Reflections of public healthcare nurses during the first wave of the COVID-19 pandemic in the Eastern Cape Province of South Africa

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As the COVID-19 pandemic evolves and continues to create challenges for healthcare service delivery, it is essential that nurses are supported in ways that avoid burnout and empower them to meet the needs of their patients.

The COVID-19 pandemic has complicated healthcare service provision and access, yet little is known about experiences of public healthcare nurses during the COVID-19 pandemic in the Eastern Cape Province of South Africa, particularly relating to health services for young people living with HIV. This study qualitatively explores the experiences, challenges and responses of nurses based in public healthcare facilities in the Eastern Cape during the first wave of the COVID-19 pandemic.

In-depth, semi-structured telephonic interviews were conducted with nurses (n=13) from public healthcare facilities in a mixed urban-rural health district in the Eastern Cape. Skilled interviewers conducted interviews in English and isiXhosa. Data were analysed thematically in NVivo software using an inductive approach.

Findings highlight that the COVID-19 pandemic placed an additional burden on already resource-constrained healthcare facilities, with nurses enduring shortages of basic resources, rapid depletion and delayed restocking of COVID-19-related equipment, and additional strain due to staff shortages. Nurses also experienced daily dilemmas and internal conflicts associated with the pandemic, which affected their health and well-being, and their ability to deliver services. Despite these challenges, they shared a willingness to meet the needs of patients and documented various ways in which they went the extra mile, including forming a response committee to respond to issues arising from COVID-19, tracing patients whose treatment was interrupted, providing their personal contact information to patients, and using the services of local 'caregivers' to deliver medication.

As the COVID-19 pandemic evolves and continues to create challenges for healthcare service delivery, it is essential that nurses are supported in ways that avoid burnout and empower them to meet the needs of their patients.

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Introduction

Healthcare service quality and availability has a direct impact on health outcomes, including among young people living with HIV. The COVID-19 pandemic and associated lockdowns and mobility restrictions have complicated healthcare service provision and access on a broad scale, particularly in low-resource settings.[1] For example, across 502 healthcare facilities in sub-Saharan Africa and Asia, HIV testing fell by 41% and HIV referrals by 37% from April to September 2020 when compared to the same period in 2019.[2]

Data from prior research in the Eastern Cape Province (EC) of South Africa highlight the relationship between healthcare workers (HCWs) and young people living with HIV in co-managing their treatment for improved health outcomes, as well as mental health support opportunities.[3] Understanding the experiences of HCWs, especially nurses, during COVID-19 is critical in order to identify strategies to mitigate the disruption to healthcare services caused by the pandemic, and ways in which HCWs can be supported so that they in turn can meet the needs of their patients.[4]

Healthcare workers and the COVID-19 pandemic

The COVID-19 pandemic disrupted health service provision globally, with many of these disruptions likely to continue until vaccinations are widely available.[5] HCWs have directly faced COVID-19 challenges and disruptions through their critical role in the global COVID-19 response and in ensuring essential healthcare provision during the pandemic.[6]

Emerging international evidence on the impact of COVID-19 on HCWs has highlighted mental health concerns; challenges and difficulties faced by HCWs; and care and protection needs of HCWs. HCWs face ongoing work-related stressors linked to resource shortages (such as inadequate or insufficient personal protective equipment [PPE] and COVID-19 testing equipment); poorly communicated national-level guidance for treatment of COVID-19 cases; and occupational concerns related to the risk of infection and spreading COVID-19 to family members).[7–10] Nurses in particular have been reported to be at high risk of mental health conditions (anxiety and depression) and work-related stress.[6] These challenges have the potential to affect HCWs' well-being and safety, as well as their ability to deliver crucial healthcare services. These challenges may also contribute to moral injury – the strong emotional and cognitive response that can occur following events that go against a person's moral code, and which can cause profound feelings of guilt as well as negatively contribute to one's mental health. In the context of COVID-19, HCWs may experience a form of moral injury if they feel they have not received adequate PPE or when their workload is such that they are unable to provide a level of service that they would usually consider to be 'good enough'.[11]

Data from South African studies on HCWs and the COVID-19 pandemic to date reflect similar findings to those found in international literature; however, there is a paucity of research in less-resourced but equally affected parts of the country, such as the EC. Studies available have also tended to group nurses under the banner of 'HCWs', and to be survey-based as opposed to offering an in-depth exploration of nurses' experiences. HCWs in South Africa have reported feeling inadequately prepared or protected, noting that healthcare services were disrupted because of high rates of staff infection, shifts in roles and responsibilities, curtailing of outpatient services, and increased restrictions on movement and access.[12–15] None of the published data has focused on interruption of health services for young people living with HIV, despite this group amounting to two million (aged 10 to 19) living in Sub-Saharan Africa.[3] Understanding service access for young people living with HIV from the perspective of HCWs is critical, as interruptions to health care are likely to place young people at risk of not accessing, and subsequently interrupting, their antiretroviral treatment; discontinued contraception or access to condoms; and isolation from vital psychosocial and mental health support.[16]

In the light of this gap, this study explored the experiences, challenges and responses of nurses based at public healthcare facilities in the EC during the first wave of the COVID-19 pandemic. The first wave – which peaked in July 2020 – posed distinct challenges for nurses as they faced an onslaught of rapidly changing information on COVID-19, and yet were required to continue providing services. While the overarching focus is on nurses' experiences in general during this period of the pandemic, shifts in the provision of core services for young people living with HIV are also considered.

Methodology

This qualitative research study was conceptualised and implemented in response to the need for timeous and rich data on the lived experiences of nurses during the rapidly evolving COVID-19 pandemic. Qualitative, semi-structured telephonic interviews were conducted with (n=13) registered professional nurses from public health facilities in a mixed urban-rural health district in the EC from August to November 2020.

An initial list of nurses sampled from facilities participating in a prior study that focused on young people living with HIV was compiled.[17] These nurses supported the study with further recruitment through referrals of other colleagues. All nurses included in the study were involved in general healthcare services, and six provided services specifically for adolescents and young people. Nurses were employed in several positions including those of operational manager, facility manager, professional nurse and focal nurse. They were based at public healthcare facilities, namely one hospital, three community health care centres and nine clinics. The nurses worked across different departments including HIV treatment units, maternity wards and Adolescent- and Youth-friendly Services (AYFS). Ethical approval for this study was obtained from the Universities of Cape Town (Clearance No. 226/2017) and Oxford (Clearance No. R48876/RE003).

The EC public health system faces systemic challenges, among which are a critical shortage of HCWs, limited access to piped water and electricity, and buildings that are often not structurally sound enough to provide services. Medicine shortages and stock-outs, and lacking essential medical equipment and access to telephones are more frequent in EC than in more resourced provinces such as Gauteng.[18] While this context has relevance and applicability to other similar sites of health and social service provision in the region, each location has its own unique combination of social and epidemiological determinants of health.[19] Thus, findings identified in this study should be seen as context-bound and not necessarily representative of other parts of the region.

In the context of rapid research conceptualisation and design, we ensured that this research study was inductive and inclusive. Prior to commencing data collection, several 'think-tanks' were held to engage co-investigators from diverse social science backgrounds (social anthropology, psychology, social work and epidemiology). Co-investigators and interviewers adapted and reviewed the research tool, and conducted extensive team training in the skills necessary for conducting this research remotely: qualitative research approaches and tools; remote research essentials (confidentiality while working from home, telephonic interviews/recording); non-verbal cues during remote data collection; and transcription and translation. Due to the time-sensitive nature of the research, questions were piloted during three interviews, and adapted after debriefing sessions with the interviewers. Subsequent interviews continued following these adaptations.

To ensure that the data collected were robust and aligned with the study's aims, one of the lead authors engaged in post-interview debrief sessions; transcription and translation reviews (individually, with queries resolved as a group); and continuous supervision and support during the research period with the interviewers. Debriefing sessions regarding the technical aspects of the interviews involved reviewing the understanding of items (by interviewers initially and later by participants), audio quality, and interview approach.

The interviews were semi-structured in nature and consisted of open-ended questions with probes that aimed to elicit nurses' experiences, challenges and responses in the context of the COVID-19 pandemic, with a sub-focus on providing services to young people living with HIV. Interviews were conducted by a team of skilled interviewers in English and isiXhosa, and were audio-recorded. Half of the interviews were transcribed and translated into English by the interviewers, in order to view emerging themes and adapt our research tool. Transcriptions and translations were checked by the research team. Thereafter, the balance of the interviews were transcribed and translated by a professional transcription services company. The research team reviewed the transcriptions and were satisfied that data saturation had been reached as common themes and complementary perspectives emerged from the data.

The interview data were analysed thematically in NVivo qualitative analysis software using an inductive approach.[20] In order to protect the anonymity of the participants, we assigned codes to each participant (e.g. A027). After an initial read-through of all data (by two co-authors) and discussion with the interviewers on their key impressions, a coding framework was developed for coding the transcripts. Data-coders consulted with one another on a regular basis during the coding process in order to confirm codes that were emerging from the data; once all data were coded, the codes were refined into possible themes which were discussed with and reviewed by the interviewers. These themes were then refined and finalised, incorporating the feedback provided.

Key findings

The results focus on three emergent themes from the nurses' experiences, challenges and responses during the COVID-19 pandemic: resource constraints, psychosocial burdens, and adaptive responses. In line with the sub-focus of this study, adaptive responses are also considered with particular reference to young people living with HIV.

Resource constraints

Most nurses described inadequate physical and human resources in their healthcare facilities, which impeded their ability to effectively deliver services. Some participants commented on how basic resources to ensure hygiene and patient comfort were not available:

I do not have linen. Our beds are coverless. My patients sleep with some things – I do not know … We would use what we have. For example, sometimes we use a curtain or screen cloth. We would tear them and put them on the bed because we do not have linen. (A026)

Others noted that the basic physical infrastructure of their facilities was problematic:

Our problem is the infrastructure … no-one can help because it is for the government. … All clinics are like that; they are built the same way. (A018)

These kinds of resource constraints, while common in many public healthcare facilities in South Africa, had been exacerbated by the new urgencies of the COVID-19 pandemic:

Linen also contributes [to] spreading COVID because for an example you will take someone … you do her and finish her then she goes out, after she has gone out, we don't change that sheet … We put another patient on that sheet without changing it, you see. We need it, because we don't have it. (A017)

The COVID-19 pandemic created an additional burden on nurses by introducing new resource challenges, including a shortage and rapid depletion of PPE:

Then the things like protective equipment they come and finish, come and finish. (A007)

Other nurses described how their facilities did not have adequate space to allow for physical distancing, which heightened the risk of the virus spreading at facilities themselves:

So what is happening now is that they are being wet [rained on] outside, there is no place to sit, tents [have] been taken back by the service provider … But we still need that … because they won't be able to get inside to this small waiting area. So even now, we do not have social distancing because they standing [on the] veranda. (A027)

The COVID-19 pandemic also aggravated existing human resource shortages at healthcare facilities where participants were based:

Human resources is the one that will never be enough, you see. So, we still have a challenge of human resources. We need more people. (A006)

In addition, in instances where nurses contracted COVID-19, remaining staff had to work longer hours:

The time they are spending now I can say it's longer than before COVID … because shortage of staff … at times maybe we've got two nurses, maybe two are down because of COVID so you find out working hours are longer than before COVID. (A006)

The COVID-19 pandemic placed an additional burden on on already under-resourced healthcare facilities, with nurses having to endure shortages of basic resources, rapid depletion and delayed restocking of COVID-19-related equipment, and extra strain due to human resource shortages. These resource constraints forced nurses to improvise and make do with what they had.

Sometimes we use a curtain or screen cloth. We would tear them and put them on the bed because we do not have linen. (A026)

Psychosocial burdens

Many nurses described high levels of stress as they delivered services during the COVID-19 pandemic, and a related sense of responsibility and pressure to continue their work, despite heightened risks:

It was so very strenuous and hectic starting from April when Corona [COVID-19] started. It was very exhausting. As a result, we were given [staggered] duties in August because it was evident people are not happy at work, but we were just pushing ourselves to come to work. It was not nice at all. Very strenuous and very traumatic. It was like Corona is jumping on you. We were like robots, like it does not do anything to you and you're not supposed to be absent, you must be at work always. (A026)

Introducing staggered work hours – although necessary – intensified the stress experienced by nurses:

It used to give us challenges … but we did not have a choice because the most important thing was our lives. But we were enduring though we did not have a choice. It was strenuous, that thing, I don't want to lie. (A028)

Related to these shifts, nurses described feeling overwhelmed:

You go home feeling very exhausted and emotionally you are very disturbed, but you must persevere and come back to work the following day. (A026)

Along with these experiences of stress, nurses also shared a very tangible fear of contracting the COVID-19 virus:

When I wake up, I wake up looking forward to start a new day, but at the same time I get a little bit scared of … get a fear that I might get infected with COVID-19 … We're working with patients. Some of them are very sick – came in very sick – so it makes me feel scared sometimes. (A003)

Nurses also reported adjusting how they were able to treat and interact with their patients, in response to fears of infection and transmissibility of COVID-19:

For an example I can't touch my client when I had to examine her. Let's say maybe this person says there is a pain somewhere, I think so many things because my examination means I have to contact her. And the more I contact her the more I get to this person and the higher the risk that I get myself into you see. So it is that dilemma. (A030)

Furthermore, in citing fears of becoming sick with COVID-19, and potentially spreading the virus to their loved ones, some nurses communicated feelings of guilt. Specifically, nurses reflected that they may have not been able to provide an appropriate level of care or service:

You cannot be that nurse you used to be … it's hard – is that guilty feeling. It feels like you have not done the usual thing that you are supposed to do because you are always that person who wants to look after herself, you see that yes you also want to protect this person but you also scared and you know that, what if I contract this thing of COVID and take it back, take it to my family, take it to my kids? (A007)

These feelings of stress, fear and guilt, were made worse for some nurses by a lack of workplace psychosocial support:

As [a] healthcare worker, there isn't much that is done for us, even those that had COVID, they never went through any psychological support. (A001).

Taken together, these findings highlight the daily dilemmas and internal conflicts associated with the COVID-19 pandemic, and the implications these had for nurses' own health and well-being as well as their ability to deliver services to their patients.

Adaptive responses

Despite the challenges reported by nurses, they also shared a clear willingness and drive to meet the needs of their patients in the face of added COVID-19-related burdens. Nurses documented several ways, professionally and personally, in which they were 'going the extra mile' for their patients, including (at one facility) forming a response committee at the start of the pandemic:

Since we heard about Corona in the media what we did … is we formulated a committee known as Response Committee … In that meeting we asked to have a tent outside for patients … those who have signs – because some present without having signs – but those with signs, we developed a 'flu clinic … So we were taking them directly to the 'flu clinic so they can test there. (A026)

Other nurses described strategies that they employed to support young people living with HIV whose treatment was interrupted, including drawing on the services of community health workers to do tracing:

The only thing we doing we trace them, you manage the early missed, you look for them, if they don't come within five days, you call them to check … if they don't answer their phones, we do tracing via community health workers. We speak with community health workers to do tracing for us, then we have got tracing letter so that community health workers should address straight to that person, then the community health worker should handle that letter, and they come, you see. (A018)

One HCW described how her team worked with the pharmacist to prepare and package medication to be delivered to patients living with HIV:

This COVID we were busy, we have to pack … of patients because we have to … of plus/minus 2 500, 2 700 up to 3 000. So we had to pack those medications and prepare them and yet so that healthcare workers must deliver them to the clients at home. … We end up helping the pharmacist because our pharmacist is one. So we must prepare today for tomorrow. So you understand the load now? Viral load, but we went the extra mile. (A019)

Another nurse discussed how medication was delivered to young people living with HIV via volunteer 'caregivers' (people in the community who volunteer their services):

Yes, we ask our caregivers, I say since you are at home we will ask the caregivers of that area to deliver it to her home because she or he is quarantined. (A005)

This nurse also shared that she had provided patients with her personal contact number in case of emergencies:

Most of them they have got my phone number. They use it 24/7 so it's like a local emergency number if they get serious, so that I can be of help, and also they can call. (A005)

Nurses also spoke about these kinds of responses and strategies as mitigating measures for the decrease in healthcare service attendance by young people during the pandemic, and the decrease in 'companion attendance' (adolescents attending with their friends):

There are fewer adolescents' numbers now that we're consulting … usually adolescents [are] accompanied with his friend or her friend, then it's where we can offer services even to the one that is accompany[ied], so now you find out the only clients we see are those that are here just for that specific service or services like family planning, or if [an] adolescent is coming for check-up date for family planning, she's coming alone. (A006)

These innovative strategies, while not all necessarily new, became even more necessary in the light of disruptions to regular healthcare service delivery.

Conclusions

This study highlights the reported challenges experienced by public healthcare nurses during the COVID-19 pandemic in the EC, including the exacerbation of resource constraints in already under-resourced facilities, and reported experiences of stress and anxiety. While resource shortages and high stress levels among nurses in public healthcare facilities in South Africa are not uncommon – especially in the EC[17] – the COVID-19 pandemic has layered additional burdens and strains on both the healthcare system and on nurses directly.

Findings from our study suggest that nurses may have experienced a sense of moral injury[11] in that they may have internalised an additional layer of responsibility to provide care for their patients, even at the expense of their own and their family's safety and wellbeing. While it is likely that this sense of responsibility prevailed before COVID-19, the pandemic appeared to compound it and – at the same time – perhaps also gave nurses in this study a new language to express it.

Pressing gaps in resources and support have aggravated these challenges, placing nurses at risk for longer-term poor mental health outcomes, including burnout and compassion fatigue.[21] These outcomes, in turn, can affect service delivery, and thus protecting the mental health of nurses is of paramount importance.[12] Nonetheless, amid these severe challenges, nurses in this study shared innovative ways in

which they were trying to meet the healthcare needs of their patients. This included forming a response committee to respond to issues arising from COVID-19, tracing patients whose treatment was interrupted, providing their personal contact information, and drawing on the services of local 'caregivers' to deliver medication – highlighting the establishment of alternative networks of communication and action, as well as the use of personal resources.[22]

In the light of recent estimates that most of the global South, including South Africa, will not reach adequate vaccination coverage within the next five years[23], it is likely that healthcare services and nurses themselves will continue to experience challenges intensified by the COVID-19 pandemic. While our data focus on experiences during the first wave of the COVID-19 pandemic in the Eastern Cape, they offer some key insights into how the pandemic and associated disruptions to healthcare can be managed going forward – and how healthcare services can be improved through health systems strengthening that integrates all aspects of care.[24]

Recommendations

Holistic support for nurses

In order to avoid burnout and poor mental health outcomes for nurses, it is essential to promote holistic support for nurses. This should encompass appropriate and sustainable forms of psychological support that are accessible to nurses in their workspace. Types of support may include training and support of managers, supervisors and team leaders in mental health literacy and self-help skills; training of peer supporters; locally relevant educational flyers or mobile App messages on mental health; and telephonic or on-line counselling.[6] NurseConnect – a mobile-phone tool aimed at supporting nurses and midwives in maternal and child health – could be of use in this regard. A qualitative process evaluation with 110 nurses and midwives across all provinces of South Africa found that the platform was well-liked by users, who found the messaging informative and felt that it could help them to learn and grow.[25]

Nurses should also have opportunities (in person or remotely) to share their concerns with one another and collectively brainstorm solutions to problems or challenges they are facing. One nurse in our study highlighted the formation of a COVID-19 response committee at her facility that was established to tackle issues related to the pandemic. During the Ebola pandemic in Sierra Leone, Health Management Committees (HMCs) were formed to fulfil a similar role, comprising volunteers from the community who worked with health-facility staff to improve community health and voice community needs. Through their dual role as community members and individuals linked to the health system, HMCs were able to build community trust and support for Ebola prevention and treatment, while also enabling formal HCWs to better understand and address people's fears and needs.[26]

Something similar could be considered in the context of the COVID-19 pandemic, and may be particularly pertinent in the EC (and other parts of the country) where the health needs of under-served communities are often not heard or addressed.[17]

Sustained flexibility in health service delivery platforms

Because of the long-lasting nature of the disruptions and challenges in healthcare service provision linked to the COVID-19 pandemic, it is essential to consider how patients can continue to access healthcare services during this time. The pandemic has renewed the urgency of making service-delivery platforms adaptable, flexible, and safely accessible, despite movement restrictions and recurring lockdowns. Nurses can play a pivotal role as they are uniquely placed to understand both the dynamics of the healthcare system and the communities in which they work.

Task-shifting to other community-based personnel may solve issues related to workload and accessibility. We found that nurses employed the services of community health workers to trace patients lost to follow-up, and liaised with community caregivers to deliver medication to young people living with HIV. It is important to consider institutionalising and resourcing this kind of task-shifting, particularly in the context of the EC where there is a severe shortage of HCWs.[18] In addition, task-shifting has been identified as an effective strategy for strengthening health systems and addressing human resource shortages in HIV treatment and care[27], and it could help to reduce workload and the heavy burden that COVID-19 has placed on HCWs. While community health workers should not be seen as a panacea for an under-resourced health system in the EC, they can provide preventative and health promotion services that are not otherwise adequately available within the health system, and render the services that traditionally happen at a clinic level outside the facility setting. This could include providing alternative medication-collection methods, such as direct delivery to patients' homes or via adherence clubs.[18]

As the COVID-19 pandemic evolves and continues to create challenges for healthcare service delivery, it is essential that nurses are supported in ways that avoid burnout and empower them to meet the needs of their patients.

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