

A review of international critical care education requirements and comparisons with Turkey



Aysel Badir RN; PhD, Assistant Professor, Koc University School of Health Sciences, Güzelbahçe Sok No.20, 80200 Nisantasi, Istanbul, Turkey

E-mail: abadir@ku.edu.tr

Key words: Critical care ❖ Europe ❖ nursing education ❖ specialist ❖ Turkey

SUMMARY

- ❖ Critical care units are dynamic, high-tech environments where nurses are required to complete specialised programmes of education to meet the specialist needs of patients and to cope with rapidly changing technology and therapies.
- ❖ There are many differences in post-basic critical care nursing specialisation programmes in the European countries.
- ❖ However, it is recommended that specialist education should be at a postgraduate level, delivered by university institutions or equivalent counterparts, and should be recognised and approved by a governmental and/or professional organisation.

INTRODUCTION

Critical care is a complex speciality developed to serve the health care needs of those patients with actual or potential life threatening conditions and their families. The role of the critical care nurse is essential within the multidisciplinary team needed to provide this care. The 1993 Declaration of Madrid on the preparation of critical care nurses, which has been universally accepted by critical care professionals, makes recommendations on the minimum requirements for critical care nursing education curricula (see Table 1).

The general principles of critical care education recommended in the Madrid Declaration clearly focus on the notion that patients and families have the right to receive individualised care from qualified professional nurses. It recommends that critical care nurses must possess appropriate knowledge and skills to effectively respond to the needs of patients and society, and to the challenges of advancing technology. Furthermore, specialised knowledge and expertise in the provision of care to critically ill patients should play an integral part in the education of critical care nurses, and that education must be based on the most current information and research available.

- ❖ Anatomy and physiology;
- ❖ Pathophysiology;
- ❖ Clinical (physical) assessment;
- ❖ Illnesses and alternations of vital bodily functions;
- ❖ Plans of care and nursing interventions;
- ❖ Medical indications and prescriptions with resulting nursing care responsibilities;
- ❖ Psychosocial aspects;
- ❖ Technology;
- ❖ Patient and family education;
- ❖ Legal and ethical issues;
- ❖ Professional and nursing roles in intensive care;
- ❖ Appropriate use of current research findings.
- ❖ Declaration of Madrid on the Educational Preparation of Critical Care Nurses (1993).

Table 1. Minimum topics for critical care nurse education.

OVERVIEW OF CURRENT TRAINING AND EDUCATION REQUIREMENTS

The European Commission (2000) published a report entitled Study of Specialist Nurses in Europe, and according to this, many countries within the European Union have specialist nurses that are trained after becoming registered nurses. There are many differences in post-basic critical care nursing specialisation programmes, such as entry requirements, length and content of the courses, and title of the award.

A study by Baktoft et al. (2003) looked at critical care nursing education in 17 European countries and showed that, except for Iceland and Greece, all countries offer a range of critical care programmes. The nurses must be registered nurses and have at least six months' post-registration experience (UK), with 13 to 24 months' experience required in Norway, Slovenia, Denmark, Hungary, Austria, and Germany. Experience requirements vary in Italy and Sweden. Clinical experience, however, is not a prerequisite in Spain, the Netherlands, Switzerland or Belgium.

Specific critical care education is a requirement to work in a critical care unit only in Sweden and the Netherlands. Such education

is provided only by university hospitals in Slovenia, Hungary and Spain. In the remaining countries, however, critical care courses are provided by university and non-university institutions or by non-university nursing schools.

After completing a critical care course, a critical care nursing diploma is awarded in Norway, Spain, Sweden, Austria and France; certification for a Registered Critical Care Nurse certificate in Hungary and Germany; and a certificate in UK, Slovenia, Denmark, Italy, the Netherlands, Switzerland and Germany.

Clinical educators or clinical nursing teachers are employed in the critical care units in Norway, UK, Sweden, Slovenia, Denmark, Italy, Spain, the Netherlands, Hungary, Switzerland, Austria, France and Germany. To be a critical care nursing teacher, all countries require a degree, a diploma or a certificate in pedagogy. Teaching qualifications are essential but critical care education and/or critical care experience is not a necessity to be a critical care educator.

The Standing Committee of Nurses of the European Union (PCN) was established in 1971 as an organisation for the International Council of Nurses. It comprises of nursing organisations in member states of the European Union. In 1996, the PCN organised a meeting with the European Network of Nursing Organisations (ENNO: a European organisation for national specialist associations, open to all countries in Europe) to form a network and increase the position of the nursing profession in Europe. This group, which meets annually, prepared a report in 2000 with the purpose of developing a framework for specialist nursing education in Europe. They defined specialisation as:

A specialist nurse is formally educated and practically trained beyond the level of generalist nurse and authorised to practice as a specialist nurse with advanced expertise in a branch of nursing. Specialist practice includes advanced nursing and/or clinical skills and related tasks, and advisor, research, teaching and administrative activities in the field of the speciality. Specialist nursing education is a formally recognised post-basic programme of study, which follows on from general nursing education and training, and provides the knowledge and experience needed to ensure competence in the specialisation concerned. Titles for specialist nurses mostly include the designation 'specialist nurse' combined with the name of the specialisation. The recommendations defined for specialist nurse education in this report are presented in Table 2.

Another important report on critical care education was released by the Australian Critical Care Nursing Education Advisory Panel in 1999 on behalf of the Australian College of Critical Care Nurses. Nurses who function at a specialist level of practice should receive a postgraduate level education from a higher education provider (e.g. a university or equivalent). The curricula of postgraduate critical care courses must give appropriate theoretical and clinical experience and include research, practice and leadership. The provision of appropriate experience to facilitate the development of clinical competence should be a collaborative responsibility between the education and health care providers. Critical care course participants should have access to support and guidance from appropriately experienced staff, such as clinical teachers or nurse preceptors who are supported in their role by both the education and health care providers.

In 1998, a study of 156 nurses was conducted to evaluate the major similarities and differences between western European

countries in intensive care unit nurse staffing, education, training and responsibilities (Depasse et al. 1998). According to this study, 33% of nurses received a training course before and 64% after starting work in an intensive care unit; 85% had easy access to continuing education programmes, particularly those provided by university hospitals. All nurses took a special training programme before starting work in the intensive care units in Sweden, while less than a sixth of nurses had pre-intensive care unit training in Belgium and Germany. Belgium and Germany also exhibited poor rates in post-intensive care unit programmes. Access to continuing education was generally better, but course attendance was limited to less than six hours per year.

- ❖ Specialist nursing education takes place in an institute of higher education (university or equivalent) while assuring adequate access to practice and/or clinical resources for the clinical practice;
- ❖ Specialist nursing education is continued from year to year (i.e. not a refresher course or seminar), and is regularly updated;
- ❖ Specialist nursing education is recognised by an appropriate authority;
- ❖ Specialist nursing education has specified admissions requirements;
- ❖ Specialist nursing education has a full-time teaching staff or faculty including nurses, qualified by education and experience (preferably with a Masters or doctoral degree) and, by request, other professionals recognised for their expertise;
- ❖ Specialist nursing education is developed, controlled and administered by, or in collaboration with, nursing professionals, including specialists;
- ❖ The length of the programme will vary with the content of basic nursing education but may be equivalent to at least one year, with a minimum of 720 theoretical hours (classroom and study) and a minimum of 50% of the total duration dedicated to clinical and/or practice training. Study hours include personal work, technical and lab training, library and research;
- ❖ Participants will be provided with a certificate, diploma or degree;
- ❖ Specialist nurses are organised and represented within a speciality association or a branch of the national nurses' association.

(Standing Committee of Nurses of the European Union (PCN), European Network of Nurses Organisations (ENNO) (2000).

Table 2. Recommendations for a European framework for specialist nursing education.

COMMON RECOMMENDATIONS FOR CRITICAL CARE NURSING EDUCATION

Critical care nursing education should rely on general nursing principles, and should emphasise and meet the following aspects and requirements:

- ❖ Patients and families have the right to receive critical care from qualified nurses;
- ❖ Nurses who work in critical care settings should have

- ❖ experience in all aspects of critical care;
- ❖ Educational programmes should be available on a post-basic training basis;
- ❖ The curriculum should be composed of both theoretical and practical education and training;
- ❖ The educational programmes should be delivered by Masters-level educators/academics;
- ❖ Such programmes should be designed and implemented by university institutions or equivalent.

Unfortunately, there are no established standards for critical care nursing education. The European Federation of Critical Care Nursing Associations is attempting to address and outline these standards in the near future.

CURRENT CRITICAL CARE NURSING EDUCATION IN TURKEY

Certification programmes in critical care nursing in Turkey began in May 2002 and are endorsed by the Turkish Ministry of Health according to 'Instructions Concerning the Training and Certification of Health Personnel Working in Intensive Care Units'. These instructions cover all hospitals that provide intensive care education and training. Centres that are assigned to deliver training programmes are selected according to the criteria set by the Turkish Ministry of Health. These centres are mainly hospitals of medicine faculties or state training and research hospitals that have at least an eight- or ten-bed intensive care unit, either allocated separately to the departments of surgery, neurosurgery, cardiology, neurology, thoracic surgery, cardiovascular surgery and pulmonary diseases, or to the overall use of the above mentioned branches. Another prerequisite for these centres is that they have the necessary equipment for clinical procedures, such as chest X-rays, blood gases, computed tomography, invasive or non-invasive monitoring, central catheterisation, mechanical ventilation, haemofiltration, dialysis, enteral and parenteral feeding, intubation and tracheostomy.

The aim of the programmes is to have one specialised nurse for every two beds during each working shift. Trainers should be specialist physicians with an active role in the critical care unit, or nurses with at least three years' experience in a critical care unit setting. The programme consists of four weeks of theoretical and four weeks of practical training. Attendance at these training programmes is compulsory and those who fail to attend for 10% of the theoretical and practical training without an acceptable excuse will not be eligible for certification by the Turkish Ministry of Health.

Critical care nursing education in Turkey has undergone significant improvement in many areas in line with the international recommendations. However, to achieve better results and to create sound critical care nursing education, some shortcomings have to be addressed. These include:

- ❖ The programme length is quite short;
- ❖ The number of centres (n=7) authorised to provide the education are limited and not easily accessible;
- ❖ The certification offered at the end of the programme does not provide a specific title or bring any extra financial benefits to the nurses;
- ❖ The validation period for certification is unlimited;
- ❖ The content of the programme offers limited basic life

support and almost no advanced cardiac life support training, both of which are crucial aspects of critical care nursing education;

- ❖ The programme lacks the recommended theory and nursing skills outlined in the international guidelines.

RECOMMENDATIONS FOR CRITICAL CARE NURSING EDUCATION IN TURKEY

Critical care nursing education is only given to nurses working in state hospitals administered by the Turkish Ministry of Health. However, in Turkey there is a wide range of institutions providing health care, including SSKs (Social Security Hospitals), university hospitals and private hospitals. In-service education and training at these hospitals should not be regarded or accepted as post-basic specialisation.

Establishment of a national committee should be considered for post-basic critical care nursing education and the representatives should be selected from the Turkish Ministry of Health, the SSKs, university and private hospitals, and the Turkish Critical Care Nurses Society. A well-designed education programme could be prepared by this committee, taking into consideration accepted standards and recommendations made by the European organisations, and National Health Service priorities and resources. In addition, this committee should conduct continuous evaluation or external audit of the programmes.

A specific title (e.g. 'critical care nurse') should be awarded to nurses who have attended and successfully completed the education programme to enable them to be regarded as specialists in the field. A validation period of the certification and criteria for renewal should be formulated.

Any participation in continuing education should be awarded continuing nursing education (CNE) points and could be used to renew certification.

Educators should also have appropriate qualifications and certification in critical care nursing.

The number of centres authorised to provide critical care nursing education programmes could be increased according to pre-defined criteria, so that critical care nurses can have access to these programmes without leaving the areas where they live and work.

Those who complete the programme successfully should be awarded financial benefits such as an increase in salary.

The content of the education programmes should be revised according to the Madrid Declaration, and basic electrocardiography, basic life support and advanced cardiac life support should be incorporated according to international guidelines (European Society of Cardiology, American Heart Association) (Badir 1999). Completion of these three courses should be a criterion for the successful fulfilment of the programme.

Nurses who live in areas where these programmes are not implemented could be given the opportunity to undertake remote education/distance learning, which may be partly carried out through telecommunication networks.

REFERENCES

- Badir A. (1999) Koroner yogun bakim unitesi hemsirelerinin oryantasyonu ve surekli egitimi [Orientation and continuing education of coronary care unit nurses]. *Yogun Bakim Hemsireligi*

**❖ A review of international critical care
education requirements and comparisons with Turkey ❖**

- Dergisi [Journal of the Turkish Society of Critical Care Nurses]*
3 (2): 47-51.
- Baktoft B, Drigo E, Hohl ML, Klancar S, Tseroni M, Putzai P. (2003)
A survey of critical care nursing education in Europe.
CONNECT: The World of Critical Care Nursing 2(3): 85-87.
- Declaration of Madrid on the educational preparation of critical care
nurses. (1993) *Australian Critical Care* 6 (2): 24.
- Depasse B, Pauwels D, Somers Y, Vincent JL. (1998) A profile of European
ICU nursing. *Intensive Care Medicine* 24 (9): 939-945.
- European Commission (2000) Study of specialist nurses in Europe.
Reference XV/98/09/E. Available at: [http://europa.eu.int/comm/
internal_market/qualifications/docs/nurses/2000-study/nurses_part1
_en.pdf](http://europa.eu.int/comm/internal_market/qualifications/docs/nurses/2000-study/nurses_part1_en.pdf) [Accessed February, 2004.]
- Critical Care Nursing Education Advisory Panel on behalf of the
Australian College of Critical Care Nurses. (1999) Position Statement
on Postgraduate Critical Care Nursing Education. Recommendations for
Postgraduate Critical Care Courses. Available at: [http://www.acccn.com.
au/docs/activities/posstatpccne.doc](http://www.acccn.com.au/docs/activities/posstatpccne.doc) [Accessed February, 2004.]
- Standing Committee of Nurses of the European Union (PCN), European
Network of Nurses Organisations (ENNO) (2000). Recommendations
for a European Framework for Specialist Nursing Education. Available
at: http://www.esgena.org/_documents/framework.pdf
[Accessed February, 2004.]
-