



Original Article

Exploring community nurses' experiences on the decentralization of non-communicable diseases care in the Lubombo region, Eswatini

Princess Sibonelo Thwala¹, Thulani Ricardo Nhlabatsi^{2*}¹Institute of Distance Education, University of Eswatini, Mbabane, Eswatini²Department of Community Health Nursing Science, University of Eswatini, Mbabane, Eswatini

ARTICLE INFO

Received 15 June 2024
Accepted 19 December 2024Available online at:
<http://npt.tums.ac.ir>**Keywords:**
non-communicable disease;
community nurses;
decentralization**Corresponding Author:**
Thulani Ricardo Nhlabatsi, Department of
Community Health Nursing Science,
University of Eswatini, Mbabane, Eswatini.
E-mail:
nhlabatsi@gmail.com/tnhlabatsi@uniswa.sz

DOI: 10.18502/npt.v12i2.18340

ABSTRACT

Background and Aim: Non-Communicable Diseases (NCDs) remain a global challenge. The primary healthcare has been identified as a vital aspect of the healthcare system that will assist in addressing the burden of NCDs in low and middle-income countries. As such, the Eswatini Ministry of Health-NCD program had embarked on the decentralization of NCDs' services to primary healthcare facilities. This initiative called for nurses to deliver NCD treatment services in primary healthcare facilities. However, the experiences of community nurses about this initiative have not been explored. Therefore, this study explored and described the community nurses' experiences with decentralizing care for NCDs in the Lubombo Region of Eswatini.**Methods and Materials:** A descriptive qualitative study design approach was used to explore and describe the experiences of ten purposively sampled community nurses. Data was collected through audio-recorded face-to-face interviews using a semi-structured interview guide. Data was subjected to thematic analysis using Colaizzi's descriptive method of data analysis.**Results:** Three themes emerged from the study findings; 1) Decentralising NCD care is a good move by the Government, 2) Challenges brought by the decentralization of NCD services, and 3) Nurses' perceived support needs in managing NCDs at clinics.**Conclusion:** Community nurses applauded the government's move to decentralized NCD services even though they viewed rural clinics as not well prepared to offer NCD services due to the challenges faced. There is a need for more support for rural clinics regarding human resources, NCD diagnostic equipment and medicines, and training of nursing personnel.

Introduction

Non-communicable diseases (NCDs) are a growing global public health concern accounting for 41 million deaths annually; 71% of premature deaths, with 77% of the deaths occurring in low and middle-income countries. The leading NCDs globally are cardiovascular diseases with 17.9 million deaths, cancers with 9.3 million deaths, and respiratory and diabetes mellitus with 4.1 and 2 million respective deaths annually (1). African countries like Zambia, Mozambique, and Eswatini are also hard hit by NCDs (1,2). NCDs have largely been associated with elderly people. However, recent evidence has shown that more than 15 million of NCDs attributed deaths occur before 70 years (1).

Eswatini, like the rest of the African region, is largely affected by cardiovascular

diseases, cancer, COPD, Type 2 diabetes, and hypertension (4). One in three adults is living with cardiovascular disease and one in four adults with diabetes or pre-diabetes in Eswatini. NCDs accounted for 46% of deaths in 2019 (3). Some of the identified leading factors that increase the risk of dying by NCD in Eswatini are tobacco use, physical inactivity, harmful use of alcohol, and unhealthy diets (4).

One of the global goals of NCDs' programs is to support effective and quality care by building the capacity of health systems and health workers to respond effectively to NCDs and ensure the availability and affordability of medicines and basic technologies. Such calls for decentralization of NCD services to communities to ensure universal access to health services and



basic NCD services (2). Heeding to this call, African countries decentralised NCDs services to communities. For instance, South Africa has initiated various strategies like strengthening the entire health system, including primary health care, to provide competent NCD services (5), empowering patients about modifiable NCD risk factors like diet, and integrated symptom-based approach to adult care in primary health care settings (6). However, Niyonsenga et al. (7) argued that NCDs services remain low in primary health facilities; largely restricted and central to referral hospitals. For instance, Zambia strengthened primary health through the training of nurses in NCDs management. Despite 58% readiness to offer NCDs services to nurses, 25% of primary health facilities offered services for NCDs (8).

For the longest time, NCD services have been centralized in hospitals in Eswatini and patients are reviewed on monthly basis through appointments. The centralized model for NCD care delivery has resulted in limited accessibility to NCD care by the population leading to late NCD assessment, diagnosis, interrupted continuous management, and premature deaths (4). In 2013, the Eswatini Ministry of Health NCD program developed a strategy to address the morbidity and premature mortality caused by NCDs. One of the components of this strategy was to decentralize NCD services to rural clinics (4). It was, however, noted that even after the successful decentralization of NCD services to rural clinics, a majority of patients were still traveling to regional hospitals for basic NCD services such as screening and refill of medications. There can be a number of factors that can make patients move or not move to regional hospitals such as community nurses' attitudes towards them. Community Nurses' positive attitude, characterized by motivation and enthusiasm, towards providing NCD care services had been observed to encourage the uptake of the service (9, 10, 11,12,13). Despite their positive attitude, community nurses face numerous challenges while delivering NCD service. Oftentimes, the NCD care is disrupted by lack of medication supplies and limited functional equipment to assist patients. The lack of medication and working equipment is

secondary to mechanical reasons such as lack of cars and fuel and 'hard to reach' geographical location of clinics (4, 14, 13). Additionally, chronic understaffing that is further characterised by a shortage of NCD trained community nurses and guidelines to manage NCDs is a major challenge for community nurses. Even those nurses that are trained in NCD, they are tasked with other activities such as child welfare and curative services (15,16). As such, patients have a long waiting time in community clinics and such undermine relationships between nurses and patients.

Seeing the gap in NCD services in primary healthcare facilities, in 2019, the Eswatini Ministry of Health assisted by the WHO launched a campaign called "Know your health numbers" which was a campaign mostly centered around creating awareness and encouraging all people to have routine medical check-ups using their health tracker card for early detection and early treatment of NCDs in primary healthcare facilities (17). The rolling of NCD services to primary healthcare facilities was a first of its kind in Eswatini; and a new experience to most nurses. However, the researchers have observed that there is a dearth of research that has explored the experiences of community nurses following the decentralization of NCD services in the Lubombo region of Eswatini yet such is pivotal in improving the services. This is because, literature (4,13, 14, 15, 16) has demonstrated that decentralization comes with numerous challenges in community nurses in developing countries. Such challenges leave nurses with stories that they can reflect on while providing an opportunity for strategies that can be used to improve the service. Therefore, there was a need to explore the experiences of nurses working in rural clinics on the decentralization of NCD treatment services so as to also elicit their experience, challenges, and possible strategies to mitigate them.

Methods

Study design

A descriptive qualitative design was employed in this study. Because there is no information on the experiences of community

nurses on the decentralization of NCD services in Lubombo, the exploratory approach assisted in gaining insight while the descriptive aspect enhanced the clearer depiction of the experiences and challenges faced by the nurses while providing NCD care. However, their experiences were appreciated within their working contexts (primary healthcare facilities).

Study setting

The study was conducted in three rural community clinics in the Lubombo region from October to November 2023. The Lubombo region is located in the eastern part of Eswatini and borders all the other three regions of Eswatini. The region has a total population of 212 531 across 11 constituencies and covers a total area of 5 849.11 km² (18). The region has a total number of 73 health facilities including one referral hospital, three public health units/health centers, and 43 clinics (19). Specifically, the study was conducted at three rural public clinics. The three selected rural public clinics were among the ten clinics piloted in Eswatini to assess the feasibility and impact of decentralization of NCD care within nurse-led community clinics (4). In total, the three rural public clinics had 17 nurses; 3 nurse managers, and 14 nurses. All clinics were providing NCDs services during the week.

Sampling & sample size

Qualitative research methods require a relatively homogenous group of participants (20) so that an in-depth understanding of a phenomenon can be achieved (21). Qualitative researchers usually rely on very small samples; often 10 or fewer participants (22). Ten nurses (6 females, and 4 males), providing NCDs services were purposively sampled to participate in the study. The purposive sampling technique ensured that information-rich nurses were selected to provide in-depth data required for understanding the experiences of community nurses in providing decentralised NCDs services.

The inclusion criteria for the nurses were: (1) currently registered with the Eswatini Nursing Council, (2) currently involved in the provision of NCD services, (3) involved in the

provision of NCD services for at least 1 year, and (4) a full-time employee. However, a nurse who was (1) doing administrative work, and (2) being on sick leave, maternity leave, or unpaid leave was excluded in the study.

Study instrument

An interview guide was developed and pretested by the researchers and it guided data collection. It consisted of two sections. Section A consisted of participants' socio-demographics while Section B had a grand tour question. The grand tour question was open-ended and was used to open the interview so that each participant shared his/her experience on the decentralization of the NCD services in a relaxed way. The grand tour was followed by probes generated on the participant's initial response so as to answer the study research questions such as challenges faced by the nurses while providing NCDs services, and nurses' perceived needs to improve the delivery of NCDs services. The probes assisted in gaining more insight into the nurses' experiences. The probes included (1) what characterizes the day-to-day provision of NCD services in your clinic? (2) what are the challenges you face while providing NCD services? and (3) what kind of support do you think may improve the provision of NCD services?

Data collection

Data collection was face-to-face with each participant, in a private space, at the designated clinic rooms. Interviews lasted 20 to 45 minutes, and they were all recorded with the consent of the participants. Interviews were conducted in SiSwati (local Eswatini language). Field notes were captured and included during the analysis. The interviewer started each interview with a grand tour question that helped the participants feel at ease and appreciate that the interview was addressing what they were familiar with. Then probing was done to encourage the participants to respond to all questions posed. At intervals during the interview, the researcher shared a summary of each participant's responses with him or her for a member check. Data collection was

discontinued following three consecutive interviews yielding no new information.

Ethical considerations

This study was approved by Eswatini Health and Human Research Review Board (FWA00026661/IRB00011253/SHR068/202), and the primary healthcare facilities management where the study was conducted. The researchers protected participants' human rights, including confidentiality, and their right to withdraw from the study without consequence. Participants signed a consent form to be interviewed and audio recorded.

Data analysis

The socio-demographic characteristics of the study participants were narratively analyzed as per the detects of the study design. Responses for the study's research questions were analyzed using Colaizi's thematic analysis (23). Data analysis commenced after two interviews were finished whereby the audio-recorded interviews were fully transcribed verbatim. Thereafter, researchers read each transcript line by line, multiple times, to get a sense of what it contained. Thereafter, the two researchers independently assigned codes to statements that were of direct relevance to the research questions. Any divergent opinions on assigned codes that arose were discussed, and a consensus was reached. Thereafter, meanings that were related to the "decentralization of NCDs services" phenomenon were identified. Related meanings were clustered to form themes through uncovering threads related to the decentralization of NCDs services within the confines of the research questions.

Trustworthiness

Guided by Lincoln and Guba (24), trustworthiness was ensured by using participant's vernacular language in the interviews, having two researchers validate data coding, validating participants' responses with them at intervals during the interviews, and cross-checking the transcripts against the audio recordings. Following preliminary findings, member checking was conducted with four representatives of the study population to further

clarify and validate the findings. Detailed descriptions of the nurses' experiences along with their verbatim excerpts were captured. All data sources and records for the study are kept.

Results

Participants' sociodemographic characteristics

The study comprised 6 female and 4 male participants with ages ranging from 27 to 48 years. The below table 1 shows the participants' sociodemographic characteristics.

Main findings

Three themes emerged from the data. Although the themes are presented independently, they actually overlap and they mainly point to decentralization as a good move by the government, challenges faced by rural clinic nurses as they render NCD services, and their perceived needs in managing NCDs at primary healthcare facilities.

Decentralizing NCD care is a good move by the government

Relevance and impact of NCD decentralization: Participants appreciated the government's initiative to decentralize NCDs services. The decentralization of NCDs services was viewed as a positive and relevant intervention that was set to increase the accessibility of NCDs services in communities. Participants acknowledged that the centralization of NCDs services was expensive for the patients as they had to travel long distances from communities to healthcare centers, regional hospitals, and even tertiary hospitals for screening and treatment. Consequently, some patients defaulted NCDs treatment because of cost-related reasons. One nurse holding a 10-year of experience in providing NCDs services stated:

'To begin with, ... we as healthcare workers were all excited by the introduction of the program because we've got one hospital which is the Good Shepherd, and even it (Good Shepherd Hospital) is not a governmental hospital so there are charges and it's expensive for our clients...they have to travel (to the

hospital) so there are financial constraints for them...so we are happy'. – Participant 3.

The nurses were further excited by the health benefits that came with the decentralization of NCDs services to their respective community clinics. The nurses pointed out that the decentralization program would enable frequent consultation of patients with NCDs, thus improving nursing and medical care; and enhancing patient adherence to prescribed medication and lifestyle. Participant 6 shared her excitement as follows: 'Ok I think it's a good program since I think it's helping our NCD clients to come and get their medication and they can be monitored frequently'.

Motivation to provide NCD services:

Despite that the NCD decentralization program had been recently introduced in the community clinics, the participants spoke about NCD services as part of their essential nursing priorities. None of the participants viewed NCD services as separate from other nursing duties or as an extra work burden. Participants expressed eagerness and motivation to provide NCD services in community clinics following their introduction. Showing a lot of motivation, one participant with a Diploma in general nursing stated: 'Fine! It's new in clinics and we are used to NCDs being handled by big hospitals but we are thankful that we also do them now at clinics' - Participant 9.

Challenges faced by rural clinic nurses on decentralization of NCD services

Despite the positive attitude shown by the participants toward the decentralization of NCDs services, certain pertinent issues were raised. The participants felt that there were challenges preventing the NCDs services decentralization program from having the maximum intended impacts in the communities they serve. Challenges that featured in their responses were: shortage of drugs and medicines, lack of medical equipment; shortage of health personnel like doctors and nurses; lack of training, and lacking, outdated and/or restricting practice

guidelines; and lack of administrative monitoring and support

Shortage of drugs and medicines:

Drugs and medicines shortage through frequent stock-outs was the most cited challenge. Participants highlighted that inconsistent supply of NCD medicines and drugs affected patients' health-seeking behavior because it often led to overdependence on pharmacies for medicines. Such disrupted the monitoring and effective management of patient's conditions. One participant had this to say: '*..it happens that sometimes there are drugs stock-outs so we end up losing clients...if it happens there is no HCZT in a particular month, the client goes to buy them and in the end, they feel like there is no need to attend the clinic because they don't get drugs..., so they get used to buying from chemists, and when they return you find that their BP is uncontrollable and they are now sick, and when you check them you find that it is skyrocketing (chuckles) because it was not being regularly monitored...they were just buying...*' Participant 3. Following medication stock-outs, patients who don't have money to purchase prescribed medications in pharmacies were forced to miss their doses leading to adverse treatment outcomes.

Lack of medical equipment: Another challenge was the lack of equipment to carry out NCD diagnostic routines. In most of the clinics, the equipment was faulty due to no routine service. One participant echoed: '*We don't really have enough working tools like BP cuffs we don't have, sometimes we don't take BP because it's broken.*' Participant 6

The lack of medical equipment was not only hindering the effective management of NCDs, but also the complications that came with poor medication adherence. As such, the participants referred the patients to hospitals. However, the referrals were characterized by disruptions in patient follow-ups as referred patients did not return feedback from hospitals to the clinic nurses. Participant 3 had this to say: '*...Another thing I have observed as an eye nurse although I am not practicing because of lack of equipment is that some of our clients who need eye examinations especially diabetic*

and hypertensive clients for conditions like retinopathy have to go to the Good Shepherd for these tests when we could also have been able to assist them here if there was equipment... because we are not even sure if those we refer go there because usually they don't give us feedback on whether they were assisted.'

Shortage of health personnel; Doctors and nurses: The nurses across all three clinics divulged that they were understaffed and with no resident doctors to attend to complicated cases. In one of the clinics, a participant pointed out that although a doctor sometimes visits to attend to complicated cases, their visits were occasional and unplanned affecting the scheduling of patients' appointments. Participant stated: *'And there is also a need for a doctor to visit us once in a while, okay he does come but he doesn't follow any schedule, so you can't say "let me schedule these clients for when the doctor visits"'* Participant 3.

Lack of training: Some participants indicated that they were never trained on NCDs. In all clinics, only a few nurses had attended training on NCDs when the program was introduced. Participants noted that having few trained nurses caused a gap when trained nurses were off-duty; as having general knowledge of NCDs was not sufficient to provide quality NCD care. One participant expressed her concern as: *'...when it comes to training, we are a little bit left behind because the program never trained all of us or came to the facility for in-service and train us on these NCDs... so we only have a few nurses of which it becomes a challenge when that NCD nurse is off'* - Participant 10.

Lacking, outdated, or restricting practice guidelines: In one clinic, participants were not aware of the practice guidelines for NCDs services. Those who were aware of the

guidelines highlighted that the guidelines were prohibiting them from performing routines they were skilled and qualified to do. The guidelines were labeled as old and outdated by other participants. Participant 10 had this to share: *'Another thing we can ask for are guidelines, the ones we have here are old if they can give us new guidelines. We only get to hear from the ones who come from workshops that things have changed so we wonder why they don't make us proper guidelines that are current.'*

Lack of administrative monitoring and support: Participants also expressed concern regarding the administration of the NCD services decentralization program. The participants felt that the administrators of the program were less supportive of clinics. Participants felt that the lack of cooperation and communication from the administrators resulted in a range of unmet needs for nurses including medical supplies. Consequently, the relationship between the nurses and the patients was strained as patients were sometimes returned with no medication, compromised clinical-community linkages, and halted community outreach services. Participant 7 lamented: *'... the program is not followed up well by those overseeing it because if it was getting enough attention, there was going to be a better line of communication between Central Medical Store and clinics...'*

Nurses' perceived support needs in managing NCDs at clinics: Following their challenges, the participants stated their perceived needs. Their perceived needs were basically addressing their challenges and comprised a need for: reliable and functional medical equipment and supplies, resident doctors and adequate nursing staff, workshops and training for nurses on the management of NCDs, and delivery of updated guidelines for the management of NCDs in clinics.

Table 1. Participants` sociodemographic characteristics

Participant` ID	Age (years)	Sex	Qualification	Number of years in clinic	Number of years managing NCDs
Participant 1	38	Male	Bachelor of Nursing Science	4	4
Participant 2	48	Female	Bachelor of Nursing Science	3	3
Participant 3	42	Female	Bachelor of Nursing Science	10	10
Participant 4	36	Male	Bachelor of Nursing Science	5	5
Participant 5	27	Male	Diploma in General Nursing Science	3	3
Participant 6	27	Female	Bachelor of Nursing Science	3	3
Participant 7	28	Male	Bachelor of Nursing Science	3	3
Participant 8	27	Female	Bachelor of Nursing Science	3	2
Participant 9	30	Female	Diploma in General Nursing Science	7	3
Participant 10	27	Female	Diploma in General Nursing Science	3	2

Table 2. Summary of themes and sub-themes

Themes	Subthemes
Decentralising NCD Care is a Good Move by Government	Relevance and impact of NCD Decentralization
	Motivation to provide NCD services
	Shortage of drugs and medicines
Challenges brought by the decentralization of NCD Services	Lack of medical equipment
	Shortage of health personnel; doctors and nurses
	Lack of training for nurses
	Lacking, outdated, or restricting practice guidelines
	Lack of administrative monitoring and support
Nurses` perceived support needs in managing NCDs at clinics	Medical equipment and supplies
	Resident doctors and adequate nursing staff
	Workshops and training
	Guidelines

Discussion

The current study revealed that rural clinic nurses had a positive attitude towards the decentralization of NCDs services such that they constantly labelled it as a good move by the government. Notably, nurses emphasized the relevance of the service to rural communities as it promoted accessibility to NCDs care. Consequently, nurses were motivated to provide the services to community members despite numerous cited challenges. These findings were similar to previous studies (10, 25) conducted in Uganda and Cambodia respectively whereby nurses remained positive and motivated to provide NCDs services despite the dire challenges faced. On the contrary, one Zambian study revealed that nurses generally perceived

NCDs management as an extra work burden, and also expressed low motivation and negative attitude towards the provision of NCDs due to reasons such as knowledge gaps, low training, and having other work priorities including maternity and HIV/AIDS clients (24). These current findings highlight the need for support for nurses by addressing the challenges they face so as to prevent the development of negative attitudes in the future.

The decentralization of NCDs services has presented nurses with challenges. Most of the challenges affected the motivated nurses in NCD service delivery. The frequent stock-outs of NCDs medication resulting in patients buying medication was a serious

challenge faced by nurses. Similarly, Aanjies, Quinlan, and Bunders (26) reported common challenges with drug procurement accompanied by limited availability of different medicines to treat the range of NCDs, with urban health centers usually reporting the availability of medicines compared to rural health centers. Consequently, Jacobs et al. (10) posited that the lack of medicines in clinics poses a serious challenge to NCDs management as it might create an overdependence on the private sector, which in turn might increase patients' out-of-pocket expenditure and impoverishment, while those who cannot afford to buy from the private sector might suffer adverse NCD outcomes. Findings of the current study further showed that lack of medical equipment and supplies hinder the nurses in NCDs services delivery. Nurses were not able to do diagnostic tests for the patients as documented in the guidelines. Previous studies (15, 27) conducted in South Africa and India, respectively, highlighted the limited availability of diagnostic equipment at the primary healthcare level. Therefore, such limits the number of diagnostic tests that could be conducted in primary health centers.

Furthermore, the current study findings revealed that there was a shortage of NCD-trained nurses and residential doctors yet such personnel were critical for the optimum delivery of NCDs services. Such a finding underscores the importance of training clinic nurses on NCDs management and treatment across the country through planned workshops, and deploying medical doctors in primary health sectors. In this regard, studies from South Africa and Zambia (16, 26) asserted that insufficient doctors in primary health settings were associated with lower incentives and fewer professional development and career advancement opportunities. The shortage of doctors is further worsened by the exodus of doctors to developed countries. Although primary healthcare facilities in developing countries relied on robust referral systems to compensate for the shortage of medical doctors, the current study pointed to

insufficiencies in such a system such as loss of follow-up of clients, and no feedback from hospitals.

The nursing staff was also insufficient in the current study translating to a heavy workload and compromised quality of care to the current nursing staff. Similarly, Kien et al. (28) alluded to insufficient nurses in community clinics which was caused by misallocation of health staff. Van Minh et al. (29) also lamented the insufficiency of primary healthcare nursing staff in terms of the quantity and quality of care they provide to their patients with various conditions. The training of nurses on NCDs management is critical as prior studies (10, 16) had highlighted that nurses care for patients with NCDs without prior orientation, refresher or formal completed NCD management training. For the NCDs programme to achieve its intended goals in Eswatini, the findings therefore underscore a dire need to deploy more nurses in community clinics and train them on NCDs management. The nurses' trainings should include NCDs management and treatment through workshops and refresher courses.

To improve the quality of NCDs services, among other things, the nurses need to be acquainted with the current NCDs management guidelines. However, the current study findings showed that nurses were either not aware of the guidelines or, those being aware, complained that the guidelines were outdated. In this regard, literature (12, 15, 29, 11) has demonstrated that nurses caring for patients with NCDs oftentimes lack guidelines or protocols on diagnosis of diabetes, health education, counselling on keeping a balanced diet, and early detection of NCD to provide the NCDs services yet such documents are critical in NCDs services delivery. The current findings highlight the need to dispense all the updated documents to community clinics so as to improve the quality of care offered by the nurses to patients. Being a vital initiative by the government, the current study highlighted the need for continuous monitoring and support for the NCD decentralization program in clinics. Such will strengthen the relationship

between nurses and patients, improve community linkages, and sustain community outreach. If Low- and middle-income countries were to reduce NCD-related premature deaths, technical support, starting from primary healthcare facilities would very pivotal to sustaining NCD programs. The technical support must come from health ministries, development partners, and technical agencies. (30). Additionally, community nurses need to continuously advocate for NCD-related service through proactive and reactive advocacy practices as such is inherit in the nursing profession (31, 32).

Strengths and limitations

There is a dearth of empirical evidence in Eswatini on the clinic nurses' experiences of NCD decentralization program, therefore, the current study findings inform the program on challenges faced by the nurses and possible strategies to mitigate them. The study findings further form a base for further studies on the NCD program. However, the findings must be interpreted in light of limitations. The findings are not generalizable to the entire population of clinic nurses delivering NCD services due to their nature of subjectivity, and small sample size.

Conclusion

The study findings revealed that community nurses were motivated to provide NCD services. However, the nurses face challenges that comprise shortage of medication and working equipment, shortage of nurses and doctors, lack of or outdated NCD guidelines, and limited training in NCD management for nurses. The nurses, therefore, recommended practical and instrumental support that comprised a constant and consistent supply of medication and working equipment, updated NCD management guidelines, and training of nurses on NCDs management.

Acknowledgments

The authors are grateful for the participants' contribution to knowledge on the decentralisation of NCDs services to primary healthcare facilities.

Conflict of interest

There are no potential conflicts of interest.

References

1. World Health Organisation. Non-communicable disease: key facts. 2023. Available at: <http://www.who.int/news-room/fact-sheet/detail/non-communicable-disease>. Accessed September 14, 2023
2. World Health Organisation. Noncommunicable diseases: mortality and morbidity 2024. 2024. Available at: <https://www.who.int/data/gho/data/themes/topics/indicator-group>. Accessed September 24, 2024
3. World Health Organisation African region. Country disease outlook: Eswatini. 2023. Available at: <http://www.afri.who.int/file>file>ESWATINI>. Assessed June 14, 2023
4. Sharp A, Riches N, Mims A, Ntshalintshali S, McConalogue D, Southworth P, Pierce C, Daniels P, Kalungero M, Ndzinisa F, Elston E. Decentralising NCD management in rural southern Africa: evaluation of a pilot implementation study. *BMC Public Health*. 2020 Dec;20:1-8.
5. World Health Organization. Global action plan for the prevention and control of noncommunicable diseases 2013-2020. 2013.
6. Department of Health. Adult primary care: symptoms-based integrated approach to the adult in primary care. South African National Department of Health; 2019. Available at: <https://knowledgehub.health.gov.za/system/files/elibdownloads/2020-08/APC%202019-20%20eBook.pdf>
7. Niyonsenga SP, Park PH, Ngoga G, Ntaganda E, Kateera F, Gupta N, Rwagasore E, Rwunganira S, Munyarugo A, Mutumbira C, Dusabayezu S. Implementation outcomes of national decentralization of integrated outpatient services for severe non-communicable diseases to district hospitals in Rwanda. *Tropical Medicine & International Health*. 2021 Aug;26(8):953-61.
8. Haque M, Islam T, Rahman NA, McKimm J, Abdullah A, Dhingra S. Strengthening primary health-care services to help prevent and control long-term (chronic) non-communicable diseases in low-and middle-income countries. *Risk Management and Healthcare Policy*. 2020 May 18:409-26.
9. DeCola P, Benton D, Peterson C, Matebeni D. Nurses' potential to lead in non-communicable disease global crisis. *International Nursing Review*. 2012 Sep;59(3):321-30.
10. Jacobs B, Hill P, Bigdeli M, Men C. Managing non-communicable diseases at health district level in Cambodia: A systems analysis and suggestions

- for improvement. *BMC Health Services Research*. 2015 Dec;16:1-2.
11. Akinwumi AF, Esimai OA, Fajobi O, Idowu A, Esan OT, Ojo TO. Knowledge of primary healthcare workers regarding the prevention and control of non-communicable diseases in Osun State, Nigeria: A rural-urban comparison. *African Journal of Primary Health Care & Family Medicine*. 2021 June;13(1):1-8.
 12. Shiroya V, Shawa N, Matanje B, Haloka J, Safary E, Nkhweliwa C, Mueller O, Phiri S, Neuhann F, Deckert A. Reorienting primary health care services for non-communicable diseases: a comparative preparedness assessment of two healthcare networks in Malawi and Zambia. *International Journal of Environmental Research and Public Health*. 2021 May 10;18(9):5044.
 13. Kamvura TT, Dambi JM, Chiriseri E, Turner J, Verhey R, Chibanda D. Barriers to the provision of non-communicable disease care in Zimbabwe: a qualitative study of primary health care nurses. *BMC Nursing*. 2022 Mar 18;21(1):64.
 14. Witter S, Zou G, Diaconu K, Senesi RG, Idriss A, Walley J, Wurie HR. Opportunities and challenges for delivering non-communicable disease management and services in fragile and post-conflict settings: perceptions of policy-makers and health providers in Sierra Leone. *Conflict and Health*. 2020 Dec;14:1-4.
 15. Doede AL, Allen TE, JaLynn SG, Herbst AG, Hlungwani MC, Ramakuela NJ, Xie AX, Campbell CL. Community health workers and the management of noncommunicable diseases among rural health clinics in Limpopo Province, South Africa: a pilot study. *Family & Community Health*. 2017 Oct 1;40(4):338-46.
 16. Maimela E, Alberts M, Bastiaens H, Fraeyman J, Meulemans H, Wens J, Van Geertruyden JP. Interventions for improving management of chronic non-communicable diseases in Dikgale, a rural area in Limpopo Province, South Africa. *BMC Health Services Research*. 2018 Dec;18:1-9.
 17. World health organisation (2019): Know your health numbers: to mark World Health Day 2019. Available at: <http://www.who.int/news-room/fact-sheet/detail/know-health-numbers-mark-world-day-2019>. Accessed September 16, 2023.
 18. United Nation Population Fund (UNFPA) Kingdom of Eswatini (2017). Swaziland releases population count 2017 census 2017. Available at: <http://eswatini.unfpa.org>. Accessed September 16, 2023.
 19. Eswatini ministry of health (2017). Lubombo regional health programme: 2017 annual programme report. Monitoring and evaluation unit: strategic information department; Eswatini.
 20. Creswell JW. *Research designs: qualitative, quantitative and mixed methods approaches* (4th Ed.). Thousand Oaks: SAGE; 2014. P.398
 21. Kaae S, Traulsen JM. *Qualitative methods in pharmacy practice research*. Pharmacy Practice Research Methods. 2020:31-54.
 22. Polit DF, Beck CT. *Essentials of nursing research: Appraising evidence for nursing practice*. Philadelphia, PA: Wolters Kluwer Health/Lippincott Williams & Wilkins. 2015
 23. Valle RS, King M. *Existential-phenomenological alternatives for psychology*. Oxford U Press; 1978.
 24. Lincoln YS, Guba EG. *Criteria for Assessing Naturalistic Inquiries as Reports*.
 25. Chang H, Hawley NL, Kalyesubula R, Siddharthan T, Checkley W, Knauf F, Rabin TL. Challenges to hypertension and diabetes management in rural Uganda: a qualitative study with patients, village health team members, and health care professionals. *International Journal for Equity in Health*. 2019 Dec;18:1-4.
 26. Aantjes CJ, Quinlan TK, Bunders JF. Practicalities and challenges in re-orienting the health system in Zambia for treating chronic conditions. *BMC Health Services Research*. 2014 Dec;14:1-4.
 27. Elias MA, Pati MK, Aivalli P, Srinath B, Munegowda C, Shroff ZC, Bigdeli M, Srinivas PN. Preparedness for delivering non-communicable disease services in primary care: access to medicines for diabetes and hypertension in a district in south India. *BMJ Global Health*. 2018 Jan 1;2(Suppl 3):e000519.
 28. Kien VD, Van Minh H, Giang KB, Ng N, Nguyen V, Tuan LT, Eriksson M. Views by health professionals on the responsiveness of commune health stations regarding non-communicable diseases in urban Hanoi, Vietnam: A qualitative study. *BMC Health Services Research*. 2018 Dec;18:1-2.
 29. Van Minh H, Do YK, Bautista MA, Tuan Anh T. Describing the primary care system capacity for the prevention and management of non-communicable diseases in rural Vietnam. *The International Journal of Health Planning and Management*. 2014 Apr;29(2):e159-73.
 30. Jackson-Morris A, Nugent R. Tailored support for national NCD policy and programme implementation: an over-looked priority. *BMJ Global Health*. 2020 Aug 1;5(8):e002598.
 31. Laari L. Context and practices of health advocacy role by nurses in Ghana: A qualitative study. *Nursing Practice Today*. 2024; 11(4):388-397.
 32. Žiaková K, Kohanová D, Čáp J, Kurucová R. A thematic analysis of professionalism from the perspective of nurse managers. *Nursing Practice Today*. 2023; 10(4): 344-55.