

Experiences of professional nurses regarding shortage of resources at a tertiary hospital in Gauteng Province, South Africa: qualitative study

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ABSTRACT

Introduction: The shortage of resources in hospitals is a global problem that includes South Africa. This leads to a situation where most healthcare facilities are unable to perform adequately in their provision of quality patient care. The study aimed to explore and describe Professional Nurses' (PNs) experiences concerning the shortage of resources at a tertiary hospital in Gauteng Province, South Africa.

Methods: An Exploratory-Descriptive Qualitative design was used on a sample of 16 PNs, who have worked for two or more years in selected units. To enhance optimum variation and obtain a diverse sample concerning participants' experiences, the study was conducted in various units at the tertiary hospital under study. Unstructured individual conversation with a grand tour question was used. Tesch's method was employed to analyse data.

Results: The study revealed both negative and positive experiences regarding the deficiency of resources. PNs experienced the following under these four themes: 1) Experiences about lack of material resources; 2) Negative impact of the shortage of resources for patients; 3) Experiences on inadequate number of nurses and support staff; 4) Dealing with the shortage of resources.

Conclusions: Appropriate measures should be put in place to ensure that resources are adequate at this tertiary hospital. Medical machinery should be audited monthly and a daily checklist used to document available stock. Appropriate recruitment and retention policies must be implemented by the Human Resource Department to ensure that vacant posts are filled timeously and reduce high staff turnover. Perceptions of patients could be explored related to the unavailability of medicine in healthcare facilities.

Keywords: nurses, health resources shortage, hospital, experience, human resources, material resources

Introduction

Insufficiency of health resources is a global concern (WHO, 2013). It is predicted that, by 2035, there will be a loss of 12.9 million healthcare professionals internationally (WHO, 2013). Yang et al. (2017) state that 97,221 registered nurses are expected to provide services to a population of 37 million in Shaanxi Province, China. Sub-Saharan Africa (SSA) has a deficiency of healthcare workers (WHO, 2013), with over 60% of African countries having a diminished

number of health personnel. The WHO (2017) indicated that 22.8 skilled healthcare workers are expected per 10,000 people, nonetheless, 83 countries remain below this level. The scarceness of medical professionals in SSA is attributed to international migration due to unfavourable working conditions (Department of Health, 2017). SSA is comprised of several different countries and regions lying south of the Sahara from East, Central, Western, and Southern Africa. These countries are predominantly less developed with half of

their population living below the poverty line. Furthermore, SSA countries are faced with challenges related to conflicts and infectious diseases (World Bank, [2021](#)).

The South African media have reported medico-legal hazards as being attributable to a lack of resources (Rispel et al., 2018). Several factors contribute to the shortage of fundamental health resources. According to Mammbona and Mavhandu-Mudzusi ([2019](#)), inadequacy of health resources contributes to a decline in treatment standard and well-being of patients. Yang et al. ([2017](#)) indicated that the human resources for health (HRH) shortage was because of high staff turnover. Phuong et al. ([2019](#)) revealed that nurses postponed treatment due to unavailability of prescribed medication. In South Africa, the Department of Health introduced the National Core Standard as a strategy to increase availability of resources at all levels of hospitals (Department of Health, [2011](#)). Domain seven deals with facilities and infrastructure and the requirements for a clean, safe and secure physical infrastructure (Department of Health, [2011](#)). In accordance with this domain, medical machinery should be regularly serviced to keep them safe for use (Department of Health, [2011](#)).

Patients from Tshwane District Health Care facilities and other provinces are referred to the hospital. As one of the biggest academic and referral hospitals in South Africa, it needs adequate allocation of resources for quality service delivery. During clinical accompaniment, the researcher observed conditions amounting to a precarious deficiency of resources. Overcrowding of patients, lack of medicines, and few nurses were noted. While several studies have been conducted on the shortage of resources there is diminished literature on the experiences of PNs about these shortages at the tertiary hospital, hence a need for this study.

Although prevailing studies have described shortage of resources in diverse contexts, surprisingly, those conducted in the tertiary hospital and focusing on both human and non-human resources were limited. Furthermore, in Gauteng province, South Africa, studies exploring the experiences of professional nurses regarding shortage of resources at tertiary hospital are scarce. The results of reviewed literature revealed only one qualitative study focusing on the perceptions of professional on the impact of shortage of resources on the quality patient care at Limpopo province, not on the more in-depth experiences. In addition, Mokoena ([2017](#)) reveals that one of the causes of staff shortages is absenteeism in the workplace, which contributes to understaffing in the unit and increases workload on the

remaining staff. Importantly, professional nurses are responsible for managing both human and non-human resources, ensuring smooth running of the unit and ensuring quality patient care. Therefore, the purpose of the study was to explore and describe the experiences of professional nurses regarding the shortage of resources in a tertiary hospital in Tshwane District.

Materials and Methods

Research design

This study employed a qualitative, explorative, descriptive research design (Polit and Beck, [2017](#)). This research design was selected to explore and understand the participants' experiences of working in a hospital with a shortage of resources. With this design, it was envisaged that diverse themes, subthemes and categories would be generated about these experiences.

Participants

This study was conducted in the tertiary hospital from June 2019 until September 2019. The sample size was determined by data saturation at which point new themes were no longer emerging. The inclusion criteria included PNs with more than two years' experience at the selected tertiary hospital, and who were willing and gave their consent to participate in the study. Participants were purposively chosen to provide rich information about their experiences regarding the shortage of resources at the tertiary hospital. This resulted in sixteen participants.

Research instruments

The study data collection instruments included demographic data questionnaires, field notes for capturing non-verbal responses, interview guides, and audio tape recorders. The researcher conducted in-depth interviews to explore the experiences of PNs regarding the shortage of resources. The demographic questionnaires were used to obtain the participants' age, gender, work experience and qualifications. In addition, the researcher also used an interview guide during the data collection process. The interview guide had a broad opening question which is: "What are your experiences regarding shortage of resources in this hospital?" Several probing follow-up questions were used to gain greater clarity and more in-depth information from the participants. Field notes, a written record of observed or heard gestures from participants, were kept by the researchers. Further, the researcher made use of an audio tape recorder to capture

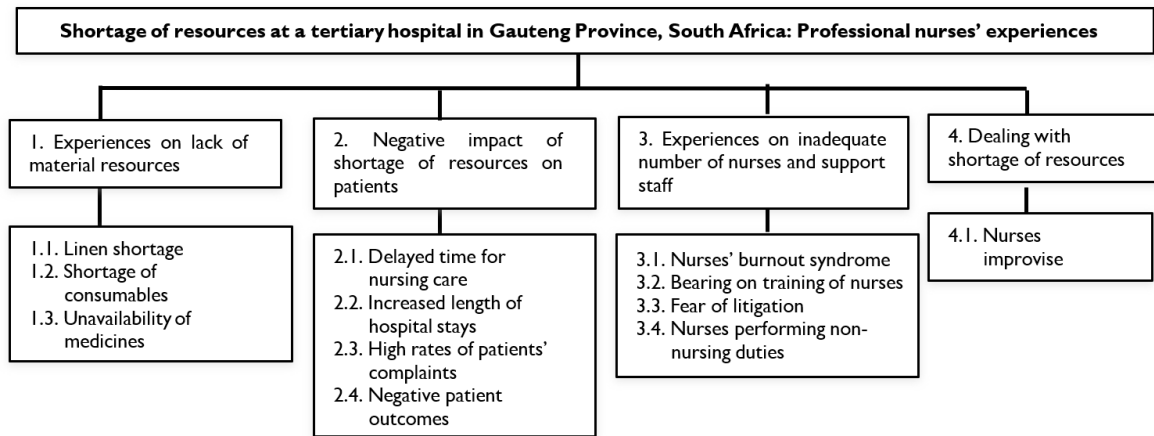


Figure 1. The four themes and twelve categories that emerged from the study

deliberations during the interview and later typed these up verbatim in the form of a transcript.

Ethical clearance

Ethical clearance was obtained from the University of South Africa’s Higher Degree Ethics Committee (Reference number: HSHDC /801/2017). Permission was also sought from the District Ethics Committee in Gauteng Province. The rights of the participants were ensured by obtaining both written and verbal consent prior to data collection. Privacy and secrecy were safeguarded by using pseudonyms. Confidentiality was ascertained by reassuring the study participants that facts and information shared would be unreachable by any other persons except those involved in the study. Anonymity was ensured by using the pseudonyms instead of the participants’ real identities.

Data collection

The individual interviews were conducted in a private secluded office in the hospital under study. The door of the interview office was identified with a “no disturbance identifier” to prevent interruptions. The main researcher collected data through the administration of unstructured face-to-face individual interviews which took 25 to 40 minutes to complete. Follow-up questions were asked according to individual participants’ responses. Probing was done in order to obtain in-depth clarification from participants. Gestures and non-verbal communication were adequately documented with the use of pen and paper, while the participants’ voices were recorded using the audiotape recorder. The researcher provided ample freedom and time for the study participants to freely express their experiences and views regarding their experiences about shortage of resources.

Data analysis

Tesch’s approach was implemented to analyse the data obtained from PNs (Polit and Beck, 2017). In step one, the researcher got a sense of the whole findings by reading all transcripts and noting the ideas which emerged. Subsequently, in step two, transcripts were read one at a time for emerging topics. Step three entailed recording all the topics in one document. All topics were compared, and similar ones were grouped, with the main topics highlighted. In step four, the broad topics were highlighted and abridged as codes. The fifth step included assigning descriptive words to the identified topics and grouping them into categories. Consecutively in step six, the researcher abridged these categories by deciding on the final abbreviation, labelling each category and code to avoid duplication. The seventh step involved alignment of the data appropriate to each category. The eighth step included data recording to get the whole sense and significance of the data.

Trustworthiness

Trustworthiness is described as grade of assurance and realism that researchers have in their qualitative results (Polit and Beck, 2017). Prolonged engagement was achieved by remaining in the field until data saturation was achieved. The researcher kept an audit trail of the audiotapes and verbatim transcripts. Raw data were validated together with an independent coder.

Results

Characteristics of participants

A total of sixteen PNs participated in the study. The age of the participants ranged between 28 and 64 (Mean = 41.12 years). The majority of the participants were female (n = 15; 94%). Four participants (25%) had between seventeen to twenty years of experience in their current position. Thirteen (81.3%) had a Diploma in Nursing Science and Midwifery, followed by a Bachelor of Science in Nursing (n = 3; 18.7%).

In-depth analysis of data that emerged from the study allowed for greater comprehension of the experiences of these PNs on the resource shortages at the tertiary hospital. To that effect, four themes supported by twelve categories emerged from the study (Figure 1). These themes and categories are described and elaborated on through direct quotes from the study participants.

Theme 1: Experiences pertaining to lack of material resources

Category 1.1: Linen shortages

Participants indicated a deficiency of linen, despite several requests from laundry. Participants cited the following:

"Today we don't have linen to change the beds. So, I phoned laundry yesterday and today, they still don't have linen. If you can check now, patients are sleeping on top of mattresses without linen" (Participant 10; F; 42 years old).

Category 1.2: Lack of consumables

It was reported that wound dressing was not done due to a lack of sterile packs:

"Now recently we did not have dressing material, gauze, and crepe bandage" (Participant 7; F; 35 years old)

Category 1.3: Unavailability of medicines

The absence of medicines was reported as follows:

"Currently we don't have Vitamin Bco, we used to struggle with Epilim but at least we will give an alternative of Phenytoin... Two months ago, we were out of Lignocaine ... It was difficult to suture patients without Lignocaine" (Participant 3; M; 38 years old)

Theme 2: Negative impact of the shortage of resources on patients

Participants narrated their experiences concerning the negative impact of the shortage of resources on patients. To that effect, the following impacts were highlighted: Delayed time for nursing care; Increased

length of hospital stays; High rates of patients' complaints; Negative patient outcomes.

Category 2.1. Delayed time for nursing care

Due to the scarcity of resources, participants had to delay time for nursing care. Participants mentioned:

"It makes our work very difficult and is time-consuming, because every time when you have to use resources that are not available, you have to ask in other wards" (Participant 1; F; 40 years old)

Category 2.2. A high volume of patients' complaints

In this study, participants reported that patients' relatives complained of inadequate nursing care because of the shortage of resources. Sad-looking participant 12 had this to say:

"The other thing is when parents come and find their kids lying on linen with just a drop of blood, they complain" (Sad looking participant 12; F; 41 years old)

Category 2.3 Increased length of hospitalization

Participants elaborated that patients were not seen on time and care was compromised. With a worrisome look, a participant expressed the following:

"Patients are not monitored the way it is supposed to be., because a machine is not ours ... These means if it is four hourly, is going to be six hourly...So patient's stay is going to be long in our ward" (Participant 13; F; 29 years old)

Category 2.4 Negative patient outcomes

Participants attributed lack of resources to negative patient outcomes such as death. One participant said:

"Patients come here but there are no nurses to nurse them. Beds might be available but there are no nurses...They end up dying instead of being helped ..." (Participant 9; F; 33 years old)

Theme 3: Experiences with the shortage of nursing and support staff

Four categories emerged from this theme, namely: Nurse burnout syndrome; impact on the training of nurses; Fear of litigation; Nurses having to perform non-nursing duties.

Category 3.1: Nurses' burnout syndrome

An overwhelming number of the participants experienced an enormous amount of stress. Sad-looking participant 4 said:

"We experience burnout, because we cannot achieve our objective of quality care, ... because of the stress for

being sick, strained emotionally because of not having enough resources” (Participant 6; F; 64 years old)

Category 3.2: Impact on the training of nurses

Participants testified that they did not have an opportunity to advance their development due to nurse shortages. This is evident in this narration:

“Due to shortage of PNs, everyone is minding, checking their own patients, so we end up lacking information like in-service training”. (Participant 7; F; 28 years old)

Category 3.3: Fear of litigation

In this study, participants reported that they fear litigation. This is apparent from the following:

“We are scared of litigations in our unit, because if you are working alone and you have so many patients, you tend to overlook certain patients and if something happens, it is on your shoulder” (Participant 11; F; 51 years old)

Category 3.4: Nurses performing non-nursing duties

Nurses performed non-nursing duties to cover up for lack of support staff. One participant narrated:

“There are no clerks, so our statistics is very wrong. Sometimes we are even forced to do clerical work so that we can have statistics, especially for patients who are going out of the unit ” (Participant 15; F; 31years old)

Theme 4: Dealing with a shortage of resources

Various coping mechanisms were employed to deal with the scarcity of resources.

Category 4.1 Nurses improvise

Participants had to improvise to deal with the shortage of resources. Nurses had to come up with creative ways of dealing with diminished resources. One participant had this to say:

“Sometimes we augment the gauze with crepe bandage during dressings...Some of items are out of stock, so we have to ask from other wards because central sterilising department have nothing” Participant 14; F; 29 years old)

Discussions

The purpose of the study was to explore and describe the experiences of PNs concerning the shortage of resources at a tertiary hospital in Gauteng province. The study revealed four themes: Experiences pertaining to lack of material resources; The negative impact of these resource shortages on patients; Experiences on the inadequate number of nurses and support staff; and

Dealing with the shortage of resources. These themes are discussed in relation to the supportive literature.

Experiences pertaining to lack of material resources

The majority of participants revealed an inadequate supply of linen such as sheets, blankets and pillow slips, despite several requests from laundry. It is apparent that, under these circumstances, patients’ dirty bed linen was not changed, thus predisposing them to hospital infections and bedsores. Young (2016) also made a disturbing observation, whereby blood stains in unchanged linen were concealed with a paper towel. This is in contradiction of the infection control domain that highlights the necessity of a clean environment (Department of Health, 2011). Therefore, negligence in hospital linen supplies undercuts the values of quality care and patients’ dignity. It is imperative that hospital managers should ensure that the nurses have adequate bedlinen to preserve patients’ dignity and prevent nosocomial infections.

The participants experienced shortages of consumables such as dressing packs, gloves, masks and sanitisers. An overwhelming number of participants reported that wound dressing was not done due to lack of sterile packs. Consistently, Mammbona and Mavhandu-Mudzusi (2019) identified lack of gloves and masks, which put PNs at risk of contracting infectious diseases. According to Liu et al. (2020), adequate PPE is needed to protect both healthcare workers and patients from acquiring hospital infections. It is of great concern that, in this era of infectious diseases such HIV/AIDS and Covid-19, nurses still have to work without PPEs such as gloves and masks.

Participants experienced the unavailability of medicine. The assertion is that the nurses are likely to replace the unavailable medication with the other options, which might contribute to more complications. Additionally, Hodes et al. (2017) argue that this practice might affect chronic patients by delaying healing and promoting drug resistance. Lack of drugs, such as oxytocin, contributes to mishandling of emergencies such as post-partum haemorrhage (Mkoka et al., 2014). Unavailability of medicine affects both nurses and patients negatively. Thus, leading to compromised patient care, non-adherence and noncompliance to guidelines and protocols.

Negative impact of the shortage of resources on patients

Participants unanimously linked the shortage of resources to delayed time for nursing care. Consistently, Mokoena (2017) emphasised that shortage of equipment delays patients’ diagnosis and care.

Unavailability of prescribed medication means that the hospital has to outsource from another, thus contributing to more complications (Mokoena, [2017](#)). Matinhure et al. ([2018](#)) found that a lack of obstetric resuscitation equipment delayed essential care for women in labour. Malelelo-Ndou et al. ([2019](#)) revealed that certain drugs were requested from other hospitals which resulted in late administration. According to Malelelo-Ndou et al. ([2019](#)), delayed treatment has a negative impact on patients' prognoses. It is apparent that shortage of resources has a negative impact on quality patient care

Most of the participants reiterated experiences regarding the myriad of complaints from patients and their families. It is apparent that this dissatisfaction could be related to sub-standard nursing care. Mkoka et al. ([2014](#)) highlighted that the shortage of drugs creates mistrust whereby clients had a misconception that healthcare workers were selling medicines. According to Mkoka et al. ([2014](#)), allegations from patients and relatives are concerning, hence it is important to ascertain the reasons behind it.

Participants in this study experienced that patients' stay in the hospital was prolonged. Sub-standard care could be contributory to a prolonged length of stay. It is a clear that patients were not recuperating as expected because of the lack of medication. Shortage of equipment and drugs contribute to postponement of operations, which further delays healing and increased hospital stay.

The participants blamed unavailability of resource to poor patient outcomes. This could be related to the fact that the quality of care was compromised due to lack of resources. The notion is that effective management of patients' illnesses requires prompt care with adequate uptake of treatment. Consistently, Gebrehiwot et al. ([2014](#)) associated maternal mortality rates with the inadequate number of midwifery experts and paediatric resuscitation material. Mtega et al. ([2017](#)) linked shortage of nurses to destructive events such as pressure sores, and nosocomial infections. The assertion is that, with few nurses, it would be difficult to perform procedures such as pressure part care. Shortage of drugs has been attributed to deterioration of patients' condition and deaths (Phuong et al., [2019](#)). Malatji et al. ([2017](#)), admit that staff shortage affect healthcare delivery negatively which, in turn, contributes to poor patient outcomes.

Experiences with inadequate number of nurses and support staff

Participants narrated that they experienced burnout and stress due to a shortage of resources. This is relatable because the PNs were expected to provide quality patient care amidst this lack of resources. At the same time, they had to deal with patients' complaints and all other problems related to a lack of resources. Malatji et al. ([2017](#)) correlated staff shortage to anger, the feeling of inadequacy, burnout and emotional exhaustion.

Participants attested that lack of resources impeded nurses' self-development. Evidently, given few nurses, they had no option but to prioritize and cover up for this shortage. The same sentiments were shared by Malatji et al. ([2017](#)) in that midwives did not attend workshops due to the continuing scarcity of nurses. Furthermore, supervision and mentoring of novice nurses could also be challenging in light of the shortage of nurses (Khunou, [2018](#)). Evidently, amidst the shortage of experienced nurses, the novices are likely to be left alone to tend the wards. Yang et al. ([2017](#)) agreed that lack of career guidance and development from the employer was one of the causes of staff turnover.

Significantly, the PNs in this study feared litigations. This could be ascribed to poor working conditions exacerbated by lack of resources and sub-standard nursing care and increased patient complaints. Fear of litigation amongst PNs could be attributed to the fact that they could not provide quality patient care. Consistently, Matlala and Lumadi ([2019](#)), found that midwives feared litigation as a result of delays in patient care, and poor record keeping. The allocation of unqualified professionals can result in litigation due to poor decision-making.

The current study revealed that nurses had no option but to perform non-nursing duties to compensate for the shortage of other healthcare workers. This action is likely to contribute to further nurse shortages, thus exacerbating the entire problem of resource shortages. Similarly, Bekker et al. ([2015](#)) found that, in most cases, nurses had to carry out clerical duties while neglecting core duties such as health education. Lack of accomplishment of nursing duties contributes to increased job dissatisfaction (Bekker *et al.*, 2015).

Dealing with resource shortages

Participants had to improvise to deal with the shortage of resources and come up with creative ways of dealing with diminished resources. In agreement, Mutshatshi et al. ([2018](#)) revealed lack of notepads for

recording patients' observations. In this regard, nurses had to spend a lot of time making copies in order to document the nursing care rendered (Mutshatshi *et al.*, 2018). In addition, Mammbona and Mavhandu-Mudzusi (2019) found that, due to a shortage of gloves, nurses had to use their bare hands when taking care of HIV/AIDS patients. It is apparent that even though improvisation can be done to ensure continuity of care, it also has negative effects which has the potential to compromise quality care and put the nurses at risk of infection.

Limitations

The study used a qualitative design and purposive sample, which limits the representation of the population. The study was restricted to one tertiary hospital in one district with selected units and a small number of professional nurses. Therefore, the findings cannot be generalized to other hospitals. Since some participants might not have freely disclosed relevant information, it might hinder the generalisation of results. Interviews were conducted in English with approval of the participants.

Conclusions

Inadequacy of health resources leads to a deterioration in nursing standards and compromises the welfare of patients in hospitals and clinics. This study was essential to explore and describe the experiences of PNs regarding this phenomenon. The study revealed negative and positive experiences regarding the shortage of resources. Appropriate measures should be put in place to ensure that resources are adequate at this tertiary hospital.

Recommendations

Medical machinery should be audited monthly and a daily checklist used to document available stock. Appropriate recruitment and retention policies must be implemented by the HR department to ensure that vacant posts are filled timely and high staff turnover is reduced. Debriefing programmes should be established in units such as labour wards, and accident and emergency and intensive care units to provide psychological support to affected staff. Sufficient support staff should be hired to free nurses from performing non-nursing duties. The perceptions of patients could also be explored with respect to the unavailability of medicine in healthcare facilities.

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