

## ***Critical Review***

# **Nurse Education and the Assessment of Nurse Competence**

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## **Contextualisation**

Judging the competence of professionals is a complex business. Different professions involve different skills, knowledge bases and practices. The critical review that follows examines these issues in the context of Nurse Education, both here in the UK, and in Brazil. It offers a critical, historical and comparative account which also seeks to identify more general issues relating to the assessment of competence in professional development.

***Abstract:*** *The issue in which I am interested is the assessment of nurse knowledge, skills and competence, and ways in which formative assessment can promote more effective learning. In this critical review of the relevant literature I consider some of the changes in nurse education, first in the UK in general, and then in the particular context of the University of Londrina, Parana, Brazil. I will then relate these changes to broader issues of professional education, and in particular developments in assessment in higher education. Finally, I will consider some of the challenges faced by nurses in the current time and how the new curriculum for nurse education and models of assessment within it can enhance the learning and development of newly qualified nurses.*

## **A brief history of nurse education in the UK**

### ***The Nightingale Model***

The first systematic model of nurse education in the UK was provided by Florence Nightingale in 1860 with the establishment of the first School of Nursing in St Thomas's Hospital in London. According to Nightingale a dedicated individual should meet the physical and spiritual needs of the patient and assist the doctor in the curative task (Burnard and Chapman, 1990). The model was mainly based on an apprenticeship model, that is, learning is not based on knowledge and understanding, but with the young nurse learning her work by doing it, and the task needed to result in a competent performance. However, Nightingale also saw the value of theory, and her school provided systematic education through some lectures within the hospital. According to Reed and Procter (1993), the Nightingale notion of nurse education was essentially practical in nature, achievable with very limited resources, and informed by medical rather than nursing perspectives, and was a notion suited to its time. Simultaneously, there was the implementation of a rigidly disciplined form of training, accompanied by an emphasis upon hard, uncomplaining, service to patients. The Nightingale apprenticeship model was based on the moral, intellectual and practical learning of appropriate knowledge, skills and techniques; this model spread worldwide (Bradshaw, 2001a).

As well as the apprenticeship model, it is important to emphasise that Nightingale provided some principles for nurse education, which are valuable to the present time. For Nightingale, the fundamental principle was that nurses should focus on patients rather than diseases (Wake, 1998). She was convinced that people are composed of biological, psychological, social and spiritual elements, and she was the first to apply a holistic approach in nurse training. She insisted that the nurses trained in her school should develop the capacity to understand the minds as well as the bodies of those they looked after. She also believed that nursing was not only relevant in the event of illness or injury, but was concerned as much

with health promotion and rehabilitation as with restoration. She was certain that the principles of Natural Law could be used to help people to improve their health and lives (Selanders, 1993).

### ***The formal training and examination***

The lectures which made up the larger part of the formal training programme were generally divided by year of training and between those given by the doctors and those by the senior nurses. In the first year the lectures were on basic tasks and skills which the nurse needed in order to do her daily work and included such topics as bed-making, bandaging, the management and prevention of bedsores, first aid and the application of hot and cold poultices.

Most, if not all of these early lectures were given by nurses; only if they included lectures on anatomy or physiology were the medical staff involved. During the second and third years, nursing lectures continued to stress the application of knowledge through nursing skills, while the medical and surgical lectures were given by the doctors. The distinction was often made in the programme between "practical classes" and "theoretical lectures". Whenever a lecture was given by a doctor the probationers were chaperoned by the senior nurse responsible for their formal education. Nurses in training were often encouraged to keep notebooks in which they recorded the content of the lectures and practical classes; the test of their acquisition was the examinations system.

No training programme ended without a formal examination, usually written and oral, and most were examined at stages throughout the training. It was considered that an appropriate test of technical skill was naturally essential before a certificate of efficiency could be granted. Even considering the personal qualities which made a woman a good nurse, if she was unable to give simple proof of having assimilated the instruction given over a course of several years, it was considered that she could not attain the standard which alone could justify an institutional hallmark as "trained". The standard examined in each test reflected the different topics covered by the nurse and the doctor instructors. Where no separate questions were set by the nursing staff, an oral examination or practical test was set by the matron. Almost universally the final examination was followed by a viva voce examination conducted either by the doctor alone, or by the doctor and matron together. Passing the examinations, and in particular the final one, was a prerequisite to certification. Failure was not unexpected, however, nor necessarily the end of the nurse's training. Re-sits were allowed and only occasionally did they mean an extension to the total length of training. Examiners were able to override the examination results where they thought it necessary to allow a nurse to graduate or to pass on to the next stage in her training. The pass-rate, as far as it is possible to assess it, ranged between 78% and 100% (mean average 92%) in the London hospitals and an average of 96% in the provinces. Providing the probationer managed to survive the early traumas of training and didn't become one of the leavers, the chances of finishing the training without a certificate were minimal. Some hospitals overcame the problem of nurses who were not quite up to first class standard but who still merited certification by having certificates in classes, first and second: others went so far as to have classes of training in theory and practice, so that a nurse might emerge with a first class certificate in theory and a second class in practice.

The formal education of the students, through lectures, practical classes etc. and tested by examinations was complemented by the routine performance of nursing tasks on the wards. The training programme, like nursing routine, worked to overcome the difficulties experienced by students as they moved around the hospital's wards and departments, to reduce the severe consequences which a high wastage rate or turnover in personnel might

threaten, and to help newcomers be more easily quickly familiarised and assimilated into the hospital and nursing hierarchy (Maggs, 1983).

### ***The beginning of the Twenty Century***

By the beginning of the twentieth century, nursing as an occupation was emerging as a socially varied, predominantly female grouping (Jolley and Brykczynska, 1993). It was subjected to strict discipline, operating within a hierarchical, bureaucratic framework, poorly remunerated, and experiencing a continued relationship of subservience to the medical profession. According to O'Brien and Watson (1993), the notion that nurse education is primarily concerned with ensuring a steady supply of conforming, obedient, non-critical young, mainly female employees became embedded in policy debates. This was due to a number of factors, with perhaps the financial problems being the most important ones for the perpetuation of such approaches to nurse education. The influence of the Nightingale model of nurse education was extremely powerful and was supported by the prevailing social structure. Within this culture, the educational needs of women were given a low priority because they were generally seen as being subservient to men. This role differentiation reflected gender role division in society and reinforcement of the prevailing attitudes to the training of nurses. As nurses did not develop an autonomous body of knowledge, the only role left available for the trained nurse was not that of autonomous practitioner but the management of trainee nurses and untrained helpers.

### ***The Registration for Nurses***

According to Maggs (1983), nursing has shared common strategies for professionalisation with other Victorian and Edwardian groups, including medicine, midwifery, dentistry, teaching and accountancy. Nursing, however, was to a certain extent unique in that it was an almost entirely female occupation, at a time when female occupations were not considered to meet criteria for professional status. State registration of nurses came about only after a protracted campaign, sectional, bitter and divisive. According to Stapleton (1983), in 1916 a Nurses' Association had been organised, and the College of Nursing Ltd was founded. This College later became the Royal College of Nursing, and from its inception it was concerned with the better training of nurses and the advancement of nursing as a profession. And in 1919, the General Nursing Council (GNC) for England and Wales was established, to maintain the register and administer the state examination which for new entrants was the only means of admission to it. The establishment of the Council meant that for the first time a statutory body was monitoring the training of nurses and trying to impose a degree of uniformity on the standard of education in hospitals throughout the country. Even when State registration came into force in 1921, resistance to enrolment was commonplace, and many nurses did not even concern themselves about the method of becoming registered, content to leave it to the matron or hospital authorities to ensure their inclusion. As well as these national registers there were also the registers produced by the individual hospital, and these were probably more effective because they had limited aims. As they were not published they could also record opinions on the woman's nursing and moral character which the matron could refer to later when considering promotion or providing a reference.

### ***Nurses as professionals***

As a nurse professional, the nurse was not only concerned with the nature of nursing, but with nursing recruitment and the method of training nurses as well. From this emerged the need for some regulation and thus, the first syllabus for lectures and demonstrations for education and the General Nursing Council issued training in General Nursing in 1923. In this syllabus, the Council recognized the value of lectures and demonstrations by medical practitioners and other experts on their special subjects, but also added the importance to

lectures and teaching being given by fully trained nurses. The idea was that matrons, sister tutors or ward sisters would bring the “true nursing outlook” gained by personal knowledge and practical experience.

By 1923, the General Nursing Council produced a format for examinations. The final examination papers included medicine, surgery, gynaecology, medical surgical and general nursing; oral; and practical examination (Stapleton, 1983).

For over a century, from the 1870s until the 1970s, the content of training in textbooks emphasised four principles, which formed the foundation for the development of the good nurse. Firstly, it was related to the development of the nurse’s moral character. Secondly, to the acquisition of the requisite biomedical knowledge and practical skill needed for the purpose of personal patient care. Thirdly, to learning nursing skills, primarily through the example set by the ward sister who inducted nurses into the tradition and ethos of care, and fourthly, a focus on relationships, both with colleagues and patients which enabled the nurse to work together with people of all classes for the patient’s well being (Bradshaw, 2001b). This kind of training was to fit the nurse for a clearly defined role, that of the bedside nurse. The primary function of the nurse was to care for the sick person in the hospital, so the knowledge and skill required from them was carefully prescribed.

As the GNC had little direct authority in determining the nature and direction of nurse education, it remained subservient to service requirements and nurses continued to receive their training “on the job” with short periods of time in schools of nursing. In essence, the past still held a powerful and pervasive influence over nurse education, where tradition, ritual and unquestioning obedience tied nurse education to a previous era (Bradshaw 2001a). According to O’Brien and Watson (1993), this was reflected in the beginning training syllabuses and indeed in contemporary student nurse practice assessment forms, which still emphasise punctuality, smartness of dress and subservient professional behaviour. As nurses remained trapped in their status as subordinate to doctors, the Nurses Act, 1943 established the lower grade of State Enrolled Nurses as well as State Registered Nurses, but neither kind were recognised as independent practitioners. Nurses had not made a move towards a particular role nor had they gained autonomous control over their work. According to Abbot and Wallace (1990), the outcome of this was that nursing continued to be an occupation that was based on a predominantly practical training and where qualified supervised the unqualified trainees.

Nurse education followed this model for about 100 years until the 1960s when there were major pressures for change and a number of radical developments.

## **Developments since the 1960s**

During the 1960s and 1970s it was possible to detect changes, which were to be the forerunners of the radical developments in nurse education being experienced today. The training school became responsible for the practical state examination. Four ward-based practical assessments were established: “Aseptic Technique”, “Drug Administration”, “Nursing Care” and “Communication and Organisations”. The guide to the teaching of the syllabus of subjects for examination for the Certificate of General Nursing, reaffirmed the need for adaptability, to meet changing methods of treatment and care (Bradshaw 2001a). In 1979, the United Kingdom Central Council (UKCC) for Nursing, Midwifery and Health Visiting were up to this challenge, and the four National Boards (England, Wales, Scotland and Ireland) quickened the pace of change. Curriculum development was quickly devolved to individual institutions rather than centrally controlled (O’Brien and Watson, 1993). The UKCC (1987) for Nursing, Midwifery and Health Visiting mentions that the current system of nurse education was wasting resources in a number of ways, such as, student drop out of courses

in high numbers. Trained staff were not retained and were not routinely encouraged and helped to return. According to Auld (1992), these high wastage rates and low examination attainment by nurse students, led to the Royal College of Nursing setting up the Platt Committee in 1964, which pressed the need for more degree courses and supernumerary status for learners. But the decision-making bodies thought the apprenticeship model was still appropriate, so this model of training prevailed, because it was believed that a practical discipline could only be learned “on the job”.

As changes in nurse education were fundamental to the new professional status of the nursing profession, the UK government set up a review of nursing in 1970. The report of a committee under the Department of Health and Social Security and chaired by Professor Asa Briggs proposed that nurse education would no longer be standardised and universal. Service and education were to be very definitely separate. There were no longer assumed to be any inherited principles of tradition needed. It was suggested that teachers of nursing should be adequately prepared and not expected to teach all subjects. The Briggs report (1972) emphasised the need to recruit people capable of initiative, carrying heavy responsibilities and meeting on equal terms with members of other professions. Thus, courses in universities and in other institutions of higher education would play an essential part in a long-term strategy for the profession. According to Bentley (1995), these recommendations were ignored for many years; however, although they were never implemented in the way that the Briggs committee imagined, many of the recommendations were ultimately incorporated into Project 2000. The major reason for delay in changing nurse education was that the Briggs committee was set up at a time of industrial unrest, not least within the nursing profession, and the recommendations had substantial cost implications.

## **The need for change**

By the 1970s, the changes in nurse training were influenced by two great nursing educationalists, Barbara Fawkes and Eve Bendall. Barbara Fawkes was Chief Education Officer of the General Nursing Council (GNC) from 1959 and had been a night sister in the early 1940s at Stoke Mandeville Hospital. She believed that modern educational techniques needed to be used in nurse education. This meant less formal lectures and more seminars, group discussion and student project work supplemented by videos, tape recordings and films. For her, nurse teachers needed to be prepared in educational psychology, teaching methods and the practice of education as well as in the study of basic sciences. She also believed that multidisciplinary courses were helpful, so nurse teachers would be prepared alongside teachers of crafts, industrial skills, sciences and the humanities. Although she believed that there was a need for change in nurses' education, she held to some fundamental and traditional principles, that were patient-centred, with attitudes of cheerfulness, kindness and sympathy as vital attributes of the nurse, and an important part of the selection process. She thought that modern educational methods were the key to developing these attitudes (Bradshaw 2001a). Eve Bendall, Chairman of the Examination and Education Committee of the GNC in 1969, was Registrar at the General Nursing Council from 1973. She believed that the two grades of nurses, registered and enrolled, needed to be maintained, and that the smaller number of Registered Nurses should be educated to be leaders in their practice. Also, that research could constitute an important role for a nurse and, whether student nurse preparation should be part of further education. She thought student nurses should be encouraged towards individual thought, discussion and professional accountability, rather than, as at present, being mainly trained to respond to given situations (Bradshaw, 2001a).

The 1977 syllabus introduced fundamental changes to nurse training. The nursing process was imported from North America and integrated into the syllabus. Nursing process is a systematic way of planning the nursing care for patients. Its analytical framework of

assessing needs, setting care objectives and evaluating results, was intended to providing a convincing theoretical basis for nursing activities. Many hospitals had made several attempts to move away from task-based patient care. The balance between health and disease was thus shifted. The nursing process laid similar emphasis on the value of individualised care but its systematic approach also made it attractive to nurses seeking higher standards of professionalism. There was more attention to psychology and emotions, particularly the nurse's emotions, and to sociology. References to diseases and sickness were minimal. There was explicit reference to nursing research. Nursing ethics was omitted. The student was called the "learner", and the training was called "the experience". Although the apprenticeship method of learning continued with this 1977 syllabus, the GNC no longer prescribed the assessment process. Individual institutions were allowed flexibility to decide how practical skills were to be assessed and, indeed, practical skills including procedures to provide patient care were assessed (Bradshaw 2001a).

A growing number of higher education institutions in the United Kingdom began to offer undergraduate nurse education and thereby set the scene for academic development within the profession. The search for a nursing body of knowledge as opposed to a medical model became established, and the nursing process became the prevailing philosophy for the organisation and delivery of nursing care. Nursing curricula began to emphasise socio-psychological aspects of care as well as patho-physiological dimensions combined with an emphasis upon problem solving and research utilisation (Reed and Procter, 1993).

Much evidence in Bradshaw's (2001b) research pointed to the fact that vocational values remained deeply held by many nurses and ward sisters, who opposed radical change. In spite of this opposition, it took seven years, from the publication of the 1972 Briggs report to its implementation and formed the basis of the 1979 Nurses, Midwives and Health Visitors Act. This Act led the way for the nurse profession to become self-regulated and provided the legal mechanism for change. A new educational approach was initiated with new defined values, in which professional status was central, replacing the apprenticeship training and the ethic of vocational service. The significance of this radical redirection of nursing and nurse preparation had important implications for the role and purpose of the nurse and thus for the care of patients. The focus was on nurses rather than nursing or patient care. The England Nursing Board (ENB) and The Royal College of Nursing reports were similar in their recommendations to strengthen nurse education and separate it from practice. Both tended to emphasise the benefits to nurses rather than discussing standards of care or patient welfare (Dingwall, Rafferty and Webster 1988).

The first half of the 1980s was the period in which the leaders of the nursing profession sought to redefine the profession in the light of its own autonomy. This involved a separation from the past, a severance of links with medicine and the medical model, and a search for a new education direction (Nursing Education Research Unit, 1983).

## **The reform of Nurses' Education**

In 1986 the United Kingdom Central Council (UKCC, 1986) started work on devising a major reform of nurse education in the UK; the Project 2000 curriculum. Before the Project 2000 proposals, the Project committee held over forty formal meetings with nurses in the four countries of the UK and many more informal consultations. These meetings and other responses convinced the committee of the need for change. The proposal was published under the title Project 2000- a New Preparation for Practice. This paper presented an analysis about the need for change, and made clear that the UKCC policy was an integrated strategy, involving educational and management action. The development of this project examined some factors that were predicted to occur over the next two decades. For example, demographic changes were predicted whereby the number of young people

available for recruitment to the health professions would fall substantially. In addition, the increase in the proportion of elderly people in the population would demand a different kind of health care service. Another change would be a shift towards community health care and an increased emphasis on the prevention of illness (UKCC 1986). The Project 2000 report argued that the reforms of nurse education should result in a new autonomous “knowledgeable doer”, who could organise and deliver nursing care in hospital and community settings. These changes were required to be implemented within a climate of increased emphasis on cost effectiveness and value for money (Clark, Maben and Jones, 1996; ENB, 1998).

The proposed educational reform influenced the association of schools of nursing and midwifery in the early 1990s, and their subsequent integration into the higher education sector. The English National Board for Nursing, Midwifery and Health Visiting (ENB, 1998) expected that these changes would promote high quality and effective health care, since the responsibility for nurse education now lay with the universities. In addition, there was now an increasing emphasis on practice-based education of nurses and midwives. The major difference in the Project 2000 curriculum from those before was that the concept of care was seen as central to nursing, rather than the cure-orientated basis of medicine as in the past (Kendrick and Simpson, 1992). Also, the emphasis on normality and well-being and the notion of holistic and individualised care had replaced the concept of ill-health and the emphasis on specialisation inherent within the medical model (Robinson, 1991). Project 2000 mentions the need to extend the focus of health care to a range of settings, outside hospitals such as, residential care, nurseries, work places, health centres clinics, where students will have “supervised community placements”. An emphasis on care in the community, on care in the home, a stress on assessing health needs, promoting self-care and independence, are features of the plans for all care groups. A central aim reflects the belief that the student nurse needs to gain a broad based knowledge of people in health and sickness and in their own environment (UKCC, 1986).

To develop all these proposals, there is a Common Foundation Programme and a Branch Programme each of eighteen months. The common initial programme was proposed considering the needs for integration, rationalisation and improvement in nursing; midwifery and health visiting education. The Common Foundation Programme was designed to provide the student with the knowledge and skill to go on to the Branch Programme. The Branches proposed involved the care of the adult, child, and people with learning disabilities or mental health problems. These Branch programmes were structured to prepare students to apply broad principles and skills acquired in the common foundation programme. This programme of preparation was intended to bring the nurse to a point of safe and competent practice at registration, with a commitment to move beyond this (UKCC, 1986).

The UKCC (1986) outlined the requirement for each college to develop a Common Foundation and Branch programme and stated that these programmes should be designed to prepare the student to assume the responsibilities and accountability that registration confers, and to prepare the students to apply knowledge and skills to meet the nursing needs of individuals and of groups in health and in sickness, in all areas of practice of the Branch programme.

In relation to the regulation of the practice, the UKCC (1986) envisaged that, following the successful completion of an initial registration programme, the person would register with the Council. The person’s name would be entered on the Council’s Register, together with the Branch in which the qualification was held, i.e., the area of practice for which s/he was prepared. Therefore, there would need to be a single (and new) level of qualification; the ‘registered practitioner’. Such a person would be competent to engage in autonomous practice, and would be given the requisite advice and assistance. Above the registered

practitioner, there would be several different kinds of 'specialist practitioner', and a new grade of 'aide' who could carry out tasks to assist the registered practitioner. To fulfil this role, the 'aide' would have undertaken a period of training provided by the employing authority.

The Department of Health also considered the need to strengthen education and training, and planned a way to facilitate career pathways from health care assistant to registered nurse. The opportunities would enable health care support workers to fast-track nurse training, also allowing them to interrupt nurse training to work as a support worker, and return to education later. A new career structure replaced clinical grading, consisting of four levels of practitioner: 1. Health Care Assistant; 2. Registered Practitioner; 3. Senior Registered Practitioner; and 4. Consultant Practitioner. It was assumed that each level required more complex competencies than those identified for the preceding, lower level.

## Changing the Nurse Teachers Role

To face these changes, nurse teachers also would need to change their roles. According to Cave (1994), nurse teachers need to maintain their clinical ability to be able to support their claim to be capable in applying theory to current practice. Gough *et al.* (1993) emphasised that the most important goal of Project 2000 was to enable nurses to be proactive, rather than reactive, in the provision of care within the broader socio-economic environment. Nurses are often criticised for their inflexibility and for taking a rule-following attitude rather than developing analytical skills. To achieve these skills, the modular approach suggested by Project 2000 should, it was thought, allow concentration at an early stage of nurse education, on the development of problem-solving skills and thinking ability, which could be applied to a range of clinical settings. The changes to nurse education were not intended to produce "educated" nurses, doing the same job as before, but to give more time and less pressure for training, and a different class of nurse, whose role would not necessarily be primarily that of addressing the patient's personal practical needs. The idea being that trying to improve nurse education, in the long term, would lead to better-trained nurses who would deliver better patient care (Bradshaw, 2001b). Nursing education in the UK is thus currently in a state of change; many issues have been raised, many questions posed, and a range of programmes of study, developed.

The manner in which students are taught, supervised and assessed during clinical practice has also been discussed for many years. Since the mid 1970s many studies have looked at clinical learning environments and how they were orientated towards students and the assessment of student performance. According to May *et al.* (1997), supervision and assessment of students has traditionally been in the form of distant supervision. The student's assessment was carried out according to the convenience and pressure of workloads as students up to now were part of the work force. As a consequence, assessment of skills development has been largely by inference. Now, with the reorganisation of the clinical experience, teachers were concerned with making the theoretical component more meaningful for the student's practice, allowing continuous assessment of their performance. Since time available for practice experience with Project 2000 has reduced considerably in comparison with conventional courses, the need to re-examine the criteria for students' clinical nursing skill development, has become evident, together with a need to investigate how practitioners can be best helped to develop their role as assessors. At the same time, if critical thinking is to be developed, the assessors, themselves also needed to be critical thinkers. It was thus necessary to change direction towards a more problem-solving approach. It is important to mention that one of the recommendations of the Project 2000 (UKCC, 1986) was that student nurses should be also assessed in relation to theory and practice.



## The current situation for nurse education in the UK

The implementation of the Project 2000 courses began gradually from September 1989, based on a new, self-regulatory framework. The apprenticeship model of nurse training was completely discarded and the legislative framework set up entrusted the development of a new model of nursing to the professional bodies. One of the most significant developments affecting the regulation of nurses, midwives and health visitors, was the replacement of the UKCC and the National Boards with a new Nursing and Midwifery Council, a single UK-wide regulating body. The register was reduced to three parts: registered nurse (RN), registered midwife (RM) and registered health visitor (RHV). In 1998 the UKCC established a Commission to examine the future direction of pre-registration nursing and midwifery education that enabled fitness for practice, based on health care need. The commission made a wide range of recommendations based upon the evidence gathered, these included: changes to the common foundation programme, i.e. reducing it to one year and integrating it with Branch programmes, and the introduction, early in the programme, of clinical skills and practice placements; formulating the standards for registration as a nurse in terms of outcome competencies; and a portfolio of practice experience used to demonstrate students' fitness for practice; evidence of rational decision making and clinical judgement, and the recommendation that assessment should use accurate tools for practice assessment (Quinn, 2000).

Project 2000 was designed to enable students to achieve the required level of competence in their chosen branch of nursing, the key skills required by the new, more autonomous, nurse practitioner being those related to clinical decision-making and professional judgement (Davies, Neary and Phillips, 1994). Some research had already addressed the issue of the effect of the new curriculum on the philosophy and practice of nursing. Each one has examined particular aspects of the Project 2000 or its implementation, eg, White, Riley, Davies and Twinn (1994).

White *et al.* (1994) investigated the relationship between teaching support, supervision and role modelling for students in clinical areas. They found that the roles adopted by practitioners and tutorial staff varied enormously, and were labelled and understood in a range of different ways. They found that the relationship between student and practitioner contact was limited, and there was a lack of educational preparation for practitioners, which resulted in poor connections between theory and practice. The tutorial staff were overloaded by multiple and competing demands, felt ill-prepared, and had little opportunity to visit practice areas. Their role in the assessment of practice was therefore insignificant, and they struggled to find a new role or identity within the context of the new course. In spite of that, the demands of everyone involved were perceived to be great. Students thrived when given responsibility under close and careful supervision and debriefing through reflection was generally welcome.

Phillips *et al.* (1994) investigated the assessment of competencies in nurse, midwifery education and training. Assessment was found to be most effective where dialogue and critical reflection were structured into the process. The research process was found to be instrumental to the process of learning with the best means of developing and refining professional judgement, including assessments of competence being through research and education.

Macleod Clark, Maben and Jones (1996) examined the perceptions of the experiences of the Project 2000 students and diplomates. Both placed the patient firmly at the centre of care delivery. They viewed the patient holistically, were often intense patient advocates and were keen to utilise research in the practice environment. They valued basic nursing care and the communication skills they had been taught in college. There was an initial practical skills

deficit, but this was an initial deficit only and was made up for by six months post registration. The students and diplomates were analytical and questioning and were committed to lifelong learning. In other areas there are also clear consistencies between the experiences of Project 2000 students and qualifiers and traditionally trained nurses. The most striking of these was the issue of lack of support for beginner nurses and the theory-practice gap which appeared to remain.

All of this research suggests that the implementation of Project 2000 has shown advances in many areas but that some issues still remain, such as the relation of theory-practice, and supervision (by the nurse teacher) in the practical setting. The student's lack of confidence has been related to their lack of skill, which has been attributed to short placements. The assessment of their competencies could be effective when dialogue and critical reflection were carried out at the same time. In general the researchers mentioned that Project 2000 nursing students were perceived as being different from their predecessors. The students maintained the values and beliefs learned on the course rather than conforming to the prevailing values and beliefs of colleagues in practice. Also, they were felt to have a greater depth of nursing knowledge, being more questioning and health orientated.

Neary (1996), developed her research focusing on the assessment of the nurse student clinical competencies during the Common Foundation Programme of Project 2000 and identified that assessment in this area continues to be a source of difficulty. The main assessment technique used involved direct observation of clinical skills. Therefore, the subjectivity of the assessor, and the lack of uniformity and control of behaviour observed were frequent. Another problem identified was the gap between theory and practice because the assessment being divided into two parts, did not consider their integration. Students frequently expressed anger and frustration over their perceived lack of preparation for assessment, their role in it, and the meaning of continuous assessment (Neary, 1996).

In Project 2000 the assessment process was designed to be an on-going and integral part of the new pre-registration nurse and midwifery education programmes. The formative assessment would offer opportunities to help, monitor and assess students' progress, and the summative assessment, to contribute to the decision that students could become registered practitioners.

The literature review presented by Gilmore (1999), assessed the effectiveness of the process and outcomes of pre-registration nurse and midwifery education in the UK. One of the themes analysed was the assessment approaches. The research revealed concerns in relation to the form and function of assessments and the reliability of marking systems. Gilmore (1999) mentioned many authors who claimed that courses were over-assessed, and suggested that some courses were in danger of becoming assessment driven. Students were unable to develop depth of knowledge or understanding; the overlapping of assignment submission dates and the intrusion of these deadlines into periods of clinical practice intensified the problem, affecting the abilities of the students to maximise clinical learning opportunities. Also the teachers were overburdened, preventing them from developing their academic, research or clinical roles.

According to Gilmore's (1999) review, formative assessment is not well integrated into the teaching and learning process, thus its value as a source of feedback to students was limited. It appeared that the teaching and learning objectives of assessment were not maximised. The full use of formative and summative assessment should facilitate the development of skills such as self-presentation, problem solving, teaching and health promotion, team working, information technology, management and counselling. From the research reviewed for Gilmore's (1999) report, assessment procedures on pre-registration courses needed to be reviewed because it was not clear whether assessments on pre-

registration courses facilitated the development of such skills or not. Some factors that may have contributed to the inconsistency in assessment procedures were mentioned. The teachers were unfamiliar with both the process and mechanisms of assessment used in institutions of higher education, and also, that there were differences of opinion about appropriate assessment procedures. Theory and practice seem to have been assessed separately and practice-based assessments given less value than college-based assessments of theoretical knowledge and understanding, although the Project 2000 (UKCC 1986) guidelines mention that equal value and accreditation be given to both theory and practice.

Gilmore (1999) identified important issues that related to students' assessment that can contribute to improving pre-registration courses. For her, the competence in nursing and midwifery practice needed to be well defined to avoid subjectivity, and to develop more valid and reliable assessment procedures. Maybe a more student-centred and integrated approach to the assessment of both theory and practice might overcome current problems.

### **The situation in the University of Londrina, Parana, Brazil**

The Undergraduate Nursing Course of the Health Sciences Centre at the State University of Londrina, Parana, Brazil was introduced in 1972. Until 1999 the course was developed from and based upon, a traditional, discipline-based curriculum where the basic sciences were not related to clinical needs, the contents were presented in a fragmented way and the theory taught apart from the practice. The teachers as specialists, had a great concern about content, with more emphasis being placed on factual knowledge, and therefore, the curriculum was always overloaded. Apart from that, teaching was teacher-centred, and students had a passive role; practical activities were basically hospital centred. In this curriculum, the student assessment was related to outcomes, which were characterised by issues of judgement and punishment as being central, instead of considering formative aspects, such as mechanisms for redirecting the student's learning (Uel, 1999). Considering all the issues mentioned, this kind of education was not preparing nurses for real practice either in the hospital, in the health centre or in the community.

In Brazil, in the last three decades, there have been discussions concerning the need to promote qualitative and quantitative improvement in the education of health professionals. The difficulties that the health care system had in providing an adequate assistance for all, and the economic crisis of the country were the main reasons for these concerns. Furthermore, the education of health professionals has tended to emphasise the curative aspects rather than health promotion and prevention, and the teaching was more valued than the student learning process. In addition, the National Nursing Curriculum guidance for the whole of Brazil was changed too. The nursing course teachers at the State University of Londrina, Brazil, were committed to curriculum change as a result of many workshops undertaken to analyse the major weaknesses and strengths of the undergraduate course being followed at that time. At the same time, the Health Sciences Centre, within which the Nurse Undergraduate Course was placed, received financial support from the Kellogg Foundation to develop the UNI Programme (UNI is an acronym of a "new initiative", in Portuguese and Spanish) "a new initiative in the education of health professionals: partnerships with the community". In accordance with Kisil and Chaves (1995), the former directors of the Kellogg Foundation for Latin America, this programme represented a new step in the development process of the health sector and launch new efforts to achieve change in the three components: university, local health systems and communities. The idea was to provide an holistic approach necessary to tackle the problems affecting health systems in developing countries. This project was the starting point for changing the nursing curriculum at the State University of Londrina, Brazil.

According to Ben-Zur, Yagil and Spitzer (1999), educators must develop a new philosophy to accommodate the unpredictable changes in educational objectives, processes and contents. Many such changes involve a shift of focus from a curriculum-driven model to a model that focuses on learners and the creation of a climate for life-long learning, the changes of traditional student assessment tools, and the integration of areas of learning through projects and themes.

Hills and Lindsey (1994) state that nursing curricula should be based on the principles of health promotion because this provides nurses with an opportunity to shift from the medical disease model to one that truly reflects nursing. According to these authors, the education for health promotion perspective, as mentioned by the World Health Organisation (WHO, 1986) involves much more than the addition of new subject matter into the curriculum. It requires a fundamental rethinking of the educational process, that is a major revision the entire curriculum.

Oermann (1994) states that with health care reform emphasising primary care provided within community-based systems, this shift toward the community as a setting for practice is already evident. Patients are cared for in the home even with acute illnesses and complex needs. For nurses, there will be a greater role in caring for these patients, and these changes will have a significant impact on the education of nurses.

Hamner and Wilder (2001) highlight that many nursing schools in the USA are already modifying their curricula to reflect a community-based focus. These authors quote the community-based experience at Auburn University School of Nursing, and emphasise that a well-designed community based and integrated curriculum would result in students prepared for the challenges of the 21<sup>st</sup> century in way that a traditional curriculum could not.

Trying to follow these tendencies, which have driven curriculum change, the teachers of the Nurse Undergraduate Course at the State University of Londrina, Brazil adopted the integrated curriculum as a pedagogic plan that allowed the institutional organisation to put together theory and practice, teaching and work, teaching and community in a dynamic process. Santome (1998) justified curriculum integration as part of the interdisciplinarity of the knowledge and the social, economic and political inter-relations. For this author, integration meant the unity of the parts, not only the sum or a group of distinct subjects or different disciplines and knowledge. Considering this definition, curriculum integration means the ending of disciplines as we now know them, for a more comprehensive notion of curriculum.

Kysilka (1998) from the University of Central Florida, supported by many authors, suggests that an integrated curriculum promotes the following conditions which can facilitate the learning experience:

“1-Genuine learning takes place as students are engaged in meaningful, purposeful activity. 2-The most significant activities are those, which are most directly related to the students’ interests and needs. 3-Knowledge in the real world is not applied in bits and pieces but in an integrative fashion. 4-Individuals need to know how to learn and how to think and should not be receptacles for facts. 5- Subject matter is a means, not a goal. 6-Teachers and students need to work co-operatively in the educative process to ensure successful learning. 7- Knowledge is growing exponentially and changing rapidly, it is no longer static and conquerable. 8-Technology is changing access to information, defying lock step, sequential, predetermined steps in the learning process”. (Kysilka, 1998)

In accordance with Simmons and Bahl (1992), developing a thematic approach to the study of key issues, the student may draw on their own life and working experience, and also bring together the insight provided by research and theory, thus constructing a unified and valuable understanding. Therefore, this new curriculum would need to promote meaningful learning for nurse students. This would arise from the opportunity to build their knowledge through an active role in the learning process. In this context, student assessment would be continuous, systematic and integrated into the teaching learning process. This formative assessment should guide the students development through the course, giving feedback, identifying weaknesses, strengths, and helping the students to identify and overcome their difficulties. Also, it would be possible to recognize if the teacher and student relationship facilitated the student's learning or not. In order to develop a coherent assessment system for this proposed curriculum, it was necessary to choose adequate criteria and procedures to avoid subjectivity as much as possible. Self-assessment was considered central to the development of professional competence, while peer assessment could be adopted in some circumstances such as during the small group activities. Both of them may be used to assess products, performances and processes. The purposes should be primarily to improve learning.

## **Issues of professional education and models of assessment**

Nowadays, in this complex world where changes happen too fast in all fields of human life, universities need to be aware of their responsibility to society. Considering the uncertainty of the future, instead of training for well-defined careers or professions, the type of education necessary should foster a much broader education. Therefore, the proposed interdisciplinarity should lead to a new type of person, much more open, flexible, supportive, democratic and critical. Interdisciplinary education may prepare citizens to deal with complex situations, and help students to develop the ability to confront diversity through looking at issues from multiple perspectives (Clark and Wawrytko, 1990). The development of this type of education could be an alternative way to promote more independent study and life long learning, preparing adults for their self development and to cope with the unforeseen.

Another challenge relates to the current expansion of knowledge, which means that it is virtually impossible for someone to know everything in a particular area. As Hodgkinson (1996) states, it seems that much degree-based knowledge may rapidly become useless, so it is necessary to provide the individual with effective learning skills. The university in the twenty-first century must develop transferable skills, abilities and attitudes that will enable the students to adapt to change and fulfil their roles effectively in modern society. Transferability could refer to the higher order academic skills of analysis, argument, evidence gathering, written communication and making connections in cognitive domains. Through the acquisition of such personal transferable skills, graduates will develop the flexibility to cope with changes in the world markets, national economy and labour market (Barnett, 1994). So, the starting point is the student's own development, and teaching might contribute to the desired development of the student's mind. It means that school needs to help students to achieve such understanding as well as enabling them not to know and understand things but also knowing how to do things. It might be suggested that this requires that learning should be closely linked to assessment, since the evidence of understanding and performing can be identified through student performance. If students recognise gaps in their knowledge, skills or attitudes, it is easier to cope with the issue. In this sense, assessment is not something that is tacked onto learning; it is an essential ongoing component of teaching that guides the process of learning.

As part of its current (1998-2000) round of subject reviews, the Quality Assurance Agency for Higher Education (QAA, [www.qaa.ac.uk](http://www.qaa.ac.uk)) has made clear that assessment is a central component of the teaching and learning process. According to Wakeford (2000), when

assessment is designed it is important to consider how effective it will be in terms of clarity of the purpose of the assessment procedure, the students' understanding of assessment criteria and assignments; the promotion of learning; measuring attainment of the intended learning outcomes; appropriateness to the student profile, level and mode of study; and consistency and rigour of marking. Depending upon the aims of assessment policies on an individual institution or department, effective assessment should reflect truly some combination of an individual's abilities, achievement, skills and potential. Also, assessment should reflect programme content, be valid, reliable and consistent in its application and be fair. Accuracy is another important characteristic of assessment for internal and external quality of assurance purposes, and also to defend against increasingly likely legal challenges from students who feel they have been unfairly judged, classified or even excluded. Taking into consideration these issues, assessment needs to reflect the general objectives or intended outcomes of a teaching programme.

According to Eraut (1994), the occupations now claiming to be professions have employed several modes of training and preparation, such as, a period of internship, during which students spend a significant amount of time learning their skill from an expert; enrolment in a professional setting outside the higher education system; a qualifying examination, normally set by a qualifying association for the occupation; a period of relevant study at a college, polytechnic or university leading to a recognised academic qualification; and the collection of evidence of practical competence in the form of a logbook or portfolio. Each of these modes makes a distinctive contribution to the student's knowledge base and to his/her socialisation into the occupation. When free of examinations or other forms of assessment, the student focuses on the gradual acquisition of profession knowledge through demonstration, practice with feedback and possibly even coaching. It also has a strong influence on the development of standards and values.

The requirements for entering a profession is determined by the qualifying associations, who define the national standards for the occupation concerned. These standards are important in maintaining the reputation of competent practitioners. However, most examinations guarantee only the knowledge they were able to test; and this seldom extends to practical competence.

In higher education, supporting student's written assessment work constitutes a very significant part of the teacher's role, but in nurse education there is the added dimension of workplace assessment which need to be considered. The assessment must be appropriate for the level of learning outcome and also for the domain of learning covered by that outcome. Quinn (2000) emphasises that it is necessary to bear in mind the general aims of higher education, which are: the developments of students' intellectual powers, understanding and judgement; the development of students' ability to see relationships within what they have learned; to stimulate an enquiring, analytical and creative approach; and to encourage independent judgement, critical self-awareness, and problem-solving skills. Thus, assessment can be seen as having either an informal and formative (or developmental purpose) within the teaching and learning process, or a summative, purpose, in making formal decisions about progress and level of achievement. When assessment has a developmental purpose, the concern is essentially diagnostic, designed to give information which help students to improve the quality of their learning. The specific purposes for which an assessment will be used are an important consideration in all phases of its design. This kind of assessment is -formative assessment- or assessment to assist learning, can motivate students providing specific information about their strengths and difficulties during the learning process. Black and Wiliam (1998) mentioned that classroom based formative assessment, when appropriately used, can positively affect learning. Students learn more when they receive feedback about particular qualities of their work, along with advice on what they can do to improve. Brown and Knight (1994) highlight that;

“assessment is at the heart of the undergraduate experience. Assessment defines what students regard as important, how they spend their time, and how they come to see themselves as students and then graduates. It follows, then, that it is not the curriculum which shapes assessment, but assessment which shapes the curriculum and embodies the purposes of higher education”. (Brown and Knight, 1994, p 2)

Therefore, if assessment is to play its part in nourishing and supporting student, guidance and feedback it must be more than routine or nominal. According to Denicolo, Entwistle and Hounsell (1992), feedback cannot help students to learn more actively, if the comments made by tutors are not anchored in an understanding of what is required.

Another issue is the introduction of student self-assessment. It involves students taking responsibility for monitoring and making judgements about aspects of their own learning. Self-assessment encourages students to look to themselves and to other sources to determine what criteria should be used in judging their work, rather than being dependent only on their teachers. Considering this point of view, Denicolo, Entwistle and Hounsell (1992) argue that there is a close affinity between self-assessment and the goals of active learning. This requires each student to undertake an honest and self-critical reflection on his or her own work. This perspective on personal learning and performance is clearly very different from the perspective which is used in both tutor and peer assessments. The student perception of self as a learner, depends in part on the quality of feedback the student have received over the years. If feedback has been judgmental, rather than informational, and the judgement was not good, most students will simply relegate them to the “not good student” category. On the other hand, if feedback has been informational, and students learn how to use feedback to verify their sense of efficacy for learning, students will learn how to learn and the achievement can grow (Hattie and Jaeger, 1998).

As assessment and testing have so strong an influence on lives, we need to examine their impact and consider new approaches to their design. Failing to do so, neglects a major opportunity to improve education.

## **Challenges faced by nurses in the current time**

Improving the quality of undergraduate nurse education, and continuing education are the challenges facing nurse education today, since the effectiveness of the nurse interventions must inevitably be a key influence in health services. Improving nurse education, makes it more likely that they will perform well and be able to contribute to better health among the population. Education programs, which are separated from the immediate needs of the target population, are a luxury in these times of global economic recession.

It is recognised everywhere that professional practice must be developed to meet priority needs, and that a major shift is needed away from the role of servant to the medical profession, towards the role of helper and partner of people and communities. The need for a new nursing role, and therefore the need for education reform, is mentioned everywhere (Salvage, 1995).

The WHO group's report quoted by Salvage (1995) made important recommendations based on three main strategic thrusts which are: the need for a multi-sectoral approach to health care; a shift in the focus of workforce development in nursing to reflect the health needs of countries; and the revitalisation and reorientation of nursing education and practice at all levels to meet the challenges of the future. A review of nursing education activities carried out in many countries revealed remarkable similarity in the issues being tackled. The

reorientation to primary health care at all levels of their educational systems; new programme development particularly in higher education; the training of nurse teachers; provision of good quality learning materials; continuing education schemes; closer links between education and service; and, a more recent trend, the evaluation of outcomes. Also, there are growing efforts to strengthen the relationship between health need, health policy, and the education of health professionals. Even now, there has been inadequate linkage between health care need and health care policy, which is based more on political considerations, professional demands, and historical precedents than on analysis of what would make more impact on health. Health policy is too seldom reflected in educational programmes, when it should be the driving force, ensuring that the education of the professionals should be to acquire the competencies needed to turn visions and policies into practical action.

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