ISSUES AND INNOVATIONS IN NURSING EDUCATION

SHORT REPORT: Nursing education in Norway

Jane Mikkelsen Kyrkjebø MS RN

Research Fellow, Faculty of Psychology, University of Bergen, Bergen, Norway

Tone Elin Mekki MS RN

Associate Professor, Faculty of Health and Social Sciences, Bergen University College, Bergen, Norway

and Berit Rokne Hanestad PhD RN

Associate Professor, Department of Public Health and Primary Health Care, Section of Nursing Science, University of Bergen, Bergen, Norway

Submitted for publication 17 January 2002 Accepted for publication 29 January 2002

Correspondence:
Jane Mikkelsen Kyrkjebø,
Faculty of Psychology,
University of Bergen,
Christiesgt. 13,
N-5020 Bergen,
Norway.
E-mail: jane.kyrkjebo@psych.uib.no

KYRKJEBØ J.M., MEKKI T.E. & HANESTAD B.R. (2002) Journal of Advanced Nursing 38(3), 296–302

Short Report: Nursing education in Norway

Aim. The aim of this paper is to describe nursing education in Norway and some essential questions and challenges regarding the undergraduate and newly graduated nurses' competencies and functionally preparedness.

Background. The first formal training of nurses in Norway started in Oslo in 1886. Since then the education has changed considerably. As long as society is changing, and nurses are going to meet and adapt to societies needs, the education of nurses will also have to change continuously. The present general plan of nursing education has gone through a long process. The discussions have concerned the content of medical and natural science subjects, the practical part of the training and the relation between theory and practice.

Challenges. There are challenges in nursing education in Norway today. We have seen that recruitment has decreased, and that nurses seek jobs where they are better paid. To increase the accessibility distance and part-time education has been established. The theory–practice gap will always exist. Therefore we should aim to prepare the students to minimize this gap in a way that they can combine training of nursing with training in improvement. The demand of a masters degree to be a nursing teacher has reduced the teachers' ability to keep up their practical skills. The government pays nursing teachers who want to practice as nurses for several months to maintain their salary level during that period.

Conclusions. There are many possibilities to improve nursing education in Norway. We are on our way with highly qualified teachers and students, and we still have enough good applicants. The new general plan and new law for universities and university colleges offer great opportunities. However, the shortage of nurses is a great challenge for further quality improvement both in clinical practice and in education.

Keywords: nursing education in Norway, general plan of nursing education, continuing and university education, theory–practice gap, quality reform of higher education, shortage of nurses, study financing

296 © 2002 Blackwell Science Ltd

Introduction

Nursing education in Norway has a relatively long history. The first formal training of nurses in Norway began in Oslo in 1886.

Since then the nursing education has changed considerably. This is because of the development of the society that nurses serve. New trends over the years have been in relation to the change of patterns in family and ways of living together, population change with increasing numbers of immigrants and refugees, more elderly people and radical changes in the panorama of illness. Additionally, new laws focusing on the rights of patients and the health care professionals influence nursing education. Educational policy has resulted in changes in students' and teachers' qualifications. Further the nursing profession has been challenged by new technology and the claim of quality control, quality assurance and quality improvement (Norwegian Nurses' Association 1992).

As long as society is changing, and nurses are going to meet and adapt to societies needs, the education of nurses will also have to change continuously.

In this paper we want to describe nursing education in Norway today, including a short historical overview. In addition some essential questions and challenges regarding the undergraduate and newly graduated nurses' competencies and functional preparedness will be discussed.

A historical outline

The training of nurses began at the Deaconess House Lovisenberg in Oslo in 1868. Its director was Cathinka Guldberg, who had been educated at Kaiserwerth in Germany. The nurses who attended the Deaconess House Lovisenberg were trained in nursing and given religious instruction, and soon they came to make an important contribution to Norwegian health care services. Around the turn of the century other schools of nursing were established by religious and humanitarian organizations and by municipal hospitals. The length and content of the education varied, and the first 3-year course of nursing education was established in Bergen in 1908.

The first nursing act for the training of nurses was passed in 1948. It stipulated a 3-year training programme. 'The terms for the approval of basic nursing training' were laid down in a Royal Decree in 1950. The nursing act was revised in 1960. Pursuant to the provisions of this Act was full government funding. The nursing schools were separated from the hospitals, and separate boards of directors were set up. The terms for approval of nursing schools were changed in 1962. The most important change was that from now on, the main

task of nursing students was to receive nursing training, not offering cheap labour. The training took the form of a kind of apprenticeship.

Another major change was implemented in 1975 when students were given supernumary status. Since then, fulfilled sixth-form college has been the required entry-qualification, and the regulations concerning student rights and semesters were introduced. The students' status became even stronger when all higher education in Norway was regulated by a common law for universities and university colleges in 1994, and nursing education became a part of the university colleges together with engineers, teachers and other health and social professions.

Norwegian Nurses' Association and their role of nursing education

Norwegian Nurses' Association (NNA) has since it was established in 1912 played an active role in discussions about the content and quality of nursing education. The NNA is both a professional organization and a trade union and organizes about 95% of the nurses (at present there are 65 000 members), including a branch for student members. The student members of NNA have proved to be a strong voice on behalf of students; not only concerning payment conditions for students working part-time to support their study income, but also they have taken a strong interest in their own education. Students especially have focused upon the practical studies, which they have criticized both for the length and quality of learning situations. Students claim that the placement practice generally is too short, and that the nursing teacher's competency concerning this part of their education is too limited. They are concerned with the gap between the standards of nursing care performed in clinical practice, and the standards that they are taught in the school. They also question the amount of academic subjects in their curriculum when they compare these with the skills they experience are needed when they perform nursing care for their patients.

The general plans

In Norway, the government regulates nursing and other health and social work education. The general plans are made nationally and is a standard set for all types of health and social work education including nursing education. The plans include the aims, scope and contents of all training programmes, and they offer guidelines for evaluation, working and study methods. Other examination regulations have been set out in the Universities and University Colleges Act (1994) and in the colleges' examination regulations.

University colleges make their own curriculum guidelines based on the national general plan. These include the contents based on the main and minor subjects in the general plan, and they give a more detailed description of each subject. There is a description of working and teaching methods, types of evaluation and examination requirements. The curriculum guidelines include detailed information about organization, progression, practical training, and about the relationships between theory and practice. All the curriculum guidelines that are based on an approved general plan must be approved by the College Board or by each department, acting on advice from the board. The curriculum guidelines must state the date of approval and the general plan on which they are based, and must be given the same title as in the general plan.

If a university college finds it necessary to deviate from the national general plan, it must apply to the Ministry of Education, Research and Church Affairs, and the applications must be based on statements from advisory councils and other liaison committees.

The general plan of nursing education

The present general plan of nursing education, which was approved by the Ministry of Education, Research and Church Affairs in January 2000, has gone through a long process (Kvangarsnes 2001). In 1993 a working group started to work out a proposal for a general plan for nursing education. This plan came for a hearing in 1996, but was stopped by The Ministry of Social and Health Affairs because of the lack of clinical studies and the lack of medical and natural science subjects. A group was appointed to make a new plan, and members were asked especially to assess the content of nursing education based on present and future tasks, to consider the practical part of the training, and to propose how the relation between theory and practice could be improved (Mekki 1999). The present general plan is based on this group's work, and emphasizes both the medical and natural science subjects, and the clinical part of the training. The length of clinical studies was increased by 10 weeks. The nursing colleges are obliged to formalize collaboration appointments with the places were the students have their practical training, and nursing teachers are required to be present in the clinical areas together with the students.

The contents of the training programme in nursing

A 3-year bachelor programme at university colleges gives a general nurse competence, and the qualified nurses can work both in hospitals and in the community health service. There is no State Examination, but the authorization is

given if the students have fulfilled their nursing education at university college that meets the requirements stated in the general plan.

Nursing competence comprises the attitudes, theoretical and practical skills gained by a newly graduated nurse. The competence includes the students' total and relevant qualifications to provide proper nursing care. The holistic nursing competence consists of five competence components. During their training the students should develop competence in all of the following components:

- theoretical-analytical competence;
- practical competence;
- learning competence;
- social competence;
- professional ethics competence.

The integration of knowledge from all the components contributes to a professional understanding of, and competence directed towards, patients and next of kin. The amount of knowledge related to nursing is complex and extensive. The need for nurses in all types of health care services requires many different kinds of medical–technological specialist skills, and nurses with specialist skills in administration, teaching, supervision and professional development. A newly graduated nurse will thus require further training in order to qualify for such work. The general plan for nursing training uses the terms 'operational competence' and 'incomplete operational competence' to indicate that the employers' expectations of the vocational competence of a newly graduate nurse will depend on the type of nursing tasks involved.

Operational competence

A newly graduated nurse must have the operational competence to take care of and carry out all the mains tasks of their job. The competence is primarily directed towards patients and next to kin, and involves the basic tasks of nursing. They must be able to plan and assess their own work, and take responsibility for the care of one or more patients.

Incomplete operational competence

The newly graduated nurse will have incomplete operational competence to teach and supervise students and coworkers, organize nursing services in relation to groups of patients and coworkers, responsibility for more advanced parts of clinical nursing, and developing the content and quality of the nursing services. Only when the employer has facilitated further training may newly graduated nurses be expected to take independent responsibility for additional nursing tasks.

The training programme consists of 180 European Credit Transfer System (ECTS). This means a 3-year full-time

Table 1 An outline of the major and minor subjects in the training programme of nursing in Norway

1	The theoretical and scientific basis of nursing	33 ECTS
1A	History, tradition and professional ethics	9 ECTS
1B	Nursing theory, academic study and research	9 ECTS
1C	Theory of science and research methods	6 ECTS
1D	Ethics	9 ECTS
2	Nursing theory and practice	72 ECTS
2A	The role and task of nurses in special services	36 ECTS
2B	The role and task of nurses in municipal	36 ECTS
	health services	
3	Medicine and natural science	45 ECTS
3A	Anatomy, physiology and biochemistry	12 ECTS
3B	General pathology, pathology and pharmacology	24 ECTS
3C	Microbiology, infectious diseases and hygiene	9 ECTS
4	Social science	30 ECTS
4A	Psychology and educational theory	9 ECTS
4B	Communication, cooperation and problem-solving	6 ECTS
4C	Sociology and social anthropology	6 ECTS
4D	Political science, health and social politics,	9 ECTS
	relevant legislation and legal authority	

programme of 60 ECTS a year. Nursing skills are acquired through an interaction of practical and theoretical studies based on nursing as an academic study and its scientific and professional basis. In addition, subjects in medicine, natural science and social science form the basis for the further development of nursing as an academic study.

In the general plan the training is divided into four main parts, all including practical training. Table 1 shows an outline of the programme.

The curriculum guidelines give a description of how the main and minor subjects are to be integrated. Each university college determines at what stage the various subjects may be taught, depending on availability and time of supervised practical training periods.

Practical training is an important part, gives 90 ECTS and must be based on all main subjects. The emphasis given to each main subject is dependent on the unique characteristics of the clinical field in question.

Focusing on the part of the training that is common to all students, as in child welfare work, occupational therapy, physiotherapy, radiography, social work, nursing and social education, promotes a team spirit and the will and ability to cooperate. A general module of 30 ECTS in the general plan is common and obligatory for *all* these students, and includes theory of science, research methods, ethics and social sciences.

Norwegian nursing education is approved both in European Community countries and in all countries that are members of the International Council of Nurses (ICN).

The status and challenges of nursing education today

Recruiting

The number of applicants to nursing schools has traditionally been high, and good academic and social skills have been necessary to enter the nursing programme. This has, however, changed during the last few years because of several factors. One is that the number of nursing students at the university colleges was increased by 60% from 1992 until 1999 as a result of the general lack of nurses in the society. The second is demographic changes with a reduced number of young people combined with virtually no general unemployment in the society, and nursing education has had to compete with many other professions for potential students. The most popular studies are in business administration and information technology. We have reason to believe that many youngsters choose education within these areas, because of the possibility of being better paid and increasing their social status compared with being a nurse.

The government has so far met the shortage of nurses by increasing the number of nursing students, and by expansive recruitment 'programmes' from foreign countries. Not only from Scandinavia, but also from more economically deprived countries, such as the Philippines, Poland, Estonia among others. There are moral implications in as much that Norway, as a rich country is 'stealing' nurses that are much needed in their home countries, and this has caused a critical discussion among nurses in Norway, because it is considered to be 'wrong'.

So far there has been no willingness on the part of government to increase the nurses' salary in order to motivate more students to apply for nursing education, or to motivate nurses to continue in their positions. In fact there is no shortage of educated nurses in general, but they do not work as nurses. They seek other jobs where they are better paid.

Study financing

All higher education in Norway is free of charge. However, the students have to pay for their books and other study expenses, and the cost of living in Norway is high. Therefore many students have part-time jobs beside their studies. However, they are entitled to grants from special national institutions for students (Government loan fund) that lend money at better rates than ordinary banks. This ensures that everyone, irrespective of wealth and income level, has the same opportunity to study. At the beginning of study it is given as a loan, but when education is completed in time, 25% is converted into a state grant. There is discussion at the moment whether this should increase to 40%.

Geographical features

Today 22 out of the total number of 26 state colleges of higher education offer a basic training programme in nursing. In addition, five private religious colleges of higher education offer training programmes. These colleges are spread all over the country and Norway has a very disparate geographical area. Although not all the students have a nursing college close to their home address, the geographical features in most cases are not a general problem. The experiences is that students apply to colleges in the largest cities in Norway, irrespective where they come from, indicating that students are moving across the country. This might be more difficult for mature students with children. In six colleges this situation has been solved by establishing distance and part time nursing education. Use of Internet and tele-communication both in nursing education and nursing practice is increasing making geographical distances less of a problem.

Continuing education, further and university education Over the years further and university education have been established in relation to society's needs and professional development. The colleges offer a number of courses in continuing nursing education, such as mental health, midwifery, health visitor, elderly care, anaesthesia, surgery, intensive care, paediatrics, cancer care, diabetes care and rehabilitation.

Academic and research post registration education is located to three of the four Norwegian universities. The first was established in Tromsø in 1977, in Bergen in 1979 and in Oslo in 1985. Higher education for nurses in Oslo was established in 1925 that focused on the education of nursing leaders and teachers (Lerheim 2000). At these three universities students can now study towards master and doctoral degree in nursing science. Today there are approximately 50 doctoral students in nursing science at these universities.

Theory-practice gap

For several years there has been discussion concerning how to develop the best nursing education, and a research report has concluded that there is a gap between newly graduated nurses' vocational competence and what is expected from their employers (Havn & Vedi 1997). The study also showed that competence increased or decreased in relation to the way the employer organized the introductory period for the new graduate.

Further reasons for the gap between theory and practice might be because of the fact that the total period of clinical experience during the education is shorter than previously and that the clinical situations are more complex and demanding than before.

The current general plan states that:

A basic training in nursing should produce independent, responsible, changing-orientated and patient-orientated nurses with the will to provide well-founded nursing. The training provides competence in agreement with current regulations for fully qualified nurses. The basic training qualifies for a profession and a job, which is subject to constant development and change. One important aspect of the basic training programme in nursing is to provide training, which enable nurses to meet the challenges and opportunities in health and social services. The training is thus the beginning of a lifelong learning process. Nurses and employers have a joint responsibility for the continuation of this learning process (Ministry of Education, Research & Church Affairs 2000, p. 24).

Nursing students must be prepared for everyday situations that challenge them during their practical studies. To teach them to be skilled professionals is a pedagogical challenge (Mekki & Tollefsen 2000). The new general plan was intended to reduce the gap between theory and practice, but we know that this gap always will exist. Therefore we should aim to prepare the students to meet this gap and to minimize it through combining theory and practice. One way to do this is to focus on how students learn professional knowledge, and combine training in nursing with training in improvement (Batalden & Stoltz 1993). In this way they can acquire nursing knowledge with various methods and techniques for improvement (Kyrkjebø et al. 2001).

In February 1995 the Ministry of Health and Social Affairs and the Norwegian Board of Health (1995) published *A National Strategy for Quality Improvement in Health Care*. This describes the aims and responsibilities at all levels of the community to integrate continuous quality improvement (CQI) into work, and the educational institutions' responsibility to offer CQI courses to health care students as an integral part of the education both in basic and specialized education. Collaboration between health professions education programmes and hospitals in Bergen has resulted in a programme integrating CQI methodology in the students' syllabus (Kyrkjebø 1998, 1999).

Which role should the assistant professor play in the students' clinical studies?

In the 1994 Act, there is a demand for competence at masters-degree level in order to be a nursing teacher. This started an academic part of the educational discussions. The teachers had to study two more years at university, most of them during a 4-year part-time period, and this reduced the teachers' ability to keep up their practical skills as they had less time to teach students in clinical studies

because this is the most time-consuming part of the education.

Another issue is that nursing is a practical professional education, and there is ongoing discussion and a disagreement among nursing teachers as to what extent the teachers take part in the students' clinical practice (Mekki & Tollefsen 1998). The general plan emphasizes the teachers' participation in the students' clinical practice, and it is argued that the teachers therefore need to increase their practical skills. To follow up these two demands, the government has, as a pilot project, given 1 million Norwegian crowns (about £75 000) to 13 university colleges to ensure that assistant professors who want to practice as nurses for several months to increase their practical skills, can keep their salary level as teachers during that period (a nurse's salary is lower than a teacher's salary). By not reducing the income, this might motivate teachers to practice as nurses for a certain period of time.

Quality reform of higher education

A new government quality reform of higher education emphasizes a new organization for bachelor, master and PhD degrees in Norway (Ministry of Education, Research & Church Affairs 2001). This gives an opportunity to establish both professional and academic masters degrees. As a consequence, the already existing further education programmes and masters studies must be revised. We see this as a great opportunity to develop nursing as profession and an occupation, and an important discussion is how to develop Masters programmes that meet the needs for excellence both in terms of clinical and academic standards. The challenge is to include new researchers in clinical projects that can increase the quality of nursing education and nursing practice.

The nursing students' commitment

In 1994 university colleges and universities in Norway received a common law. This states that students should be represented by two students on all boards and committees that discuss and make resolutions concerning their study situation. The students are thus given the opportunity to influence their own education, and this is also a valuable competence for a later nursing career.

In October 2001 NNA initiated a national conference for students, educators and nurses from the practice field, called 'Quantity before quality', where the students were highly represented with speeches. The focus was the level of nursing theory taught at university colleges vs. the level taught at the universities, the gap between theory and practice, the quality of clinical practice and the shortage of nurses.

Conclusion

There are many possibilities to improve nursing education in Norway. We are on our way with high-qualified teachers and students, and we still have enough good applicants. The new general plan and new law for universities and university colleges offer great opportunities. However, the shortage of nurses is a great challenge for further quality development both in clinical practice and in education. The government has so far met the shortage of nurses by increasing the number of nursing students, and by expansive recruitment 'programmes' from overseas. The problems arise in the students' clinical practice, where the shortage of nurses affects the students' mentoring and follow up. In fact, there is no shortage of educated nurses in general, but they do not work as nurses. So the question is how to keep nurses in practical nursing? The nurses' answer is to increase the salary and improve the working conditions. The politicians think it is cheaper to educate more nurses than to increase the salary. This struggle will go on with the nursing association playing an important part. However as long as the problem is not solved it will demotivate nurses in clinical practice and decrease the quality of nursing education, especially the clinical part.

Another challenge is not only to improve and expand the body of knowledge in nursing science, but also to ensure that this knowledge is transformed into better care for the patients.

We can see that students are engaged in the same challenges that have been discussed in this paper, and it is important that we fight for the same issues.

References

Batalden P.B. & Stoltz P.A. (1993) A framework for the continual improvement of health care: building and applying professional and improvement knowledge to test change in daily work. *The Joint Commission Journal on Quality Improvement* 19, 432–452.

Havn V. & Vedi C. (1997) På dypt vann. Om nyutdannede sykepleieres kompetanse i møtet med en somatisk sengepost. (In deep water. Newly graduated nurses' competences when they start working in a somatic ward). SINTEF IFIM: Sintef-report 38 (in Norwegian).

Kvangarsnes M. (2001) Mot eit nytt kunnskapsregime i sjukepleierutdanning? (Towards a new knowledge regime in nursing education). *Norwegian Journal of Nursing Research* 3, 3–14 (in Norwegian).

Kyrkjebø J.M. (1998) Kvalitetsutvikling i helsetjenesten. En lærebok for helsefagstudenter. (Quality development in health care. A textbook for health profession students). Fagbokforlaget, Bergen (in Norwegian).

Kyrkjebø J.M. (1999) Beyond the classroom: integrating improvement learning into health professions education in Norway. The Joint Commission Journal on Quality Improvement 25, 588–597.

- Kyrkjebø J.M., Hanssen T.A. & Haugland B.Ø. (2001) Introducing quality improvement to pre-qualification nursing students: evaluation of an experiential programme. *Quality in Health Care* 10, 204–210.
- Lerheim K. (2000) Et perspektiv på Sykepleieforskning i Norge i fortid og nåtid (A perspective on nursing research in Norway in the past and the future). Forlaget Sykepleien, Oslo (in Norwegian).
- Mekki T.E. (1999) *Tiltak for å styrke sykepleierutdanningen.* Rapport fra en komite (Action to strengthen nursing education. Report from a committee). Ministry of Education, Research and Church Affairs (in Norwegian).
- Mekki T.E. & Tollefsen S. (1998) Utvikling av lærerplan for praksis et samarbeid mellom. Haukeland University Hospital og Bergen University College. (Development of curriculum in clinical practice a collaboration between Haukeland University Hospital and Bergen University College). Bergen University College, Bergen. Report no. 9/1998 (in Norwegian).

- Mekki T.E. & Tollefsen S. (2000) På terskelen. Introduksjon til sykepleie som fag og yrke (On the doorstep. Introduction to nursing profession). Akribe Forlag, Oslo (in Norwegian).
- Ministry of Education Research and Church Affairs (2000) General plan and regulations for 3-year training programme in nursing. http://www.nnr.no/html/publ/rammeplaner/sykepleierutdanningen.
- Ministry of Education Research and Church Affairs (2001) *Gjør din plikt Krev din rett: Kvalitetsreform i høyere utdanning.* St.meld, no. 27 (in Norwegian) (Do your duty demand your rights. Quality reform in higher education). http://::ODIN.dep.no/norsk/publ/stmeld27.
- Ministry of Health and Social Affairs and Norwegian Board of Health (1995) *Nasjonal strategi for kvalitetsutvikling i helsetjenesten* (National Strategy of quality development in health care). IK-2482 (in Norwegian).
- Norwegian Nurses' Association (1992) Nursing 2010. TOTALIN-FORM AS, Oslo, November.