The Impact of Critical Care Nurse Consultant on Patient Health and Service Outcomes in Hong Kong: The Experience Sharing of a Nurse Consultant

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Summary

- *The roles and role development of nurse consultant (NC) are at an infancy stage in Hong Kong.*
- *Illustration of NC's contribution may help to have more understanding about the roles and contribution of NC (Intensive Care) with positive impacts on patient, nursing profession, and the organization.*
- *Barriers that hinder effective NC functions are identified and recommendations are discussed to support the full functions of NC.*

Keywords: nurse consultant; intensive care unit; Hong Kong

BACKGROUND

Nurse consultant (NC) was a new nurse post introduced by Hospital Authority (HA) of Hong Kong in 2009 (Hospital Authority, 2008, 2010). The primary aim of the introduction of NC is to broaden the nursing career progression path that help to retain experienced nurses in clinical service. Seven NCs were piloted in five clinical specialties namely Diabetes, Renal, Wound and Stoma care, Psychiatrics, and Continence in 2009. Better symptoms control and reduction in hospital admission were identified in patients cared by the newly established NCs when compared with patients under non-NC care (Lee, Chan, Chair, & Chan, 2011; Lee et al., 2013). These promising patient and service outcomes supported the establishment of NCs in other specialties. Six critical care NCs who are also titled as NC (Intensive Care) had been appointed since 2012. Although the establishment of NC has been set up more than two decade overseas, the development of NC in Hong Kong to perform advanced nursing practice is still at an infancy stage. Furthermore, there were limited publications written by critical care NC in Hong Kong talking about their contributions. Therefore, the author would like to share her experience of being NC (Intensive Care) for 8 years with the following objectives:

1. Briefly elaborate the service model of NC (Intensive Care) in Hong Kong with the deliverables contributed by the author.
2. Discuss the competencies and attributes required to fulfil the full functions and contribution of NC.
3. Discuss barriers for effective NC function and recommend strategies to enable NC to function effectively.

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SERVICE MODEL OF NC (INTENSIVE CARE) IN HONG KONG

A three-tier level of service care model was prepared to delineate the level of service delivery and the complexity of interventions which should be the core roles and responsibilities taken up by registered nurse (RN), advanced practice nurse (APN), and NC in intensive care nursing accordingly (Hospital Authority, 2011). The NC being at the highest tier three level directs her expert care to complex intensive care unit (ICU) cases and leading the nursing team to become competent for intensive care service advancement. The roles of NC (Intensive Care) are mainly clinical based with expertise in four core domains including Expert Patient Care Practice and Service Development; Leadership and Consultancy; Education, Training and Staff Development; and Continuous Quality Improvement (CQI) and Research (Fairley & Closs, 2006; Hospital Authority, 2011; Lee et al., 2011, 2013). In this article, the author focused discussion on the first three domains with elaboration of her contributions in respective aspects. For domain 4 related to NC's commitment to quality improvement projects and research, it will be discussed in the next article.

Domain 1: Expert Patient Care Practice and Service Development

Managing complex ICU patients and difficult situations include provision of direct patient care and supervision to ICU nurses. These critically ill patients are often suffered from multi-organs failure requiring intensive medical support therapy such as extracorporeal membrane oxygenation (ECMO), intra-aortic balloon pump, continuous renal replacement therapy (CRRT), and vasoactive medications.

Support Development of CRRT and ECMO Service

The author was proud of being one of the CRRT and ECMO team members and has successfully contributed to the development of CRRT and ECMO service in the unit since 2012. CRRT supports renal failure and ECMO therapy supports lung and/or heart failure. The author took the lead in the unit to support, evaluate, and maintain the competency of the nursing team to support CRRT and ECMO service in ICU. Now nearly 70% ICU nurses in the unit were CRRT and ECMO trained. Furthermore, the author and the ECMO team took the lead to station at Accident and Emergency Department (A&ED) of the cluster hospital to initiate extracorporeal cardiopulmonary resuscitation (ECPR) to Marathon victims having sudden cardiac arrest during Marathon since 2015. The author took the lead to coordinate the care process for ECPR among different teams and set a platform to shape the collaboration with the A&ED, surgical team, and ICU of the cluster hospital for provision of the ECPR to the needed.

Provision of Consultation and Post-ICU Discharge Follow-Up Visits at Wards

Tam et al. (2014) reported that there was high ICU readmission rate at 6.7%. Nearly 40% of these readmitted patients were related to respiratory failure and sputum retention. Therefore, a Critical Care Outreach Team consisting of the author, one APN, and senior ICU doctors has been set up and provided post-ICU discharge follow-up visits to patients at wards since 2015. Since there were inconsistent evidence to support the reduction of ICU readmission with ICU outreach service, the author then conducted a study to evaluate the effect of post-ICU discharge follow-up service to patient health outcomes. The post-ICU discharge follow-up programme proved to statistically reduce early ICU readmission within 72 hours (So, Yan, & Chair, 2018). Furthermore, 2 years' study data showed that there was statistically significant reduction in early and total ICU readmissions in the intervention group receiving the follow-up visits at general wards (So, Li, et al., 2018). The author has contributed to set up a platform to promote continuity of care to discharged patients in wards with direct client consultation and expert advice to ward nurses.

Domain 2: Leadership and Consultancy

The author maintains a close collaborative relationship with multidisciplinary teams and invite them to support the following updated practice. Examples of contribution with clinical significance included setting up protocol-driven practice on early initiation of enteral feeding in 2008 and with an update in 2019, eye care protocol, mechanical weaning protocol, nurse-led structured swallowing screening, traffic-light colored code for expected date of patient discharge from ICU, post-discharge follow-up programme, surveillance programme for prevention of ventilator associated pneumonia, active involvement in Family Satisfaction Enhancement Programme, establishment of handbook and guideline on tracheostomy care, and development of evidence-based practice projects. The author accepts the leadership position to influence the team to get the work completed and to sustain the practice with regular compliance audits and dissemination of evaluation reports. In addition, the NC also contributes to professional significance by taking the lead to ensure the established guidelines and protocols are followed and reviewed periodically with updated evidence and with linkage to positive patient outcomes.

Domain 3: Education, Training, and Staff Development

The NC takes an important role to facilitate competence development of novice nurses and continuous development of existing nurses to ensure a competent clinical nursing team to meet the advancing knowledge and skills in intensive care nursing. Therefore, the author works collectively with the senior nurse manager to plan training activities to support team performance and service development.

The author has engaged in planning, organizing, conducting, and evaluation of Post-Registration Certificate Course in Intensive Care Nursing (PRCC ICU Nursing) for over 10 years. Moreover, the syllabus of the PRCC ICU Nursing was reviewed in 2015 with inclusion of 1-day intensive care workshop to meet the contemporary intensive care nursing. Through supervision of the ICU course group project, the author has contributed to foster a nurturing environment conductive to learning, staff development, and adopting innovation. This professional development can be considered as NC's contribution to organizational significance (Gerrish, McDonnell, & Kennedy, 2013; Wong et al., 2017).

Apart from organizing training activities in ICU, the author also contributes greatly to training activities to nurses in hospital based, cluster based, and HA based. Being the Deputy Director of Nursing in Clinical Simulation Training Center, the author also participates in planning, delivery, and evaluation of simulation training courses. Examples included crew resource management simulation course, high fidelity scenario-based simulation to enhance renal nurses' competency in managing renal patients with emergency situations. Simulation training on tracheostomy care has been organized since 2018 to enhance nurses' experience on managing patient with tracheostomy emergencies.

DISCUSSION

The Competence and Attributes of NC (Intensive Care)

To prepare for a NC post, one should be an experienced nurse working in the related specialty for at least 10 years, completed the specialty certification, equipped with at least a master degree in nursing. There are also requirements of a NC to demonstrate a track record in clinical competency, contribution in specialty educational planning and teaching, participation in CQI/research. Besides, candidate for NC post should be prepared to equip themselves with leadership and management skills in order to build an effective team for managing change efficiently.

HA launched Nurse Consultant Training Curriculum in 2012 to support the role transition of NC from proficient nurse to expert nurse competencies for navigating change, enabling change and finally managing change in their role actualization. These competencies include knowing the big picture of how nursing management and expert practice become integrated into the strategic service plan of HA, being a change agent to tailor the change message to address stakeholders' concerns with good communication and smart negotiation skills, implementing change through project management with an aim of influencing for success. It is not an easy task, but it is a meaningful career if NC can work with the team to achieve the common goals of improving patient care.

Contribution of NC includes leading evidence-based practice, setting a system to ensure standardize care practice, and ultimately influencing the contribution of the nursing profession to a more extending and expanding scope of service provision. Furthermore, NC should have the encourage to go steps forward, maintain an open-minded attitude to face the challenge of changing healthcare needs and practice innovation, deal with a sense of humor when being criticized, and finally have a committed heart to serve patients, staff and community for a better health community.

Barriers that Hinder NC to Function Effectively

Firstly, the NC needs to advance her/his view on nursing from being an individual perspective to a system horizon. NC contributes mostly to setting systems to guide specialty nursing care and nursing profession at large. NC may find it difficult to cope with this transition because of lack of the whole picture of the organizational direction.

Secondly, although NCs are able and expected to lead and influence services, they may sometimes find it difficult to access the appropriate level of information. It is because NCs are not part of the management structure and are excluded from some decision-making.

Thirdly, the core function of domain 1 to 3 are enormously time-consuming and NC finds difficulty to conduct research and EBP. When there are so many demands on NC and minimal support, they may easily get burn out.

Recommendation of Strategies to Enable NC to Function Effectively to Support the Future Development of Critical Care Service and Nursing

First, mandatory educational modules should be arranged to provide NC the complete picture of being NC and equip NC on their role and role development with appropriate education and continuing development plan. These educational modules are currently decided to attend at NC's convenience and thus mostly are postponed to a later stage of attendance. Therefore, these modules being good to equip NCs with the necessary skills and knowledge to master their practice environment, NC should attend these modules as early as possible, preferable complete all modules with the first year of NC appointment. Also, NC should be sensitive to the policy and the health care structure that may affect the practice environment and demand continuing education to meet the changing needs.

Second, regular meeting with General Manager (Nursing), NCs of different specialties and hospital management team should be arranged to help NCs to grasp the most updated direction of HA and the contemporary of nursing practices in different specialties. This approach allows discussion among NCs and exploration of collaboration opportunities for modifying existing service delivery models for better patient outcomes.

Third, regular meeting with Chief of Service (COS), Department Operations Manager (DOM), and APNs should be arranged to discuss service development, training needs for supporting new service and development of standards and guideline for service effectiveness.

Many NCs also act as advisers to the HA. This benefits the nursing profession and patients by offering a direct link between strategic-level decision-making and hands-on expert patient care. This may allow a wider aspect of nursing and patients' experiences to be considered when decisions on intensive care services are made.

CONCLUSIONS

This article provided a concise description on the creation and development of NC in Hong Kong. To ensure full function of NC, the NC should be academically prepared with a master degree of nursing, preferably equipped with management skills to manage change effectively intra-discipline and inter-discipline. Moreover, provision of mandate educational modules for NC during transitional period and for staff development, arrangement of regular meeting with senior nursing managers, and support from senior management team will optimize NC roles and ultimately bring improvement in patient and services outcomes.

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