

Original Research Article



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Exploring Measures to Improve Utilisation of the Central Chronic Medicines Dispensing and Distribution Programme in the Sekhukhune Primary Healthcare Facilities

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Abstract: Background: The Central Chronic Medicines Dispensing and Distribution (CCMDD) programme was launched in South Africa to support patients on long-term treatment by making it easier for them to access their medication. However, its utilisation in primary healthcare facilities within Sekhukhune has faced significant difficulties, affecting both healthcare workers and patients. **Aim:** The purpose of this study was to explore and describe measures that would help to improve utilisation of the CCMDD programme in the Sekhukhune district primary healthcare facilities of Limpopo Province. **Setting:** The research took place across nine primary healthcare facilities within the Sekhukhune District of Limpopo Province. **Method:** The study utilised the qualitative research approach with an explorative descriptive research design. A total of forty-five (45) one-on-one semi-structured interviews were carried out with nurses overseeing the CCMDD programme in Sekhukhune primary healthcare facilities, as well as with patients living with chronic illnesses who are enrolled in the programme. The collected data was analysed using thematic analysis. **Results:** The study identified several key measures to enhance the effectiveness of the CCMDD programme in Sekhukhune District, Limpopo Province. These include establishing proper channels of communication, increasing government recruitment of nursing personnel, conducting awareness campaigns, providing ongoing staff training, consistently delivering health education, and implementing systems to track patients who miss their medication collections. **Conclusion:** The utilisation of the CCMDD programme could be highly beneficial for both chronic patients and nurses within Sekhukhune District PHC facilities, if proper measures to improve the programme are effectively implemented. **Contribution:** The study would help to improve the utilisation of the CCMDD programme by refining key operational aspects, including client enrolment procedures, medication packaging and dispensing processes, SMS communication, and the delivery system to designated pick-up points.

Keywords: Measures; Utilisation; Central; Chronic; Medicines; Dispensing; Distribution



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1. Introduction

South Africa has a higher number of people living with chronic illnesses and most of them take chronic medications while others are unaware that they have chronic illnesses because they are undiagnosed. Hypertension is among the most widespread, affecting approximately 4.74 million people in 2019 (Galal, 2022). Additionally, around 1.6 million people are living with HIV, 1.677 million with diabetes, 1.218 million with arthritis, and asthma accounts for roughly 1.027 million cases (Galal, 2022). The overwhelming demand for free chronic healthcare services has led to overcrowding in public health facilities.

To address these challenges, the World Health Organization (WHO) recommended the Differentiated Service Delivery (DSD) model in 2015, which has been shown to improve patient outcomes by enhancing care quality, streamlining health system operations, and reallocating resources to those in greatest need (International AIDS Society, 2024). In response, the South African National Department of Health launched the Central Chronic Medicines Dispensing and Distribution (CCMDD) programme—also known as Daplapmeds—in 2014 as part of the DSD approach. This initiative offers patients with chronic conditions a community-based alternative for collecting their medication through designated pick-up points (Gcwabe, 2021). To support healthcare workers in implementing the programme, the department developed Standard Operating Procedures (CCMDD SOP 2) for patient enrolment and prescription renewal.

The Standard Operating Procedures (SOP) outline comprehensive directives for implementing the CCMDD programme. These include preparing prescribers, identifying and enrolling eligible patients, establishing effective communication between healthcare providers and patients, selecting appropriate pick-up points, managing the prescribing and dispensing processes, overseeing medication collection, maintaining accurate records, renewing prescriptions, and registering patients with their consent on the Synchronised National Communication for Health (SynCH) system, including prescription generation and submission (National Department of Health, 2021).

However, despite the presence of these guidelines, primary healthcare facilities in the Sekhukhune

District have encountered persistent challenges in effectively utilising the CCMDD programme. Since its implementation, the researcher has identified several operational gaps within Sekhukhune PHC facilities:

- Limited training on the current CCMDD SOP 2 among nurses and other personnel involved in utilising the programme
- Insufficient staffing across many Sekhukhune primary healthcare facilities, despite the CCMDD programme requiring additional human resources for effective operation

These shortcomings have hindered the successful utilisation of the CCMDD programme and led the researcher to conduct a study aimed at exploring and describing measures to improve its utilisation in Sekhukhune District's primary healthcare settings. Comparable challenges were highlighted in studies by Atlas et al. (2025:539) and Zakumumpa et al. (2020:222). Zakumumpa and colleagues reported inadequate training of healthcare workers in delivering Differentiated Service Delivery (DSD), while Atlas and co-authors identified various obstacles to DSD care, including a lack of psychological support and gaps in international guidelines and services, underscoring the need for further investigation into these issues.

2. Aim

The purpose of the study was to explore and describe the measures that would help to improve utilisation of the CCMDD programme in the Sekhukhune district primary healthcare facilities, Limpopo Province.

3. Research Methods and Design

The study utilised the qualitative research approach with an explorative descriptive research design. According to Kumar (2020), a qualitative research approach lays a strong emphasis on gathering non-numerical data and other pertinent materials in order to interpret the meaning of the data and advance knowledge of social life within the study's target population or locations. Both the research method and the design were appropriate for the study's intended purpose of exploring and describing measures to improve utilisation of the CCMDD programme in the chosen clinics across the Sekhukhune District.

Study setting

The study was conducted in nine of the Sekhukhune

District PHC facilities, Limpopo Province. Sekhukhune, located in the southeastern part of the province, is one of five district municipalities and is predominantly rural. The district comprises four local municipalities, 83 clinics, four community health centres (CHCs), seven hospitals, 117 wards, and 764 villages. It is home to approximately 1.2 million residents, most of whom belong to the Bapedi ethnic group. According to the Sekhukhune District Municipality (2023), the health of these communities is significantly impacted by diseases such as HIV/AIDS, diabetes, hypertension, and tuberculosis.

Study population and sampling strategy

A total of forty-five (45) participants were purposively selected for the study, comprising eighteen (18) chronic patients aged over eighteen who had been enrolled in the CCMDD programme for more than six months, along with twenty-seven (27) nurses responsible for managing the programme. The nine clinics involved in the study were conveniently chosen based on their accessibility and their role as designated pick-up points for CCMDD medication parcels.

Data collection

Data collection took place from December 2023 to March 2024. Researcher utilized researcher semi-structured face-to-face interviews to collect data from the participants. Two semi-structured interview guide that were created by the researcher, one for nurses and the other for CCMDD patients and were used to guide the conversation during the interview. Interviews were conducted in a separate room at the PHC clinics in English and Sepedi. The interviews were between twenty-six and forty-five minutes of duration. The interviewees' exact responses were captured using a digital recorder, and field notes were used to document the participants' verbal and nonverbal cues.

Data analysis

Braun and Clark's six-step inductive data analysis methodology was used to analyse data (Braun & Clark, 2006). The first step was data familiarisation, during which the researchers checked the notes made in the notebook for confirmation and listened to the audio recordings of the interviews to become familiar with the data. The researchers' second stage involved creating initial codes, which they did by underlining passages (sentences or phrases) that shared a common meaning.

The third step involved finding themes, in which the researchers separated out specific topics from the participant response groups. The fourth step involved reviewing the themes; during this stage, the researchers made sure each theme was in line with the goals of the study. The fifth step was identifying and labelling the themes. To ensure that sound, impartial, and rational procedures were followed, the researchers conferred with an independent coder. The creation of the report was the sixth and final phase (Braun & Clark, 2006).

Trustworthiness

To ensure reliability, the researcher maintained transparency throughout all study procedures. Prolonged engagement with participants—ranging from twenty-six to forty-five minutes—was essential for establishing credibility. The use of an audit trail, documenting both the data analysis process and recorded interviews, further supported reliability. Peer debriefing and member checking were employed to confirm that the findings genuinely represented participants' experiences. Additionally, the researcher consulted with an independent coder to validate that the interpretations aligned accurately with the transcript analysis. Transferability was achieved by providing a detailed account of the study's participants, research methods, and context. Authenticity was reinforced through the inclusion of direct quotations from participants to support each identified theme and subtheme.

Ethical considerations

Ethical clearance was obtained from the University of South Africa, Reference number: 60756349_CRECHS_2025. Permission to conduct the study at the nine chosen clinics was also granted by Limpopo Department of Health Provincial office, Sekhukhune District PHC office and the local area managers, Reference number: LP_2023_10_002. Following the complete presentation of the study's objectives and the expectations surrounding their participation, all participants gave their written consent. The interviews were held in a pre-requested private room on the premises of the selected PHC facilities and codes or pseudonyms such as Operational manager (OPM), Assistant operational manager (AOPM), Professional nurse (PN), Professional nurse with speciality (PNS),

Enrolled nurse (EN), Enrolled nursing auxiliary (ENA), Client (C) and Participant (P) were used instead of using participants' real names. Participants received guarantees that all study-related data, including their personal information, would be handled in strict secrecy. The transcripts and digital recorder will be securely kept for about five (five) years, or until this investigation's goal has been fulfilled.

4. Findings

Extrapolated from Table 1 below is that forty-five participants in nine (9) clinics took part in the study. Each clinic provided five (5) participants. The nurse participants were 27, aged between 30 and 58 years. Among the nurse participants, 25 were female, and two (2) were male. The nurses' working experience ranged from five (5) years) to 33 years. The categories included three (3) operational managers, three (3) acting operational managers, seven (7) professional nurses, five (5) professional nurses with PHC specialisation, six (6) enrolled nurses and three enrolled nursing auxiliaries.

The nurses' qualification levels ranged from certificate to degree level. Their responsibilities differ according to their scope of practice even though in clinics A, B

and I, enrolled nurses are assigned professional nurse responsibilities in the name of assisting professional nurses because there is shortage of staff. This is a bridge of conduct and creates concern over risk to patient safety. Two (2) separate interview guides were used to collect data from nurses, one (1) for professional nurses including operational managers and the other one for enrolled nurses.

A total of 18 CCMDD-enrolled clients participated. These CCMDD clients had chronic conditions such as HIV, hypertension, asthma and migraine. They ranged in age from 30 to 74 years. Concerning the CCMDD participants' level of education, some had never attended school, while some had college certifications. The CCMDD client participants included two males and 16 females.

Whereas **Table 1** presented the study sites and characteristics or profiles of the nurses who participated in this study, the ensuing **Table 2** overleaf depicts the study sites and demographic characteristics of the CCMDD clients in this study in respect of their age, gender, level of education, CCMDD status, and nature of chronic illness.

Table 1: Study sites and demographic characteristics of nurse participants

Participant Number	Clinic Name	Age	Gender	Years of Experience	Level of Education	Nursing Category	Responsibilities
1	Clinic B	46	Female	17 years	Diploma	Professional Nurse with PHC specialisation	-screening of all chronic patients to assess their eligibility to be enrolled, verifying patient details, ensuring that patient consented to be enrolled on the programme, verifying medication is correctly dispensed and conducting clinical reviews every six months.
2	Clinic B	52	Female	12 years	Diploma	Professional Nurse with PHC specialisation	Facilitating the utilisation of the programme and ensuring that new staff is equipped with the information regarding the CCMDD programme. Giving information to all patients about the CCMDD programme. Screening all chronic patients for eligibility to be enrolled on the programme. Filling of CCMDD enrolled forms, CCMDD renewal forms and de-registering CCMDD clients who are no longer qualifying to be on the programme.
3	Clinic C	54	Female	29 years	Degree	Operational Manager	-Overall supervision of the programme and also assist with enrolment of the clients due to shortage of staff
4	Clinic C	39	Female	10 years	Certificate	Enrolled Nursing Auxiliary	-Provide CCMDD with health education and check their appointment cards when they arrive in the clinic, we also supply them with their medication parcels and a book to sign as a confirmation that the medication parcel has been collected.

Continuation Table:

Participant Number	Clinic Name	Age	Gender	Years of Experience	Level of Education	Nursing Category	Responsibilities
7	Clinic B	41	Male	15 years	Diploma	Enrolled Nurse	We supply CCMDD clients with their medication parcel, we enrol the clients on the programme, and we also fill out the forms and sign. We know that we do not have the power to prescribe medications like professional nurses, but due to a shortage of staff, especially professional nurses, we end up filling out those forms and signing, which is very wrong.
10	Clinic D	35-49	Female	10 years and above	Certificate	Enrolled Nurse	I supply CCMDD clients with their medication parcel when they arrive in the clinic.
12	Clinic D	34	Female	8 years	Degree	Professional nurse with primary healthcare specialisation	Screening all chronic patients for eligibility to be enrolled on the programme, Providing information to all chronic patients about the CCMDD Programme. Verifying patient details, ensuring that patient consented to be enrolled on the programme, verifying medication is correctly dispensed and conducting clinical reviews every six months.
13	Clinic A	45	Female	10 years	Diploma	Professional Nurse	Screening of clients for eligibility to be enrolled on the programme Giving chronic patients information regarding the CCMDD programme and also ensuring that patient consented to be enrolled on the programme. Filling of CCMDD enrolled forms, renewal forms and de-registration forms for those who no longer meet criteria for enrolment on the programme.
14	Clinic A	52	Female	24 years	Degree	Operational Manager	Overall supervision of the CCMDD programme. Due to shortage of staff, I assist with screening of eligible chronic patients, filling of CCMDD enrolment forms and renewal forms.
16	Clinic A	52	Female	22 years	Certificate	Enrolled Nurse	I give CCMDD clients health education and also supply them with their medication parcels. I fill up the CCMDD forms and give the professional nurse to sign because I am not allowed to prescribe the medication, I assist professional nurses because there is shortage in of professional nurses in our facility.
17	Clinic E	50	Female	16 years	Degree	Acting Operational Manager	Overall supervision of the facility and healthcare services that are provided in the facility. Assist in filing of forms for those who meet the criteria of enrolment and for those who are due for renewal.
20	Clinic E	42	Female	10 years	Degree	Professional Nurse	-screening of all chronic patients to assess their eligibility to be enrolled, verifying patient details, ensuring that patient consented to be enrolled on the programme, verifying medication is correctly dispensed and conducting clinical reviews every six months.
21	Clinic F	43	Female	16 years	Degree	Acting Operational Manager	Overall supervision of the facility and healthcare services that are provided in the facility. Assist in filing of forms for those who meet the criteria of enrolment and for those who are due for renewal.
22	Clinic F	51	Female	12 years	Certificate	Enrolled Nursing Auxiliary	We supply CCMDD clients with their medications and also we give them a book to fill up their names, contact details and signature as confirmation that the medication has been collected.
23	Clinic F	58	Female	33 years	Diploma	Professional Nurse	Screening of clients for eligibility to be enrolled on the programme

Continuation Table:

Participant Number	Clinic Name	Age	Gender	Years of Experience	Level of Education	Nursing Category	Responsibilities
							Giving chronic patients information regarding the CCMDD programme and also ensuring that patient consented to be enrolled on the programme. Filling of CCMDD enrolled forms, renewal forms and de-registration forms for those who no longer meet criteria for enrolment on the programme.
26	Clinic G	55	Male	34	Degree	Operational Manager	Overall supervision of the facility and healthcare services that are provided in the facility. Assist in filing of forms for those who meet the criteria of enrolment and for those who are due for renewal.
27	Clinic G	46	Female	17 years	Diploma	Enrolled Nurse	We assist professional nurses by filling up the CCMDD enrolment forms and then they verify that the form is correctly filled.
29	Clinic H	58	Female	25 years	Diploma	Professional nurse with primary healthcare specialisation	Screening of all chronic patients to assess their eligibility to be enrolled, verifying patient details, ensuring that patient consented to be enrolled on the programme, verifying medication is correctly dispensed and conducting clinical reviews every six months.
28	Clinic H	40	Female	18 years	Certificate	Enrolled Nurse	We issue the CCMDD medication to the clients and assist in receiving medication packages from the Pharmacy Direct.
34	Clinic I	50	Female	19 years	Degree	Professional Nurse with PHC specialisation	Screening all chronic patients for eligibility to be enrolled on the programme, Providing information to all chronic patients about the CCMDD Programme. Verifying patient details, ensuring that patient consented to be enrolled on the programme, verifying medication is correctly dispensed and conducting clinical reviews every six months.
33	Clinic E	38	Female	12 years	Certificate	Enrolled Nursing Auxiliary	We give chronic patients health education about the importance of adherence because we do not want them to miss an opportunity of being enrolled on the CCMDD programme
35	Clinic I	49	Female	25 years	Certificate	Enrolled Nurse	We give CCMDD patients their medication parcels. We also fill up the forms for those who need to be enrolled and qualifying to be enrolled on the programme. We renew forms for CCMDD enrolled clients who are due for renewal.
36	Clinic D	42	Female	15 years	Diploma	Acting Operational Manager	Overall supervision of the facility and giving information to the staff and all patients about the CCMDD programme. Due to shortage of staff, I assist the other professional nurses with filing up of CCMDD enrolment forms and renewal forms.
37	Clinic I	34	Female	8 years	Diploma	Professional Nurse	screening of all chronic patients to assess their eligibility to be enrolled, verifying patient details, ensuring that patient consented to be enrolled on the programme, verifying medication is correctly dispensed and conducting clinical reviews every six months.
38	Clinic C	38	Female	14 years	Diploma	Professional Nurse	Monitoring and facilitating the utilisation of the programme and ensuring that new staff is equipped with the information regarding the CCMDD programme. Giving information to all patients about the CCMDD programme.

Continuation Table:

Participant Number	Clinic Name	Age	Gender	Years of Experience	Level of Education	Nursing Category	Responsibilities
							Screening all chronic patients for eligibility to be enrolled on the programme. Filling of CCMDD enrolled forms, CCMDD renewal forms and de-registering CCMDD clients who are no longer qualifying to be on the programme.
39	Clinic G	30	Female	8 years	Diploma	Professional Nurse	Screening of clients for eligibility to be enrolled on the programme Giving chronic patients information regarding the CCMDD programme and ensuring that patient consented to be enrolled on the programme. Filling of CCMDD enrolled forms, renewal forms and de-registration forms for those who no longer meet criteria for enrolment on the programme.
40	Clinic H	50 Years	Female	5 years	Diploma	Professional Nurse	Screening of clients for eligibility to be enrolled on the programme Giving chronic patients information regarding the CCMDD programme and ensuring that patient consented to be enrolled on the programme. Filling of CCMDD enrolled forms, renewal forms and de-registration forms for those who no longer meet criteria for enrolment on the programme.

Table 2: Study sites and demographic characteristics of CCMDD clients

Clinic Name	Participant Number	Age	Gender	Level of Education	CCMDD Status	Chronic Illness
A	15	42	Female	Passed Grade 12	Enrolled	HIV
	30	38	Female	Failed Grade 12	Enrolled	HIV
B	8	56	Female	Standard five dropout	Enrolled	HIV and Hypertension
	9	38	Female	Certificate	Enrolled	HIV
C	4	74	Female	None	Enrolled	Hypertension
	5	55	Female	Passed Grade 12	Enrolled	Migraine
D	10	37	Male	Passed Grade 12	Enrolled	HIV
	31	30	Female	Certificate	Enrolled	HIV
E	18	65	Male	Passed Standard 3	Enrolled	Asthma
	19	74	Female	Standard three dropout	Enrolled	Hypertension
F	24	68	Female	None	Enrolled	Hypertension
	25	45	Female	Passed Grade 11	Enrolled	HIV
G	44	53	Female	Grade 11 dropout	Enrolled	HIV
	45	47	Female	Passed Grade 12	Enrolled	HIV
H	32	45	Female	Grade 6 dropout	Enrolled	HIV
	43	44	Female	Certificate	Enrolled	HIV
I	41	45	Female	Certificate	Enrolled	HIV
	42	34	Female	Failed Grade 12	Enrolled	HIV

5. Themes

analysis, **Table 3** presents the theme and subthemes

One theme and six subthemes emerged during data

Table 3: Measures to Improve Utilisation of the CCMDD Programme

THEME	SUBTHEME
Theme 1: Measures to improve utilisation of the CCMDD programme	1.1 Proper channels of communication

THEME	SUBTHEME
	1.2 Hiring of nursing staff by the government
	1.3 Awareness campaigns
	1.4 Training of staff
	1.5 Continuous giving of health education
	1.6 Tracing of defaulters

Theme 1: Measures to Improve Utilisation of the CCMDD Programme

Participants suggested different measures that might help improve the CCMDD programme's utilisation in their facility. The measures suggested included proper channels of communication, government hiring of nursing staff, awareness campaigns, staff training, continuous health education, and tracing of defaulters. These are discussed as subthemes in support of Theme 1, which corresponds with the study's objective of exploring and describing measures to improve utilisation of the CCMDD programme in Sekhukhune PHC facilities.

Subtheme 1.1: Proper channels of communication

Three lines of communication were suggested to improve utilisation of the CCMDD programme. These were between (1) the CCMDD provider and the facilities, (2) the CCMDD provider and CCMDD clients, and (3) the facility and the CCMDD clients. Participant responses to support the subtheme are illustrated by the following verbatim statements:

"Those responsible for sending SMS notifications to the clients must ensure that the SMS is sent exactly when the medication has been delivered to the clinic. They should not send the notification when packing the package, as this confuses clients." (AOPMP21F)

"Patients should ensure that they provide us with correct contact details to avoid loss of medications." (AOPMP21F)

"Medication parcels must always be available all the time when it is due to be collected rather than patients coming and finding that their medications have not been delivered." (AOPMP17E)

"The CCMDD should deliver client's medication that we have prescribed on time and at least every month so that people do not have to struggle because of undelivered medications." (PNP23F)

"CCMDD must give us a programme to collect scripts and a delivery schedule so that we can fill up

the forms in time." (PNP40H)

"We are not sure if the Pharmacy Direct is short-staffed or what, but we find many mistakes on their side. So, we humbly request that they ensure that the correct medication is packed for the correct patient and delivered at the correct facility at the correct time." (ENP10D)

"CCMDD to collect scripts on time to avoid expiry while they are still in the facility." (ENP28H)

"Improve communication between the CCMDD and the facility so that if we do not receive medication, they tell us their reasons." (ENP35I)

"There must be an automatic review of clients who are enrolled on the programme unless, as nurses, we write something to inform the Pharmacy Direct that the patient no longer qualifies to be on the programme. That way, they can stop supplying the client with the medication." (PNSP1B)

"There must be a linkage between the Pharmacy Direct and laboratory, specifically for people living with HIV enrolled on the CCMDD. The linkage will work when we collect blood, and the results become accessible for them and the facility. If viral load is suppressed, Pharmacy Direct should continue to supply the medication without nurses filing up forms repeatedly. The renewal must be automatic, and clients must only come when blood tests are due." (PNP13A)

"CCMDD must extend the renewal of scripts from six months to twelve months so that those who are due for blood collection can be easily detected and monitored correctly." (ENP27G)

"Pharmacy Direct needs to expand their medication list by including all chronic medications which were not included on the list." (OPMP3C)

"Pharmacy Direct must include all the medications or expand their list, especially for medications issued by a pharmacist only. This can help our clients with incomplete parcels who must travel to the hospital to collect those medications, costing them money."

(ENP7B)

The nurses' responses above were corroborated by the CCMDD clients, as shown below:

"They must extend the supply from two to twelve months supply so that we can only come to the clinic when blood tests are due." **(CP8B)**

"Maybe they should increase the medication from three months to twelve months so that we can come once per year." **(CP5C)**

"Maybe they should increase the medication from three months to twelve months so that we can come once per year." **(CP10D)**

"CCMDD must at least extend the two months' supply to four months." **(CP25F)**

"Provide us with six months' treatment so that we can come when we are supposed to have blood collected." **(CP32H)**

"They must increase supplies from three to six months so that we have enough time to rest at home." **(CP41I)**

"Nurses must delegate community healthcare workers to deliver medication for us at home because sometimes we fail to come because of illnesses. I am too old, my child... and my body is always tired." **(CP24F)**

Participants proffered that the CCMDD programme can be effective if the SMS notifications are consistent and clients provide correct personal information. In turn, the CCMDD programme should provide a schedule for collecting prescriptions and delivering medication. In addition, there must be an automatic review of enrolled clients on the programme with the linkage between the Pharmacy Direct and the laboratory. This automation will enable easy access to results for clients living with HIV for renewal on the CCMDD programme. The participants also recommended the extension of the renewal of scripts from six to twelve months, as well as the expansion of the formulary list to include medications which are unavailable on the list.

Subtheme 1.2: Hiring of staff by the government.

Enough staff in PHC facilities ensures that services are accessible to needy people. With adequate staff, delegating tasks to ensure efficient health service management is possible. According to Tamburello (2023:15), the correct number of appropriately qualified and experienced nurses is essential to protect patients

and the nursing profession. The study participants suggested that the government hire more nursing staff to manage the CCMDD programme. The following participant responses attest to these assertions:

"We need more staff. The government should hire more staff to assist with the implementation of the programme. We need to trace the CCMDD medications which do not reach the facility." **(PNP13A)**

"Government to hire enough staff that will be dedicated for this programme and the programme will run smoothly." **(OPMP14A)**

"We need more personnel to run the programme, the government must hire." **(OPMP3C)**

"The availability of a medical doctor daily in our facility to assist in prescribing CCMDD medications, which are not supposed to be prescribed by a professional nurse, would be helpful. There must be a specified person who will be responsible for the CCMDD clients and the programme." **(PNSP29H)**

"There must be a person for the programme in the facility who focuses only on CCMDD so that when clients arrive in the clinic, they know whom to face or which room to enter." **(PNSP12D)**

"Government must hire enough staff and build proper buildings with enough spaces because there is no space in the facility where you can sit and fill up the forms and provide health education to the CCMDD clients" **(ENP16A)**

From the verbatim statements above, it was concluded that the government's staff recruitment could assist in utilising the CCMDD programme.

Subtheme 1.3: Awareness campaigns

The nurses and the CCMDD clients also suggested that awareness campaigns be conducted to inform the community about the CCMDD programme. The responses from the participants supporting this subtheme are shown below:

"There must be awareness about the CCMDD programme whereby we teach our clients about the programme, its aims and benefits so that all chronic patients know the importance of treatment adherence." **(ENAP33E)**

"All chronic patients must be informed about the CCMDD programme." **(ENP35I)**

"Teach people about the programme and the importance of being enrolled on it." **(CP30A)**

"Educate people about the programme so that more

people benefit from it.” (CP44G)

From the above-stated assertions, it is established that awareness campaigns about the CCMDD programme should be conducted so that the community has information on improving its utilisation.

Subtheme 1.4: Training of staff

Participants explained that there was a need for staff training about the CCMDD programme to ensure its efficient management. The participants’ shared experiences in this regard are stated below:

“In-service training is needed, whereby all staff members are informed on how to manage the programme, including how to organise and manage CCMDD clients”. (PNSP2B)

“Nurses need to know about the CCMDD programme and how to manage clients enrolled on the programme.” (AOPMP36)

“There is a need for proper training of nurses and patients to improve the programme.” (PNP39G)

“There must be a well-trained focal person for the programme; it will be easy for us and patients to know who can assist regarding enrolment and collection of medication.” (PNP37I)

“In-service training by the CCMDD personnel at least every quarter because things change every month, but we are not informed. We are just working and enrolling clients in the programme, but we are unsure if we are doing the correct thing.” (ENP7B)

Based on the above statements, it is ascertained that providing staff with in-service training could improve the CCMDD programme’s utilisation.

Subtheme 1.5: Continuous provision of health education

Participants also shared that continuous health education could improve the CCMDD programme’s utilisation. Their shared experiences on improving the CCMDD programme through the provision of health education are supported by the following responses:

“To encourage patients to take their medications correctly and inform them that even if they did not get an SMS notification, they must just come to the clinic and get their medication, rather than sitting at home without medication and waiting for SMS.” (PNP20E)

“Re-emphasise health education on the patients and nurses.” (PNSP34I)

“People must learn to listen when we give health education and adhere to their medications so that they

can qualify for enrolment on the CCMDD programme.” (ENAP6C)

“Chronic patients should be given health education daily to promote compliance with the medication. The health education will also encourage people to come for their blood tests on time to qualify for the programme.” (ENAP22F)

The CCMDD clients’ responses below further elaborate on the issue of health education:

“Nurses should encourage other patients to adhere to their medications so that they can qualify for enrolment on the programme.” (CP15A)

“Nurses must provide health education about the CCMDD programme daily so that clients can know about it.” (CP9B)

“Nurses must always encourage patients to take their medication well so that their diseases can be controlled.” (CP4C)

“Nurses must continue to educate people about the programme.” (CP31D)

“Nurses must educate other chronic patients so that they also benefit from the programme.” (CP42I)

The findings suggest the need for nurses to provide health education daily to chronic clients about the CCMDD programme so that the utilisation of the programme can be improved.

Subtheme 1.6: Tracing of defaulters

Participants also recommended tracing CCMDD clients in order to ensure the efficient management of the CCMDD programme. The response from one participant is outlined below:

“Tracing of clients by assigning home-based caregivers is necessary rather than relying on the SMS notifications which the CCMDD sends to the clients.” (ENP35I)

Based on the above excerpt, it is established that utilisation of the CCMDD programme could be improved by tracing clients who defaulted on the treatment. Furthermore, it was suggested that home-based caregivers can trace defaulting clients.

6. Discussion

The participants proposed different measures which could improve the CCMDD programme. These measures include staff hiring, proper communication channels, daily provision of health education, awareness campaigns, staff training, and tracing

of defaulters. The study conducted by Muthelo et al. (2020:30) recommended a similar measure, and suggested that the NDoH should employ inexperienced staff at the CCMDD sites to issue medication to alleviate the challenge of inadequate staff. Similarly, Monyela (2021:41) suggested that a focal person should provide daily information about all clinic programmes.

The findings are also consistent with the study conducted in Malawi, Tanzania and South Africa by Chimukuche et al. (2021:59) who suggested more detailed guidance for health workers for implementing these patient-focused policies. Additionally, Chimukuche et al. (2021:59) proffered patients' need for more information concerning the various models of care available, the considerations for eligibility and process for accessing them, which ensures accommodation of the needs of patients. The findings suggested proper channels of communication could improve programme utilisation at three points: (1) between the CCMDD provider and the facilities, (2) between the CCMDD provider and CCMDD clients and (3) between the facility and the CCMDD clients.

Solomons et al. (2020:70) made a similar recommendation by highlighting that there should be better communication so that patients receive clear SMS notifications. The study participants also emphasised the need for an awareness campaign and continuous health education to educate people about the programme and its benefits. Similar conclusions were drawn by Jordan and Harrison (2021:6), who suggested that patient education should include information about the CCMDD programme. Staff training and tracing of defaulters were also recommended as measures that might ensure the effectiveness of the CCMDD programme. Similarly, Monyela (2021:42) indicated that sufficient training is required for equipping staff with up-to-date information, considering the novelty of the differentiated care model.

This training should be continuous, covering all new methods of care that are implemented (Monyela, 2021:42). The WHO (2021:18) recommends patient tracing as one of the possible interventions for improving the connection between diagnosis and ART initiation. The WHO Updated Recommendations on Service Delivery for the Treatment and Care for people who live with HIV further emphasised that re-engagement actions and tracing appeared

more successful in the event of people being traced immediately after a missed visit, as opposed to more extended period of disengagement. The findings of the study prove that the utilisation of the CCMDD programme in Sekhukhune district PHC facilities could be improved if measures such as hiring of staff, proper channels of communication, awareness campaigns, training of staff, daily health education and tracing of defaulters are effectively implemented.

7. Limitations

Sekhukhune District is divided into four Sub-Districts, therefore the results of the study cannot be generalized because the study was conducted in only two Sekhukhune Sub-Districts. Ethical issue pertaining to risk of patient safety was also raised in this study in three of the nine selected clinics whereby enrolled nurses were performing professional nurses' duties because there is a shortage of professional nurses.

8. Conclusion

Primary healthcare facilities in Sekhukhune District must implement effective measures to improve the utilisation of the CCMDD programme, ensuring it delivers meaningful benefits to patients, healthcare professionals, and the facilities themselves. It is recommended that facility managers incorporate the CCMDD programme into the orientation process for newly appointed staff. Additionally, future studies should evaluate the cost-effectiveness of the programme, as some participants expressed concerns that its implementation may represent unnecessary government expenditure and replicate existing clinic services.

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Competing interests

The authors have declared that there is no existing competing interest in this study that may have inappropriately influenced them in writing this article.

Authors' contributions

R.P.S contributed by designing the study and acquisition, collecting, analyzing and interpreting data

and drafting of the manuscript. TRN contributed by conceptualizing the study and reviewing methodology, editing and validating of the data analysis process.

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Data availability

Data are available upon request from the first author.

Disclaimer

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors, and the publisher. This research summarise the work completed as part of evaluation of PHD research titled “guidelines to improve Central Chronic Medicines Dispensing and Distribution (CCMDD) programme in Sekhukhune District: Limpopo Province.”

Abbreviations

The following abbreviations are used in this manuscript:

AIDS Acquired Immunodeficiency Syndrome

AOPM Acting Operational manager

CCMDD Central Chronic Medicines Dispensing and Distribution programme

C Client

DSD Differentiated Service Delivery

EN Enrolled Nurse

ENA Enrolled Nursing Auxiliary

HIV Human Immunodeficiency Virus

P Participant

PHC Primary Health Care

PN Professional Nurse

PNS Professional Nurse with Speciality

OPM Operational Manager

SOP Standard Operating Procedure

SyNCH Synchronised National Communication for Health

WHO World Health Organisation

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