

Historical Review and Meeting Report

Historical Overview of Critical Care Nursing in Tanzania

Culminating in its First Inaugural Conference in Tandem with the Sixth Conference of The African Federation of Critical Care Nurses

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ABSTRACT

Critical care nursing is an emerging and growing facet of healthcare in Africa. This article provides a historical overview of critical care nursing in Africa, specifically in Tanzania. This includes the founding of the African Federation of Critical Care Nurses in 2017 and the Tanzania Critical Care Nurses Association in October 2022.

Keywords: Critical care, history, Africa, education, nursing, professional organization, healthcare.

INTRODUCTION

Critical care nursing is reported to have begun in the 1850s, during the Crimean War (Massachusetts Medical Society, 2022). However, modern critical care was pioneered by a Danish anesthetist, Dr. Bjørn Ibsen, in 1952 when an artificial “iron lung” for ventilatory support was first implemented in Copenhagen as well as the establishment of the first-ever intensive care unit in 1953 (Berthelsen and Cronqvist, 2003; Ibsen, 1954). Various other countries, including the USA, adopted the practice where both doctors and nurses became vested with the care of critically ill patients (Romaine-Davis, 1999).

In Sub-Saharan Africa (SSA), reports about the existence of critical care nursing first emerged from South Africa in 1992; however, training of critical care nurses who would work in the established ICUs began in 2001 as a one-year program after completing a four-year bachelor's degree program in Nursing (Mathivha, 2002). Another report about early ICUs in SSA emerge from Burkina Faso in 1996, indicating the presence of an ICU

with 8 beds, ventilators, monitors, and other equipment (Ouédraogo et al., 2002). Staffing for this ICU included two nurses trained in anesthesia amongst other nurses (Ouédraogo et al., 2002). We could not find any historical document dating back to the origin of ICU (critical) care in Tanzania. However, from our knowledge and tactile experience, a 6-bed ICU has existed at the Muhimbili National Hospital (MNH) since the 1990s. Despite being a new, emerging, and prominent healthcare field in Africa, critical care remains a neglected area with vast challenges (Baker et al., 2013; Okafor, 2009; The Global ICU, 2013). Overall, there is little to report on the state of critical care nursing in Africa, and largely unknown is the state of critical care services, including critical care nursing in Tanzania.

In a survey of ten hospitals on emergency and critical care services in Tanzania published in 2013; it was reported that while there is decent infrastructure and a good supply of medication and equipment for critical care services to be provided; there is a severe shortage of trained staff as well as a lack of national guidelines of emergency and critical care services (Baker et al., 2013). There are an estimated 223 hospitals in Tanzania (Cunningham et al., 2017). Yet, the studies found that reporting the state of critical care services is limited to surveys of just 10 of these 223 hospitals, limiting their generalizability to the whole country.

Within the continent of Africa, there have been various initiatives to date to address these gaps. The African Federation of Critical Care Nurses (AFCCN), formed in 2017, is making great strides in advancing and strengthening the critical care nursing agenda by bringing together critical care associations from various African countries (Williams et al., 2018). Since its inauguration, 6 conferences have taken place throughout Africa, including the one in tandem with the Tanzania Critical Care Nurses Association (TCCNA) in October 2022. Apart from conferences, the AFCCN serves as a parent body to country associations of critical care nursing across Africa, supporting their ventures.

Tanzania happened to be among the African countries that were lagging in having an association that would represent critical care nursing and be tasked with advancing the critical care nursing agenda in the country. One such aspect is the fact that there is a lack of a formal database of critical care nurses and their activities in the country. Furthermore, there is a lack of data regarding key statistical information related to critical care services in the country, specifically information such as the nurse-patient ratio for critically ill patients, common critical conditions, and a general situational overview of critical care services. To address this gap, the TCCNA was formed in 2018 as a non-governmental and not-for-profit independent organization that would unite specialized nurses and/or working in the critical care settings in Tanzania, with its headquarters in Dar es Salaam. This report provides an account of the TCCNA's establishment, inauguration, and its first scientific conference in tandem with the sixth AFCCN conference.

ESTABLISHMENT OF THE TCCNA

The TCCNA envisions building collective efforts of critical care nurses in Tanzania in the provision of holistic, compassionate, and dignified evidence-based care that is driven by the needs of critically ill patients and their families, guided by professionalism, ethics, and the highest standards of patient care. The efforts to form

this association began in 2018 with the mobilization of nurses who specialized in critical care nursing. On the 16th of December 2020, the association was officially registered. The TCCNA aims to first and foremost, represent critical care nurses in the country. Secondly, it aims to improve the standard of care provided to critically ill patients and their families throughout Tanzania and by doing so; minimize preventable mortalities and disabilities. And lastly, the TCCNA aims to advance the science of Critical Care Nursing through education and research. Through this, the TCCNA aims to respond to the above-reported prominent challenges of critical care services in Tanzania and Africa. In so doing, hopes to be a voice for critical care nursing and ensure standard critical care services are provided to critically ill patients in the country.

Also, the TCCNA will work with various stakeholders who pledge to support and improve critical care services in Tanzania, including the Ministry of Health, Universities, local and international development partners, private companies, and others to advance critical care nursing services, including practice, research, short- and long-term education and governance systems. The TCCNA will work closely with the government to promote favorable policies and a conducive environment for critical care nursing services. In addition to research and publications aimed at improving practice, education, and governance of critical care services in Tanzania, the TCCNA will further strive to address the challenge of the information gap through studies focusing on situational analysis of critical care service, mapping of critical care workforce and keeping the database.

THE TCCNA INAUGURATION

The TCCNA was officially inaugurated concurrently with its 1st Conference and the 6th conference of the AFCCN at the Muhimbili University of Health and Allied Sciences (MUHAS) in Dar es Salaam, Tanzania. The inauguration ceremony occurred on the morning of the 11th of October 2022. The conference immediately followed on the same day and over the next two days, ending on the afternoon of the 13th of October 2022.

This meeting attracted over 100 participants in the field of critical care from within the country, the continent as well from outside the continent. These included representatives from WFCCN, AFCCN, Critical Care Nurses Associations of Uganda, Kenya, Nigeria, Cameroon, and South Africa. Dignitaries such as executive directors and nursing directors of the regional referral hospital in Dar es Salaam and the Chairperson of the Tanzania Nursing and Midwifery Council, among others; were also present (Figure 1). The association was officially launched by the Director of Nursing and Midwifery Services, Ms. Ziada Sellah from the Ministry of Health of Tanzania, who was the guest of honor (Figure 2).



Figure 1.
Dignitaries on the High Table at the TCCNA Inauguration Ceremony



Figure 2.
Inauguration by chief guest and dignitaries

During the inauguration ceremony; the patron and one of the founders of the TCCNA and the Dean of the School of Nursing of the MUHAS – Dr. Dickson Mkoka, in his keynote address; highlighted the history of critical care nursing services in Tanzania. It is a relatively new area of expertise and one that is being appreciated more with the coming of global emergencies such as the recent pandemics for example COVID-19. He further explained that the School of Nursing at MUHAS is the only one in the country that offers a postgraduate program in critical care nursing. The program has been running for about fifteen years and has to date produced 100 critical care nursing specialists. He remarked that this number; however, for a population of 65 million people; reflected an acute shortage of critical care nurse specialists. On this note, the guest of honor acknowledges this shortage, and further added that the shortage is not limited to critical care nurse specialists but cuts across the board to general nurses as well. She commented that as of now, 60% of the health force are nurses, yet the nurse-patient ratio stands at 1:25-30 and in the critical care settings the nurse-patient ratio stands at 1:8 -10 which is not acceptable. Ms. Ziada went on to echo the importance of having such an association in the country, for it is completely in line with the agenda of the Government of Tanzania and couldn't have come at a better time. She further emphasized that there is a great need for critical care nurse specialists to manage the newly developed critical care facilities in Tanzania and the ministry of health is looking forward to working with the TCCNA. She further urged the TCCNA to conduct appropriate surveys and research activities to be able to produce a situational analysis of critical care services in the country, which can then be used as grounds to improve and promote the services. The president of the AFCCN pledged their support to TCCNA as its member association and the founding president of the WFCCN also pledged to support TCCNA to realize its mission and vision.

THE FISRT TCCNA AND SIXTH AFCCN CONFERENCE

The conference was themed “Critical Care in Africa: Integrating lessons learned from the COVID-19 pandemic” and was conducted over the course of 3-days following the inauguration ceremony. A total of 3 keynote presentations, one panel discussion and 14 oral presentations were made. Among the keynote speeches were talks on “*Experiences*

of establishing an Isolation Centre for COVID-19 Pandemic with no Infrastructure in Sudan” presented by Ms. Nahla Abdelwahid Suleiman Mohamed from the Universal Hospital Khartoum North Sudan “Family centered care in the ICU - Letting the Voices of the Families be Heard” by Prof Isabel C Prinsloo of South Africa -a representative of the WFCCN, and Critical Care Society of South Africa, and *Addressing Sepsis, AMR & COVID-19* presented by Dr. Halima S. Kabara of the Global Sepsis Alliance (GSA) & AFCCN (Nigeria). Some of the key research findings that were presented by critical care nurses as oral abstract presentations included “*The Effect of Bubble Gum Chewing on Bowel Function and Hospital Stay Among Postoperative Patients in Dodoma Regional Referral Hospital*” presented by Dr. Golden Masika of the University of Dodoma, “*Nurses Use of the Critical Care Pain Observation Tool (CPOT) for Patients who Cannot Self-report in the Regional Referral Hospital of Tanzania*” by Zainab K Manji from the Muhimbili University of Health and Allied Sciences (MUHAS), “*Evaluation of In-service Intensive Care Training Programme for Nurses During Covid-19 pandemic and Lessons Learnt in Uganda*” by Mr. Cliff Aliga from AFCCN and Critical Care Nursing Association of Uganda (Uganda), “*Factors Influencing Nurses performance on Caring for Traumatic Brain Injury Patients in Tertiary Facilities, Tanzania*” by Ms Rehema Mlay from Muhimbili Orthopedic Institute (MOI), Tanzania; and the “*Essential Emergency and Critical Care (EECC) Program*” by Dr. Karima Khalid, Mr. Elibariki Mkumbo and Mr. Erasto Kalinga from Muhimbili Orthopedic Institute (MOI) and Muhimbili National Hospital (MNH) among many others.

An enlightening panel discussion followed about the *Vision & Roadmap of Critical Care Nursing in Africa*. The panel of experts and pioneers in the field of critical care nursing was made up of Mr. Cliff Aliga from AFCCN -Uganda, Dr. Halima S. Kabara from AFCCN – Nigeria, Dr. Dickson Mkoka, patron of TCCNA – Tanzania, and Mr. Robert Mallya from MNH – Tanzania. It was moderated by Prof. Ged Williams of the WFCCN – Australia (Figure 3). They shared their journey’s, challenges, and passion as critical care nurse specialists, and discussed the possible strategies for critical care nurses to stay motivated as well as advocate and gain acceptance and support by the government to improve critical care services in the country



Figure 3.
Picture of panelists and panel moderator

The concluding keynote address by Mr. Ntogwiachu Daniel from AFCCN and the Cameroon Association of Critical Care Nurses (Cameroon) was about *looking into the future of Critical Care Practice and Education in Africa*. It was highlighted that, to ensure the sustainability of critical care services in Africa, there requires to be a combination of essential life saving techniques, advanced care, as well as advanced training, and that critical care education needs to be accompanied by improvements in intensive care unit services across Africa.

CONCLUSION

The TCCNA inauguration and conference brought together critical care nurse specialists and nurses who work in critical care settings as well as various stakeholders and collaborators, to witness a milestone in the professional growth of critical care nursing in Tanzania as the TCCNA was successfully inaugurated (Figure 4). The discussions and presentations during the conference shed light on various strategies useful for strengthening the unity of critical care nurses in the country, engaging with stakeholders and collaborators to make an impact on the health of Tanzanians with critical conditions. It was also learned that the impact that the TCCNA will make in advancing the critical care nursing agenda depends on the support from the local and international community. The TCCNA, therefore is committed to upholding the collaborations and unity with critical care nurses in the local context and the international community to be able to create training opportunities, infrastructure development, adequate placement of specialized nurses, and research publications.



Figure 4.
Invited Guests with the Conference Organizing Committee



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Dickson Mkoka, RN, PhD, MSN, is the Dean of the School of Nursing, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania, and TCCNA patron.

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