Critical Care Nursing in Sri Lanka: Brief History and Recent Advances

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This article summarizes the development of critical care nursing in Sri Lanka. After years of development, Sri Lanka steadily progresses to establish critical care medicine as a separate specialty with fully trained Intensivists and nurses playing pivotal roles. However, courses of critical care nurse training are still lacking. Other barriers in developing critical care nursing in Sri Lanka include lacking career development plan, financial and policy support. The formulation of the Sri Lanka Society of Critical Care Nurses is helpful to fill this gap and to build up a local critical care nursing community in Sri Lanka.

Keywords: critical care nurse; Sri Lanka; resource-limited countries; professional nursing practice; nursing associations

INTRODUCTION

The Democratic Socialist Republic of Sri Lanka is an island country in South Asia, located in the Indian Ocean, previously known as Ceylon under the British rule. "*Sri*" refers to "blessed" in Sinhalese and "*Lanka*" is the name of the island (Figure 1). Sri Lanka has a population of 21 million in an area of approximately 65,000 km². In comparison to United Kingdom, Sri Lanka has one third of the population but twice the population density (Table 1, Central Intelligence Agency, 2018).

The majority of the population are Sinhala Buddhists, with significant numbers of Sri Lankan Tamils, Tamils of recent Indian origin, Muslims, semi tribal Väddas, and Burghers, the descendants of intermarriages between Sri Lankans and Europeans. Sinhala, Tamil, and English are three official languages with Sinhala spoken by the majority. Sri Lanka has a universal healthcare system that extends free healthcare to all citizens, which has been a national priority. The state-run curative and preventive health systems provide efficient, comprehensive, and free services of all kinds. The private sector healthcare facilities are vibrant and expanding allowing people to seek the medical care of their choice (Govindaraj, Navaratne, Cavagnero, & Seshadri, 2014).

Despite low health expenditure, Sri Lanka's health indicators are comparable to more developed countries in the region. Life expectancy is almost 77 years and infant mortality rates are below 1% which indicates general improvement in overall health and wellbeing in recent years.

NURSING IN SRI LANKA

Early nursing services commenced in the colonial era were influenced by the British nursing traditions having an apprenticeship style of

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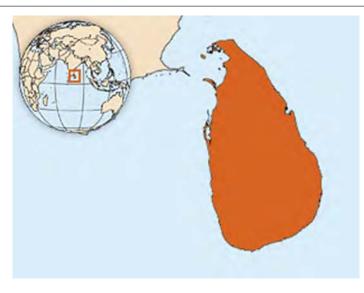
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Characteristics	Sri Lanka	United Kingdom
Land Area (km ²)	64,630	243,610
Population	22,409,381	64,769,452
Birth rate	15.2	12.1 births/1,000 population
Death rate	6.2	9.4 deaths/1,000 population
Infant Mortality	8.4	4.3 deaths/1,000 live births
Maternal Mortality	30	9 deaths/100,000 live births
Life expectancy	76.9	81 years
Health expenditure(% GDP)	3.5%	9.1%
Obesity (adult)	5.2%	27.8%
Literacy Male/Female(%)	92.3%	NA
Children <5, underweight	20.5	NA
GDP per capita (USD)	\$13,000	\$43,600
Total fertility rate	2.07	1.88 children born/woman
Internet users (% population)	32.1%	94.8%

TABLE 1. Comparison of Characteristics: Sri Lanka Versus United Kingdom (CIA Fact Book, 2018)

Figure 1. Geographical Map of Sri Lanka (http://www.who.int/countries/lka/en/).



hospital-based nurse training. This model was transformed to an institutionalized model and the first School of Nursing was established in Colombo in 1939. After almost eight decades the country now has 16 schools of nursing offering a 3-year diploma-level preregistration nursing education. (Jayasekara, & Amarasekara, 2015).

The Post Basic School of Nursing (now termed Post Basic College of Nursing) in Colombo was established in 1960 and the Eastern University of Sri Lanka commenced a diploma-level nursing education program in Ward Management and Supervision in 1997 for Registered Nurses. They were then recognized as Ward Sisters (Nurse Managers). However, this program was constrained in its ability to produce nurse managers and nurse tutors in specialty areas such as intensive care, pediatric nursing and infection control.

Figure 2. World Sepsis Day 2017.



Currently, there are two types of degree programs in Nursing on offer. Five state-run universities provide preregistration degree programs leading to a Bachelor of Science in Nursing (BScN) whilst the Open University of Sri Lanka (OUSL) conduct a BScN program for Registered Nurses, employed by the Ministry of Health. The OUSL post RN BSc degree program was the first of its kind in Sri Lanka, initiated in 1996 with academic and financial assistance from Canada. It prepares generalist nurses for leadership roles in administration, supervision, teaching, and research within the context of advancing health needs (Jayasekara & Amarasekara, 2015).

The absence of undergraduate nursing degree courses within the university sector until 2004 was a major constraint that delayed the establishment of postgraduate nursing education in Sri Lanka. In the year 2000, a Master of Nursing Science (MNSc) program was introduced as a three year WHO sponsored project under the academic auspices of the University of Adelaide, South Australia. This program introduced an evidence-based approach to the nursing services in Sri Lanka. The major aim of this program was to establish a future faculty for university nursing education. Unfortunately, this program was discontinued after the second intake due to the inability of the WHO to sustain the funding program (Jayasekara & Amarasekara, 2015).

CRITICAL CARE IN SRI LANKA

The first ICU in Sri Lanka was commenced in the National Hospital of Sri Lanka (formerly Colombo General Hospital). This unit was functioning as the Recovery Unit for postsurgical patients in the late 1960s and was soon followed by the establishment of a Medical ICU in the same hospital. Intensive care units have been managed by anesthetists, physicians, pediatricians, and other specialists with varying degrees of intensive care training obtained overseas (Fernando et al., 2012). The Sri Lanka Society of Critical Care and Emergency Medicine (SSCCEM) was formed in 2002. It was the impetus that created numerous academic activities collaborating with Intensivists and Emergency Physicians from around the globe and many Sri Lankan expatriates with an interest in developing critical care and emergency medicine (Goonasekera, Dissanayake, Karalliedde, Kolombage, & Wickramaratne, 2016). In 2009, the Post Graduate Institute of Medicine introduced a one-year diploma program for Critical Care Medicine (DCCM) to offer basic critical care training for registered junior doctors. It was the first formal attempt to establish critical care training in the country based on



Figure 3. BASIC for Nurses course instructors and participants.

the CoBaTrICE model as a stepping-stone for a higher degree in Critical Care (Post Graduate Institute of Medicine, 2015).

Sri Lanka is steadily progressing to establish critical care medicine as a separate specialty with fully trained Intensivists and nurses playing pivotal roles as did in the developed world. Most general and teaching hospitals of the country already have fully equipped intensive care units. Establishment of an intermediate level diploma qualification for doctors in 2009, and recognition of critical care medicine as a separate specialty by the Government of Sri Lanka in 2011 are the recent milestones (Goonasekera et al., 2016).

There were short courses of critical care nurse training conducted in 2013/14 with a target of building up a local faculty of trainers for longterm course sustainability. This program did not progress as intended because it was considered as supplementary to the established education in the Post Basic College of Nursing (PBCN). In Sri Lanka, only two nursing clinical specialties namely Midwifery and Psychiatry are recognized so far. The importance of recognizing critical care nursing as a specialty by the healthcare administration is a vital step for continuation of such training programs. The formulation of the Sri Lankan Society of Critical Care Nurses (SSCCN: www.ssccn.org) was probably one positive result in this aspect in the development of a collaborative critical care nursing community (De Silva et al., 2015). SSCCN was launched to fill this vacuum and the response from the critical care nurses was overwhelming. Organizing high quality training programs with international support for a target of building a local group of educators/instructors to sustain the benefits was the primary objective of the SSCCN. The experience gathered by the local instructors of such programs was utilized to organize locally designed lower scale programs (Medical Emergencies

for Critical Care Nurses) at a lower fee to reach more nurses country wide. Such initiatives reduced the larger expenditure involved when foreign experts are invited frequently as the financial support has been the critical limiting point in critical care nursing education of Sri Lanka.

Furthermore, unlike in the medical profession, the Sri Lanka nurses are yet to benefit from a career development pathway as all nurses who pass out from the Sri Lanka College of Nursing will be designated as Registered Nurses. But beyond that there are only administrative steps like the Nursing Sister and Special Grade Nursing Officer. This has strongly discouraged the interest in improving clinical knowledge and skills development among the registered nurses. The Sri Lankan Nursing care is very low to match the demands, and the burnout syndrome is very widely seen with long working hours and low career satisfaction (Abeynavake A, et al. 2017). This has discouraged many nurses in critical care to participate in career development programs.

A Sri Lankan hospital is estimated to need at least 4 ICU beds per 100 hospital beds. A general ICU with 6 to 10 beds is an optimal ICU, when standards and cost effectiveness are considered. The ICU should be able to accept at least 95% of all emergency requests. While nursing, multimodal monitoring and ventilator support facilities are essential on 1:1 basis. It is recommended that a post registration ICU qualified Nursing Sister oversees nursing care in at least level II and above ICUs. Whereas only 16 (38.1%) such Sisters were available in 42 level II and above ICUs studied in Sri Lanka (Fernando et al., 2012).

There are over 2,000 critical care nurses in the state sector in Sri Lanka. The 6-month long ICU training conducted by the Post Basic College of Nursing has been the program that is improving the knowledge and skills of these nurses. National Intensive Care Surveillance (NICS) has introduced a complimentary program in collaboration with the Post Basic College of nursing, the Ministry of Health and international charity called International Acute and Critical Care Training (interACCT). This unique training program is delivered by the local nurse tutors with guidance by external nurse trainers.

Impact of the program was assessed using pre/post course Multiple Choice Questionnaire (MCQs), Objective Structured Clinical Assessment (OSCA), Short Oral Exam (SOE), and postcourse feedback questionnaire. Selection for the program was directly from two 3-month PBCN ICU courses and the nurses from the ICUs participating in the National Intensive Care Surveillance (NICS) Network.

SRI LANKAN SOCIETY OF CRITICAL CARE NURSES Sri Lankan Society of Critical Care Nurses (SSCCN) is a voluntary group of critical care nurses dedicated to improving the knowledge and skills of their colleagues with the ultimate aim of enhancing the quality of care for critically ill patients and families in Sri Lanka to international standards. SSCCN was established in October 2014.

Initially the Society started organizing workshops in general emergencies of ICUs and also nursing care in respiratory, cardiac, and neurological system support. The programs attracted many nurses from ICUs around the country. There was special emphasis on improving the nursing skills and basic critical care knowledge. SSCCN marked the World Sepsis Day with a highquality symposium discussing all aspects of care in sepsis in 2017 (Figure 2).

The SSCCN had the privilege of hosting Sri Lanka's first ever Basic Assessment and Skills in Intensive Care (BASIC) for Nurses Course in 2017 (The Chinese University of Hong Kong, n.d.). A group of Australian trainers initiated the program with a Provider course followed by an Instructor course promoting a local faculty. This program is now popular and is conducted three times in the following 18 months. The SSCCN Figure 4. ENLS course with Dr. Gentle Shresha, Course Director and Ambassador.



Figure 5. Council members of SSCCN and the organizing committee of CrinurCon Colombo 2018.



has now developed a strong local instructor base to take the program forward (Figure 3). BASIC for Nurses Course is a short course over 2 days targeted at the junior ICU and HDU nurses. The course covers a wide range of topics in essential and fundamental aspects of Intensive Care. BASIC Course is an internationally reputed and established program and has been held over 200 venues worldwide so far. The course consists of pre/post course MCQ, course manuals, clinically oriented lectures and skill stations, and a feedback questionnaire. The registration is on selfselection and open to any ICU/HDU nurse in Sri Lanka and is advertised via SSCCN website / social media. The course is conducted by a mix of foreign and local instructors including a BASIC course appointed director. The course is in very high demand, but the limiting factor is the cost involved in inviting the foreign instructors and the funding is only coming from the SSCCN. The second international workshop was conducted on Emergency Neurological Life Support (ENLS) organized by the Neuro Critical Care Society of the USA with the participation of NCS ambassadors and NCS certified instructors. The nurses' participation in this multidisciplinary training was impressive (Figure 4).

In July 2018, SSCCN marked a milestone by hosting the first International critical care nursing conference of the South Asian region with strong support from the WFCCN, SAARC RFCCN, and APACCM. Many international critical care medical and nursing experts participated in its faculty (Figure 5).

THE FUTURE OF CRITICAL CARE NURSING IN SRI LANKA

Importance of critical care nursing in Sri Lanka has been widely highlighted in the last 5 to 10 years. There are high quality programs for CCNs organized by voluntary organizations like SSCCN. State authorities should realize the importance of updating the knowledge and skills of the CCNs and consider encouraging such initiatives financially and administratively. Critical Care Nursing should be recognized as an important nursing specialty in Sri Lanka on par with similar regional and international developments.

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