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EDITORIAL

Anaesthetic nurse training in South Africa and the role of the anaesthetist

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One night during a polytrauma theatre case, I asked the anaesthetic nurse to run a blood gas analysis in a nearby intensive care unit. He returned with saline, glucose and insulin, announcing from the door that "we need to crank up the respiratory rate a bit and shift the potassium". To me, that was the embodiment of the anaesthetic nurse. He referred to "we" because he saw himself as part of the team. In that one moment, he displayed not only his knowledge of physiology and pharmacology but every category of non-technical skill defined in the anaesthetists' non-technical skills (ANTS) framework – teamwork, situational awareness, task management and decision-making.[1] Of course it was not his first day on the job. He drew on years of experience, training and inquisitive self-learning.

The contribution of a skilled anaesthetic nurse to patient safety is well documented in clinical practice as well as simulation.[2,3] In many countries registered qualified nurses are required to undergo additional training prior to performing the duties of an anaesthetic assistant and several societies have designed curricula for training of up to 24 months.[4-7] In South Africa, enrolled nurses and nursing assistants with limited anaesthetic experience and training are often arbitrarily allocated to the task of anaesthetic nurse and expected to learn while performing the service.[8] The South African Society of Anaesthesiologists (SASA) acknowledges that no formal accredited training for anaesthetic nurses exists in South Africa and that the existing in-hospital programmes differ widely in their training.[9] They define a list of recommended core responsibilities of the anaesthetic nurse, but state that the responsibility of training should lie with the respective hospital, nursing and theatre managers and where applicable, the relevant department of anaesthesia.

In this issue of SAJAA, Maharaj et al. explore the work-based learning experiences of anaesthetic nurses working in five urban (regional, tertiary and central level) hospitals in eThekwini, KwaZulu-Natal.[10] Echoing the literature,[8] most anaesthetic nurses in the study received little undergraduate anaesthesia training and were anaesthetic nurses through arbitrary allocation rather than personal choice. Workplace-based training varied from one week to six months, often with limited teaching by anaesthetic doctors in the theatres. Despite the arbitrary allocation, many found anaesthesia interesting and their work stimulating. They expressed an eagerness for feedback and training to improve their confidence and job satisfaction. Anaesthetist, rather than nurse-led in-theatre training and practical group tutorials were identified as preferred training modalities. The anaesthetic nurses did not always feel appreciated by their anaesthetic colleagues with some reports of anaesthetists directing their frustrations related to equipment failure at the anaesthetic nurse. Others reported being shouted at or complained about to others. The study concludes that there is insufficient formal training of anaesthetic nurses in the five hospitals and that the optimal teaching methods and mentors should be identified to answer the SASA call for "suitably trained and competent (anaesthetic) nurses".

This study aids the first of the six steps of medical education curriculum design (problem identification and general needs assessment).[11] The second step (targeted needs assessment, involving anaesthetists, hospitals, nursing management and statutory bodies) must follow. Before we embark on step two, we need to consider a number of questions.

Q1: Should this be a registered qualification in South Africa?

The potential benefits of formal training include a sense of achievement and self-worth, job satisfaction (to both the anaesthetist and the nurse) and a potential monetary benefit which may accompany additional qualifications. These will attract interested individuals, would develop and retain experienced providers and could ultimately impact patient safety. SASA has engaged with the South African Nursing Council (SANC) to define core competencies and a scope of practice but this has not yet resulted in working documents.[10]

Q2: Who should drive the training and develop the curriculum?

Nurses are registered with the SANC and their line managers are nursing personnel. It can be argued that surgeons don't design the curricula or train scrub sisters and that the training of anaesthetic nurses equally should not be driven by anaesthetists. On the other hand, no formal training programmes currently exist for anaesthetic nurses in South Africa and it is in the best interest of both parties and our patients that training is offered. We should therefore probably play an integral role in defining the expected competencies and delivering the training. Maharaj et al. found that anaesthetic nurses preferred learning from anaesthetists (rather than their nursing colleagues) as they perceived anaesthetists to be more "certain of their knowledge and skills" than their nursing colleagues.[10]

Q3: What constitutes fitness for purpose? What are the learning outcomes?

SASA[9] has defined some knowledge aspects and technical skills while many international bodies have defined detailed syllabi.[4-7] Maharaj et al. rightly state that few aspects of medicine require such a close interactive interdisciplinary relationship as anaesthesia.[10] Many studies have focused on the non-technical skills required of anaesthetists, but the interdisciplinary anaesthetist-anaesthetic nurse relationship can only succeed if the anaesthetic nurse possesses these same skills. The various categories constituting the ANTS and CANMeds[12] frameworks should therefore be included in the training of anaesthetic nurses. ANTS define four categories: task management (planning and preparation and provision and maintenance of standards), teamwork (exchange of information and support of others), situational awareness (anticipation, recognition and understanding) and decision-making (identification of options, balance of risks and re-evaluation) while the CANMeds framework,[12] apart from content expertise, defines non-technical skills such as communication, collaboration, leadership, health advocacy, scholarship (including lifelong learning) and professionalism. Ethics (consent) and wellness (stress management, addiction, recognising the impaired physician) should probably also be included in such courses.

Q4: What should the pedagogy entail?

The chosen pedagogy should be accessible and acceptable to all. The World Health Organization (WHO) recommends that theory training be offered by universities or similar institutions.[5] In the current system in South Africa, where formal anaesthetic nurse training is not offered by nursing colleges, anaesthetic nurses learn "on the job".[8] This training is enhanced by workshops and short courses offered mainly by SASA and some academic anaesthetic departments around the country. Time and financial resources might render these inaccessible to some. Modern education is moving towards hybrid learning with e-learning becoming the preferred method of delivering theoretical training. This has the potential to reach a wider audience, provided that the intended learners have access to devices and connectivity and are well versed in their use. Most South Africans have access to mobile phones, but it is not known how many of the mobile phones have smartphone capabilities nor what the level of tablet or computer technological experience there is amongst nurses in South Africa. Duys et al. found that anaesthetic nurse knowledge benefitted from daily short teaching SMS (Short Message Service) messages.[8] Participants in their study were however already registered for a workshop, showing interest and commitment. It is unknown whether anaesthetic nurses around the country would subscribe to a similar initiative. Creating such a community of practice of anaesthetic nurses nationally could offer a training opportunity which could benefit from such an inexpensive and accessible initiative.

Lippitt and Knowles[12] acknowledges the pre-existing experience of adult learners and encourages teaching strategies which promote facilitated learning with active student participation. The Maharaj study found that anaesthetic nurses enjoyed learning when they felt part of the team.[10] For a registered qualification, a hybrid model with online study material and pre-recorded lectures, tutorials and demonstrations, theatre practical work with logbook and portfolio (including case studies with reflection[13] through reflective diaries) and contact sessions with simulation and problem-solving would probably be ideal. Simulation is particularly useful for teaching non-technical skills. This does not need to be costly high-fidelity simulation. In designing curricula for registered courses or workshops, nurses should be involved as trainers and nurse educators. This may increase buy-in from nursing bodies and motivate nurses to learn. At universities, multidisciplinary simulation sessions with undergraduate medical and nursing students could be offered, even where anaesthesia does not form a formal part of nurse training. Interprofessional collaboration skills can be taught in this way, while exposing nursing students to anaesthesia.

Question 5: What are the roles of our society (SASA) and the academic institutions in the interim while no registered training course exists in South Africa?

The current workshops offered by SASA and some academic institutions are invaluable. These initiatives should be expanded to all academic institutions to enhance access. SASA could identify champions to coordinate the development of standard learning material for such workshops while sponsorships could also enhance enrolment. Standard theatre and equipment preparation guidelines could further enhance training.

Question 6: What is the role of the individual anaesthetist?

In the ideal world, every anaesthetist should use every opportunity to teach their assistant. In reality, not everyone enjoys teaching and some are already teaching students and interns. However, the least we should be doing is fostering a positive working environment to enhance enjoyment and attract and retain anaesthetic nurses. The study by Maharaj et al. identified that the anaesthetist's behaviour assists anaesthetic nurses to perform and enjoy their job.[10] These include mutual respect, appreciation of each other's roles, acknowledgment of the efforts of the nurse, feedback and refraining from shouting, blaming and impatience.

The ultimate goal of anaesthetic nurse training is to attract, develop and retain skilled anaesthetic nurses in the interest of patient safety, job satisfaction and resources containment (e.g. theatre turnaround time). This should be a collective effort from us all.

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