

# A Reflection on the Skills Shortage in Intensive Care Units in South African Public Hospitals

**Mokgadi Matlakala**

<https://orcid.org/0000-0002-0980-7447>

University of South Africa

matlamc@unisa.ac.za

## Abstract

Intensive care units (ICUs) are specialist units where critically ill patients are cared for, staffed by a specialist health workforce. With the nursing profession currently undergoing major changes, both in practice and nursing education, there are several factors that are affecting the nursing workforce globally. As a result of natural attrition, nurses are leaving the profession which has resulted in an absolute critical skills scarcity. This article highlights some issues related to the nursing workforce in ICUs. The ICU nurses may be dealing with too much work, while experiencing low recognition of the value of their work. This may happen as nurses are all on the same level of training and they do a similar type of work. However, when the pressures of the ICU environment surpass their ability to cope, the individual nurses end up showing signs of burnout. The question is whether those working in ICUs will remain there forever, and for those nurses who hear the adverse stories about ICUs, whether they will be interested in working in ICUs.

**Keywords:** critical care nurse; critical skills scarcity; intensive care unit; skills shortage; nursing workforce

## Introduction

An adequate nursing workforce is an important component in the provision of health care, particularly for highly specialised disciplines such as intensive care. The State of the World's Nursing report (WHO 2020) provides an overview of the global nursing workforce. In 2020, the World Health Organization (WHO) and the International Council of Nurses (ICN) indicated the need for each country to increase the intake of its nursing production each year, by at least 8%. South Africa continues to experience both a skills shortage and a critical skills scarcity in nursing. Critical skills relate to specialist skills such as those acquired at postgraduate level. There is a continued critical skills scarcity at postgraduate level with a previously estimated 1.51% of vacancies

available for nurse educators, nurse managers and researchers (Health Systems Trust 2011).

According to the South African Nursing Council (SANC) register, in 2020 there was a slight decrease in the number of nurses in the register, which highlighted a ratio of 1 nurse for every 213 people in the country in both the public and private sector. South Africa's new 2030 Human Resources for Health (HRH) strategy, predicts that over 16 000 additional professional nurses will be needed across provinces by 2025 (Cleary and Low 2020). This has implications for the training and supply of nurses nationally – a call to the government and the nursing profession to increase the production of nurses as highlighted by the WHO and the ICN (2020).

The purpose of this article is to reflect on the nursing workforce in the intensive care units (ICUs) in South Africa. According to Marshall et al. (2017, 272) an ICU, also known as a critical care unit (CCU), is a special department of a hospital or health care facility that provides intensive care medicine. Furthermore, the differences between ICUs and general hospital wards are the higher staff-to-patient ratio and staff access to advanced medical resources and equipment that are not routinely available in the general wards (Marshall et al. 2017).

## The ICU Nursing Workforce in South Africa

In South Africa, ICUs should ideally be staffed by, amongst others, trained and experienced professional nurses who specialise in caring for critically ill patients. According to the SANC register, as of 31 December 2022, there were 6 246 nurses with critical care nursing as additional qualification in various critical care specialties. This shows an attrition of 15 critical care nurses from 6 261 in 2021 (SANC 2022). Attrition is the gradual reduction of a workforce by ICU nurses leaving and not being replaced. Due to the ageing workforce globally, some nurses leave for retirement, while others resign to migrate or join other healthcare institutions for various reasons such as better remuneration or more decent practice environments.

The extant literature has indicated the intention of nurses to leave ICUs, and anecdotal stories have been told and shared by critical care nurses regarding the long working hours; inadequate staffing ratios; use of other categories of nurses in ICUs; not receiving special occupation specific dispensation during the COVID-19 pandemic; poor working conditions worsened by lack or shortage of equipment and supplies; and lack of recognition. The COVID-19 pandemic also led to a reduction in the number of nurses as a result of termination due to illness. Attrition has a great impact on the ICU nursing workforce.

A look at the SANC register (2022) shows a stagnant number of registered nurses with an additional qualification in Medical and Surgical Nursing Science: Critical Care Nursing – General at 5 505 during the period 2021 and 2022. Some critical care nursing specialties have as few as 2, 8 and 11 nurses on the register. It is noteworthy that not all

nurses on the register are practising bedside nurses in ICUs, as some may optionally remain on the register even after retirement or change of employment. For example, some of the critical care trained nurses have become managers and lecturers, while retaining their status on the register.

## The Supply of Critical Care Nurses

Critical care nurses are a critical skills workforce required in ICUs. The SANC register (2022) indicates very low numbers of critical care nurses trained at various accredited nursing education institutions (NEIs). This implies less supply of critical care nurses nationally. The question is then, who is allocated to work in the ICUs across the country if there are so few trained critical care nurses? There are well-established, regulated NEIs approved by the SANC to offer accredited critical care nursing programmes to professional nurses who have completed their undergraduate nursing programmes. However, it is observed that typically nursing undergraduates do not go back to college or university to obtain postgraduate diplomas and degrees once they have entered the working force. Instead, those who are experienced, are given opportunities to do sessional work in the ICUs (overtime or moonlighting). Others enrol for higher degrees such as with an intention to leave clinical practice.

With the current changes and transformation of the nursing education landscape in South Africa, training for the Postgraduate Diploma in Critical Care Nursing is affected by several problems, such as the following:

- Due to the phasing out of legacy programmes, there is limited uptake of the critical care nursing courses, possibly due to lack of interest. Additionally, the number of students entering programmes leading to registration as a professional nurse decreased by an estimated 70% between 2018 and 2021.
- The new specialist qualifications have to be completed at postgraduate diploma level; however, the majority of professional nurses who wish to enter specialist training may miss the opportunity due to the gap in the National Qualifications Framework (NQF) levels between the legacy and new programmes. This articulation matter is under discussion; however, it seems that by the time it is resolved, there will be an absolute critical skills scarcity in ICUs.
- For the new qualifications, nurse educators require a higher degree qualification to teach the Postgraduate Diploma in Critical Care Nursing programmes. This means that the nurse educators require a master's degree in addition to their critical care nursing specialty. At the nursing colleges, this requirement is a crisis as many lecturers hold only a specialist qualification at diploma level (the same level as what they are teaching). This means that even though there may be students available to train, there may not be any qualified or skilled teachers to facilitate the programmes. Occasionally, some lecturers leave the colleges to return to clinical practice as they feel they are nearing

retirement and will not be able to enrol for the required higher degrees such as master's programmes.

Thus, researchers on the health workforce agree that the transformation of nursing education is an important strategy for improving health workforce supply (Blaauw, Ditlopo and Rispel 2014). However, there seems to be a crisis with the training and supply of nurses in ICUs.

## The Efficiency of Nurse Staffing in ICUs

Key informants on the study have debated on the nurse staffing norms (Clarke 2006; Dunton et al. 2004). This implies that a health policy-based workforce is required to effectively evaluate the nursing workload and allocation of staff to ICUs. According to Clarke and Donaldson (2008, 1), nurse staffing is a crucial health policy issue because it is budget based. In contrast to the low number of critical care nurses on the register, due to the demand of intensive care medicine, the country has adopted the design of large ICUs with 12–18 beds in both the public and private sector (Matlakala, Bezuidenhout and Botha 2014a;2014 b). It is important to note that these large ICUs require adequate critical care nurse staffing.

Noteworthy is that nurse staffing in the ICU does not merely refer to the number of nurses available for allocation in the unit, but rather the skills and competence of such nurses to manage the units and provide the required critical care nursing. Further observation is that ICU managers are responsible to ensure adequate nursing staff. However, there seem to be no clear staffing patterns due to the shortage of critical care nurses, both locally and nationally. Allocation of nursing staff is based on the number of beds rather than the nursing workload. A convenient allocation of nurse-to-patient ratio is commonly used, in which the number of patients determines staffing levels, and patient acuity levels are used to determine nursing needs per shift. However, this is sometimes challenging due to the unpredictability of patients' conditions (Aiken et al. 2008), and nursing staff shortage in the ICU.

Ideally, the nurse-to-patient ratio in the ICU should be 1:1. Typically, due to nursing staff shortage, ICU nurses are experiencing a 1:2 or 1:3 nurse-to-patient ratio throughout the country. The common practice in the hospitals is to supplement the ICUs with nurses who are not trained, but experienced, and some other categories of nurses such as enrolled nurses. These increased ratios worsen the nursing workload, and the resultant critical skills scarcity leads to unsafe practices when caring for high acuity level patients and results in burnout among the ICU nurses. It is evident that having more than one patient may lead to the mere completion of nursing activities rather than the provision of adequate nursing care. This implies that patients may not benefit from the provided care. In addition, human errors (Donchin et al. 2003) may occur. This reflection indicates the importance of critical skills in ICU nurses. The WHO advocates for each country to reflect on how it produces, deploys and sustains a health workforce that is both fit for purpose and fit to practise in support of universal health coverage.

## The Nursing Workload in the ICU

The nursing workload is said to be the time allocated to patient care, nursing activities, and skills needed for patient care. With many ICU staff supplemented by lower categories of staff, such as enrolled nurses, this becomes a burden to the unit manager and the trained ICU nurses on duty as they have to oversee the work of the enrolled nurses, while attending to their own allocated patients. This increases the role expectations of the few trained ICU nurses. Increased workload, coupled with the pace of work, decreases nurses' motivation. ICU nurses are constantly ready for action due to the unpredictability of the unit and changes in patients' conditions, or general flow of patients in the unit. Increased workload exposes ICU nurses to severe emotional distress and burnout. ICU managers experience role conflict and ambiguity, because they would commonly have their own patient to nurse due to staff shortage, or would have to take on a patient when all the nurses have been allocated and there is an emergency patient being admitted. The trained ICU nurses no longer feel valuable, however, because ICUs are said to be specialist units, whereas, in practice or in reality, non-specialist nurses such as non-trained ICU professionals and enrolled nurses, are allocated to ICUs, especially those staff doing overtime. This makes the trained ICU nurses feel there was no need to undergo the specialist training.

According to Schaufeli, Leiter and Maslach (2009), burnout in the ICU closely relates to the shortage of nurses and increased workload. The workload is increased by the nurses' engagement in caring for the patients as well as their families. Burnout in ICU nurses, combined with a tired nursing workforce, and a critical skills scarcity, requires flexibility in the nurses' working hours. However, the routine work in ICU does not allow such flexibility, as there are high expectations on the nurses, and this leads to their intention to leave.

Gaines (2022) indicates that 87% of ICU nurses feel burnt out. This may be related to being in the same specialty area for many years. Experience has taught researchers that nurses who work in the ICU do not change their area, rather they stay in the same specialty area for the duration of their term in the profession. They also work both day and night shifts, only taking a break from the unit when they go on vacation. The only time they change area is when they move from one ICU to another. However, the environment remains the same and they still experience stress.

## Recommendations and Implications for Nursing Practice

In order to function optimally, ICUs demand efficient and sufficient nurse specialists (Matlakala and Botha 2015). Policy documents dealing with the nursing workforce should address the issue of ICU specialist nurses training, rather than seeing all professional nurses as equal. The SANC register for nurse specialists should be updated so that only practising nurse specialists are highlighted. To protect employee health and preserve a sense of comfort in the workplace, employers need to advocate for a

reasonable number of working hours and help employees to realise their personal potential to learn new things.

The dialogue on the critical skills scarcity in South Africa is ongoing. However, with the natural attrition, will there still be nurses available to work in ICUs? It seems unfortunate that a situation has been allowed to develop where nurses in ICUs reach a state of burnout. The only options for ICU nurses are to take a break by changing their specialty area of work, or to leave nursing. If this happens, however, there will be few nurses left to provide critical care.

## Conclusion

In 2015, the significance of the workforce for the functioning of the health systems and health outcomes was exemplified in a publication by the Global Health Workforce Alliance (GHWA) and the WHO (2015). The title “A Universal Truth: No Health without a Workforce” is a true statement. Therefore, it is important that the nursing profession in South Africa gather more information on the workforce and find ways to meet the challenges imagined. The nursing profession needs to adopt the national and international norms which will compel South Africa to develop critical skills for its nursing workforce. In addition, there should be ways to respond to the natural attrition of ICU nurses. According to Gorski and Polansky (2019, 154), “nurses should achieve higher levels of education and training through an improved education system that promotes seamless academic progression”. The professional regulatory body needs to give attention to the training of ICU nurses, and urgently correct the problems with articulation to postgraduate programmes.

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