafts followed by meetings with the supervisor was done to validate the codes and ensure data credibility.

To maintain consistency and dependability of the data and inter-coder reliability, the researcher and the supervisor independently coded two transcripts, a pair from the CHW and another pair from the HCP interviews. Any coding differences or similarities were discussed, and a consensus was reached regarding the emerging themes and sub-themes.

2.9 Rigour in research

2.9.1 Trustworthiness

To establish this study's trustworthiness, principles of credibility, transferability, dependability, and confirmability were considered. Trustworthiness is how researchers motivate themselves and readers that their research outcomes are worthy of consideration (98). It is a way of ensuring that the study's findings are trustworthy (94).

Credibility refers to the measure of the truth that can be placed in research findings (94,98). This was achieved by meetings between me and my supervisor during the data analysis period. I submitted several drafts of data coding, and my supervisor guided the data interpretation, providing advice to ensure the data analysis was accurate.

Transferability refers to what extent to which the study's results can be transferrable within other contexts, circumstances, and settings (94,98). This was achieved by providing detailed information about the study methods which, included the research design, study site, study population, sampling, and data collecting and analysis. This information helps other researchers evaluate whether the results are relevant to other settings.

Dependability refers to the extent to which others can repeat a study with the results remaining stable (94,98). This was achieved by describing in detail the research steps from the start until reporting the findings.

Confirmability refers to the research being based on the participant's views and not influenced by the researcher's biases and convictions (99,100). This was done by the researcher being objective and interpreting the data according to the participant's responses.

2.10 Researcher reflexivity

Reflexivity is a process whereby the researcher acknowledges the role they may have played in terms of influencing the research process and outcomes (94,96). It is a process in which one reflects on how one's thoughts came to be, and how one's preunderstanding, personal presumptions, and prior knowledge may have an effect on the research process (94,96,97).

My former position as an OPM working in PHC and working with CHWs gave me some prior knowledge and experience regarding the relationships that exist between HCPs and CHWs. I have some understanding of the experiences of the participants. This prior experience with the participants helped me to appropriately probe questions, particularly when I felt they may have been holding back in their responses. This also assisted me in interpreting non-verbal cues better. This prior knowledge of the dynamics between HCPs and CHWs did not compromise my focus. The study focus remained on the participants' perspectives and understanding of the research objectives. I remained open-minded about the participants' viewpoints. However, I was also mindful that I had preconceived ideas regarding the relationship dynamics between CHWs and HCPs that may have influenced how I understood and interpreted the data. To mitigate such instances, I continuously reflected on how I understood the data and reinforced this reflection by discussing the data and the themes with the supervisor throughout the research process. To minimise any possibility of the participants withholding their views due to my positionality, it was important that I introduced myself as a Master of Public Health student and emphasised that the data collected was for academic purposes.

2.11 Ethical considerations

Ethical approval was obtained from the University of Witwatersrand Human Research Ethics Committee (Medical) (Ethics certificate M 201072) (Appendix A). Upon approval, ethics approval was sought from the CoJ District Department of Health (Appendix H) through the National Health Research Database, as the research was conducted in public health facilities. The basic principles of ethics were followed.

Prior to the interviews, the researcher explained the study to the participants using an information sheet (Appendix E), such as the study's objectives, the process, and the benefits and any disadvantages of participating. The researcher sought signed consents (Appendix F) from the participants to participate voluntarily in the study. A signed, informed written consent (Appendix F) gave the researcher permission to interview and another consent form for permission to be audio recorded (Appendix G). Participation in the study was entirely voluntary, and the participants were informed that they could withdraw from the study anytime in the process without any consequences.

Participants' confidentiality was maintained at all levels of the research process. All documents that included the participants' identifying information were stored in a secure, lockable filing cabinet. Audio recordings were stored on a computer with an encrypted password. The data was accessed only by the researcher and the supervisor. All participant and geographical/site identifiers were kept anonymous, and pseudonyms, such as 'HCP 1' and 'Clinic 1', were used to ensure confidentiality. The data will only be used for academic purposes by the researcher and supervisor. All audio tapes were kept in a lockable cupboard and will be destroyed after two years after the publication of the study and after six years if the study is not published.

CHAPTER 3: RESULTS

3.1 Introduction

This chapter presents the findings of this study. It outlines the nature of the inter-professional relationships between CHWs and HCPs and the perceptions thereof. The chapter first describes the characteristics of the participants. Thereafter, it presents the broad themes from which several sub-themes emerged. The broad themes are the nature of the team establishment and structures of CHW and HCP, CHWs' roles and responsibilities, team functioning, challenges of IPC and enablers of IPC. The themes and subthemes are presented in Table *2*:

Table 2: Summary of Themes and Sub-themes

Theme 1: Nature of the team establishment and structures
• Team composition • Reporting structures
Theme 2: Community health workers roles and responsibilities
• Perceptions on roles and responsibilities • CHWs' roles – creating a link between communities and the health system • Shared responsibility
Theme 3: Team functioning
• HCPs -CHWs relationship dynamics • Established systems of working • Feedback procedures • Communication
Theme 4: Challenges of inter-professional collaboration
• Power dynamics • Conflicts and conflict resolution
Theme 5: Enablers of inter-professional collaboration
• Gaining knowledge • Improved communication • Supporting CHWs and the CHW programme

3.2 Demographic profile of the participants

Twenty-two participants from two health facilities were interviewed in this study between July 2021 to October 2021. This included 12 CHWs and 10 HCPs. The HCPs included OPMs, professional nurses, health promoters, and OTLs. Of the 22 participants, 20 were female, and two were males. The median age was 35, with the youngest participant being 24 years old and the oldest 49 years of age. Most participants had been working at the same clinic for five to nine years.

3.3 Nature of the team establishment and structures

3.3.1 Team composition

It was evident that the understanding of the composition of teams of the HCPs and CHWs varied among the participants. Some felt that the composition was made up of those that were beyond the facilities. One participant indicated that the team included the ward councillor, thus indicating that their understanding of a team involved the wider community:

> *"I believe we have three divisions; there is a team leader, and then we have community care workers, but within this community, the information we use, we use that to work alongside social workers and the staff here at the clinic, as well as the councillor if the problem is related to the community."* (CHW 1, Clinic 1)

One CHW considered a team composition to involve the community and other structures, such as law enforcement, health promoters, and themselves, as part of the programme, describing it as follows:

> *"It's the people of the community, me as a community health worker, health promoter, law enforcement, everyone*" (CHW 7, Clinic 2)

There were, however, other participants who felt that the composition of the teams was generally confined to the OTLs and the CHWs. The other clinic members were at the periphery of the team and had specific functions in relation to the team's functioning. For example, the health promoter worked with the team on health campaigns, and the sister-in-charge collated the statistics for them. The participant indicated:

> *"We have three teams of community health workers. The teams work according to addresses. We report [to] the team leaders. The clinic sisters*

help us with seeing the patients that we refer to the clinic. We work with the health promoter when we do campaigns. We give the statistics to the sister-in-charge." (CHW 3, Clinic 1)

However, some participants also indicated that health promoters are part of the team as they usually work with them. One HCP indicated:

"And there is a health promoter from the clinic; she usually works with them, so it is usually the health promoter, the enrolled nurse, and a couple of community health workers. They report to the enrolled nurse, and the enrolled nurse will be the one that will give you any report that is due to you." (HCP 10, Clinic 2)

One participant, a health promoter, also confirmed that they were part of the team. The participant viewed herself as a manager of the CHWs and, therefore, worked very closely with the OTLs. She said:

"Basically, CHWs …. I work with them as their manager at some point, but we work hand in hand with them; going to the community and even in the clinic, we work together, so basically, we are a team. Okay, in [terms of] the teams [composition], we have all the CHWs [and] we have team leaders. So, in the clinic, we have team leaders that we work with; they act as managers, so we work with them." (HCP 1, Clinic 1)

Another HCP, a health promoter, also confirmed that they play a significant role in helping the OTL supervise the CHWs. The participant described as follows:

"I work very closely [with] them. I sometimes accompany them when they visit patients at home. I help with the education of the patients [in] the community. I also help the team leaders to supervise the community health workers." (HCP 6, Clinic 2)

Some participants also recommended that professional nurses be added to the teams. They believed that they could accompany the CHWs into the community instead of this role being that of enrolled nurses as OTLs. They felt that professional nurses would have first-hand experience of the difficulties they encounter in the households. They also noted that adding

professional nurses would help decongest the clinic since they can see and treat some of the patients in their homes instead of the clinic, where they would have to queue. One of the CHWs expressed as follows:

> *"I think there should be a professional nurse [on] our team that's going to face the same struggles we have every day because those patients in the community, they complain that they don't have time, the queue and all that so when there is a healthcare worker with us, she/he will be able to assist those people from home."* (CHW 6, Clinic 1)

3.3.2 Reporting structures

It was evident that the reporting structures of HCPs and CHWs were mostly based on hierarchies. The participants from both clinics indicated that reporting structures were known to the CHWs and the OTLs. The participants indicated that the CHWs report all their work from the community to the OTL, who, in turn, reports to the sister-in-charge, also known as the OPM[1].

One participant indicated that they report their cases to the OTL, who liaises with the sister-in-charge if there are issues that need to be resolved in the community. If the issues to be resolved need other team members like a social worker, the OTL can interact with them with the help of the sister-in-charge:

> *"Let's say the CHW has a case outside the clinic. They report it to their team leader and then, the team leader will take the matters to the sister who is in charge. So, if they are organising, she needs to involve the sister-in-charge so that we can interact with whomever [in] the organisation, be it a social worker or anyone, but they report to their team leader and then the team leader will report to the sister-in-charge."* (HCP 1, Clinic 1)

One OTL also confirmed that the CHWs report to them, and they, in turn, report to their superiors. These include the facility based OPM and the one that is based at the district office:

> *"The CHWs report to us as a team. We report to our seniors if we have a problem. But particularly, they report to us. In the clinic, we report to the*

[1] OPM is an operational manager. The operational manager of the facility is also referred to as the sister-in-charge. The facility OPM oversees the daily operations in the health facility.

sister-in-charge, but we have an OPM[2] for WBOT [Ward-based Outreach Team] in Hillbrow." (HCP 7, Clinic 2)

The CHWs also reported that their first contact for reporting was the OTL. This response also further proves that the reporting lines seem to be hierarchical. One of the CHWs explained:

"We tell our team leaders. We start by telling our team leaders, and then they instruct us where we need to take the patient or which sister we need to take the patient to. If they need a social worker, then we write a referral for them to go to the social workers." (CHW 7, Clinic 2)

One participant, an OTL, further confirmed that the CHWs report to them:

"It's the CHWs; they [are] grouped into teams. They report to us, the team leaders." (HCP 7, Clinic 2)

There appeared to be conflicting lines of reporting structures for CHWs, especially in terms of administrative issues like leave management. These may be because of the dual accountability lines, administration, and management by the two authorities, namely the DoH at the provincial level and the CoJ at the municipality level. The CHWs are administered and employed under the DoH, whilst the clinics and the staff are administered under the CoJ. This created confusion regarding reporting lines in terms of the management of CHWs, as explained by one of the HCPs:

"CHWs report to the Department of Health right now. I wouldn't know their whereabouts, all of them, more especially because there are many. So, ideally, they need to be reporting to their team leader. Team leaders need to be reporting to me. But then remember, as City of Johannesburg as well, we've got different structures and reporting tools, whatsoever. And leave is different, right? They complete leave [forms] that [go] to DoH … that I cannot even be able to manage." (HCP 4, Clinic 1)

Interestingly, one participant appeared to view the reporting line hierarchy as disrespectful to other HCPs. This was in terms of CHWs reporting directly to the sister-in-charge, bypassing

[2] OPM refers to the operational manager of the WBPHCOT. The OPM is based at the sub-district office (Hillbrow) and oversees the WBPHCOT programme in the whole sub-district.

the other nurses. However, the participant noted that the practice of reporting to the sister-in-charge has changed; thus, they can report to any other nurses now:

> *"At first, we would come, and it would be a whole process which requires us to speak to the sister-in-charge. This is wrong – starting at the top with the sister-in-charge and disregarding the other nurses there. But now we are in a much better position and can approach anyone and ask for help."* (CHW 1, Clinic 1)

3.4 CHW roles and responsibilities

3.4.1 Perceptions of roles and responsibilities

Although CHWs held varying views regarding the HCPs' understanding and recognition of their roles, all participants generally had a common understanding of the CHWs' roles and what they brought to the team. Many believed that CHWs ensured that patients were linked to the health system and, therefore, to providing care. One HCP expressed:

> *"I think they are going far because I don't think the clinic will be able to operate well without them because professional nurses can't go out to the community, so they are the key to communicating with the community, and it makes it easier at the clinic when they need a patient that's where they go so, they work between the community and the clinic."* (HCP 1, Clinic 1)

CHWs seemed to hold the same view regarding their roles and responsibilities as part of a collaboration between CHWs and HCPs. The common roles and responsibilities that HCPs and CHWs reported were tracing defaulters and linking patients to care. For instance, one CHW mentioned a similar view regarding their contribution to ensuring patients reached services. They expressed it as follows:

> *"Our work with the community is [as] community health worker[s]. So, we do household registration, refer sick people to the clinic, trace defaulters, and do home-based care."* (CHW 5, Clinic 1)

In addition to CHWs and HCPs agreeing on CHWs' perceived roles, the CHWs were proud of the work that they do in linking patients to care and they acknowledged that they see results of their work in the community as expressed by one CHWs:

> *"Even babies that come for the scale; most of them come to the clinic due to the fact that we did a referral with them; maybe when we got to their house because we check the clinic cards for the babies; if we find that the baby hasn't been coming for the scale, we want to know what the problem is, and we refer them."* (CHW 5, Clinic 1)

There were, however, some CHWs who were of the view that HCPs were not well-informed about their roles and responsibilities. A few indicated how the HCPs did not know their roles as CHWs. Several CHWs held this view when asked if HCPs knew their roles and responsibilities. According to one CHW:

> *"Yes, they do, but not all of them. I don't think they know exactly what we are doing. They know some of the things but not everything."* (CHW 8, Clinic 2)

In addition to the HCPs being ill-informed about the CHWs' roles, the CHWs felt that the HCPs did not trust the feedback and reports they provided regarding the traced and referred patients. They also indicated that they appeared not to trust that CHWs are doing their work. One of the CHWs had this to say about HCPs' perceptions of CHWs' roles:

> "*The other ones know that we trace defaulters, we do some home-based care, and we also do pregnancy tests. I think some sisters do not understand our work and think we [are] not doing anything. The other problem is that when they send us to look for a patient, they sometimes do not believe us if we say the patient has moved."* (CHW 3, Clinic 1)

Some of the CHWs expressed lack of understanding of the perceptions of HCPs on their roles and responsibilities. They were of the view that HCPs underestimated the work they do and the value of their work in that they perceived it as inferior and less important than what they do. One CHW said:

> *"Yes, I do understand it, but I'm not sure what they are thinking of because sometimes someone will ask us "What is your job exactly" and you will feel belittled … because I do go out every day to look for patients, to look for defaulters, TB patients every day even when it is raining but them because they are professionals, they belittle our jobs. But you will never know; maybe*

others may think that we are not working the way we should be working." (CHW 6, Clinic 1)

Moreover, some of the CHWs seemed to imply that the HCP claimed not to be familiar with the roles as a way of undermining them. One added:

"Yes, others do know, but others don't know; I don't know if they [are] doing it to belittle us or something." (CHW 2, Clinic 1)

Even one HCP said that they did not fully understand CHWs' roles except for tracing lost patients, which they usually request CHWs to help with. The HCP said it was unclear what CHWs do since their roles differed from clinic to clinic.

"As I'm saying that me, myself, I don't understand. I just know that if I have lost a patient, I must send them. But they are very helpful in that manner." (HCP 8, Clinic 2)

Furthermore, regarding the view that CHWs' roles were unclear because they varied from clinic to clinic, one HCP added:

"Because in one clinic you would find [them] being admins, in another clinic they are doing something different all together like we don't really know." (HCP 10, Clinic 2)

3.4.2 CHW roles – Creating a link between patients and the health system

Healthcare providers were asked about the roles of CHWs, and they reported that one of them is to trace defaulters. Almost all HCPs agreed that CHWs are familiar with the community, know the people in the communities they serve, and, therefore, are suitable for bringing back patients lost from accessing and receiving care.

One HCP indicated how the CHWs' familiarity with the community and community members was a benefit as it enabled them to trace defaulters, which they needed as HCPs.

"The CHWs are familiar with the areas that they work in; therefore, this benefits the HCPs when they need one [defaulter] to be traced." (HCP 1, Clinic 1)

Another HCP added that tracing defaulters would not be successful without the CHWs since HCPs alone cannot be at the clinic and go into the community. Familiarity with the community and community members is reportedly an added advantage as it enables CHWs to validate the addresses of patients for follow-up, which is something that HCPs alone cannot do:

> *"They help a lot with [the] tracing of patients that default treatment. They help with the education of patients in the community. The sisters [nurses] are unable to go visit the patients in the community because they are very busy. They are the ones [who] help the sisters to go visit the patients. They know the community better than the sisters in the clinic. They sometimes help the sisters identify the patients because sometimes the patients do not tell the truth of where they are coming from or staying."* (HCP 6, Clinic 2)

Most participants further agreed that linking patients to care was one of the functions of the CHWs, as evident by a CHW's response:

> *"Because even the TB patients, we are the ones that trace [them], and we are also the ones that help to find them. We get a list from the clinic if TB patients default and then go look for them and then bring them back to the clinic. They mainly get help from us a lot of the time."* (CHW 7, Clinic 2)

CHWs reportedly also assisted in referring patients to other services like social welfare, where they access social grants. Therefore, they assisted patients with other issues that were not health-related but indirectly affected their health and livelihood. One CHW said:

> *"We also found that the patient had no food or anything, and then we referred them to the social workers. They helped him get [a] SASSA*[3] *grant, and the patient is now okay.*" (CHW 7, Clinic 2)

In addition to tracing defaulters and bringing them back into care, participants were of the view that CHWs also contributed by providing some health services to the community. This was reportedly facilitated through conducting awareness campaigns, taking chronic medication to patients at home, and taking care of those who are unable to come to the clinic, for instance,

[3] SASSA is the South African Social Security Agency. The South African government pays monetary social grants to its citizens who are vulnerable due to poverty and need assistance. People informally refer to the grant as a SASSA grant.

those who are bedridden. This helps to decongest the clinic. Some HCPs were clearly aware of the value CHWs add to their services. One of the HCPs expressed this sentiment:

> *"Well, my understanding [is] community health workers are supposed to actually take services to the communities. So that we take services to the people instead of people always having to come to the facilities for the services. So, the community health workers are very important in the decentralisation of services, taking the services to the communities. And identifying all those patients that sometimes need help that cannot come to the facilities. Patients that are bedridden and do not have any help; they claim to be assisting them. Patients that cannot come to the facilities to get their medication, community health workers can get the medication to them."* (HCP 4, Clinic 1)

Furthermore, the HCP indicated that they assist in community awareness campaigns, therefore, helping to identify patients that may need to be referred to clinics for care. This was mentioned by one of the HCPs:

> *"Sometimes they will be assisting us with campaigning in the community when we are doing community campaigns. Then they also refer patients to the clinic but referral as stakeholders."* (HCP 2, Clinic 1).

Some of the participants, particularly the HCPs clearly recognised the value that the CHWs brought to their services. They were of the view that CHWs are intermediaries between the clinic and the community because of their proximity in the community. They were available to help the clinic communicate with the community. This is what one HCP said:

> *"I don't think the clinic will be able to operate well without them because professional nurses can't go out to the community, so they are the key to communicating with the community, and it makes it easier at the clinic when they need a patient that's where they go so, they work between the community and the clinic."* (HCP 1, Clinic 1).

An interesting and important aspect that HCPs expressed was that CHWs help them by letting them know about the state of some of their patients, including the public health problems that

the communities face and how they could help those patients. This was described by another HCP:

> *"We [HCPs] give them [CHWs] cases, and we get feedback from the community with that; they [nurses] do get to understand if there are issues in the community around maybe un-booked pregnant women, just to make sure that there is a working relationship between them and the entire staff in the clinic as well."* (HCP 9, Clinic 2)

3.4.3 Shared responsibility

Many of the participants did not recognise any sharing of power between HCPs and CHWs, although they agreed that there were some shared responsibilities in terms of improving the overall health outcomes of the communities.

One of the participants indicated that the presence and the roles of CHWs help them as HCPs to get patients from the community to come to the clinic. Therefore, the CHWs share the responsibility of bringing patients to care, and the HCPs will provide care in the clinic. CHWs and HCPs are dependent on each other to ensure continuity of care, as indicated by one of the HCPs:

> *"I think it's a good thing to have them in the clinic because since the clinician[s] do not go outside to the community, so it is easier for them to get the patients out of the community to the clinic."* (HCP 1, Clinic 1)

One of the HCPs further added that there is some form of shared responsibility between them and the CHWs in ensuring that patients adhere to their treatment. The HCP mentioned that patients are allocated a CHW to monitor them whilst on treatment. The CHWs also monitor that patients take treatment as prescribed by visiting them in the community and reporting back to the HCPs. This clearly shows that CHWs and HCPs shared the responsibility of educating the patients about treatment. One HCP expanded on this notion as follows:

> *"When the patient comes for [an] appointment, we will call the relevant community health worker [who] will be dealing with the patient. It is the[m]; they have groups, and when they go to these addresses, so, we call the relevant one that is dealing with that particular address to meet the patient, to know about the patient if they need to constantly monitor them to see if*

> *they are taking treatment on [a] daily basis so that they can receive them at home and also see if they are taking the treatment. So, we teach them about the treatment; show them the different types of medication that they are taking and the time that they are supposed to be taking the treatment. If it is in the morning, the community health worker should pass by the house and make sure that the patient has taken treatment and come back and report to us. So that will be a daily thing that they do – the reporting on how the patient is progressing."* (HCP 5, Clinic 1)

One of the CHWs concurred that the professional nurses delegate them to check that patients take their medication. The CHW indicated that,

> *"The sister talks to us if they want us to check the patient; sometimes they want us to make sure that the patient takes the treatment."* (CHW 10, Clinic 2)

One participant further indicated that in addition to the CHWs' responsibility to link patients to care, they also identify patients who may need emergency care. This also shows their shared responsibility with the HCPs to limit preventable deaths. The HCP indicated:

> *"The patient had tested positive, so we went to tell him that he must come start the treatment. When we arrived, we found the patient in bed and very sick. He was very weak and was not eating. He was staying alone, and we phoned the team leader [to ask] what we should do. She said she [would] call the ambulance, so we gave her the patient's address."* (CHW 8, Clinic 2)

Even though most participants seemed not to agree that there was some shared responsibility in providing patient treatment, some HCPs believed there was some level of collaboration between CHWs and HCPs. One HCP indicated that the CHWs were sometimes included in the treatment planning to enable them to continue with treatment support.

> *"Yes, we include them, especially with the TB patient[s] because we need constant monitoring [of] the[se] patients [to] make sure that they do not miss their appointment dates… That they continue until they complete the treatment."* (HCP 5, Clinic 1)

3.5 Team functioning

Most participants expressed several factors regarding team functioning and what it constituted amongst HCPs and CHWs. These included issues related to the relationship dynamics between HCPs and CHWs, established working systems, and feedback procedures.

3.5.1 HCP – CHW relationship dynamics

There were mixed responses in terms of the relationship between the two cadres, with some participants reporting good relations whilst others indicating that they were not ideal.

Some CHWs indicated signs of disrespect from the HCPs towards them. The participants indicated that the HCPs would not listen to them. They were of the view that the issue was because the HCPs felt superior to them. They further indicated the HCPs did not consider their well-being, as evident in them not treating them well when they themselves were sick. One of the participants said:

> *"I see [it] that they will belittle you, and they feel like they are more superior than us because we are community health workers. They won't listen to us. Let's say we have a patient [who] needs dressings; the clinic staff helps us to get the dressings without struggles. But the one that I can complain about is when it is us community health care workers who are ill or sick; the treatment we get is not nice.*" (CHW 2, Clinic 1)

One CHW mentioned the aspect of mixed treatment from the HCPs. She responded that the relations were not the same from day-to-day, attributing this to the personal mood swings of the HCPs. Moreover, it seemed as if they considered them with disdain. The CHW commented as follows:

> *"As I said before, it differs; sometimes [they] take us seriously, and we can work with them, and there are others who don't take us seriously, and they don't entertain us at all, even when you try to go to her, she will just look at you. If looks could kill, I should have been dead."* (CHW 12, Clinic 2)

In contrast, a few HCPs were of a different view. One participant indicated how the relations between them and CHWs were favourable. She noted:

> *"I have never had any problem, and I see them being, you know, I just see peace with everyone. I have never seen [or] heard any staff member complaining about them."* (HCP 3, Clinic 1)

The CHWs revealed varied views on the relationship between the HCPs and themselves. One participant indicated that some HCPs showed some respect, understood their roles, and spoke to them well. However, other HCPs acted contrary to this. One indicated that CHWs would be treated better by the HCPs if they assisted them with some clinic work, such as packing their medicine cupboard. This implies that the HCPs treated them better if they benefited from the CHWs' assistance with their clinic work. One CHW elaborated:

> *"The staff treat us well sometimes. Other staff members, most of them, speak to us with respect, and they know what our work is. They do expect us to help them with the clinic, like pack[ing] the cupboard for them, and they don't allow us to go to the street to do our work. Sometimes, the sisters want us to help them inside the clinic, and when we say we [are] going to the community, they do not like it."* (CHW 3, Clinic 1)

Interestingly, the HCPs seemed to concur that the CHWs assisted with tasks inside the clinic. However, this appeared to be a valued additional contribution rather than their opposition to the CHWs' work in the community. For instance, some HCPs responded that they consider the CHWs part of the staff complement. One HCP indicated that the CHWs assist her with some of her work, like packing the cupboards and tidying her room. The HCP said the following:

> *"I, for one, consider them as a part of us because I don't think there is a day that goes without me talking to them or asking them something. Even just help in the room too, because the cleaner will clean in a rush, and I will call them [CHWs] to come and clean [and] further pack things for me. Even sometimes they [the CHWs] are helping [in] the room when there is a crisis, like [when] there are no students; I am alone [and] I have to fill in the form[s], they [the CHWs] do those things."* (HCP.3, Clinic 1)

Some HCPs indicated that the relationship with the CHWs could be improved through communication with them about their work. One participant suggested that relations can be improved if the CHWs are given an opportunity to express their views on challenges they encounter in the community:

> *"I think the relationship can improve if everyone is open-minded and they are willing to share ideas, and they give each time to sit down and discuss a lot of things, like to know about their work and to allow them to express how they are dealing with people in the community. If they have challenges, allow them to put their challenges on the table so that they can be dealt with properly."* (HCP 5, Clinic 2)

One of the HCPs indicated that the relationship between them and the CHWs is good, even though they do not interact with them regularly. The participant viewed the lack of close interaction with the HCPs as good because there may be fewer conflicts between them. The HCP said:

> *"We get along well. The relationship is good. The CHW[s] do not talk a lot with the nurses; they mainly talk to me [OTL], and I talk to the nurses. They get along with other categories of staff like cleaners and admin staff."* (HCP 7, Clinic 2)

Some participants raised a concern that the lack of CHWs' ability to maintain patient confidentiality impacted the relationship between CHWs and HCPs. The participants believed that some of the CHWs divulged patients' information to the communities they serve. The participants implied that the proximity of the CHWs to the community may have been the reason that they divulged the patients' information, as one HCP indicated:

> *"I think if they are based in a certain community that we always work in and whatever we discuss at the clinic they share it with friends and people in the community, that would be a problem."* (HCP 1, Clinic 1)

3.5.2 Established systems of working

Most participants mentioned how there was an established system of working between the HCPs and the CHWs. For instance, there seemed to be a clear system of tracing patients, which involved several clinic staff members. The system enabled CHWs to receive patient information systematically. One of the CHWs described one of these processes:

> *"The tracing procedure moves like this: we usually get the traces [tracing lists] from the person responsible for data capturing. So, this data clerk gives us a list of patients for tracing. So, if there is someone who hasn't been taking*

their medication for a long period of time, their file will be taken to data capturing, and they will put it on record that these are the people that need to be traced for their treatment. After we trace these people, we record their names in a book, which is then taken back to the data clerk." (CHW 1, Clinic 1)

The CHWs also had an established working system. They knew where to take their patients to the clinic for care. It appeared that there was an established working system when patients were linked back to care. One HCP explained the system:

"... they [CHWs] take the patient to the sister [professional nurse] doing that service. For example, the TB patient [is] taken to the one [professional nurse] doing TB, [and] the babies for immunisation to the nurse doing the vaccination." (HCP 6, Clinic 2)

Although working systems were established, one HCP indicated that he found it difficult to manage the CHWs effectively. The participant attributed the difficulties in managing them to poor monitoring systems, which made it impossible to hold them accountable. The participant indicated that the lack of systems compromised the inter-professional relationship between them and the CHWs. This impacted on the ability to supervise their time of coming to work and going off and their work in the community. The participant was of the view that CHWs were unprofessional and had questionable work ethics, noting:

"For a lack of a better word, ungovernable. They are difficult to manage, [that's] what I think. They are difficult to manage, especially for me as a manager of the facility. Their job; they are [to] work in the communities – as I said earlier, there's no system in place. I don't see a system in place to evaluate and monitor their work. To ensure that they get to the destinations [when] they leave the facilities to get to [the communities] at the end of the day. Their timekeeping [and] time recording cannot be managed. They come and sit outside for, right now, it's winter; they come and sit outside and bask in the sun for whatever reason." (HCP 4, Clinic 1)

3.5.3 Feedback procedures

Through the established working system, there is a process in place for CHWs to give feedback to their team leaders and the clinic staff who assign them tasks. The systems involve registers that are completed for each patient that were traced, as reported by one CHW:

> *"The list is given to us by the team leader. The data clerk gives the list to the team leader every week from the Tier.net*[4]*. The team leader gives us the list, and we go to trace the patients. When we come with feedback, we write in the tracer book, but we also tell the team leader if we have problems. If the sister [professional nurse] asks us herself to go look for a patient, we then report to her if we found the patient or not."* (CHW 8, Clinic 2).

CHWs reportedly received overall feedback from their team leaders on their work and how they could improve. One CHWs explained the established reporting procedures in the clinics:

> *"With our team leaders, we have meetings based on our performance and information. Sometimes, they give us feedback if they have been [to] Hillbrow [District Head Office] and they were informed of new things. I'm not sure, but we do have those meetings; they would tell us that this term, we did well and we should keep it up. So, we do have those meetings."* (CHW 2, Clinic 1).

3.5.4 Communication

There were mixed reactions from the participants in both facilities when asked to describe the nature of communication between HCPs and CHWs. Some participants mentioned that meetings were not held. Others said there were meetings, but they were not scheduled:

> *"There are no scheduled meetings. We hold meetings when there is a need or when there is a problem arising, and we see that we need to sit down and talk about it."* (HCP 5, Clinic 1).

The same participant further indicated that the meetings that were held were done to inform the CHWs of a specific development. She expressed that:

[4] HIV electronic register: Captures data elements and resulting indicators required to monitor HIV and antiretroviral therapy services.

"Most of the time, we hold meetings with them to make them aware of new developments if there is an event that is going on." (HCP 5, Clinic 1)

One of the CHWs indicated that since they were employed permanently, they were included in clinic meetings, indicating some improvement in communication. When there was a meeting at the clinic, they [the HCPs] would call the whole staff:

"Since we [became] permanent, every time there is a meeting, we get called. We are no longer excluded." (CHW 12, Clinic 2).

There seemed to be consensus from participants in both clinics that the meetings held with CHWs were mainly to give them information on new issues and were often unscheduled or unplanned. One HCP indicated:

"*There are no scheduled meetings unless there is a new programme coming and they have to inform [us], or there is an issue that needs to be addressed. That's the only time. They never have meetings like "Let's discuss what happens when you go to [a] household" …it's not done."* (HCP 6, Clinic 2).

The CHWs agreed that meetings were held, but they were mainly for the HCPs to inform them about a specific issue or to deliver messages to the community. One CHW also concurred that the meetings were random and unscheduled:

"In the last meeting that we had, we were told that vaccinations will begin from June 1st for the elderly. So, they usually call us for meetings. Even today, they call us and make sure that we are involved." (CHW 7, Clinic 2)

Another CHW from Clinic 1 added how the meetings were merely to communicate events rather than being used for regular communication between the HCPs and CHWs. The participant also indicated that their last meeting was to update them about the vaccination programme for the elderly so that they could inform the community:

"I think if there is something that needs to be relayed or delivered to the community, for example, the vaccination of senior citizens, they approach us and assign us with the responsibility of going out there and informing the community." (CHW 1, Clinic 1)

Furthermore, one HCP indicated that the CHWs meet with the sister-in-charge only, implying that no meetings included the CHWs and the HCPs*:*

> *"I, for one, have never had a meeting with them [CHWs]. We have meetings with the other staff. I have seen them [CHWs] several times with my sister [sister-in-charge]. I have never had a meeting with them."* (HCP 3, Clinic 1)

There seemed to be other methods of communication amongst CHWs and HCPs; however, it was evident that it was not between the two cadres. For instance, the participants mentioned communication via cadre-specific WhatsApp groups. Most participants indicated that these forms of communication did not include each other. The HCPs had their own WhatsApp groups, whilst the CHWs had separate ones. One of the CHWs explained:

> *"The staff have their own WhatsApp groups. And we also have our own WhatsApp group as community health worker[s].*" (CHW 7, Clinic 2)

One HCP also concurred that the groups were separate, indicating that the OTLs had a group with the CHWs and, therefore, communicated with them often:

> *"We have [a] WhatsApp group for CHWs and the OTLs only. We communicate with CHWs on the group. We can inform them about upcoming trainings; in fact, we communicate about anything as long it is work-related.*" (HCP 7, Clinic 2)

3.6 Challenges of inter-professional collaboration

3.6.1 Power dynamics

Some of the CHWs perceived the staff hierarchies as impacting the CHW-HCP IPC. Anecdotally, HCPs are regarded by CHWs as more educated and of a higher level than them; therefore, the power dynamics were evident. One CHW indicated that this impacted their ability to talk to the HCPs even when there were patient concerns, such as long waiting times, which patients complained to the CHWs about. The participants indicated that they could not raise these issues with the HCPs due to the skewed power dynamics, as one CHW explained:

> *"If you raise a concern that there are a lot of patients waiting outside and the person [HCP] is still attending to one sick person for a long period of time, then it becomes a problem when you must approach them [HCP] to let*

> *them know that there are people fighting outside. It's hard to tell someone to do their job."* (CHW 1, Clinic 1)

One participant felt that because the HCPs have a higher educational status, rendering them with more knowledge, this impacted how the community viewed the CHWs. For instance, the participant indicated that patients in the community would be happy if a nurse were part of their team:

> *"The people [community] become happy that there is someone who holds power amongst them [CHW team]. If we are visiting a bedridden patient, for example, and the nurse inside the clinic accompanies us, the patients are pleased with this because they see it's not only community health care worker present, and this means they will receive the necessary assistance."* (CHW 1, Clinic 1)

Some CHWs expressed frustration that the issues with the HCPs remained unresolved despite complaining to the OTL about them. One CHW believed that the failure to resolve issues may be due to the power dynamics. The HCPs are considered more powerful due to their position; therefore, the team leader may not be in a position to resolve all issues raised by the CHWs.

> *"Some misunderstanding between us and the clinic staff goes unresolved because the team leader doesn't want to get involved. For instance, the cleaner spoke about me with my colleagues, but when I told the team leader, she told me those are personal issues not related to work*." (CHW 3, Clinic 1).

3.6.2 Conflict and conflict resolution

Sometimes, conflicts arise between CHWs and HCPs due to power dynamics and lack of trust. For instance, some HCPs reportedly did not believe the CHWs performed their roles effectively. One CHW described the conflict she had with HCPs as due to a lack of trust. The HCP had given the CHWs a patient to trace, but the sister did not believe them when they came back with the report. She reported them to the sister-in-charge, who reprimanded them. The team leader was sent to look for the same patient and found out the tenants made the mistake. The participant expressed frustration as the sister did not even acknowledge her mistake:

> *"We don't have a lot of conflicts with the sisters. But they sometimes do not believe us when we give them reports when we come back from tracing. That makes me so mad because they think we are making up the report. Once, the TB sister said I must go trace a patient who had defaulted treatment. Then, when I got there, the people we found at the house said they did not know him [the patient]. The sister sent the team leader as she didn't believe us. When the team leader got there, she found the patient. The sister reported to us that we didn't go, and we gave the wrong information. The sister-in-charge called us and scolded us. It turned out the people we approached at the house were new tenants and didn't know the patient. The sister who scolded did not apologise for the misunderstanding."* (CHW 8, Clinic 2)

There were reported instances of conflicts between CHWs and HCPs; however, there seems to be an established process for managing them. One HCP explained that CHWs reported to their team leaders. This seemed to be similar in both clinics. The participant reported that the CHWs knew the procedure as they had an orientation programme. Noted as follows:

> *"Yes, the community health care workers were taken on an orientation programme, so they know that if they have conflict with the health care professionals, they need to report to their team leader. Their team leader will take it up with [their] manager so that the manager can talk to the facility manager, and they will sit down with the health care professionals to come to an understanding."* (HCP 5, Clinic 1)

There seemed to be a similar understanding of the conflict procedure as reported by one CHW in the other clinic.

> *"I think we tell the team leader if there is a conflict, and she tell[s] the sister-in-charge. If we have personal issues, we report to the team leader. I report to the team leader, and if she's not there. I report to the health promoter."* (CHW 8, Clinic 2)

One of the HCPs responded that the first contact is the OTL in the case of conflict with a CHW. The HCP reported that if the conflict is not resolved at the OTL level, it escalates to the sister-in-charge:

> *"I have never had such, but I think if I had to have a conflict with the CHW, I would talk with their team leader so that the matter can be resolved between us; if the problem can't be resolved, then that's when we will involve the manager."* (HCP 1, Clinic 1)

The HCPs indicated that the other issue that causes conflict between them and the CHWs is when they bring in a patient from the community and expect the patient to be seen immediately. The HCP indicated that when the patient arrives, they are assessed and not seen immediately as the patient may not be an urgent case. This may cause conflict between them and CHWs and between CHWs and the patient:

> *"I think the common conflict that we usually see happening is firstly when they bring the patients or somebody from the community that is very sick, and when they come to the clinic, they would expect that person to be seen like immediately. When they get to the nurses to assist, conflict will arise when the nurse sees that the patient is not urgent. Because the CHWs would have promised and assured the client that because they are very sick, 'as soon as we get there, they will attend to you', especially because some of them struggle to get this person to agree to come to the clinic and they would have assured this person, 'no don't worry when we get there I will ask them to see you immediately'."* (HCP 9, Clinic 2)

One participant expressed concern that the CHWs were not treated fairly in conflicts that arose between them and HCPs. The participant felt that the CHWs were sometimes blamed. Citing that the merit of the case was sometimes overlooked, and the CHWs were blamed in cases of conflicts:

> "*I think the conflicts that I have seen is always their [CHWs] wrong. The merit of the whole case is not going to be looked up to; to a larger extent, it will always be like they are being blamed."* (HCP 10, Clinic 2)

The CHW further indicated that dual management and reporting structures further disadvantaged the CHWs in conflict situations. The participant indicated that the CHWs are further disadvantaged because the facility and staff are managed by the CoJ (at district level), and the CHWs are not (they are managed at provincial level). Conflicts are not resolved fairly as the staff is mostly favoured. The participant said:

> *"So, me it is like these people [CHWs] are working in [the] City of Joburg [Johannesburg] facilities, the manager is City of Joburg, the staff is City of Joburg, so even before the whole matter is discussed already, I would have spoken to the manager. Already, I have those privileges compared to them [CHWs], so I think that has always been the case."* (HCP 10, Clinic 2)

3.7 Enablers of inter-professional collaboration

3.7.1 Gaining knowledge

Participants reported the benefits of working together regarding interactions between CHWs and HCPs. Some CHWs said they gained a lot of knowledge about their job from the HCPs. One CHW had this to say about the advantages of working with HCPs:

> *"I have learned a lot from working with the clinic staff. I now know how to do things like checking blood sugar and high blood. They give us advice when bringing new cases from the community. From working with them in the rooms, I now know some pills and medicines."* (CHW 9, Clinic 2)

Another CHW also highlighted the benefit of learning and gaining experience from interacting with HCPs:

> *"The benefits that we are learning day by day. And we are getting some experience from them. Yes. So, if they were treating us in the right way, we are learning a lot from them."* (CHW 4, Clinic 1)

It appeared that whenever CHWs disrespect patients, HCPs use that opportunity to educate them on how to improve the service they offer to patients, as explained by one HCP:

> *"The health care professionals realised that some of them [CHWs] don't approach them [patients] with decency and respect, so what happened is that we taught them how to address the patient with respect as part of Batho Pele principle[s][5]. That they shouldn't take things personal[ly] and that they should treat patients with respect.*" (HCP 5, Clinic 1)

[5] The Batho Pele principles is based on the premise of giving good customer care to government service users. It was established with the intention to transform service delivery in the public sector.

3.7.2 Improved communication

Communication is one of the enablers of IPC that the participants highlighted. It was noted that good communication was a factor that improved the ability of the team to provide quality service to the patients. The view amongst some CHWs was that it ensured effective collaboration between them and the HCPs, as articulated by one of the CHWs:

> *"So, what I see that can make you work properly with the sisters is all about having good communication. It's whereby everything will be simple for our patients, and we don't have to take our personal things, especially at work. If we are at work, we must focus on our work and our patients so that everything we do is successful."* (CHW 5, Clinic 1)

Both HCPs and CHWs described several strategies or processes to ensure adequate communication within the team. One way was reportedly through meetings. Currently, most meetings were random and unscheduled and mostly called to resolve issues and to facilitate decision-making. It was noted that facilitating more regular meetings would ensure that HCPs understood the issues of their community as communicated by CHWs. In addition, communication enhanced the collaboration between the HCP and CHWs and allowed the HCPs to understand CHWs' views regarding their experience of working with them in the clinic. One of the HCPs had this to say about the benefit of having regular meetings:

> *"I think we include them [CHWs] in our facility meetings and maybe weekly meetings and just to also, I think, mainly it will be meetings where me… myself as a facility manager have a meeting with them maybe once a month just to understand issues. When we have our clinic meetings, just to make sure that they feel like they belong, at least to have one or two of them as representative[s] in our meetings, I think that's how we will improve [the] working together. I think communication can be improved through meetings. They will be able to talk to us as a group of professionals about the challenges in the community and the challenges in terms of working with us in the clinic."* (HCP 9, Clinic 2).

One CHW also highlighted the importance of meetings as they offer an opportunity to indicate what they are unhappy with:

> *"I think the sister-in-charge should have meetings with us so that we also can say what we [are] not happy with. I understand that we are many and the clinic is small, but I think we need a meeting with clinic staff, too."* (CHW 3, Clinic 1)

3.7.3 Supporting the CHWs and the CHW programme

Some participants highlighted the importance of supporting the CHWs to strengthen the CHW programme. Some noted that support was in terms of resources and knowledge sharing. For instance, one CHW said it would boost her confidence and motivate her to do her job well if she was supported in terms of knowledge. The CHW expressed this as follows:

> *"The first support that I receive; I think it is very important that when I come back from the household, maybe I come to a professional nurse and I [speak to] her [about] something challenging that I came across. That attention she gives me and showing me that she's listening, and she feels what I feel, I feel like I get more support, and it motivates me about my job.*" (CHW 5, Clinic 1)

One CHW highlighted the need to be acknowledged by the HCPs as a way of strengthening collaboration:

> *"For them to acknowledge us and not take us for granted. I think it's within them to accommodate us. I think we can accommodate each other. That we are here for work and let me assist here so she can leave me alone, not just [give] me an attitude."* (CHW 12, Clinic 2)

Some CHWs also highlighted the importance of getting the resources to do their job. They noted how these resources assisted them in providing adequate care to patients. One CHW described the support that the CHWs get from the clinic and HCPs:

> "*We need materials to dress patient wounds. We know that we must go to the emergency section, and we are given the things that we need. Whatever we need to help the patients is provided to us; for example, if a patient has no food, we ask for porridge for them from the clinic."* (CHW 7, Clinic 2)

One HCP indicated that support for the CHWs needs to be improved as they are not receiving enough. The HCP indicated that the CHWs need emotional support, too and suggested that professional nurses should allow them to share their experiences in the community.

> *"I don't think that they are getting much support. At least one professional nurse gives them time just to listen to them and hear some of the things that they encounter in the community. So, it is safe to say that there isn't enough support that they are getting in their daily routines."* (HCP 5, Clinic 2)

One HCP indicated that the support they give to the CHWs, and the programme is through accompanying the CHWs when they do their work in the community. The HCP indicated that they supported them when they performed their duties and provided guidance to help improve their skills.

> *"I accompany them when they go visit the patients, especially patients on chronic medication. I oversee and listen to them when they give health education. [I] give them tips on how to do health education better."* (HCP 6, Clinic 2.)

In agreement with the HCP's sentiment regarding the support HCPs can provide, one CHW suggested that a nurse escort them to the community:

> *"Maybe the nurses should come with us to do home visits. The patients sometimes do not want us because we [are] not nurses."* (CHW 10, Clinic 2).

3.8 Summary

Several factors were raised regarding the nature of IPC between HCPs and CHWs. One of the key themes was the nature of team structures in the CHW programme. Team composition was reported to be centred around the CHWs and OTLs. The HCPs, health promoters, and social workers were reported as role players in the teams, whilst a few participants also highlighted other actors like ward councillors and the community as part of the team. The procedure for reporting for team members was hierarchical, with CHWs reporting to OTLs, who in turn reported to OPMs. The hierarchical reporting structure was described as challenging and related to power dynamics, where CHWs were at the bottom of the hierarchy.

The team followed established working procedures for effective work life, including feedback procedures. Communication was seemingly poor as the communication platform was mostly unscheduled meetings. There were other communication strategies; however, they were WhatsApp-based, which were cadre-specific for CHWs and HCPs rather than collectively as a team. Some CHWs reported the HCP's disrespect for them. The hierarchical nature of the healthcare institutions means the CHWs were at the bottom of the chain of command, as evident by the reported power dynamic challenges. Participants suggested the need for improved support for the CHWs. They also indicated that improved communication could enable and strengthen IPCs. Overall, some elements that support IPC were evident, such as shared responsibility and understanding roles, but there were weaknesses in other IPC elements, such as communication, especially implications from power dynamics. These limitations in IPC appeared to require improvement.

CHAPTER 4: DISCUSSION

4.1 Introduction

This chapter interprets and explains the findings in the context of the research question and the study's objectives. It further interprets the key themes and subthemes that emerged from the findings and compares them with the broader literature that captures evidence from other settings.

The study explored IPC between CHWs and HCPs in two PHC facilities in the CoJ district. The key findings illustrate adequate team establishments and structures amongst HCPs and CHWs. The nature and extent of the IPC between HCPs and CHWs showed that reporting structures were based on hierarchies with the CHWs at the bottom, leading to power dynamics between the two cadres. There was a common understanding regarding the CHWs' main role and responsibilities of linking patients to health care. Team functioning showed some weaknesses, such as poor relations between the CHWs and HCPs. HCP's reported disrespect of CHWs, and problems with communication. The participants offered suggestions and recommendations, such as communication improvement methods, e.g., regular meetings to improve the IPC. These findings will be discussed according to the themes identified in the previous chapter based on the dimensions of IPC.

The chapter starts by discussing the nature of team establishment and the structures. Thereafter, the perceived roles and responsibilities of the CHWs are discussed. Then follows a discussion on team functioning in terms of the established working systems and the shared responsibilities of HCPs and CHWs. Lastly, the challenges relating to power dynamics and conflicts, the enablers of the IPCs, are further discussed. The chapter concludes by capturing some of the limitations of the study.

4.2 Nature of team establishment and structures

4.2.1 Team composition and reporting structures

The findings in this study revealed that there was a varied understanding amongst participants of what comprised the composition of teams. This varied from teams only comprising of the OTLs and CHWs, to also including health promoters. The health promoters in this instance, appeared to be perceived as part of a team because they at times took a role of supervision of CHWs. This is in line with the WBPHCOT policy framework and strategy, which states that CHWs are meant to collaborate with facility-based healthcare providers (10). It is similar to

the situation in Botswana, where the CHW teams comprise of CHWs are supervised by and reported to facility staff (99), whilst in Brazil, the CHWs work as part of the local family health team with a doctor, a nurse, and dental hygienist (44).

The findings in this current study however also indicated how those who appeared to be at the periphery, were considered as part of their teams, for example, social workers, other categories of nurses and administrative assistants. Ward councillors, although not health practitioners, were also identified as actors who contributed to the CHW programme and the health system. Similarly, in Afghanistan, CHWs based at health posts and were supported by health committees that are selected by the community. Though they are not health practitioners they provide support to the CHWs by encouraging families to use health services (101). This collaborative partnering between CHWs, and other health system actors is shown to facilitate meaningful information sharing, accelerate response times, and foster trust (102).

The hierarchical nature of the reporting structures evident in the current study's findings aligns with the Policy Framework and Strategy for WBPHCOTs (10). The framework stipulates that OTLs are appointed by the district or sub-district manager and report to the OPM at the PHC facility to which CHWs are linked (10). The hierarchical nature, where nurses are at the top and the roles are emphasised, is common in most healthcare environments (100,103). Hierarchy is defined as a social structure with superior and subordinate relationships, often illustrated graphically, for example, in an organisational chart (105). Top-down approaches in team structures lead to HCPs not being approachable to CHWs because of their perceived power (103,105).

Hierarchical leadership in South Africa can be traced back to the era of apartheid (106), and its features are still visible today. In the public sector, the dictatorial culture was based on a hierarchy where roles and their importance are strictly defined; the subordinates are regularly told what to do (100,106). The leader regularly makes unilateral decisions without considering other team members' opinions (104). The findings in this current study showed that the clinics appeared to reflect the same culture, where the nurses hold a higher position than the rest of the team, placing the CHWs at the bottom. Professional divides due to hierarchies are not beneficial to IPCs, as there is a lack of communication, coordination, and teamwork (104). Interestingly, the findings in a review by Kane et al. differed in that the CHWs in India and Ethiopia showed some resilience and strength by continuing to shape their environment and

how they react to challenges, strengthening their relationships with the communities they serve even though they are at the bottom of the health system (107).

4.3 Recognition of roles and responsibilities

The findings in this current study showed HCP's lack of understanding of CHWs' roles and scope of practice. Literature indicates that knowledge of each other's roles in a team is important for nurturing effective collaborations (72,103). IPCs are challenging and even more difficult if the team members do not recognise each other's roles. For collaborations to be effective, team members should be more understanding and appreciative of each other's roles, even when the skills overlap (72,104). Understanding other's roles improves communication and cooperation between CHWs and HCPs (104,105). As a result, a team with members who understand their respective roles and feel valued improves the likelihood of team success and individuals work in a manner that could lead to good patient outcomes (104,108). LeBan et al. found that a lack of clarity of roles often led to the CHWs feeling disrespected by HCPs (17). Similarly, the feeling of being disrespected by HCPs was highlighted by the CHWs in this current study. The CHWs also believed that HCPs undermined their work, viewing it as less significant. A study in Brazil reported that CHWs, known as Community Health Agents (CHAs), were not accepted by the HCPs because their roles and tasks were not clearly defined (5).

The findings in this current study showed that CHWs sometimes had to perform roles not within their scope of practice. For instance, they had to assist HCPs with packing medicine cupboards. A similar experience is noted in a study in Cape Town, South Africa, where CHWs were seen as an "extra pair of hands" (109). The study was conducted in 2005; thus, the challenges experienced by CHWs, including HCP's attitudes in the working environment, appear to have not improved in South Africa. A study in India had similar findings, noting that HCPs regarded CHWs (known as ASHAs) as another pair of helping hands (108). In Mozambique and Zambia, similar findings were reported where CHWs are made to work in facilities due to staff shortages (17). These challenges are reportedly common in organisations where the relationships are hierarchical (100,103). In health facilities, nurses are usually status-conscious due to their professional qualifications (104). Braithwaite et al. explained that individuals prefer to collaborate with those in the same social circle with, for instance, the same professional affiliation (104). This may have implications for the collaborative relationship

between HCPs and CHWs as they are not considered in the same social and professional circles, possibly affecting the quality of patient care.

There is, therefore, a need to ensure that HCPs clearly understand the roles of CHWs so that they are effectively utilised to help improve overall community health outcomes and facility health indicators.

4.4 Team functioning

4.4.1 Established systems of working

The findings in this current study suggest established systems of working that guided procedures like linking patients to care following community tracings and feedback procedures. Established systems of working are said to be important in situations where employees have varying levels of qualifications because they help them work constructively and effectively, and processes are known by all team members and followed (12,103). HCPs and CHWs were aware of registers that CHWs used to communicate feedback after following up with a defaulter patient. This helped in ensuring continued patient care. Similarly, a study in the Limpopo province in South Africa indicated that collaborations were good in facilities with better working systems in place (110). Furthermore, findings from a study in Uganda indicated that the relationship between the Village Health Teams (VHTs), as they are known in Uganda, and the HCPs adversely affected their relationship with the community as they were perceived as an extension of the health facility (111).

Literature shows that established systems of working in the workplace can be strengthened through effective communication between the members of the team (103). Communication in IPCs is important as it promotes healthy interpersonal relationships, promoting quality patient care (103). In cases of poor communication, the procedures were not being conducted or followed, leading to increased risk for errors in patient care, inefficiencies, and lack of motivation, resulting in poor patient care (103). Established systems are important in IPCs with the CHWs as they help ensure coordination in the services provided to their communities.

4.4.2 Shared responsibility

CHW programmes were introduced in response to the increased burden of diseases, such as HIV/AIDS. Most Sub-Saharan countries have a shortage of human resources for health (HRH), hence shifting certain tasks to CHWs (112,113). A systematic review by Callaghan et al. found that for task-shifting for HIV care in Africa, CHWs were reassigned some clinical roles, such

as HIV counselling and testing, promotion and prevention of health, screening, and referrals, whilst nurses were responsible for patient care, diagnosis, and treatment monitoring (113). They also played a significant role in the rolling out of antiretroviral therapy, improving access to health care (112,113). This meant that CHWs shared the responsibility for continuous health provision with HCPs, as was the case in this current study.

Despite evidence from this current study indicating shared goals and responsibilities to ensure improved health outcomes, HCPs remained uncertain about the roles of CHWs. Regardless of this uncertainty, the HCPs, however, concurred that CHWs helped them ensure continuity of care for patients because they link the community and the health system (17). This was facilitated by CHWs going into households to screen, identifying patients in need of care and referring them to the facility for management by the HCPs. Once patients were diagnosed and managed, the CHWs were requested to directly observe treatment for those patients who would not have taken medicine if unsupervised. Similarly, in Bangladesh, the CHWs (known as shasthya shebikas) screen patients for TB, collect sputum, and supervise individuals who are found to have TB for treatment compliance (17). To further improve collaboration between HCPs and CHWs, there should be efforts to increase the HCPs' knowledge of the roles of CHWs and their contribution to health care services (17).

4.4.3 Nature of communication and feedback procedures

Communication in healthcare describes the sharing of formal or informal information, either intentionally or not, and can be verbally or written between team members, strengthening collaborations and overall improvement in the quality of patient care (15,72,78,103). Formal meetings are essential for sharing information related to patient care, duties, the delegation of responsibilities, and problem-solving, whilst informal meetings contribute to relationship building as team members learn and understand each other better (72). Lack of communication may lead to compromised patient safety and care, poor staff motivation, and decreased staff satisfaction (81).

The findings in this current study demonstrated that communication was limited. For instance, scheduled meetings, where formal communication is likely to take place, inclusive of HCPs and CHWs, were generally not held. The meetings that were held were mainly to inform CHWs about new occurrences. Some participants suggested that there should be regular meetings to enhance collaborations. Additionally, using other communication tools like WhatsApp groups was not effective as they did not include both CHWs and HCPs. This lack of formal and

informal communication negatively impacted collaborations between them. Similarly, a study in Malawi found that poor communication led to poor collaborations between CHWs and HCPs and influenced the CHWs' performance adversely (17,114).

In this current study, the established working system for feedback following community tracing, such as completing registers, provided a means for CHWs to ensure continuous patient care. However, challenges arose when HCPs did not trust CHWs' feedback. Good communication and collaboration rely on trust among team members (116). Trust is vital in IPC as it motivates the team members, allowing them to feel safe in expressing their opinions, improving performance (116). Findings from a Ugandan-based study suggested that HCPs trusting the CHW's feedback report was a sign of respect and will lead them to be motivated to perform their duties well (117). Evidence suggests that the effectiveness of IPC and improved communication depends on the team members trusting each other (118,119). Trusting relationships between the inter-professional teams improves the motivation and performance of its members and, therefore, benefits patient care (71,120).

4.4.4 Conflicts and conflict resolution

Conflicts are expected in any workplace (16), and health care facilities are no different. Conflict is essential to IPC as it enables teams to argue and debate issues to make informed decisions (76). However, team conflicts can have negative implications for patient care. Conflicts involving violence or disruptive behaviour, such as yelling and swearing, can remove focus from patient care (121). This may adversely impact IPC, with team members' poor performance inadvertently affecting the quality of patient care (121).

There were reports of conflicts in this current study and reports of how they were resolved. The findings show that conflicts were resolved following a set conflict resolution procedure. A conflict resolution strategy was that of hierarchical reporting. The CHWs report to the OTLs or health promoter, who reported to the clinic's OPM if the issue was unresolved. The HCPs also reported conflicts to the CHWs' team leaders and or the clinic's OPM. Conflicts were often not resolved satisfactorily, and this may have been due to instances where there was reportedly some bias towards the HCPs caused by the fact that the OPM was a HCP; therefore, they tended to believe the HCPs rather than being objective. Green et al. indicated in their study that the collaborating members of the team should agree upon a method of conflict resolution (75). Agreeing on a method of resolving conflicts may reduce unfairness and bias (75).

4.4.5 Power dynamics

Issues of power dynamics are common in healthcare services as they are historically run under hierarchical structures (103,105). Power has been described as having control over others and the ability to make decisions independently (118). The findings in this current study showed that an imbalance of power existed between CHWs and HCPs because HCPs were considered more educated and knowledgeable than CHWs; therefore, they occupy a dominant role. A study by Rogers et al. showed the Irish health system had similar power dynamics between doctors and nurses, with doctors assuming a dominant role above nurses (105). The CHWs' position is considered to be at the bottom of the health system hierarchy, therefore, they have less influence than other team members (107), making the CHWs bear the brunt of challenges that arise due to power dynamics. The imbalance of power between team members can influence interactions, affecting patient care (105). Concurring with these noted experiences, the CHWs in this current study perceived HCPs to have power due to their knowledge and expertise, leading to unequal and skewed power dynamics between HCPs and CHWs. The issue of HCPs asking the CHWs to perform duties that were not within their scope of work could be considered an abuse of HCP's power. The CHWs could refuse to conduct these duties when asked by the HCPs because of their status.

The OTL is a junior nurse compared to other HCPs, like professional nurses. Some CHWs in this current study suggested that issues they may have with the HCPs are reported to the OTL, but they are sometimes not resolved. The professional nurses are more senior to the OTLs; therefore, power dynamics may be at play when reported conflicts are unresolved. The professional nurses, in this instance, seemed to be using their professional power to protect their autonomy on the OTLs, similar to the findings of a study in rural Australia by McDonald et al. (119). Power dynamics directly impact IPC, impacting the ability of team members to perform their duties, thus indirectly impacting the quality of patient care (118).

4.6 Study limitations

The study was conducted at two clinics in a single province of South Africa, thereby limiting the diverse views of CHWs and HCPs in different settings. The study was also conducted in a single district which is in an urban setting for both facilities; therefore, it may not have captured different contextual factors related to different geographical characteristics. In addition, the analysis did not reflection some views and experiences of participants according to the two clinics. Highlighting some of these experiences according to clinics could have captured the

differences in organisational cultures and practices that are likely to have influenced the nature and IPC in each clinic. Despite this limitation the study describes the experiences that are specific to urban areas, therefore offering valuable lessons for those in similar contexts. The study only explored collaborations between HCPs who are nurses of different categories, including the health promoters and the CHWs. This study did not explore IPC with other actors in the health system that also collaborate with CHWs.

The findings are not generalisable due to the nature of a qualitative study. However, the findings give an insight into the nature and dynamics of IPC that exist between CHWs and HCPs. In addition, the study's participants volunteered to participate in the study by giving consent; therefore, other participants who may have given more views on the subject may have opted not to participate, therefore missing wider views.

It is also important to note my position in the health facilities. The fact that I was an OPM prior to data collection may have influenced the participants' responses, leading to social-desirability bias. As much as I made an effort to inform the participants that I was conducting the study as a student, this still might have presented some bias. It was also challenging to recruit CHWs and HCPs who were willing to participate. This limited the sample, compromising the diversity of views and experiences of IPC between HCPs and CHWs.

I had planned to conduct non-participant observations as one of the study methods to gain a more realistic understanding of the interactions between HCPs and CHWs in planned and unplanned meetings. There were however limited meetings or interactions between HCPs and CHWs during the data collection period, hence non-participant observations were not undertaken. This was a limitation as this additional data could have added to the richness of the data.

The study did not look at other issues like compensation and resourcing. It also did not examine issues such as culture, gender, nationality, age, and experience amongst participants. These factors may influence the nature of IPC and including them in the analysis could have added richness to the body of this work

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the conclusions drawn from the findings of this study and further proposes recommendations regarding the improvement of IPC between CHWs and HCPs in ways that can strengthen the care provided to communities in PHC settings. The chapter concludes by highlighting the implications for future studies.

5.2 Conclusion

There is broad evidence that emphasises the importance of IPC between different cadres in health care. IPC between the HCPs and CHWs is important to ensure quality patient care. This is more so because CHWs are an important link between the clinics and the community. Furthermore, the discourse regarding the role of CHWs in PHC constantly emphasises their importance in contributing to achieving UHC (17). In South Africa, successful IPC between the two cadres is essential for the implementation of National Health Insurance. Therefore, there is a need for HCPs to clearly understand CHWs' role in the health care system (62,72,103).

Despite the cited importance of IPC between these two cadres, the findings in this current study indicated that it faced many challenges. The challenges that CHWs face currently in the facilities have not evolved much from when they were introduced into the health system, as seen in the literature (109). CHWs still face the challenges of being seen as an additional 'pair of hands', being pulled away from their core function by HCPs (107). It is evident from this current study that CHWs are disrespected, evidenced by their roles being considered unimportant. As a result, they are unlikely to be involved in decision-making processes. Failure to allow CHWs to be part of decision-making processes may be linked to the hierarchy due to professional status (77). The hierarchical nature of health systems seems to be a barrier to effective collaborations because individuals with perceived higher status due to their qualifications and experience are more likely to be decision-makers (77). Unilateral decision-making does not promote cohesiveness in collaborative teams (77).

Strengthened communication methods in IPC can reduce incidences of errors in patient care (77). Findings in this study indicated poor communication between CHWs and HCPs, with participants reporting no meetings held that included both cadres. Meetings are a key communication strategy

as information can be shared to strengthen collaborations and overall patient care (77). The current study's findings indicated that poor communication also impacted how conflicts were resolved. Communication improved slightly with CHWs' permanent appointment, as evidenced by them being part of clinic meetings. This meant that information was shared with the CHWs, and they felt part of the health care system. This may improve their motivation to perform their duties. The compromised nature of IPC, as noted in the findings from this study, needs to be addressed. This is particularly important considering the country's efforts to achieve UHC and strengthen service delivery through PHC.

5.3 Recommendations

Following the findings and insights gained from this study, the following recommendations to strengthen the collaborations between the CHWs and HCPs can be considered.

- Considering the importance of the **recognition of roles and responsibilities** in collaborative efforts, this study has indicated that it is important for actors in the health care system to recognise and respect each other's roles. CHWs should be introduced to all staff members, and their roles should be explained to incoming staff members. This can be facilitated through clinic meetings; CHWs should be included in the primary meetings as part of the facility's staff complement. This will ensure that their roles are known and recognised by everyone in the clinic.
- Formalised **communication** between CHWs and HCPs should be encouraged and facilitated by the facility's leadership**.** CHWs should be included in clinic meetings where all HCPs are present. CHWs should have a standing item on the agenda allowing them to give feedback about the programme. This will not only promote communication, but it will help in strengthening the sense of belonging for CHWs.
    - **Shared communication tools** that include all team members should be encouraged. Tools such as WhatsApp, communication boards and electronic patient records accessed by all team members should be introduced. This will help CHWs to feel integrated into the team, and the HCPs will also recognise them as part of the health care system.
    - To enhance **CHW-HCP engagement**, both CHWs and HCPs could be more involved in clinic committee meetings where the affairs and activities that link the

clinic to the community are discussed. This could improve HCP-CHW engagement about their respective roles, particularly how they complement each other in the community.

- To improve **team functioning**, the dual reporting structure for CHWs, as reported in this current study, seems to complicate the programme's management by the facility OPM. It is recommended that managing the CHWs' daily functions, for example, leave management, should be up to the facility's OPM rather than the OPM of the WBPHCOTs. This will, however, require a change in the governance and management structures between the district and the province; hence, it may have to be a gradual process.
    - To improve **team functioning and collaboration**, CHWs should be treated with respect. Efforts to improve team relations by improving systems of issue reporting relating to disrespect should be strengthened.
- To improve conflict resolution procedures, members should avoid discussing personal conflicts as they fall outside the realm of professional conduct. In terms of other general conflicts that occur within the working space, the team could consider other forms of conflict resolution which apply to the context. The OPM can ensure that they intervene timeously before the conflict escalates and disrupts the work environment. Each party should be allowed to suggest a mutually beneficial solution.

- To counteract influences of **power dynamics**, managers should establish processes to ensure that all staff, including CHWs, are recognised for their roles in the teams. CHWs should be encouraged to share their ideas for improving patient care.

- HCPs should also be included in OTLs' and CHWs' **training** so that they have a better understanding of their scope of practice and are familiar with their roles. HCPs should be educated about the positive functions that CHWs administer and the added value they bring to the health system.

5.4 Implications for future research

Strengthening IPC in South Africa between CHWs and HCPs is important to improve the general health outcomes of the population. Future studies in this area can be extended to other districts and other provinces and additional methods of data collection, such as focus group discussions, to gain

wider perspectives. The findings will give a better indication of issues that need to be attended to and if there is any policy that needs to be amended.

Further studies on the impact of IPC or lack of health outcomes can be explored. Studies could explore the effects of IPC to improve health indicators in communities serviced by CHWs. This study can further indicate the impact CHWs bring to the communities they serve when supported by IPC efforts and initiatives at the facility level.

6. REFERENCES

1. Glenton C, Javadi D, Perry HB. Community health workers at the dawn of a new era: 5. Roles and tasks. Health Research Policy and Systems. 2021 Oct19;1–17. https//doi.org/10.1.1186/s12961-021-00748-4

2. World Health Organisation and the United Nations of Children's fund (UNICEF). Community-based health care, including outreach and campaigns, in the context of the COVID-19 pandemic: interim guidance. Geneva: World Health Organisation; 2020. Available from: WHO/2019-nCoV/Comm_health_care/2020.1 [Accessed 28 August 2023]

3. Ballard M, Bancroft E, Nesbit J, Johnson A, Holeman I, Foth J, et al. Prioritising the role of community health workers in the COVID-19 response. BMJ Global Health. 2020; 1;5(6). e002550.http://dx.doi.org/10.1136/bmjgh-2020-002550

4. World Health Assembly 72.3. Community health workers delivering primary health care: opportunities and challenges. Geneva: World Health Organisation; 2019.Available from https://apps.who.int/gb/ebwha/pdf_files/EB144/B144_R4-en.pdf [Accessed 28 August 2023]

5. Zulu JM, Kinsman J, Michelo C, Hurtig A. Integrating national community-based health worker programmes into health systems: a systematic review identifying lessons learned from low-and middle-income countries. BMC Public Health. 2014;14(987):1–17. https://doi.org/10.1186/1471-2458-14-987

6. Musoke D, Nyashanu M, Bugembe H, Lubega GB, Donovan JO, Halage AA, et al. Contested notions of challenges affecting community health workers in low - and middle - income countries informed by the Silences Framework. Human Resources for Health. 2022 ;20(4):1–7. https://doi.org/10.1186/s12960-021-00701-0

7. Assegaai T, Schneider H, Scott V. Developing a district level supportive supervision framework for community health workers through co-production in South Africa. BMC Health Services Research. 2021 ;21(337):1–10. https://doi.org/10.1186/s12913-021-06350-2

8. Lewin S, Munambi- Babigumira S, Glenton C, Daniels K, Bosch-Capblanch X, Van Wyk B, et al. Lay health Workers in primary and community health care for maternal and child health and the management of infectious diseases. Cochraine Database of Systematic Reviews. 2010;(3). https://doi.org/10.1002/14651858.cd004015.pub3

9. Kok MC, Ormel H, Broerse JEW, Kane S, Namakhoma I, Otiso L, et al. Optimising the benefits of community health workers' unique position between communities and the health sector: A comparative analysis of factors shaping relationships in four countries. Global

Public Health. 2017 ;12(11):1404–32. https://doi.org/10.1080/17441692.2016.1174722

10. National Department of Health. Policy Framework and Strategy for Ward Based Primary Healthcare Outreach Teams 2018/19-2023/24. Pretoria: National Department of Health; 2018.

11. Tseng Y, Griffiths F, Kadt J De, 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;1–11. https://doi.org/10.1136/bmjopen-2018-022186

12. Melkamu E, Woldemariam S, Haftu A. Inter-professional collaboration of nurses and midwives with physicians and associated factors in Jimma University specialized teaching hospital, Jimma, south West Ethiopia, 2019: cross sectional study. BMC Nursing. 2020;19(33):1–9. https://doi.org/10.1186/s12912-020-00426-w

13. World Health Organization. Framework for action on interprofessional education & collaborative practice. Health Professions Networks Nursing & Midwifery Human Resources for Health. Geneva: World Health Organisation;2019. Available from: https://www.who.int/publications/i/item/framework-for-action-on-interprofessional-education-collaborative-practice [Accessed 21 July 2023]

14. Tulenko K, Møgedal S, Afzal M, Frymus D, Oshin A, Pate M, et al. Community health workers for universal health-care coverage: from fragmentation to synergy. Bulletin of the World Health Organisation. 2013;91:847–52. https://doi.org/10.2471/blt.13.118745

15. Hlongwa P, Rispel LC. Interprofessional collaboration among health professionals in cleft lip and palate treatment and care in the public health sector of South Africa. Human Resources for Health. 2021;19(25):1–9. https://doi.org/10.1186/s12960-021-00566-3

16. Green BN, Johnson CD. Interprofessional collaboration in research, education, and clinical practice: working together for a better future. Journal of Chiropractic Education. 2015;29(1):1–10. https://doi.org/10.7899/jce-14-36

17. 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 Research Policy and Systems. 2021 ;19:1–20. https://doi.org/10.1186/s12961-021-00756-4. https://doi.org/10.1186/s12961-021-00756-4

18. The Earth Institute. One million community health workers. Global Technical Task Force;2013. Available from: http://1millionhealthworkers.org/files/2013/01/1mCHW_TechnicalTaskForceReport.pdf. [Accessed 01 October 2023]

19. 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 Services Research and Managerial Epidemiology. 2015;1-9

20. Roomaney RA, Wyk B Van, Cois A, Wyk VP. Inequity in the distribution of non-communicable disease multimorbidity in adults in South Africa: an analysis of prevalence and patterns. Internationals Journal of Public Health. 2022;67:1605072

21. Doede AL, Allen TE, Gray JLS, Herbst AG, Hlungwani MC, Ramakuela NJ, et al. Community health workers and the management of non-communicable diseases among rural health clinics in Limpopo Province, South Africa: a pilot study. HHS Public Access. 2017;40(4):338–46. https://doi.org/10.1097/fch.0000000000000158

22. Tracey N, Peter B, Helen S. Primary health care in SA since 1994 and implications of the new vision for PHC re-engineering. In: South African Health Review 2011. Durban: Health Systems Trust; 2011

23. South African Department of Health. Provincial Guidelines for the Implementation of the Three Streams of PHC Re-engineering. Pretoria: National Department of Health; 2011.

24. Smith S, Deveridge A, Berman J, Negin J, Mwambene N, Chingaipe E, et al. Task-shifting and prioritization: a situational analysis examining the role and experiences of community health workers in Malawi. Human Resources for Health. 2014;12(24):1–13. Available from: http://www.human-resources-health.com/content/12/1/24 [Accessed 22 March 2024]

25. Assegaai T, Schneider H. National guidance and district-level practices in the supervision of community health workers in South Africa: a qualitative study. Human Resources for Health. 2019;17(25):1–10. https://doi.org/10.1186/s12960-019-0360-x

26. Scott K, Beckham SW, Gross M, Pariyo G, Rao KD, Cometto G, et al. What do we know about community-based health worker programs? A systematic review of existing reviews on community health workers. Human Resources for Health. 2018;16(39):1–17. https://doi.org/10.1186/s12960-018-0304-x

27. Mistry SK, Harris-roxas B, Yadav UN, Shabnam S. Community Health Workers Can Provide Psychosocial Support to the People During COVID-19 and Beyond in Low- and Middle- Income Countries. Frontiers in Public Health. 2021;9:666753. https://doi.org/10.3389/fpubh.2021.666753

28. Westgate C, Musoke D, Crigler L, Perry HB. Community health workers at the dawn of a new era: 7. Recent advances in supervision. Health Research Policy and Systems. 2021 ;19(114):1–20. https://doi.org/10.1186/s12961-021-00754-6

29. 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 Global Public Health. 2023;3(2):1–16. https://doi.org/10.1371/journal.pgph.0000881

30. Laurenzi CA, Skeen S, Coetzee BJ, Notholi V, Gordon S, Chademana E, et al. Instructive

roles and supportive relationships: client perspectives of their engagement with community health workers in a rural South African home visiting program. International Journal for Equity in Health. 202;20(32):1–13. http://dx.doi.org/10.1186/s12939-020-01377-z

31. Rifkin SB. Alma Ata after 40 years: Primary Health Care and Health for All—from consensus to complexity. BMJ Global Health. 2018;3(Suppl 3):e001188. http://dx.doi.org/10.1136/bmjgh-2018-001188

32. World Health Organization. Primary health care: report of the international Conference on Primary Health Care Alma Ata, USSR, 6-12 September 1978. Geneva: World Health Organisation; 2018.

33. 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. Annual Review of Public Health. 2014;35:399–421. https://doi.org/10.1146/annurev-publhealth-032013-182354

34. Lehmann U, Twum-danso NAY, Nyoni J. Towards universal health coverage: what are the system requirements for effective large-scale community health worker programmes? BMJ Global Health. 2019;4:1–6. https://doi.org/10.1136/bmjgh-2018-001046

35. Sidel VW. The Barefoot Doctors of the People's Republic of China. New England Journal of Medicine. 1972;286(24):1292–300. https://doi.org/10.1056/nejm197206152862404

36. Fewster-Thuente LL, Velsor-Friedriech B. Interdisciplinary Collaboration for Healthcare Professionals Nursing Administration Quarterly. 2008;32(1):40–8. https://doi.org/10.1097/01.naq.0000305946.31193.61

37. Perry H. A brief history of community health worker programs. Washington DC: USAID/MCHIP; 2013. Available from: https://www.mchip.net/sites/default/files/mchipfiles/02_CHW_History.pdf [Accessed 01 October 2023]

38. Assegaai T, Reagon G, Schneider H. Evaluating the effect of ward-based outreach teams on primary healthcare performance in North West Province, South Africa: A plausibility design using routine data. South African Medical Journal. 2018;108(4):329–35. https://doi.org/10.7196/samj.2017.v108i4.12755

39. 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. Social science & Medicine. 2010;71(6):1110–8. https://doi.org/10.1016/j.socscimed.2010.06.009

40. Hodgins S, Crigler L, Lewin S, Tsui S, Perry H. Scaling Up and Maintaining Effective Large-Scale Community Health Worker Programs. Washington DC: USADI/MCHIP;2013 Available from: http://www.mchip.net/ [Accessed 21 March 2022]

41. United Nations. Transforming our world: The 2030 Agenda for Sustainable Development.

Vol. 16301. Available from: https;//sdgs.un,org/2030agenda [Accessed 18 November 2022]

42. Colvin CJ, Hodgins S, Perry HB. Community health workers at the dawn of a new era: 8. Incentives and remuneration. Health Research Policy and Systems. 2021;19(3):1–26. https://doi.org/10.1186/s12961-021-00750-w

43. Grossmann-Kahn R, Schoen J, Mallett JW, Brentani A, Kaselitz E, Heisler M. Challenges facing Community Health Workers in Brazil's Family Health Strategy: a qualitative study. The International Journal of Health Planning and Management. 2018;33(2):309–20. https://doi.org/10.1002%2Fhpm.2456

44. Pinto RM, Rahman R, Zanchetta MS, Galhego-Garcia W. Brazil' s Community Health Workers Practicing Narrative Medicine: Patients' Perspectives. Journal of General Internal Medicine. 2021;36(12):3743–51. https://doi.org/10.1007/s11606-021-06730-8

45. Macinko J, de Souza MDFM, Guanais FC, da Siva Simoes CC. Going to scale with community-based primary care: An analysis of the family health program and infant mortality in Brazil, 1999 – 2004. Social Science & Medicine. 2007;65:2070–80. https://doi.org/10.1016/j.socscimed.2007.06.028

46. Shanthosh J, Durbach A, Joshi R. Charting the Rights of Community Health Workers in India: The Next Frontier of Universal Health Coverage. Health and Human Rights. 202;23(2):225–38.

47. Agarwal S, Curtis SL, Angeles G, Speizer IS, Singh K, Thomas JC. The impact of India' s accredited social health activist (ASHA) program on the utilization of maternity services: a nationally representative longitudinal modelling study. Human Resources for Health. 2019;17(68):1–13. https://doi.org/10.1186/s12960-019-0402-4

48. Frimpong SO, Paintsil E. Community engagement in Ebola outbreaks in sub-Saharan Africa and implications for COVID-19 control: A scoping review. International Journal of Infectious Diseases. 2023;126:182–92. https://doi.org/10.1016/j.ijid.2022.11.032

49. Roy S, Kennedy S, Hossain S, Warren CE. Examining roles, support, and experiences of Community Health Workers During the COVID-19 Pandemic in Bangladesh: A Mixed Methods Study Community Health Workers in Pandemic Contexts. Global Health: Science and Practice 2022;10(4):1–16.

50. Rawal L, Jubayer S, Choudhury SR, Mohammed S, Islam S. Community health workers for non- communicable diseases prevention and control in Bangladesh: a qualitative study. Global Health Research and Policy. 2021;6(1):1–10. https://doi.org/10.1186/s41256-020-00182-z

51. 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. Human Resources for Health. 2020;18(58):1–14.

https://doi.org/10.1186/s12960-020-00494-8

52. Gebremeskel AT, Omonaiye O, Yaya S. Multilevel determinants of community health workers for an effective maternal and child health programme in sub- - Saharan Africa: a systematic review. BMJ Global Health. 2022;7:e008162.doi:10.1136/bmgh2021-008162

53. Glenton C, Colvin CJ, Carlsen B, Swartz A, Lewin S, Noyes J, et al. Barriers and Facilitators to the implementation of lay health worker programmes to improve access to maternal and child health: a qualitative evidence synthesis (Review). Cochraine Database of Systematic Reviews. 2013;(10). doi:10.1002/14651858.CD010414.pub2

54. Asweto C, Alizain M, Andrea S, Alexander R, Wang W. Integration of community health workers into health systems in developing countries: Opportunities and challenges. Family Medicine and Community Health. 2016;4(1):37–45.

55. Jobson G, Naidoo N, Matlakala N, Marincowitz G, Railton J. Contextual factors affecting the integration of community health workers into the health system in Limpopo province, South Africa. International Health. 2020; 12:281–6. https://doi.org/10.1093%2Finthealth%2Fihz082

56. Nakibaala G, Watsemba A, Ssali B, Namugera F, Katushabe P, Carleen M, et al. An evaluation of a peer supervision pilot project among community health workers in rural Uganda. African Health Sciences. 2022;22(2):647–56. https://doi.org/10.4314/ahs.v22i2.74

57. Marcus TS. Community Oriented Primary Care: Origins and History. Pretoria: Minuteman Press Lynnwood ;2016.

58. Schleiff MJ, Aitken I, Alam MA, Damtew ZA, Perry HB. Community health workers at the dawn of a new era: 6. Recruitment, training, and continuing education. Health Research Policy and Systems. 2021;19(3):1–29. https://doi.org/10.1186/s12961-021-00757-3

59. Tollman S. Community oriented primary care: origins, evolution, applications. Social Science & Medicine. 1991;32(6):633–42. https://doi.org/10.1016/0277-9536(91)90142-y

60. Bam N, Marcus TS, Hugo J, Kinkel HF. Conceptualizing Community Oriented Primary Care (COPC) – the Tshwane, South Africa, health post model. Primary Health Care and Family Medicine. 2013;5(1):1–4.

61. Schneider H, Hlophe H, Van Rensburg D. Community health workers and the response to HIV / AIDS in South Africa: tensions and prospects. Health Policy Plan. 2008;23:179–87.

62. Schneider H, Sanders D, Besada D, Daviaud E, Rohde S. Ward-based primary health care outreach teams in South Africa: developments, challenges and future directions. South African Health Review. 2018;2018(1):59-65.

63. Mwai GW, Mburu G, Torpey K, Frost P, Ford N, Seeley J. Role and outcomes of community health workers in HIV care in sub-Saharan Africa: A systematic review. Journal

of the International AIDS Society. 2013;16(18586):1–13. https://doi.org/10.7448/ias.16.1.18586

64. Jinabhai CC, Marcus TS, Chaponda A. Rapid Appraisal of Ward Based Outreach Teams. Pretoria: Minuteman Press Lynnwood; 2015. Available from: https://www.up.ac.za/media/shared/62/COPC/COPC%0AReports Publications/wbot-report-epub-lr-2.zp86437.pdf. [Accessed 30 September 2023]

65. Mhlongo EM, Lutge E. The roles, responsibilities and perceptions of community health workers and ward- based primary health care outreach teams (WBPHCOTs) in South Africa: a scoping review protocol. Systemic Reviews. 2019;8(193):1–7. https://doi.org/10.1186/s13643-019-1114-5

66. 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 and Policy Planning. 2021;36(4):384–96. https://doi.org/10.1093/heapol/czaa172

67. Languza N, Lushaba T, Maginxa N, Masuku M, Ngubo T. Community Health Workers: A Brief Description of the Heath System Trust (HST) Experience. Durban: Health System Trust;2011. Available from: https://www.hst.org.za/publications/HST%20Publications/CHWs_HSTexp022011.pdf [Accessed 02 October 2023]

68. 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. Human resources for health. 2021;12(22):1–11. https://doi.org/10.1186/s12960-021-00565-4

69. Nxumalo N, Goudge J, Thomas L. Outreach services to improve access to health care in South Africa: lessons from three community health worker programmes. Global health Action. 2013;9716(6:1):219–26.

70. World Health Organisation. Interprofessional Collaborative Practice in Primary Health Care: Nursing and Midwifery Perspectives Six Case Studies. Geneva: World Health Organisation; 2013. Available from: http://www.who.int/hrh/resources/observer [Accessed 17 July 2020]

71. Grant JC, Kanji Z. Exploring Interprofessional Relationships Between Dental Hygienists and Health Professionals in Rural Canadian Communities. American Dental Hygienists' Association. 2017;91(4):6–11.

72. Sirimsi MM, Loof H De, Broeck K Van Den, Vliegher K De, Pype P, Remmen R, et al. Scoping review to identify strategies and interventions improving interprofessional collaboration and integration in primary care. BMJ Open. 2022;12:1–15.

73. Soemantri D, Richard D, Yeti R, Boy A, Dini C, Setyorini D, et al. The supporting and inhibiting factors of interprofessional collaborative practice in a newly established teaching hospital. Journal of Interprofessional Education & Practice 2019;15:149–56.

74. Gaboury I, Lapierre LM, Boon H, Moher D. Interprofessional collaboration within integrative healthcare clinics through the lens of the relationship-centered care model. Journal of Interprofessional Care. 2011;25:124–30. https://doi.org/10.3109/13561820.2010.523654

75. Mcnaughton SM, Flood B, Jane Morgan C, Saravanakumar P. Existing models of interprofessional collaborative practice in primary healthcare: a scoping review Journal of Interprofessional Care. 2021;35(6):940–52. https://doi.org/10.1080/13561820.2020.1830048

76. Kreps GL. Communication and Effective Interprofessional Health Care Teams. Int Arch Nurs Health Care. 2016;2(3):1–6. http://doi.org/10.23937/2469-5823/1510051

77. Supper I, Catala O, Lustman M, Chemla C, Bourgueil Y, Letrilliart L. Interprofessional collaboration in primary health care: a review of facilitators and barriers perceived by involved actors. Journal of Public Health. 2014;37(4):716–27. https://doi.org/10.1093/pubmed/fdu102

78. Bekkink MO, Farrell SE, Takayesu JK. Interprofessional communication in the emergency department: residents' perceptions and implications for medical education. International Journal of Medical Education. 2018;9:262–70. https://doi.org/10.5116%2Fijme.5bb5.c111

79. Sutherland BL, Pecanac K, Laborde TM, Bartels CM, Brennan MB, Sutherland BL, et al. Good working relationships: how healthcare system proximity influences trust between healthcare workers. Journal of Interprofessional Care. 2022;36(3):331–9. https://doi.org/10.1080%2F13561820.2021.1920897

80. Beckham S, Bradley S, Washburn A, Taumua T. Diabetes management: utilizing community health workers in a Hawaiian/Samoan population. Journal of Health Care for the Poor and Underserved. 2008;19(2):416–27. https://doi.org/10.1353/hpu.0.0012

81. Muzigaba M, Van Wyyk B, Puoane T. Management of severe acute malnutrition in children under 5 years through the lens of health care workers in two rural South African hospitals. African Journal of Primary Health Care and Family Medicine. 2018;10(1):1–8. https://doi.org/10.4102/phcfm.v10i1.1547

82 Nakhaee S, Nasiri A. Inter - professional Relationships Issues among Iranian Nurses and Physicians: A Qualitative Study. Iranian Journal of Nursing and Midwifery Research. 2017;22:8–13. https://doi.org/10.4103%2F1735-9066.202076

83. Kripke K, Njeuhmeli E, Samuelson J, Schnure M, Dalal S, Farley T, et al. Assessing progress, impact, and next steps in rolling out voluntary medical male circumcision for HIV

prevention in 14 priority countries in eastern and southern Africa through 2014. PLoS One. 2016;11(7):1–17. https://doi.org/10.1371/journal.pone.0158767

84. Ranganathan P, Aggarwal R. Study designs: Part 1 – An overview and classification. Perspectives in Clinical Research. 2018;9(4):184–6. https://doi.org/10.4103%2Fpicr.PICR_124_18

85. Mack N, Woodsong C, MacQueen KM, Guest G, Namey E. Qualitative Research Methods: A Data Collector's field Guide. Family Health International; 2005. Available from: https://www.fhi360.org/sites/default/files/media/documents/Qualitative%20Research%20Methods%20-%20A%20Data%20Collector%27s%20Field%20Guide.pdf [Accessed 22 August 2023]

86. Boyce C, Neale P. Conducting in-depth Interviews: A Guide for Designing and Conducting In-Depth Interviews. Watertown, MA: Pathfinder International; 2006. Available from: https://nyhealthfoundation.org/wp-content/uploads/2019/02/m_e_tool_series_indepth_interviews-1.pdf [Accessed 22 July 2023]

87. Mcgrath C, Palmgren PJ, Liljedahl M. Twelve tips for conducting qualitative research interviews. Medical Teacher. 2019;41(9):1002–6. Available from: https://doi.org/10.1080/0142159X.2018.1497149 [Accessed 17 June 2023]

88. Roller MR. The In-depth Interview Method. Journal of Language Relationship. 2020;10 (1). Available from: https://rollerresearch.com/MRR%20WORKING%20PAPERS/IDI%20Text%20April%202020.pdf [Accessed 22 July 2023]

89. City of Johannesburg. Integrated Development Plan 2021-26. Johannesburg: City of Johannesburg;2020. Available from: https://www.joburg.org.za/documents_/Documents/2021-2026%20Final%20IDP/2021-26%20FINAL%20IDP%2021May%202021.pdf [Accessed 19 January 2022]

90. Department: Statistics South Africa,2022. Mid-year population estimates 2022. South Africa; 2022. Available from https://www.statssa.gov.za/publications/P0302/MidYear2022.pdf [Accessed 23 March 2023]

91. Vearey J, de Gruchy T, Kamndaya M, Walls HL, Chetty-Makkan CM, Hanefeld J. Exploring The Migration Profiles of Primary Healthcare Users in South Africa. Journal of Immigrant and Minority Health. 2016;20(1):1–10.

92. Vearey J, Palmary I, Thomas L, Nunez L, Drimie S. Urban health in Johannesburg: The importance of place in understanding intra-urban inequalities in a context of migration and HIV. Health & Place. 2010;16(4):694–702. https://doi.org/10.1007/s10903-016-0535-7

93. Gauteng Department of Health. Routine Health Data. Routine Health Data. Available from: https://gp.dhis.dhmis.org/dhis-web-commons/ [Accessed 18 November 2018]

94. Korstjens I, Moser A. Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing. European Journal of General Practice. 2018;24(1):120–4.

95. Moser A, Korstjens I. Series: Practical guidance to qualitative research. Part 3: Sampling, data collection and analysis. European Journal of General Practice. 2018;24(1):9–18. https://doi.org/10.1080/13814788.2017.1375091.

96. Symon G, Cassell C. Qualitative Organizational Research: Core Methods and Current Challenges. London: SAGE Publications; 2012.

97. Erlingsson C, Brysiewicz P. A hands-on guide to doing content analysis. African Journal of Emergency Medicine. 2017;7(3):93–9. https://doi.org/10.1016/j.afjem.2017.08.001

98. Nowell LS, Norris JM, White DE, Moules NJ. Thematic Analysis: Striving to Meet the Trustworthiness Criteria. International Journal of Qualitative Methods. 2017;16:1–13.

99. 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? American Journal of Public Health. 2013;103(7):74–82. https://doi.org/10.2105%2FAJPH.2012.301102

100. Fernandopulle N. To what extent does hierarchical leadership affect health care outcomes? Medical journal of the Islamic Republic of Iran. 2021;35(117). https://doi.org/10.47176%2Fmjiri.35.117

101. Perry H, Zulliger R, Scott K, Javadi D, Gerden J, Shelley K, et al. Case Studies of Large-Scale Community Health Worker Programs: Examples from Afghanistan, Brazil, Ethiopia, Niger, India, Indonesia, Iran, Nepal, Pakistan, Rwanda, Zambia and Zimbabwe. Washington DC: USAID/MCHIP;2017. Available from: https://www.mcsprogram.org [Accessed 21 March 2024]

102. Naimoli JF, Perry HB, Townsend JW, Frymus DE, Mccaffery JA. Strategic partnering to improve community health worker programming and performance: features of a community-health system integrated approach. Human Resources for Health. 2015;13:46 https://doi.org/10.1186/s12960-015-0041-3

103. Busari JO, Moll FM, Duits AJ. Understanding the impact of interprofessional collaboration on the quality of care: a case report from a small-scale resource limited health care environment. Journal of Multidisciplinary Healthcare. 2017;10:227–34. https://doi.org/10.2147%2FJMDH.S140042

104. Braithwaite J, Clay-Williams R, Vecellio E, Marks D, Hooper T, Westbrook M, et al. The basis of clinical tribalism, hierarchy and stereotyping: a laboratory- controlled teamwork experiment. BMJOpen. 2016;6:1–10. https://doi.org/10.1136/bmjopen-2016-012467

105. Rogers L, De Brún A, Mcauliffe E. Exploring healthcare staff narratives to gain an in-depth understanding of changing multidisciplinary team power dynamics during the COVID-19 pandemic. BMC Health Serv Res. 2023;23(419):1–12. https://doi.org/10.1186/s12913-023-09406-7

106. von Holdt K, Maserumule B. After apartheid: Decay or Reconstruction in a Public Hospital? In: Webster E, von Holdt K, editors. Beyond the Apartheid Workplace: Studies in Transition. Scottsville: University of KwaZulu-Natal Press; 2005.

107. Kane S, Radkar A, Gadgil M, Mcpake B. Community Health Workers as Influential Health System Actors and not "Just another Pair of hands." International Journal of Health Policy and Management. 2021;10(8):465–74. https://doi.org/10.34172%2Fijhpm.2020.58

108. Bosch B, Mansell H. Interprofessional collaboration in health care: Lessons to be learned from competitive sports. Canadian Pharmacists Journal. 2015;148(4):2–5.

109. Doherty TM, Coetzee M. Community health workers and professional nurses: Defining the roles and understanding the relationships. Public Health Nursing. 2005;22(4):360–5.

110. Assegaai T, Schneider H. Factors associated with workplace and interpersonal trust in the supervisory system of a community health worker programme in a rural South African district. International Journal of Health policy and Management. 2022;11(1):31–8. https://doi.org/10.34172/ijhpm.2021.03

111. Musinguzi LK, Turinawe EB, Rwemisisi JT, de Vries DH, Mafigiri DK, Muhangi D, et al. Linking communities to formal health care providers through village health teams in rural Uganda: lessons from linking social capital. Human Resources for Health. 2017;15(4):1–16. https://doi.org/10.1186/s12960-016-0177-9

112. Orkin AM, McArthur A, Venugopal J, Kithulegoda N, Martiniuk A, Buchman DZ, et al. Defining and measuring health equity in research on task shifting in high-income countries: A systematic review. SSM - Population Health. 2019;7:100366. https://doi.org/10.1016%2Fj.ssmph.2019.100366

113 Callaghan M, Schneider H. A systematic review of task- shifting for HIV treatment and care in Africa. Human Resources for Health. 2010;8(8):1–9. https://doi.org/10.1186/1478-4491-8-8

114. Kok MC, Namakhoma I, Nyirenda L, Chikaphupha K, Broerse JEW, Dieleman M, et al. Health surveillance assistants as intermediates between the community and health sector in Malawi: exploring how relationships influence performance. BMC Health Services Research. 2016;16(164):1–12. https://doi.org/10.1186/s12913-016-1402-x

115. Chandra S, Mohammednezhad M, Ward P. Trust and Communication in a Doctor- Patient Relationship: A Literature Review. Journal of Health Communications. 2018;3(3):36. https://doi.org/10.4172/2472/1654.100146

116. Hao Q, Zhang B, Yijun S, Yang Q. How trust in co-workers fosters knowledge sharing in virtual teams? A multilevel moderated mediation model of psychological safety, team virtuality, and self-efficacy. Frontiers in Psychology. 2022;13 899142.:. https://doi.org/10.3389/fpsyg.2022.899142

117. Ludwick T, Turyakira E, Kyomuhangi T, Manalili K, Robinson S, Brenner JL. Supportive supervision and constructive relationships with healthcare workers support CHW performance: Use of a qualitative framework to evaluate CHW programming in Uganda. Human Resources for Health. 2018;16(11):1–8. https://doi.org/10.1186/s12960-018-0272-1

118. Stevens EL, Hulme A, Salmon PM, Stevens EL, Hulme A, Salmon PM. The impact of power on health care team performance and patient safety: a review of the literature. Ergonomics. 2021;64(8):1072–90. https://doi.org/10.1080/00140139.2021.1906454

119. Mcdonald J, Jayasuriya R, Harris MF. The influence of power dynamics and trust on multidisciplinary collaboration: a qualitative case study of type 2 diabetes mellitus. BMC Health Services Research. 2012;12(63):1–10. https://doi.org/10.1186/1472-6963-12-63

120. Sifaki-pistolla D, Melidoniotis E, Dey N, Chatzea V-E. How trust affects performance of interprofessional health-care teams. Journal of Interprofessional Care. 2020;34(2):218-24. https://doi.org/10.1080/13561820.2019.1631763

121. Cullati S, Bochatay N, Maitre F, Laroche T, Muller-Juge V, Blondon KS, et al. When Team Conflicts Threaten Quality of Care: A Study of Health Care Professionals' Experiences and Perceptions. Mayo Clinic Proceedings: Innovations, Quality & Outcomes. 2019;3(1):43-51. https://doi.org/10.1016/j.mayocpiqo.2018.11.003

APPENDIX A: Ethics Clearance Certificate

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

R49 Ms DD Bokaba

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)
CLEARANCE CERTIFICATE NO. M201076

NAME: (Principal Investigator)	Ms DD Bokaba
DEPARTMENT:	School of Public Health Medical School University
PROJECT TITLE:	*Exploring inter-professional collaboration between community health workers and health care providers in two clinics in the City of Johannesburg district*
DATE CONSIDERED:	2020/10/30
DECISION:	Approved unconditionally
CONDITIONS:	**Revised clearance certificate issued on 2021/02/08**
SUPERVISOR:	Dr N Nxumalo
APPROVED BY:	Dr CB Penny, Chairperson, HREC (Medical)
DATE OF APPROVAL:	2021/01/18

This Clearance Certificate is valid for 5 years from the date of approval. An extension may be applied for.

DECLARATION OF INVESTIGATORS

To be completed in duplicate and **ONE COPY** returned to the Research Office secretariat on the 3rd floor, Philip Tobias Building, Parktown, University of the Witwatersrand, Johannesburg.

I/we fully understand the conditions under which I am/we are authorized to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated from the research protocol as approved, I/we undertake to submit details to the Committee. **I agree to submit a yearly progress report**. When a funder requires annual re-certification, the application date will be one year after the date when the study was initially reviewed. In this case, the study was initially reviewed in **«Missing mail merge field»** and therefore reports and re-certification will be due in the month of **«Missing mail merge field»** each year. Unreported changes to the study may invalidate the clearance given by the HREC (Medical).

Signature of Principal Investigator

Date

UNIVERSITY OF THE WITWATERSRAND JOHANNESBURG

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

2021/06/28

Ms DD Bokaba
School of Public Health
Medical School
University

Sent by e-mail to: 1925469@students.wits.ac.za

Dear Ms Bokaba

Re: **Protocol Ref No:** M201076
Protocol Title: *Exploring inter-professional collaboration between community health workers and health care providers in two clinics in the City of Johannesburg district*
Principal Investigator: Ms DD Bokaba

Thank you for your letter of 2021/06/21.

I confirm that we have noted and approve of your proposal to carry out your study in two different clinics from those first proposed. The main study will now take place in Thoko Mngoma and Mpumelelo Clinics.

Thank you for keeping us informed.

Yours Sincerely

I. Burns
.....
Mr I Burns
For the Human Research Ethics Committee (Medical)

C.B. Penny
.....
Dr CB Penny, Chairperson, Human Research Ethics Committee (Medical)

APPENDIX B: Plagiarism Declaration

PLAGIARISM DECLARATION TO BE SIGNED BY ALL HIGHER DEGREE STUDENTS

SENATE PLAGIARISM POLICY: APPENDIX ONE

I Dorothea Dorah Bokaba (Student number: 1925469) am a student registered for the degree of Master of Public Health in the academic year 2024.

I hereby declare the following:

- I am aware that plagiarism (the use of someone else's work without their permission and/or without acknowledging the original source) is wrong.
- I confirm that the work submitted for assessment for the above degree is my own unaided work except where I have explicitly indicated otherwise.
- I have followed the required conventions in referencing the thoughts and ideas of others.
- I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief that this is not my own unaided work or that I have failed to acknowledge the source of the ideas or words in my writing.
- I have included as an appendix a report from "Turnitin" (or other approved plagiarism detection) software indicating the level of plagiarism in my research document.

Signature: _____ Date: 22 May 2024

1

APPENDIX C: Interview Guide for community Health Workers

Interview Code number: _____

Name of Interviewer: _____

Date: _____ Time: _____

Location of interview: _____

Name of participant: _____

Title of participant: _____

Site Address: _____

1. Introduce yourself.
2. Ensure that participant has gone through the information sheet.
3. Ensure informed consent forms (interview & audio recording) have been obtained.
4. During the interview, please probe to obtain as in-depth and specific information as possible.
5. End audio recording when complete.

ELIGIBILITY AND BACKGROUND		
No.	**Question**	**Options (researcher to indicate)**
1.	Gender	☐ - Female ☐ - Male ☐ - Prefer not to mention
2.	What is your age	
3.	Participant's designation	☐ - Community health worker/WBOT ☐ - Professional nurse ☐ - Enrolled nurse ☐ - Outreach team leader (Professional nurse) ☐ - Outreach team leader (Enrolled nurse) ☐ - Operational manager ☐ - Health promoter ☐ - Other _____
4.	How many years how you been working in the facility?	
5.	How long have you worked with this WBOT?	

A. **PERSONAL ATTRIBUTES**:

1. Before we start can you tell me a bit about yourself?

Probe/s:

a. What led or inspired you to be a CHW?

b. What are the things you like the most about being a CHW?

B. **CHW-HCP ESTABLISHMENT /STRUCTURE**

1. Can you please describe who is part of your team?

Probes

- Who is in the team other than the CHWs? (e.g., health promoters, professional nurse, etc.)

C. **SHARED DECISION-MAKING**

1. You have been a CHW for many years now and you seem to have had many interesting experiences with patients and working with the other HCPs. Can you tell me of a successful situation when you found a patient who was seriously ill or had an emergency in the community/household and needed immediate attention and you managed to make sure that they were helped? Please take me through what happened from the beginning until s/he was helped.

Probes:

- Who made the first decision about what should happen when you saw this patient?

- Think of the first thing that happened when you reported about the patient. Which staff member/s did you approach first and what was their response?

- Why did you go to this staff member first?

- To what extent do you always go to this staff member or nurse first and why?

- Where was the patient at that time?

- Which other staff members were involved in assisting the patient?

2. Can you tell me whether there was a discussion/s about a plan to treat the patient? Tell me about that.

- Tell me who was in that discussion/s.

- To what extent were you as CHWs allowed to contribute to the treatment plan of the patient?

- To what extent did you feel included in the discussion? Can you explain how you were included e.g., did other staff ask you questions etc.?

- Who in the group or those assisting was leading the process?

- Who made the final decision on how the patient should be helped?

- What eventfully happened to help the patient?

- You just described to me a successful situation. Why did feel that it was successful?

- Can you tell me what you think enabled this situation to be successful or for you to eventually help the patient?

- Who do you think contributed the most to the success?

3. Now can you tell me about a situation where you identified a patient but that was not successful at all? Please take me through what happened from the beginning until the end and where it did not go well.

Probes:

a. Who made the first decision about what should happen when you saw this patient?

- Think of the first thing that happened when you communicated about the patient. Which staff member/s did you approach first and what was their response?

- Which other staff members were involved in assisting the patient?

- Which staff member/s did you approach first and what was their response? (If the HCP is different from Q1, ask why this nurse this time)

- Which other staff members were involved in assisting the patient? If there were other staff involved, please tell me about them and how did they contribute?

b. Can you tell me whether there was a discussion/s about a plan to treat the patient? Tell me about that.

- Tell me who was in that discussion/s.

- To what extent were you as CHWs allowed to contribute to the treatment plan of the patient?

- To what extent did you feel included in the discussion? Can you explain how you were included e.g., did other staff ask you questions etc.?

- Who in the group or those assisting was leading the process?

- Who made the final decision on how the patient should be helped?

c. You just described to me a situation where things did not go well. Why did feel that it was unsuccessful?

- Can you tell me what you think made it not to be to be successful or for you to eventually not help the patient?

- What could have helped in that situation?

4. How did you feel in these two situations? Please explain why you felt that way.

Probes:

a. What knowledge and expertise do you think HCPs value and recognize?

5. To what extent do you think other HCPs in the clinic recognize and respect YOUR knowledge and expertise when contributing to treatment plans? Please explain why you say this.

D.EFFECTIVE GROUP FUNCTIONING

1. In your view, what do HCP think about the roles and responsibilities of CHWs?

Probe:

a. To what extent do you think the staff/nurses in the clinic KNOW your roles and responsibilities? Please explain why you think that.

b. Which roles (between those of CHWs and HCPs) do you think overlap to each other? If so, to what extent is this a good thing or not and explain why?

2. How does the WBOT team and the HCPs/nurses work together in general?

3. Briefly describe the type of support you get from HCPs and other staff with your daily roles and responsibilities, if any.

Probes:

a. Please give examples of how they support you.

b. What is your view of this level of support? (try to gauge if it is enough/more could be done/it helps/not help with their work etc.)

4. Let us talk about a situation where there was conflict between you and a staff member/nurse, and it was eventually resolved. What was the conflict about and how was it resolved?

Probes:

a. Who did you speak to about this conflict and why did you speak to this particular person?

b. Why do you think this conflict was able to be resolved?

5. This time, please tell me of a situation when there was a conflict between you/other CHWs and a staff member, but it was NOT successfully resolved. What happened?

Probes:

a. Why do you think it was not able to be resolved?

b. What do you think could have helped to resolve the situation?

6. Can we now talk about when you had a personal/personal issue? Please tell of a time you really had a personal problem and you needed someone to speak to at work.

Probe/s:

a. Which staff member did you go to and why did you go to that staff member?

b. How was that person able to help or advice you if at all?

7. In your view what are the benefits of working with the HCPs/nurses in the clinic?

Probe/s:

a. Tell me a time or day/s when you felt that it was good to work with other staff members and why?

8. Can you describe the disadvantages of working with HCPs/nurses in the clinic?

Probe/s:

a. Tell me a time or day/s when you felt unhappy to work with other staff members and why?

E. COMMUNICATION

1. In instances where the HCPs give the CHWs a list of patients that you should follow-up to bring them back to care, explain how the feedback is communicated to the HCPs.

2. I was told that you as CHWs sometimes have various meetings during the month (whether with the community or with the staff or with both staff and the community). Can you please describe these meetings for me? (Probe: meetings with community, meetings with staff; meetings with staff and community)

Probes:

a. What are they for and how do they run?

- Who leads the meeting?

- Who else is in those meetings?

- What is your role in the meetings?

b. How do you feel when you are in those meetings e.g., to what extent do you feel that your opinion is respected?

- To what extent do you get to speak at those meetings?

c. Do you have any other ways in which you have meetings with clinic staff other than the ones you told me about?

- Let's talk a bit more about when you have meetings with the community. How do these run and who else is joins those meetings {this question is for when they do not touch on the meetings with the community]

3. How often is there communication between CHWs and HCPs about patient care and WBOT activities in general, if any?

4. Can you tell me about a time when you were given feedback as CHWs about your performance on a particular patient or case? How was this feedback provided and by who e.g. in a meeting, informally outside etc.

a. What did you think of that feedback? To what extent did you think it was negative, fair?

b. To what extent did you think you learned from the feedback?

6. Other than meetings, what are the other means or ways of communication do you use to communicate with each other?

F. ENABLERS AND BARRIERS

1. What do you find most difficult or challenging about working with other staff members/nurses in the clinic? Please tell me why you say this by giving me an example.

2. What would you say enables CHWs and other HCPs to work together?

Probe/s:

a. What do you think would strengthen the way you work together with the clinic staff/nurses?

3. Which staff or HCP do you think would be important to be in the WBOT team that is not in it currently? Please explain why you think so.

Probe:

a. Who do you feel you need when you are doing your work and why do you say this?

4. Do you have any other issues that you would like to share regarding how you work with HCPs in your facility?

5. Do you have any other questions you would like to ask?

Thank you for your time!

APPENDIX D: Interview Guide for Health care professionals

Interview Code number: _____

Name of Interviewer: _____

Date: _____ Time: _____

Location of interview: _____

Name of participant: _____

Title of participant: _____

Site Address: _____

1. Introduce yourself
2. Ensure that participant has gone through the information sheet
3. Ensure informed consent forms (interview & audio recording) have been obtained.
4. During the interview please probe to obtain as in-depth and specific information as possible.
5. End audio recording when complete.

ELIGIBILITY AND BACKGROUND		
No.	**Question**	**Options (researcher to indicate)**
7.	Gender	☐ - Female ☐ - Male ☐ - Prefer not to mention
8.	What is your age	
9.	Participant's designation	☐ - Community health worker/WBOT ☐ - Professional Nurse ☐ - Enrolled Nurse ☐ - Outreach Team leader (Professional Nurse) ☐ - Outreach Team Leader (Enrolled Nurse) ☐ - Operational Manager ☐ - Health Promoter ☐ - Other _____
10.	How many years how you been working in the facility?	
11.	How long have you worked with this WBOT?	

HEALTH CARE PROFESSIONAL INTERVIEW GUIDE

A. PERSONAL ATTRIBUTES

1. Before we start can you tell me a bit about yourself?
   Probe/s:
   a. What led or inspired you to be a nurse/health promoter/_____?
   b. What are the things you like the most about being a _____?
   c. What is your role in relation to CHWs?

B. CHW-HCP ESTABLISHMENT TEAM/STRUCTURE

1. Can you please describe who is part of your team?
   Probes:
   a. Who is in the team other than the CHWs? (e.g., health promoters, professional nurse, etc.)
   b. Please describe the reporting lines amongst the team members.
   c. Do you consider the CHWs as part of the facility team? If not, explain the reasons why. If yes, explain how they are included in the team structure.

C. SHARED DECISION-MAKING

1. You have been a nurse/HCP for many years now and you seem have had many interesting experiences with patients and working with the CHWs. Can you tell me of a successful situation when a CHWs referred or reported a patient they found in the community who was seriously ill or had an emergency and needed immediate attention and you managed to make sure that they were helped? Please take me through what happened from the beginning until s/he was helped.
   Probes:
   a. Who made the first decision about what should happen when you saw this patient?
   - Think of the first thing that happened when the CHW/s reported about the patient. Which staff member/s did they approach first and what was their response?
   - Why do you think they went to the staff member/nurse you mentioned first?
   - To what extent do they always go to this staff member or nurse first and why?
   - Which other staff members were involved in assisting the patient?

   b. Can you tell me whether there was a discussion/s about a plan to treat the patient? Tell me about that.
   - Tell me who was in that discussion/s.
   - To what extent did the CHWs contribute to the treatment plan of the patient? If they did, how did they contribute and what did you think of that contribution?
   - Who in the group or those assisting was leading the process?
   - Who made the final decision on how the patient should be helped?
   - What eventfully happened to help the patient?

c. You just described to me a successful situation. Why did feel that it was successful?
- Can you tell me what you think enabled this situation to be successful or for you to eventually help the patient?
- Who do you think contributed the most to the success?

2. Now can you tell me about a situation where you a CHW/CHWs identified a patient who needed assistance, but the outcome was not successful at all? Please take me through what happened from the beginning until the end and where it did not go well.
   Probes:
   a. Who made the first decision about what should happen when you saw this patient?
      - Think of the first thing that happened when you communicated about the patient. Which staff member/s did the CHWs approach first and what was their response?
      - Which other staff members were involved in assisting the patient?
      - Which other staff members were involved in assisting the patient? If there were other staff involved, please tell me about them and how did they contribute?
   b. Can you tell me whether there was a discussion/s about a plan to treat the patient? Tell me about that.
      - Tell me who was in that discussion/s.
      - To what extent did the CHWs contribute to the treatment plan of the patient?
      - To what extent are CHWs included in the discussions about patient treatment? Can you explain how this happens e.g., did other staff ask you questions etc.?
      - Who in the group or those assisting was leading the process?
      - Who made the final decision on how the patient should be helped?
   c. You just described to me a situation where things did not go well. Why did feel that it was unsuccessful?
      - Can you tell me what you think made it not to be to be successful or for you to eventually not help the patient?
      - What could have helped in that situation?

3. How did you feel in these two situations? Please explain why you say this.
   Probe:
   a. What knowledge and expertise did you value and recognize in these two events, if any, and why?

4. To what extent do HCPs in the clinic recognize and respect CHWs' knowledge and expertise when contributing to treatment plans? Please explain why you say this.

D. EFFECTIVE GROUP FUNCTIONING

5. What do HCP think about CHWs programme in general?
   Probes:
   a. In your understanding what do you think are the roles of the CHWs in the WBOT?
      Which roles (between those of CHWs and HCPs) do you think overlap to each other? If so, what is your view of the overlap or duplication of these roles?

6. How does the WBOT team and the HCP/nurses work together in general?
7. Briefly describe the type of support CHWs get from HCPs and other staff with your daily roles and responsibilities, if any.
   Probes:
   a. Please give examples of how you/they (HCPs) support CHWs
   b. To what extent do you think the CHWs support the HCPs?
8. Let us talk about a situation where there was conflict between a CHW/s and a staff member/nurse. What was the conflict about and how was it resolved if it was?
   Probes:
   a. To what extent were you involved in dealing with the process?
   b. Who did the CHW/s speak to about this conflict and why did they speak to this particular person?
   c. Who else was involved in dealing with the conflict?
9. This time, please tell me of a situation when there was a conflict between CHW/s and a staff member, but it was NOT successfully resolved. What happened?
   Probes:
   a. Why do you think it was not able to be resolved?
   b. What do you think could have helped to resolve the situation?
10. To what extent are CHWs able to communicate sensitive/personal issues with HCPs?
    Probe:
    a. Who are they most likely to reach out to?
11. In your view what are the benefits of working with the CHWs in the clinic?
    Probe/s:
    a. Tell me a time or day/s when you felt that it was good to work with CHWs members and why?

12. Can you describe the disadvantages of working with CHWs in the clinic if there are any?
    Probe/s:
    a. Tell me a time or day/s when you felt unhappy to work with CHWs and why?

13. To what extent do you think collaboration between CHWs, and HCPs should be improved? If so, what do you think can help strengthen this collaboration in your facility?

E. <u>COMMUNICATION</u>

14. I know that you have a range of meetings in the clinic during the course of the month. Can you please describe the meeting/s in which the CHWs are included?
    Probe:
    a. What are they for and how are they run?
       - Who leads the meeting?
       - Who else is in those meetings?
       - What is your role in the meetings?
       -To what extent do CHWs speak at those meetings?
       - Do you have any other ways in which you have meetings with CHWs other than the one/s you told me about e.g. with the community? *[In case you need to probe a bit more on community*

meetings: Please tell me more about what happens in the community meetings, who leads, how active are the CHWs?]

b. In your opinion, what other platforms can be made available to help ensure effective communication between HCP/nurses and CHWs, if any?

15. How often is there communication and interaction between CHWs and HCPs about patient care and WBOT activities in general, if any?

16. To what extent are there opportunities to give CHWs feedback either about a patient or any WBOT-related matters? If there are such opportunities, please explain how these are conducted and who provides the feedback.

17. In your opinion, to what extent do you think the communication between CHWs, and HCP needs to be strengthened and please give reasons for your response.
18. To what extent are CHWs provided feedback about WBOT related activities (e.g., quality of referrals, households visits) in a team format or the meetings?

19. Please describe how the HCPs communicate with the CHWs if they have patients that they need them to follow up.

20. In instances where you have given CHWs a list of patients that they need to follow up or trace, how is the feedback on the outcome of that follow up communicated back to you? Who communicates the feedback to you?

F. <u>ENABLERS AND BARRIERS</u>

21. In your view what are the challenges of working with the CHWs in the facility? Explain by giving an example.

22. What would you say enables CHWs and other health care workers to work together if at all?
Probe/s:
    a. What do you think would strengthen the way you work together with the clinic staff/nurses?

23. Which staff or HCP/staff do you think would be important to be in the WBOT team that is not in it currently? Please explain why you think so.

24. Do you have any other issues that you would like to share regarding how you work or collaborate with CHWs in your facility?

25. Do you have Any other questions that you may want to ask?

Thank you for your time!

APPENDIX E: Information Sheet

Title of the study: **Exploring inter-professional collaboration between community health workers and health care providers in two clinics in City of Johannesburg district**

Good day. Thank you for giving me some of your time to listen to me. My name is Dorah Bokaba. I am a Master of Public Health Student at the University of the Witwatersrand. I invite you to participate in this study.

What is this research about?

I am conducting a study to explore inter-professional collaboration between community health workers (CHWs) and health care professionals (HCPs) in health care facilities. I would like to explore the nature and extent of inter-professional collaboration between CHWs and HCPs. To start, I would like to understand your perceptions regarding the nature of interactions, roles, and relationship dynamics between CHWs and HCPs in health facilities. Here, I will be interested to learn about, for instance, the nature and extent of teamwork between CHWs and HCPs, the decision-making processes that happens with HCPs and CHWs, and the extent to which there is knowledge of respective roles between HCPs and CHWs. Considering your role, I have approached you because I feel that you have the relevant information regarding these experiences and processes, considering your role in the facility.

If you agree, the interview discussion will be audio-recorded to ensure that the information I write later accurately represents your views. No one will be identified by name in the recording.

Voluntary participation

As part of this study, I would like to invite you to take part in an interview and I will be using a questionnaire as a guide. The interview will take between 45-60 minutes. Participation is completely voluntary; you may withdraw at any time or refrain from answering any question without any consequences.

Confidentiality

The information from the interviews will be used for research purposes. Anonymity will be protected by assigning codes to participants and data presentation will avoid specific individuals or groups of staff being identified. The knowledge gained from this research will be disseminated in summary form, without revealing the identities of the participants. I will, therefore, not disclose participants' identities or use names in any reports of this research. Audio recordings will be kept on a secure computer server or external drive, and participant codes will be kept in a locked filing cabinet under the care of the researcher, for the duration of the data collection and analysis and will be destroyed once the analysis is complete. The data collected from this research project will be stored in computer files under a secure encrypted password to ensure

confidentiality and will be kept for at least five years, thereafter information will be destroyed. No one other than myself and the study supervisor will be allowed to see the records of the observations.
Anonymised data will be digitised and stored in the researcher's data archive for at least two years after publication of the findings and for six years if there is no publication.

Approval for and benefits of this work

There will be no personal costs to you if you participate in this project. You will not receive any direct benefits from participation; however, there are indirect benefits in that the study will contribute new ideas and insights regarding health system management. There are no disadvantages or penalties if you do not choose to participate or if you withdraw from the study. The study has been approved by the ethics committee of University of the Witwatersrand and the Gauteng Province.

What if I have any questions?

If you have any questions during or afterwards about this research, feel free to contact the researchers by using the details below:
Dorah Bokaba (Researcher): 1925469@students.wits.ac.za; 0825524136
Nonhlanhla Nxumalo (Supervisor): Nonhlanhla.Nxumalo@wits.ac.za; 011 717 3432

Contact details of Human Research Ethics Committee (Medical) (HREC) Administrator and Chair:

Please also find the contact details of the Human Research Ethics Committee (Medical) which oversees the ethical aspects of this study so that you may direct any queries and/ or complaints regarding research participation:

HREC Chair contact details:
Professor Clement Penny
Telephone: +11-717-2301
Email: clement.penny@wits.ac.za

Administrative officers' contact details:
Ms Zanele Ndlovu/Mr Rhulani Mkasi/Ms Lebo Moeng
Telephone: +11-717-2700/2656/1234/1252

APPENDIX F: Consent forms for interviews

Title of study: Exploring inter-professional collaboration between community health workers and health care providers in two clinics in the City of Johannesburg district

CONSENT FORM (for interview)

I have had the study explained to me. I have understood all that has been read and had my questions answered satisfactorily.

□ Yes (please tick) I agree to be interviewed

□ No (please tick) I do not agree to be interviewed

I understand that I can change my mind at any stage, and it will not affect me in any way.

Signature:

Date:

Participant Name: Time:

(Please print name)

I certify that s/he apparently understood the nature and the purpose of the study and consents to the participation in the study. S/he has been given opportunity to ask questions which have been answered satisfactorily.

Signature: Date:

Designee/investigator's Name: Time:

(Please print name)

APPENDIX G: Consent form for audio (to be tape-recorded)

I have had the study explained to me. I have understood all that has been read and had my questions answered satisfactorily.

□ Yes. (Please tick) I agree to be tape recorded during the interview.

□ No. (Please tick). I do not agree to be tape recorded during the interview.

I understand that I can change my mind at any stage, and it will not affect me in any way.

Signature: _____ Date: _____

Time: _____

I certify that s/he apparently understood the nature and the purpose of the study and consents to the participation in the study. S/he has been given opportunity to ask questions which have been answered satisfactorily.

Signature: _____Date: _____

Designee/investigator's name: _____Time: _____

(Please print name)

APPENDIX H: Ethics approval from Johannesburg health district

GAUTENG PROVINCE
REPUBLIC OF SOUTH AFRICA

Research Committee of Johannesburg Health District

Joburg
a world class African city

27th January 2021

312 Cross-Berry Close, Serengeti Estate
Kempton Park
Johannesburg
1530

Email: mashego@serengeti.co.za

Enquiries: Ms. Busisiwe Sikhosana
Tel: 011 684 3909
Email: Busisiwe.Sikhosana@gauteng.gov.za
Hillbrow CHC: Administration Building,
Cnr Smith Str. & Klein Street
Private Bag X21, Johannesburg,
South Africa, 2017

Dear: Ms Dorah Bokaba

TITLE: ***Exploring inter-professional collaboration between community health workers and health care providers in two clinics in the City of Johannesburg district.***

DRC Ref: 2020-10-004

NHRD Ref no: GP_202010_035

OFFICIAL APPROVAL

The Johannesburg Health District Research Committee (DRC) has reviewed your application. This letter serves as approval to access the Districts Health facilities (mentioned below) for the above research.

The following conditions must be observed:

- The facilities in which the research will be conducted are: ALEXANDRA EAST BANK CLINIC, OR TAMBO CLINIC
- These facilities will be visited from: 27/01/2021 to 27/01/2022
- Participants' rights and confidentiality will be maintained all the time.
- No resources (Financial, material and human resources) from the above facilities will be used for the study. Neither the District nor the facility will incur any additional cost for this study.
- The study will comply with Publicly Financed Research and Development Act, 2008 (Act 51 of 2008) and its related Regulations.
- You will submit a copy (electronic and hard copy) of your final report. In addition, you will submit an annual progress report to the District Research Committee.
- Your supervisor and the University of Johannesburg will ensure that these reports are being submitted timeously to the District Research Committee.

- The District must be acknowledged in all the reports/publications generated from the research and a copy of these reports/publications must be submitted to the District Research Committee.
- You will liaise with the manager/s before initiating the study.

Contact	Sub District	Sub District Manager/ Area Manager	Contact No.	Cell phone
X	ABCEF	Ms Lombuso Matlala	011 440 1259	082 307 0267
	D	Ms Maria Mazibuko	011 674 1200	082 781 9919
	G	Mr Peter Mathole	011 213 9603	072 483 6839
	CoJ A	Ms Nelly Shongwe	011 237 8010	082 467 9276
	CoJ B	Ms Zanozuko Mbane	011 718 9656	082 551 5804
	CoJ C	Mr Tebogo Motsepe	011 761 0200	084 655 5420
	CoJ D	Ms Busi Phiri	011 986 0164	082 467 9316
X	CoJ E	Mr Vusi Mazibuko	011 582 1504	082 464 9547
	CoJ F	Mr M Monyamane	011 681 8130	082 467 9423
	CoJ G	Ms Olga Kruger	011 211 8936	083 286 0388

We reserve our right to withdraw our approval, if you breach any of the conditions mentioned above. Please feel free to contact us, if you have any further queries.

On behalf of the District Research Committee, we would like to thank you for choosing our District to conduct such an important study.

Regards,

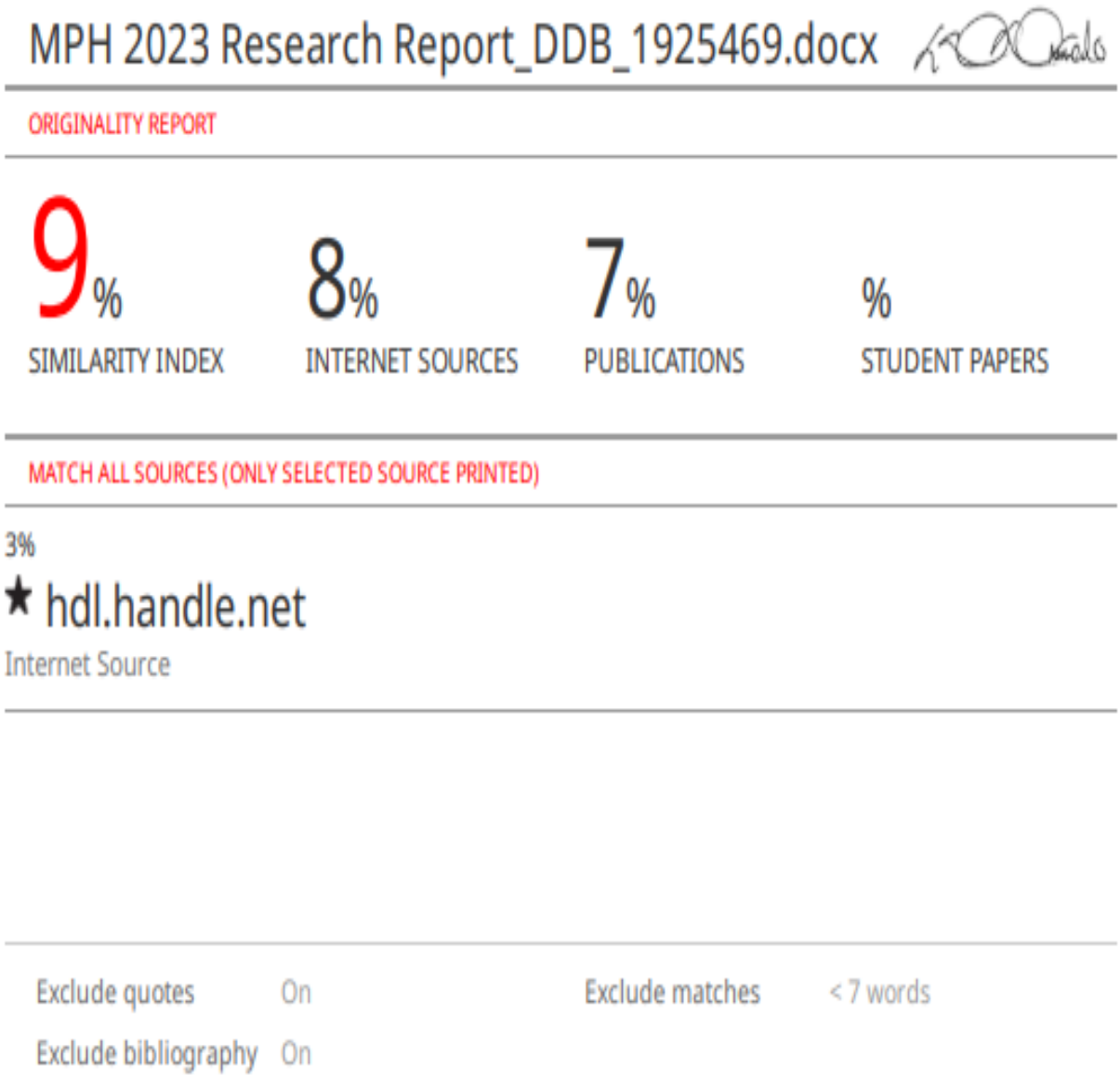
Prof S. Moosa
Chairperson: District Research Committee
Johannesburg Health District
Date: 27th January 2021

PP

Mrs M.L Morewane
Chief Director
Johannesburg Health District
Date: 2021.01.27

Dr Baski Desai
Executive Director (Acting)
City of Johannesburg
Date: 28/1/2021

APPENDIX I: TURNITIN Report



MPH 2023 Research Report_DDB_1925469.docx

ORIGINALITY REPORT

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SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

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Exclude bibliography	On		