



Resource Shortage In A Tertiary Hospital In Gauteng Province, South Africa: Experiences Of Professional Nurses

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Abstract

Abstract

Background: Shortage of resources in hospitals is a global problem with South Africa not being excluded. These leads to a situation where most health care workers especially professional nurses (PNs) leave the health institutions to private hospitals or abroad for better opportunities.

Objective: The study explored and described professional nurses' experiences regarding shortage of resources at a tertiary hospital in Gauteng Province.

Methods: Qualitative, explorative, descriptive design was used on a sample of 16 professional nurses (PNs), who have worked for two or more years in selected units. Unstructured individual conversations with a grand tour question was used. Tesch's method was employed to analyze data.

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

Conclusion : In conclusion, the inadequacy of health resources has a detrimental impact on both nursing standards and patient welfare within hospitals and clinics. This study, aimed at exploring and describing the experiences of Professional Nurses (PNs) in relation to this phenomenon, uncovered a range of negative and positive encounters stemming from resource shortages. To address these challenges at the tertiary hospital under investigation, it is imperative to implement effective measures ensuring resource adequacy.

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Introduction

The insufficiency of health resources is a global concern (World Health Organisation, 2013). It is predicted that 2035 will reduce 12.9 million healthcare professionals (WHO 2013). Miseda et al. (2017) specified that the inadequacy of resources had devastated the realization of

the Millennium Development Goals and the Sustainable Development Goals. Yang et al. (2017) exposed a proportion of 97 221 registered nurses providing services to a population of 37 million. Sub-Saharan Africa has a major deficiency of healthcare workers (WHO 2013). More than 60% of African countries have fewer health

personnel. WHO (2017) indicated that skilled healthcare workers are expected per 10,000 people. However, 83 countries are still below this level. The scarcity of medical professionals in SSA curtails international migration due to unfavorable working conditions (South Africa 2017). Manyisa and Van Aswegen (2017) specified that deficient health resources affect state hospital working conditions. Miseda et al. (2017) revealed high skill gaps among medical experts in Kenya, which did not meet the Norms and Standards of the County Directors of Health.

Several factors contribute to a shortage of fundamental health resources. Yang et al. (2017) indicated the HRH shortage was due to high staff turnover. The Department of Health has introduced the National Core Standard as a strategy to increase the availability of resources at all levels of hospitals (South Africa 2011). Medical types of machinery are supposed to be religiously serviced following domain seven to keep them safe for use (South Africa 2011). According to Mammbona and Mavhandu-Mudzusi (2019), the inadequacy of health resources contributes to a decrease in treatment standards and the well-being of patients. In this regard, Phuong et al. (2019) revealed that nurses postponed treatment due to the inaccessibility of prescribed medication.

The inadequacy of health resources has dire effects in most countries, including South Africa (Khamisa et al.2017). South African media have reported medicolegal hazards due to a lack of resources (Rispel et al.2018). Subjective indications suggest an inadequate use of healthcare resources in the context of the current study. This tertiary hospital has 1,650 beds, with an average occupancy rate (Makgopela 2019). Patients from Tshwane District Health Care Facilities and other provinces are referred to the hospital. As the leading academic and referral hospital in South Africa, it needs adequate allocation of resources to provide quality service delivery. During clinical accompaniment, the researcher observed conditions that amount to a precarious deficiency of resources. Overcrowding of patients, lack of drugs, and few nurses were noted. Several studies have been conducted on the shortage of resources. However, there is less literature on the experiences of PNs regarding the shortage of resources in tertiary hospitals, hence the need for this study.

Methods

This study used a qualitative, explorative, descriptive research design involving 16 professional nurses. The participants were purportedly chosen to provide rich information about their experiences concerning the resource shortage in the tertiary hospital. Data saturation determined the sample size, by which new themes are no longer emerging. The inclusion criteria included

professional nurses with more than two years of experience in the selected tertiary hospital.

Ethics/informed consent

Ethical clearance was obtained from the University of South Africa's Higher Degree Ethics Committee (Reference number: HSHDC / 0801/2017). Permission was also sought from the district ethics committee of Gauteng Province. Throughout the study, the researcher observed the principles of beneficence, respect, and justice (Polit & Beck 2017). The rights of the participants were secured by obtaining both written and verbal consent before data collection. Privacy and secrecy were ensured by using pseudonyms. Confidentiality was determined by reassuring the study participants that the facts and information shared would be unreachable to others except those involved. Anonymity was ensured using pseudonyms instead of the participants' real identities.

Data collection

Data were collected from June to September 2019. The researcher collected data using unstructured face-to-face individual interviews, which took 25 to 40 minutes to complete. The researcher asked this broad question: "What are your experiences regarding the hospital's human and nonhuman resources shortage?" Follow-up questions were asked according to participants' responses. Probing was done to obtain in-depth clarification from participants. Gestures and non-verbal communication were adequately documented.

Data Analysis

Tesch's approach was implemented to analyze data obtained from PNs (Polit & Beck 2017). Each transcript was carefully read to understand the underlying sense. Subsequently, the transcripts were read individually to get the emerging topics. This was followed by writing these topics on the border of the document. The broad issues were highlighted and abridged as codes. The fifth step included assigning descriptive words to the identified problems and grouping them into categories.

Consequently, the researcher shortened these categories by deciding on the final abbreviation, including labeling each type and code to avoid duplication. The seventh step involved the alignment of the data appropriate for each class. The eighth step included recording data to get the whole sense and significance of the data.

Trustworthiness

Trustworthiness is the rank of assurance and realism researchers have in their qualitative results (Polit & Beck 2017). The engagement was maintained to reach data saturation. The researcher kept a log of audiotapes and verbatim transcripts. Raw data were validated together with an independent coder.

RESULTS

Characteristics of the Participants

A total of sixteen professional nurses participated in the study. The age of the participants ranged from 28 to 64 (Mean = 41.12 years). Most participants were women (n = 15; 94%). Four participants (25%) had seventeen to twenty years of experience in their current position. Thirteen (81.3%) participants had a Nursing Science and Midwifery diploma, followed by a Bachelor's degree in Nursing (n = 3; 18.7%).

In-depth data analysis of the study allowed a better understanding of the experiences of professional nurses regarding the shortage of resources in the tertiary hospital. To this effect, four themes supported by twelve categories emerged from the study (Figure 1). The following direct quotes from study participants describe these themes and types.

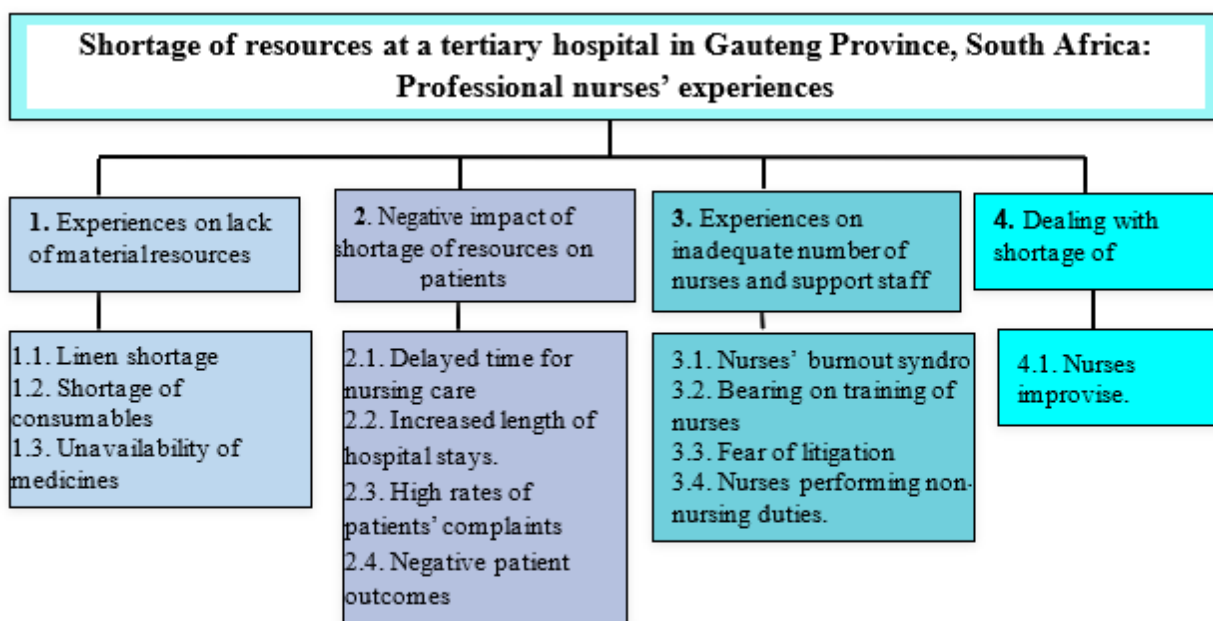


Figure 1: shows four themes and the twelve categories that emerged from the study.

Discussion

Most PNs reported negative experiences related to a lack of material resources, which resulted in three categories: Linen shortage, lack of consumables, and Unavailability of medicines.

Category 1.1: Linen shortage

The participants revealed a deficiency in linen despite several requests from laundry. Participants cited the following:

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

Category 1.2: Lack of consumables

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

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

Category 1.3: Unavailability of medicines

The participants described the absence of medicines as follows:

"Currently, we do not have Vitamin Bco. We used to struggle with Epilim, but at least we will give an alternative to 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 resource shortage on patients

Participants narrated their experiences on the negative impact of shortage of resources on patients. To this effect, the following results were highlighted: delayed nursing care, Increased length of hospital stays, high rates of patient complaints, and negative patient outcomes.

Category 2.1. Delayed time for nursing care

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

"It makes our work very difficult and time-consuming, because whenever you have to use resources that are not available, either you ask in another ward." (Participant 1; F; 40 years old)

Category 2.2. High rates of patient complaints

In this study, participants reported that relatives complained of inadequate nursing care rendered due to a 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

The participants elaborated that the patients were not observed in time, and care was compromised. With a worrisome look expression, participants (1) expressed the experience as follows:

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

Category 2.4 Negative patient outcomes

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

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

Theme 3: Experience in the shortage of nursing and support staff

Two categories emerged from this theme: Nurse burnout syndrome, the impact on the training of nurses, fear of litigation, and nurses performing nonnursing duties.

Category 3.1: Nurse burnout syndrome

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

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

sick, strained emotionally because of not having enough resources." (Participant 6; F; 64 years)

Category 3.2: Impact on the training of nurses

Participants testified that they did not have the opportunity to advance their development due to a shortage of nurses. This is evident in this narration.

"Due to the shortage of PNs, everyone is taking care of themselves, checking their 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 in the following citation.

: "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 nonnursing duties

Nurses performed nonnursing duties to cover for fewer support staff. One participant narrated:

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

Theme 4: Dealing with a shortage of resources

Coping mechanisms were used to deal with a scarcity of resources.

Category 4.1 Nurses improvise

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

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

The study aimed to explore and describe the experiences of professional nurses about the shortage of resources at a tertiary hospital in Gauteng province. The study revealed four themes: Experiences on lack of material resources, the negative impact of the scarcity of resources on patients, Experiences with an inadequate number of nurses and support staff, and Dealing with a shortage of resources. These themes are discussed in the supportive literature.

Experiences about lack of material resources

Despite several laundry requests, Most participants revealed insufficient linen, such as sheets, blankets, and pillow slips. The dirty bed linen was not changed under these circumstances, thus predisposing them to hospital infections and bedsores. Young (2016) also noted that blood stains in unchanged linen were concealed with a paper towel. This contrasts with the infection control domain, highlighting the reputation of a clean environment (South Africa, 2011). According to Nevhotalu (2016), physical contact with bedding is perceived as a hygiene representative. Therefore, negligence in the supply of hospital linen undermines the values of quality care and patient dignity.

Participants experienced a shortage of consumables, such as dressing packs, gloves, masks, and sanitizers. Many participants reported that the wound dressing was not applied due to a lack of sterile containers. Mammbona and Mavhandu-Mudzusi (2019) consistently identified the 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 as HIV/AIDS and COVID-19, nurses still have to work without PPE, such as gloves and masks.

The participants experienced the inaccessibility of medication. The inaccessibility of treatment leads to patients receiving incorrect doses at the wrong time (Nevhotalu 2016). The assertion is that nurses will likely replace the unavailable medication with other options, which might contribute to more complications. Additionally, Hodes et al. (2017) argue that this practice could affect chronic patients by delaying healing and promoting drug resistance. The lack of drugs, such as oxytocin, contributes to the mishandling of emergencies such as postpartum hemorrhage (Mkoka et al. 2014). The inaccessibility of medication negatively affects both nurses and patients. Thus leading to compromised patient care, nonadherence, and noncompliance to guidelines and protocols.

The Negative Impact of a Shortage of resources on patients
The participants unanimously linked the shortage of resources to delayed nursing care. Mokoena (2017) continuously emphasized that the need for equipment delays patients' diagnosis and care. The inaccessibility of prescribed medications means 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 labor. Malelelo-Ndou et al.(2019) revealed that certain drugs were requested from other hospitals, which resulted in a late administration. Malelelo-Ndou et al. (2019) say delayed treatment harms patients' prognosis.

Most participants reiterated their experiences concerning many complaints from patients and their significant others. Dissatisfaction could be related to substandard nursing care. Mkoka et al. (2014) highlight that the shortage of drugs creates mistrust, whereby clients have the misconception that healthcare workers are selling medicines. Malatji et al.(2017) state that allegations from patients and relatives are concerning. Therefore, it is essential to determine the reasons behind them.

Participants in this study experienced prolonged hospital stay of patients. Substandard care could contribute to long length of stay. The patients did not recover as expected because of a lack of medications. In support, Khan et al.(2017) found clients vulnerable to nosocomial infections due to a lack of medicines. The shortage of types of equipment and drugs contributes to the postponement of operations, further delaying healing and increasing hospital stays.

The participants blamed the Unavailability of resources for poor patient outcomes. This could be related to the fact that the quality of care was compromised due to a lack of resources. The notion is that effective management of patient diseases requires prompt care with adequate treatment uptake. Consistently, Gebrehiwot et al. (2014) associated maternal mortality rates with the inadequate number of midwifery experts and pediatric resuscitation material. Mtega et al. (2017) linked the shortage of nurses with destructive events such as pressure sores and nosocomial infections. The assertion is that with few nurses, performing procedures such as pressure part care would be difficult. Drug shortages have been attributed to the deterioration of patient conditions and deaths (Phuong et al. 2019). Malatji et al. (2017) admit that staff shortage negatively affects healthcare delivery, contributing to poor patient outcomes.

Experience with an inadequate number of nurses and support staff

The participants narrated that they experienced burnout and stress due to a shortage of resources. This is relatable because professional nurses are expected to provide quality patient care amid the lack of resources. At the same time, they had to deal with patient complaints and all other problems related to lack of resources. Khamisa et al. (2017) indicate that work stress related to a shortage of HR results in an increased workload, which affects job satisfaction. Malatji et al. (2017) correlated staff shortage with anger, feelings of inadequacy, burnout, and emotional exhaustion.

Participants attested that the lack of resources hindered nurses' self-development. Evidently, during a shortage of nurses, they had no option but to prioritize and cover up for the needs of nurses. The same sentiments were shared by Matlala and Lumadi (2019) in that midwives did not attend workshops due to the lingering scarcity of nurses.

Furthermore, the supervision and mentoring of new nurses could also be challenging in a shortage of nurses (Khunou 2018). Evidently, amid the shortage of experienced nurses, novices will likely be left alone to care for the wards. Yang et al. (2017) agreed that a lack of career guidance and development from the employer was one of the causes of staff turnover.

Significantly, professional nurses in this study feared litigation. This could be attributed to poor working conditions exacerbated by a lack of resources, substandard nursing care, and increased patient complaints. Fear of litigation among PNs could be attributed to their inability to provide quality patient care. Matlala and Lumadi (2019) consistently found that midwives feared litigation due to delays in patient care and poor record keeping. Allocation of unqualified professionals can result in litigation due to poor decision-making (Singh & Mathuray 2017).

The current study revealed that nurses had no option but to perform nonnursing duties to compensate for the shortage of other healthcare workers. This kind of gesture is likely to contribute to the shortage of nurses, thus exacerbating the whole problem related to the scarcity of resources. Similarly, Bekker et al.(2014) found that in most cases, nurses had to do clerical duties while neglecting their core duties such as health education. The lack of accomplishment of nursing duties increases job dissatisfaction (Bekker et al., 2014). Manyisa and Van Asvagen (2017) also indicated that medical professionals were compelled to clean floors due to the Unavailability of auxiliary workers.

Dealing with a shortage of resources

The participants had to improve to deal with the shortage of resources. Nurses had to come up with creative ways to cope with diminished resources. In agreement, Mutshatshi et al. (2018) revealed a lack of notepads for recording patient observations. In this regard, nurses had to make copies to document the nursing care rendered (Mutshatshi et al. 2018). Additionally, Mammbona and Mavhandu-Mudzusi (2019) found that due to a shortage of gloves, nurses had to use bare hands when caring for HIV / AIDS patients. It is apparent that even though improvising can be done to ensure continuity of care, it also has adverse effects, which could compromise quality care and put nurses at risk of infections.

Conclusions

The inadequacy of health resources leads to a deterioration in nursing standards and the welfare of patients in hospitals and clinics. This study was essential to explore and describe the experiences of PNs concerning this

phenomenon. The study revealed negative and positive experiences regarding resource shortage. Appropriate measures should be implemented to ensure adequate resources in this tertiary hospital.

Medical equipment should be audited monthly, and a daily checklist should be used to document available stock. The HR department must implement appropriate recruitment and retention policies to fill vacant posts on time and reduce high staff turnover. Debriefing programs should be established in labor wards, accident and emergency, and intensive care units to support affected staff psychologically. Sufficient support staff should be hired to prevent nurses from performing nonnursing duties. The perceptions of the Unavailability of medicine in healthcare facilities could be explored.

Key Points

- *Discussion of the shortage of resources as experienced by professional nurses*
- *Health resources are essential in ensuring the quality of patient care*
- *The shortfall of resources negatively affects the nurses' quality of work-life*
- *The Department of Health to address the lack of health resources.*

DECLARATION SECTION

Ethical Considerations

Ethical clearance was obtained from the University of South Africa's Higher Degree Ethics Committee (**Reference number: HSHDC / 0801/2017**). Permission was also sought from the district ethics committee of Gauteng Province. Throughout the study, the researcher observed the principles of beneficence, respect, and justice (Polit & Beck 2017). The rights of the participants were secured by obtaining both written and verbal consent before data collection. Privacy and secrecy were ensured by using pseudonyms. Confidentiality was determined by reassuring the study participants that the facts and information shared would be unreachable to others except those involved. Anonymity was ensured using pseudonyms instead of the participants' real identities.

Conflict of interest

The authors declare that they have no competing interests.

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Data availability:

Data are available by contacting the corresponding author by email.

AUTHORS CONTRIBUTIONS

MPJ collected and analyzed the data and contributed to the compilation of the manuscript. SHK supervised the study

and contributed to the writing and proofreading of the manuscript.

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