Advanced practice nursing in the Nordic countries

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Accepted for publication 19 May 1997

Summary
• Changes in the delivery of health care and changes in population characteristics and health care requirements mandate changing requirements in nursing education.
• This is necessary to meet patient and family needs and to deliver quality health care.
• This paper describes the background to nursing education in the Nordic countries and gives an account of an initiative in Norway to prepare advanced practice nurses for clinical practice in this dynamic environment.

Keywords: advanced clinical practice, clinical decision making, graduate nursing education, nursing education in Nordic countries, patient phenomena, role theory.

Advanced nursing practice in the Nordic countries

Health care services are undergoing major change and reform, with restructuring and re-engineering taking place world-wide. Many factors have influenced these changes. They include: (1) the use of high technology with the increased possibility of medical interventions, (2) people living longer and thus the number of older people needing health care increasing, (3) changes in family structure with more single parent families, more women working and fewer children, (4) increased costs for health and welfare and (5) increased efficiency in hospitals with patients being discharged earlier and thus requiring more intense care and treatment at home or in the community.

The impact of high technology in hospitals and community and primary health care settings is very costly and knowledge intensive. Many individuals and families now learn how they can contribute to their care. Because of this, health care providers in all settings are being asked to generate creative strategies that will promote quality, decrease cost and improve patient and family satisfaction with health outcomes and community services. The management of care, especially outside the hospital, is complex and requires nurses prepared with new knowledge.

The nursing faculty at the Institute of Nursing Science, University of Oslo, Norway, recognized the need to prepare nurses for advanced clinical practice with a primary health care emphasis. This is the first university-based advanced clinical nursing programme at the graduate level in Norway. The programme focuses on three areas of study based on theoretical and research knowledge of nursing science, including patient phenomena of concern for nursing, clinical action and decision making theories, and the role of the nurse working in complex clinical practice.
Background and trends in the Nordic countries

EDUCATIONAL DEVELOPMENT

Graduate nursing science programs at most universities in the Nordic countries are fairly recent. Until now most of the emphasis at the graduate level has been focused on the preparation of teachers or administrators. Despite pressure from the nursing education and clinical communities, it is only recently that governments have been willing to allocate money for graduate education in advanced clinical nursing science.

In Norway, graduate education in nursing science at the master’s and doctoral level has been offered at three of the four universities. Doctoral education started at the University of Bergen in 1979, followed by Oslo in 1985 and Tromsø in 1989. Finland offers nursing education programmes in six of their seven universities. There are master’s programs for clinical nurse specialists that include: elder care, acute care, primary nursing, family nursing, mental health nursing and clinical nursing. In addition, Finland has a licentiate degree that is taken after the master’s but before the doctoral level. Denmark has also offered a licentiate but in 1988 the title was changed to PhD (Philosofia Doctor). In Denmark and Sweden it is possible for nurses to take doctoral education in medical faculties and faculties of social sciences, as well as in other faculties. Post-basic education in Denmark is offered at a private post-basic school of nursing under the Ministry of Health. In Sweden nursing education at the post-basic level is undergoing considerable change and for some programmes it is offered in universities and for some in regional colleges. Iceland is the only one of the Nordic countries that requires a four-year Bachelor of Nursing Science programme in undergraduate education at their two universities. This process started in 1973 with the help of WHO/EURO and a master’s programme in nursing science is now being established. In the four other Nordic countries basic nursing education takes place in regional colleges (Table 1). Basic nursing education is three years in length in Norway and Sweden. Denmark’s basic nursing education is 3 3/4 years in length, and is still an apprentice system in which the students are paid for their clinical practice in the last year of study (Palsbo, 1996).

In most of the Nordic countries, education in clinical nursing and clinical specialization following the basic nursing programme has been given in hospitals. For example, there are courses in anaesthesiology, radiology, intensive care nursing, surgical nursing and elder care. Post-basic clinical nursing such as public health nursing, midwifery and psychiatric nursing are taught at regional colleges. These courses in clinical specialization do not count towards an advanced degree, which is problematic for those nurses who wish to pursue advanced nursing education.

Advanced clinical practice

The development of the clinical nurse specialist in the Nordic countries is similar to Clinical Nurse Specialist (CNS) programmes in the USA where the role emerged at a time when there was a need to decrease fragmentation in health care (Reiter, 1966). The role of the CNS grew over the years. The CNS was a: (1) provider of expert care to patients and families, (2) collaborator and co-ordinator with other health care providers on patient care issues, (3) role model and mentor for other nurses and (4) clinician, who, through practice, research and scholarship, advanced the science of nursing (Baker, 1987; Fenton, 1992; Hamric, 1992; Jones, 1994). Recent transitional models of advanced practice are found in the USA, for example the nurse practitioner (NP) role, emphasizing an increased focus on direct patient care and the management of medical issues as well as nursing in response to doctor shortages of the 1950s (Ford & Silver, 1967; Hawkins & Thibodeau, 1989; Elder & Bullough, 1990). This role does not appear to be developing in the Nordic countries at this time because there is no doctor shortage.

The pattern that has been emerging over the last 10–15 years in the Nordic countries suggests that hospitals are employing nurses with graduate education as clinicians in order to promote research, scholarship and the develop-

Table 1 The educational system and nursing education in Norway

<table>
<thead>
<tr>
<th>General education</th>
<th>Nursing education</th>
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<tbody>
<tr>
<td>University</td>
<td>Doctoral Degree D Polit (3 years, University of Oslo)</td>
</tr>
<tr>
<td></td>
<td>Degree in Nursing Science (3 years, University of Oslo)</td>
</tr>
<tr>
<td>Regional colleges</td>
<td>Post-basic education in clinical nursing (1–1 1/2 years)*</td>
</tr>
<tr>
<td>Upper secondary school (10–12 grade)</td>
<td>Basic Nursing Education (3 years)</td>
</tr>
<tr>
<td>College preparatory programme (entry to university)</td>
<td></td>
</tr>
<tr>
<td>Vocational programme (i.e. nursing aides, 1 year)</td>
<td></td>
</tr>
<tr>
<td>Lower secondary school (7–9 grade)</td>
<td></td>
</tr>
<tr>
<td>Primary school (1–6 grade)</td>
<td></td>
</tr>
</tbody>
</table>

*Some programmes offered in hospitals.
ment of advanced clinical nurses such that they may become expert caregivers to patients and families. Currently, the position is usually a staff position under the leadership of the Chief Nurse or on a speciality unit. CNS positions have often been in the clinical fields associated with medical problems, e.g. diabetes, hypertension or psychiatric care. Other roles for CNSs emerged as managers of pain clinics or health centres. Regardless of the title, it is essential that nurses with graduate preparation are central to the delivery of quality patient care: ‘The focus on defining, implementing and measuring the difference that the advanced practitioners make to society should be the driving force behind nursing practice of the future’ (Powell & Mayer, 1992; p. 291). Among the characteristics of the CNS are: professional authority, accountability, responsibility and collegiality (Diers, 1985; p. 43). The advanced practice nurse must have the expertise to synthesize information from multiple data sources and the knowledge to arrive at decisions, select appropriate nursing interventions and achieve desired outcomes, as well as use research-based knowledge and assist other staff in its use (Gordon, 1987; Gordon, 1994; Tanner, 1987).

In the Nordic countries the nursing role that has the longest history with a documented impact on patient outcomes is that of the public health nurse. It is this individual who functions as a school nurse. Many of the delegates to the WHO (1996) Forty-fifth Health Assembly attested to the fact that it was the presence of nursing and midwifery that resulted in an increased number of children being vaccinated and helped decrease the maternal infant mortality rate. In Denmark, the private post-basic school of nursing was established in 1938, partly based on research studies that indicated the impact on decreased child mortality resulting from care by public health nurses (Lorensen, 1990).

**Competency and knowledge development**

The pressure for advanced competence and use of a theoretical and research knowledge base for the advanced clinical nurse with an emphasis on primary health care appears now to be global. Since the Alma Ata conference of 1978 on Health For All By The Year 2000 (WHO, 1978), the WHO has stressed the need for education of nurses in leadership, teaching and clinical practice. In 1992, WHO recommended that nurses function as equal partners in policy making, planning and resource allocation in the health care system.

Schlotfeldt (1981) predicted the need for a clinical nurse with a minimum of master’s education and many with doctoral education by the year 2000. The curriculum of graduate education needs to focus on ‘nursing theory, research, role development ... and clinical judgement’ (Jones, 1994; p. 147: Fig. 1).

Aydelotte strongly advocated that the clinical nurse needs the knowledge to perform, utilize and encourage the use of research-based knowledge in practice:

> The test of nursing research findings lies in the change in the practice that occurs. The application of knowledge to guide the nursing intervention and its

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**Figure 1** Curriculum model

effect is crucial in the estimate of the value of the research findings containing the knowledge. The value of a research finding is its use in understanding, designing, predicting and controlling the result of the intervention upon the patient.' (Aydelotte, 1976; p. 4)

At a Nordic seminar on Perspectives on Priorities in Nursing Science held in 1995, it was identified and recommended that there is a great need for research and knowledge development in clinical nursing. This included symptom management, care of elderly people, self-care management and promoting health and well-being across the life span (Hamrin & Lorensen, 1997).

According to Benner:

Expertise (within a discipline) develops when the clinician tests and refines propositions, hypotheses and principle-based expectations in actual practice situations. Experience is required for expertise . . . so that the knowledge embedded in the clinical expertise is central to the advancement of nursing science.

(Benner 1983, p. 37)

Throughout the world, preparation of nurses at the graduate level is seen as one way to advance and validate nursing science and address issues of health care cost and quality of care.

The WHO (1996) Forty-fifth Health Assembly proposed the need to increase the organization’s nursing and midwifery activities at all levels. It is committed to the promotion of nursing and midwifery as essential health services in all countries, for the development and improvement of health-for-all strategies. They urged member states to strengthen nursing and midwifery education and practice in primary health care, and to develop and implement (where these do not exist) national action plans for health. These plans should include nursing and midwifery representation as an integral part of national health policy, and outline the necessary steps to bring about needed changes in health care delivery. Development of the advanced clinical practice role would offer the consumer an opportunity for high-quality care and would assure further involvement by nursing and midwifery in the development of policy, assessment of need, utilization of resources, legislation, management, working conditions, basic and continuing education, quality assurance and research (WHO 45·5, agenda item 18).

The Institute of Nursing Science

The Institute of Nursing Science was established at the University of Oslo, Norway in 1985. It is organized within the faculty of medicine as one of seven Institute groups. The staff of the nursing institute consists of two permanent professors of nursing science, nine full-time nursing staff, two professors II (fixed term contract) (20%) and two research fellows, as well as administrative staff.

The Institute currently offers a three-year graduate degree programme in nursing science, nursing education and administration, and awards the title of Candidate in Nursing Science. Students who apply to the graduate programme are already licensed to practise as registered nurses and are interested in furthering their nursing education at the graduate level.

In addition, after the three-year Candidate in Nursing Science programme, there is a three-year doctoral degree programme in nursing science that leads to the degree of Dr Polit. awarded by the Faculty of Social Science (Table 2). In Norway there are two types of doctoral programs. One programme has a curriculum that requires a maximum of 200 h of work and an official adviser. The other pro-

Table 2  The Nursing Science programme at the University of Oslo

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Vektall*/credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent research and dissertation work</td>
<td>20</td>
</tr>
<tr>
<td>Philosophy of science and research methods</td>
<td>6</td>
</tr>
<tr>
<td>Nursing science and theory</td>
<td>6</td>
</tr>
<tr>
<td>Dissertation specific courses and seminars</td>
<td>8</td>
</tr>
</tbody>
</table>

Admissions Requirements:
- Master’s degree in nursing or its equivalent
- Research proposal
- 3 years guaranteed financial support

Graduate programme in Nursing Science (3 years, 60 vekttal)

<table>
<thead>
<tr>
<th>Level II (1½ year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thesis</td>
</tr>
<tr>
<td>Health services &amp; ethics (5) or</td>
</tr>
<tr>
<td>Education for health professions (5) or</td>
</tr>
<tr>
<td>Research &amp; ethics or</td>
</tr>
<tr>
<td>Health service administration (5)</td>
</tr>
<tr>
<td>Nursing sciences &amp; services</td>
</tr>
<tr>
<td>Advanced statistics &amp; research methods</td>
</tr>
</tbody>
</table>

Admission Requirements:
- Examen Philosophicum (1/2 year)
- Nursing Practice (minimum 1 year)
- Basic Nursing Education (3 years) – registered nurse
- College preparatory programme (12 years)

*10 vekttall is equal to 1 semester’s work (15–16 weeks)

gramme is one in which the student studies by him/herself with or without a mentor, writes a thesis, and delivers it to the faculty of his/her choice. Until recently, this latter programme was the only avenue by which to obtain a doctoral degree in Norway.

The three-year graduate curriculum plan

The discussion to follow will address the curriculum developed to prepare nurses at the graduate level for advanced general clinical practice. Until a year and a half ago, the graduate programme at the Institute had two functional areas, teaching and administration. The overall purpose of the three-year graduate programme, is to prepare nurses for:

1. Leadership and administration for the health service, and management and leadership functions in nursing areas of organizations and public services;
2. Teaching and leadership in schools of nursing that offer basic, graduate education as well as teaching functions within health care institutions;
3. Advanced clinical nursing with a focus on clinical expertise and research-based clinical nursing practice within nursing, health care services, and education (Lorensen & Høyskel, 1996).

Students who are graduates from a basic nursing programme and licensed to practise are eligible to apply to the university. Approximately 40 students are selected each year. The programme requires 6 semesters (3 years) of nursing science education. During the first two semesters (year 1) of the curriculum all of the students take core courses, which include nursing theory, science, ethics, statistics and research methods. The third semester of the programme in the second year provides the student with an opportunity to select an area of specialization in teaching, administration or advanced clinical nursing. During the final three semesters of the programme, students take selected courses in advanced nursing theory, ethics, science and research methodology, as well as completing a research thesis. The curriculum under discussion in this article is the specialization in advanced clinical nursing which started in the Spring of 1996.

Curriculum for the clinical course

The clinical track, lasting one semester (16 weeks), was developed because of the need for advanced clinical nurses prepared to work directly with complex patient and family issues in hospital and community settings. The new content builds upon the current core courses taken by all students in the first two semesters in the graduate programme. Areas of focus in the clinical track are clinical patient phenomena of concern to nurses and selected interventions designed by nurses to address patient care outcomes.

In designing the clinical track, attention was directed to the development of a generalist in advanced clinical nursing. Three core components were developed and incorporated into the course work and clinical learning experiences. These foci included: (a) patient phenomena of concern to nurses across the life span, specialties and institutions, (b) action and decision making theories, and (c) role theory and practice.

At the end of the clinical course the student takes a two-hour clinical examination with pass/fail grading. Staff members from the clinical course, the preceptor and each student meet according to a planned schedule at the end of the semester. The student presents a case from practice and demonstrates how they used the knowledge and skills from the course to study a selected patient phenomenon and how they made decisions, planned and implemented a nursing intervention, and evaluated the outcome of care from the

<table>
<thead>
<tr>
<th>Theoretical Phase</th>
<th>Fieldwork Phase</th>
<th>Analysis Phase</th>
<th>Action Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select phenomenon</td>
<td>Access patient population</td>
<td>Compare and contrast empirical findings related to theory and research base</td>
<td>Prepare a plan of care (a) Identify patient problems related to phenomenon</td>
</tr>
<tr>
<td>(a) Identify issues and concerns</td>
<td>(a) Age and stage of development</td>
<td></td>
<td>(b) Conduct mutual goal setting</td>
</tr>
<tr>
<td>Conduct literature review</td>
<td>(b) Culture</td>
<td></td>
<td>(c) Document problem resolution</td>
</tr>
<tr>
<td>(a) Define key terms</td>
<td>(c) Health status</td>
<td></td>
<td>Carry out plan of care (intervention)</td>
</tr>
<tr>
<td>(b) Conduct library search</td>
<td>(d) Environment, etc.</td>
<td></td>
<td>Monitor outcomes</td>
</tr>
<tr>
<td>(c) Write concept definition</td>
<td>Data collection</td>
<td></td>
<td>Continue the process with feedback to further analyse</td>
</tr>
<tr>
<td>(d) Identify relevant theory and research</td>
<td>(a) Patient (observation, communication)</td>
<td></td>
<td>phenomenon (process is continuous)</td>
</tr>
<tr>
<td>(e) Identify possible instruments or methods for measurement</td>
<td>(b) Significant others</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(c) Patient record</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(d) Other health care providers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 Work plan

patient and nurse perspectives. They also write a six-page paper before the examination laying out the process of the clinical action and substantiating the decisions taken. A term paper is required consisting of no more than 15 pages describing the chosen patient phenomenon, including nursing interventions, focusing on strategies and outcomes of care, establishing the research base and the use of decision-making theories. Throughout the clinical experience the student keeps a journal, in which they describe experiences and make reflections. The student attends taught classes two days a week and spends one day a week in the clinical setting under the guidance of the teachers and a preceptor on site who is an advanced clinical nurse associated with the Institute and a clinical setting.

**Theoretical background**

**PATIENT PHENOMENA OF CONCERN TO NURSES**

These phenomena take the form of observed patient events in response to altered health states: they are closely related to the basic human needs and fall within Kim’s (1983) client domain. They include phenomena such as confusion, anxiety, incontinence, mobility, loss, activity, sleep, energy, pain, etc., and are addressed from multiple perspectives across populations, institutions, settings and clinical specialities. Students used Schwartz-Barcott & Kim’s (1993) hybrid model for concept development and/or Walker & Avantís model (1995) for theory construction in nursing to explore the phenomena. A model was developed to help guide the student through the process of phenomenon selection to implementation in the clinical setting (Table 3). The student begins by selecting one of the phenomena in which they have an interest. They then critically analyse the literature, choose a working definition of that phenomenon, collect data, analyse the data, confirm and validate it in the literature and collect more empirical data if necessary. The student also explores, evaluates and uses appropriate instruments in their data collection related to the phenomenon (Lorensen, 1992). It is critical in achieving competency that students utilize and continually develop knowledge within the discipline. It is essential that outcomes of patient care are linked to a specialized knowledge base within nursing. The struggle to complement medical care with the essentials of nursing care must be clearly articulated by nurses with graduate preparation.

As the student collects data on multiple variables in relation to phenomena such as age, health status, socio-cultural, education, work, etc., they have the opportunity to compare and contrast their findings from these clinical observations to theory. Nursing knowledge as well as information from other disciplines can be used to enhance learning and distinguish the contributions of interdisciplinary care. In addition, exploration of multiple phenomena is carried out through the use of case presentations and reflection on particular clinical experiences. Students validate and expand this clinical knowledge and expertise through student-led clinical seminars in collaboration with university staff and clinical preceptors.

**ACTION AND CLINICAL DECISION MAKING THEORY**

Benner *et al.* (1992) describe the ability of expert nurses to assess the whole patient picture, while also being able to focus on relevant information. The expert nurse knows the right questions to ask and can respond quickly to situations. Through knowledge of the clinical reasoning process, nurses are also in a position to describe the uniqueness of the patient experience and intervene appropriately to empower the patient and promote healing. Clinical judgement fosters attention on another important aspect of reasoning, that of ‘knowing the patient’. Coming to ‘know the patient’ is an important hallmark of clinical mastery. Through the knowing process, the nurse uncovers unsolved problems and gains an appreciation for the whole person.

Exploring the collection, organization and retrieval of information can help promote effective decision making: ‘An expert’s cognitive organization of knowledge would have to support the analytic reasoning (concrete, rule bound) and the nonanalytic, intuitive comprehensive, inductive patterns’ (Gordon, 1995). Use of a model that incorporates diagnostic, ethical and therapeutic judgements (Gordon *et al.* 1994) allows the student an opportunity to address clinical problems as well as moral and ethical dilemmas inherent in the practice setting. The ability to sort cues and synthesize information efficiently is an important attribute of the clinical expert. This focus enables nurses to uncover problems responsive to nursing interventions. Action and clinical decision making theory focus on the discussion of action, reasoning and information processing. The goal is to address concepts and processes associated with generation of data, analysis and synthesis of information, hypothesis generation and testing, intervention, planning and outcome evaluation. The student is introduced to the following three major clinical actions and decision-making theories: information processing, social judgement theory and decision theory (LeBreck, 1986). Throughout the course the student discusses, reflects, analyses and substantiates her/his choice of theory or theories in seminars, presentations, journal notes and the term paper.
ROLE THEORY AND PRACTICE

The role of the expert nurse is grounded in role theory (Merton, 1968; Hardy & Conway, 1988; Hickey et al. 1996). Concepts such as role strain, role conflict and role confusion are explored from the perspective of the advanced clinical practitioner. Socio-political and environmental issues impacting upon successful role implementation across clinical sites are addressed. Professional boundaries of the role of the advanced clinical nurse are explored to achieve role clarity. Role attributes such as autonomy, professionalism, delegation and authority, responsibility and accountability are defined and articulated within the scope of nursing practice.

Hamric & Spross (1989) classify role behaviours of the graduate nurse within direct and indirect dimensions of practice. The direct role focuses on those activities involving direct patient care, including assessment, judgements about patient responses to health and illness states, selection of intervention strategies and outcome evaluation. Competencies within this category also include monitoring and treatments carried out as part of the medical management of the illness. The indirect role refers to selected activities carried out in relation to patient care. Included are such role functions as research, consultation, leadership, staff development and monitoring. These role components promote interdisciplinary collaboration over patient issues and provide nurses with an opportunity to describe relevant contributions to care outcomes.

CLINICAL PRACTICE

Clinical practice offers the student time to implement various dimensions of the clinical role, with specific populations and across various settings, with guidance from faculty and clinical preceptors. The Institute has written contracts for practice teaching and research with six other institutions: five hospitals and one community. Three of the hospitals agreed to accept students and allotted 20% of the clinical preceptor’s time for this assignment. The three clinical preceptors for the course are prepared at the graduate level and employed in research and developmental positions attached to the office of the director of nursing service. The clinical preceptors were orientated to their roles prior to and during the course to ensure the successful implementation of the curriculum. In the first clinical seminar the clinical preceptors presented to the students the clinical settings and options for student placement at their institutions, and an overview of ongoing nursing research there. In this way the student and preceptor exchanged information and knowledge related to the development and implementation of theoretical and research-based practice and advanced clinical nursing roles. The first seminar also provided a model for the other nurses to observe, and might well lead to greater interest in advanced clinical nursing, better utilization of research and a new norm and value system. Throughout the clinical experience, staff from the Institute and the clinical preceptor meet regularly with the student in clinical seminars as well as on an individual basis, for guidance and supervision. The student develops a plan and sets goals for the clinical experience and determines clinical opportunities with the clinical preceptor. Students work with selected patients and may follow them up at home. One of the students was interested in women with incontinence between the ages of 45 and 55 years. These are patients who are seen mainly in an out-patient clinic and followed up in the community. The student was able to study the phenomenon of interest across clinical settings and to focus on outcomes of care that were ‘nurse’ sensitive and helped articulate complementary roles.

At this time the programme prepares an advanced clinical nurse who is a generalist and can move across settings and populations. As the programme grows it is envisioned that areas of expertise within the advanced clinical nursing role will be needed, and the programme will expand to accommodate these areas as it has in some other countries, e.g. cardiovascular clinical nurse specialist, oncology clinical nurse specialist, etc.

Summary

Preparation of an advanced clinical nurse is finally on the agenda in Norway and politicians have decided that it is important to support this role expansion. Patients have been requesting this type of nurse, and nursing educators and nurses in the clinical field are totally committed to this addition to the graduate nursing curriculum. More time, money and resources are now devoted to advanced clinical nursing programmes in Norway.

The explosion of nursing knowledge (theory and research) have made information available to the discipline to optimize and improve health care for all. The clinical track curriculum developed at the Institute of Nursing Science, University of Norway, offers an exciting development in educational preparation of nurses at a graduate level. Through this unique approach, nurses enrolling in the clinical track are challenged to utilize and discover nursing and related scientific knowledge. The creation of the clinical track will lead to the generation of a cadre of advanced clinical nurse experts, ready to deliver nursing care to a variety of patient populations. In addition, the programme offers innovative ways to develop and market
services. Through clinical practice, knowledge can be tested and expanded through research. New phenomena of concern to nursing can be uncovered and creative, research-based interventions generated.

With the growth of the clinical expert, health problems can be more carefully monitored and healthy states enhanced. Graduates of the programme can also continue educational preparation at the doctoral level. This could result in the growth of clinically based nurse scientists and the fostering of nursing knowledge through clinically based research. The preparation of expert clinicians will continue to help demonstrate nursing’s impact on quality care outcomes, decreasing health care costs and increasing patient satisfaction with overall care.

References


