A LITERATURE REVIEW OF COMPETENCE IN

RELATION TO SPECIALTY NURSING

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Introduction

The competence of any nurse is based upon the autonomy and accountability of the individual nurse. The codes of conduct of New Zealand nursing organisations, such as the New Zealand Nurses' Organisation and the regulatory body, the New Zealand Nursing Council/ Te Kaunihera Tapuhi o Aotearoa state this quite clearly. Nurses practise at different levels of expertise and in different settings but maintain their accountability for everything they do or do not do.

The difficulty that nursing has is to identify and name those elements of competence that are measurable and explicative for those outside nursing, namely the public, managers and other disciplines and professions in the health arena. For nurses to make their expertise marketable they need to explain what they have to sell, what they have to offer their clients and where they fit within the health teams.

Interestingly, nurses in clinical practice have initiated the measures of competence and produced a wealth of literature to review to gain an understanding of the concepts.

The differences that are found in nursing literature in methods of identifying competence, in the reasons for measuring competence, in the assumptions that are made about competence, and in the conclusions that are reached about competence are very wide. The need for some comparability is evident. The literature showed that primarily, nurses need to be sure about their reasons for creating levels of expertise and measures of competence.

Aim of Study

The original aim of the study was to find out through a questionnaire what child health/paediatric nurses in New Zealand/Aotearoa saw as their needs for post-registration education. Nurses were completing courses in the United Kingdom and returning to New Zealand/Aotearoa and realising that their nursing capabilities had improved. They became senior nurses with education responsibilities and exhibited political leadership among their colleagues in the field of child health/paediatric

nursing. They were becoming increasingly concerned at the lack of any clinical courses in the specialty of child health/paediatric nursing to promote an appropriate standard of practice.

It was intended that a research project about post-registration child health/paediatric education would assist concerned nurses to develop a programme. The time needed for such a project did not fit with a limited research paper. It was decided to reduce the project to a review of the literature on competence in nursing, with some comment on the specialty of child health/paediatric nursing. In order for nurses to find what they need to learn and know an understanding of competence in nursing practice is required.

Competence is defined as the ability of the nurse to carry out specific work in a designated area at a predetermined standard. Issues around competence, defining a scope of practice, development and assessment of competence, regulation of nursing, are part of the context in which accountability for the practice of nurses sits.

This paper attempts to examine the nursing literature

Methods for literature search

Electronic search

Cumulative Index to Nursing & Allied Health

By initially using 'competency' as a key word in an Ovid search of the Cumulative Index to Nursing & Allied Health, nursing journal articles were found that uncovered associated terms such as expert, advanced nursing, specialist nurse, and specialty. These terms were used to illustrate levels of nursing beyond the basic nursing competence of the new graduate nurse who is required to pass certain competence measures before she/he can practise at the basic nursing level.

Competence is restricted to specific areas of nursing practice. Some areas of competence are related to a field of work as in a specialty, such as family health.

Levels of ability in a narrow field of practice with a disease base, e.g. diabetes, will need to demonstrate different categories of competence. An advanced nurse applies a

wide range of skills to clinical practice, including perhaps research, professional leadership, case management, and thus shows different kinds of competence yet again.

Some well-known authors on post-registration nursing practice were investigated for relevant articles in the CINAHL journals, e.g. Patricia Benner, George Castledine, and Diane Pelletier. Articles were selected for further reading and further articles were discovered from their reference lists. No article went beyond those available in English and all were also restricted by availability from Massey library, although three articles that were considered important were requested from other libraries. Consequently the literature that has been reviewed may be deemed to present an ethnocentric view from the perspectives of western culture and English language. Also the cost of international journals in New Zealand limits access to some nursing literature.

<u>Medline</u>

Using 'competency' as the key word in a MEDLINE electronic search, the 49 articles that were cited related only to patients' legal competence in mental health, i.e., the ability of the patient to make informed decisions about his/her own health. It is relevant to nursing that the use of information means the use of knowledge.

A further search of Medline using "competence and nurse" as the key words and with the time period restricted from 1997 to 2000, 100 citations were found. Almost half of the articles were connected to the competence of the nurse in a variety of situations, including specialty practice. Other articles referred to the competence of patients and doctors with a few articles about dentists. Examination of the abstracts revealed discussion about measures of competence, basic nursing education, and opinions about the competence of nurses. No new papers about research on nursing competence were found that are within the scope of this paper.

It is acknowledged that medicine has measures of competence that are required by regulation but the doctors' terminology was not discovered and the amount of nursing literature that was uncovered was deemed sufficient.

Education

However in an electronic search in education, a book by Michael Eraut (1994) was found to contain information about the development of competence in various areas and illustrated how nursing fitted in among other professions.

Other

One author, Steve Goldsmith in Australia, was approached personally after reading an article in the Australian Electronic Journal of Nursing Education and he sent a published article and report. As he is involved in mental health from a managerial position he provided a further perspective on the influences on competence measures by managerial culture and ideas about relationship with other kinds of culture.

The indexes of nursing books provided alternative terms for the keywords, and documents containing measures of competence, policies, standards, and requirements for education programmes provided terms, definitions and concepts about competence, etc.

Few articles were found in nursing literature published before the 1990s with 1999 being the most prolific year for publication on the subjects of specialties, competence and advanced nursing practice. This trend occurred similarly in both general and research material. The year 2000 has begun well. Consequently it can be considered that the subject of post-graduate clinical competence is increasingly receiving attention from the nursing profession. Reasons will be included in the discussion.

Method: Qualitative Data Analysis: A general inductive approach for a literature review of articles about nursing competence.

A review of relevant literature is one of the early stages in the research process. Literature about the topic under investigation is usually sought in the beginning stages in order to ascertain what investigations have been carried out on a particular topic. By providing information about the seminal works on the subject prevents identical studies being repeated without good reason. Examining different aspects of the topic and finding new ideas and methods of studying may give practical help in the form of

synonyms to assist in electronic searches of the literature (Sweeney & Olivieri, 1981). A literature search is usually done before the study begins however some methods, e.g. grounded theory, may search the literature as problems arise or be used to look more deeply into particular aspects or phenomena.

The literature is then organised to assist the purpose of the study. In this instance the method chosen as a framework for analysis of the literature was qualitative data analysis – a general inductive approach which is defined as "... a systematic procedure for analysing qualitative data, where the analysis is guided by specific objectives." (Thomas, 2000, p.1).

In this study data was generated by systematically collecting nursing articles about competence and competency and analysing them with a view to finding what nurses need to learn and know to gain an understanding of competence in nursing practice. The objective was to examine the literature to find and discuss relevant articles pertaining to competence and competency and produce a discussion about gaps and problems within the literature.

Thomas (2000) identifies several coding procedures. These included preparation o raw data files, close reading of the text, creation of categories and refinement and continued revision and refinement of categories and overlapping.

1. Preparation of raw data files

Articles were collected as described in the search section. Printed articles were loosely allocated to folders marked specialty nursing, clinical practice, written competencies, research, education and general. Articles and references from informatic sources were stored in files and documents and downloaded and printed as needed.

2. Close reading of text

On reading the text the grouping of articles was further refined with a view to finding the fundamental areas of similarity and difference and deciding which articles would be of value for developing the debate about competence in nursing.

3. Creation of categories and refinement

Categories were developed that defined competence and discussed this in relation to specialty. The categories were further as information about the difference of specialty nursing with advanced nursing became. As the literature review proceeded political issues emerged in relation to education, management, and clinical practice this material created the background for discussion about the controversy within the topic of competence in nursing.

4. Continued revision and refinement of categories and overlapping

Because the study had to be contained to around 10,000 words the depth of coding and categorising was limited to two levels. As an example, education was integrated into other sections as it produced a variety of issues related to education in clinical practice, the use of competence as assessment and measures of attainment and the role of competence in nursing education at the postgraduate level. This integrated analysis is permissible in inductive analysis.

Different rules are used in qualitative analysis that allow some concepts from the text to be used in more than one area while others may not be relevant and not used at all. However, the search methods for the selection of the literature indicate an audit trail that provides reliability to the application of the method. Validity is presented in quotes and reference to the literature.

Summary

This general, inductive analytical procedure is systematic in that it builds one set of sorting onto another until a concept emerges that appears to be relevant to nursing experience in clinical practice. The objective of examining the nursing literature to detect any outstanding issues related to competence guided the analysis towards the gaps that became evident and the problems that arose. The fit of the conclusions for the links between the categories produced some reliability to the application of this method and the use of quotes from the data assists with validity.

Definitions of Competence

Even as this is written, nursing journals, particularly those on-line, seem to be pouring out research reports, opinions and definitions about competence in clinical nursing practice (Australian Confederation of Paediatric and Child Health Nurses, 2000; Bargagliotti, Luttrell & Lenburg, 1999; Cook, 1999; Goldsmith, 1999; Lenburg, 1999; Nursing Council of New Zealand/Te Kaunihera Tapuhi o Aotearoa, 2000; Redman, Lenburg & Hinton Walker, 1999; Whittaker, Carson & Smolenski, 2000). Consequently competence is defined in many ways in nursing literature.

The Concise Oxford Dictionary defines competence as "... ability (to do, for a task) ..." (Sykes, 1988, p. 191). Nursing definitions of competence may contain a defined area of practice with specified standards that demand a particular level of performance based on the integration of theory and practice, knowledge and skills. Nursing definitions extend the concept of a task to include aspects of ability to perform those tasks within boundaries that include scopes of practice. For example the Australian Federation of Nurses defines the concept as "Competence: The ability to perform the activities within an occupation or function to the standard expected in employment." (Australian Federation of Nurses, 1997, p. 53).

Similarly the Nursing Council of New Zealand/Te Kaunihera Tapuhi o Aotearoa focus on performance and states that "Competence. Providing effective performance in a defined area of practice." (Nursing Council of New Zealand/Te Kaunihera Tapuhi o Aotearoa, 2000, p. 22).

Concept definition is seldom straightforward because definitions can be interpreted in a particular context and used to politically influence control and power both inside and outside the profession. It is interesting to note that there is a new emphasis for nurses in which competence is defined as the ability of the nurse to carry out specific work, in a designated area and at a predetermined standard (Nursing Council of New Zealand/Te Kaunihera Tapuhi o Aotearoa, 2000). In this respect the New Zealand/Aotearoa government has moved into the arena in order to advance generic legislation on competence and credentialling for clinical practice for the health sector to secure safety for the public (Ministry of Health, 2000a. Health Funding Authority & Ministry of Health, 2000).

While this new emphasis in New Zealand/Aotearoa recognises that competence assumes a specialist knowledge base and combines process and task activities, the Australian Federation of Nurses, 1997), does not take into account the process that is required to practise in a competent manner overall. It can be argued that, education, experience and on-going assessment are elements of the procedure that is required to demonstrate capability and reach an appropriate level of competence in clinical practice. In New Zealand/Aotearoa the nursing profession regulates nursing education and practice in order to ensure that nurses have knowledge and patients/clients receive competent nursing care so the council has taken steps to define competence specifically.

In the literature performance is used as one demonstration of competence (Australian Federation of Nurses, 1997; Gonczi, Hager & Athansou, 1993; Nursing Council of New Zealand/Te Kaunihera Tapuhi o Aotearoa, 2000). To recognise that a competent nurse is clinically competent is somewhat complicated. Competence is based on knowledge and the usual expectation is that performance is used as a demonstration of competence. Lewis (1998) suggested that relevant performance arose from the application of knowledge to practice in such a way that this integration produces an ability to provide the determined standard of care. Performance is therefore influenced by standards. It is also affected by reflection. For instance, Rolfe (1996) describes 'reflection in action,' as the on-going application of concepts that arise from and within nursing actions that generates improved clinical practice and leads to the creation of further nursing theory. In this respect knowledge and competence are intertwined.

Knowledge and competence influence practice and the way in which a nurse carries out in her/his interactions with a patient/client. The associated activities required from that activity emerge as the practical knowledge of nursing (Chinn & Kramer, 1999), and behaviour. This practical knowledge, the aesthetics, the art of nursing "... is made visible through the actions, bearing, conduct, attitudes, narrative and interactions of the nurse in relation to others." Although Chinn and Kramer suggest that practical knowledge "... is also expressed in art forms such as poetry, drawings, stories and music that reflect and communicate symbolic meanings

embedded in nursing practice." (Chinn & Kramer, 1999, p. 6) it requires expertise to understand and explain the nursing knowledge and the significance of the behaviours within particular actions. Competence levels could be established from such levels of expertise.

Clearly, aesthetic knowing affects reasoning which is perceived from the manner in which a nurse carries out her/his practice and is included as part of that behaviour (Glanze, Anderson & Anderson, 1990). Therefore, competence includes the integration of theory and practice, knowledge and skills (Australian Confederation of Paediatric and Child Health Nurses, 2000).

Consequently, when a nurse is observed in her/his practice the behaviour illustrates the ability of the nurse to perform to the established criteria of competent practice (Australian Federation of Nurses, 1997. Australian Confederation of Paediatric and Child Health Nurses, 2000.). Observations of that behaviour can be used to attest to an ability to apply knowledge and skills to practice. The inference is drawn that the development and assessment of competence in a defined area of nursing practice is based upon the performance of nurses in a specialty clinical setting.

Definition of Specialty

Specialty nursing practice is focussed in clinical areas (International Council of Nursing, 1992), and the scope of practice that fixes the limits of the specialty is the context in which the practice of each clinical nurse sits. The context of a specialty nursing practice may be confined to time, place, diagnosis and/or client base, with an emphasis on, or a combination of, any of these elements. Because competence is defined by the Nursing Council of New Zealand/Te Kaunihera Tapuhi o Aotearoa as the capability of the nurse to work in a specific area, within a specialty, it is important to determine what a specialty is. Literature review suggests that modern day definitions have likely been affected by historical influences.

History of Specialty Practice

Florence Nightingale (1859) was the first nurse to write about nursing specialties. She maintained that she worked in a clinical specialty, that of surgical nursing and it could be argued that, based on her clinical experience, she proposed the

earliest lists of what nursing competence was required in this area. Her list included processes, comprising time management skills, petty management, bed and bedding, observation of the sick and how to take note of useful signs and symptoms, most of which could be found in many standards of competence, today.

Over a century later the Cumulative Index to Nursing & Allied Health began recording nursing publications where literature can be found about specialisation in nursing. In 1965 Hildegarde Peplau commented on the topic of specialisation in nursing which she felt was being developed due to a rapid increase in knowledge and this required breaking down into smaller units so that nurses could grasp their meaning. She was concerned that nurses were developing ad hoc areas of specialty and needed to be more explicit about their areas of work and the specialty fields within them. Her reasoning was that nurses required a wider range of knowledge as well as an understanding of the needs of the public. At that time measures of competence had not been formally introduced into nursing. Peplau seemed to concentrate on the empirical and practical knowing (Chinn & Kramer, 1999) that is fundamental to competence. The focus at this point was more on knowledge generally than on specific statements of competence.

Interestingly, thirty years later, a report from the International Council of Nurses (1992) maintained that these same issues were driving the creation of nursing specialties. Influences inside the profession, such as increased research, produced heightened knowledge that was applied to clinical practice, and extended the numbers of nursing specialties indiscriminately. Today, specialties are being created right across nursing (Gibson, 1999). Some examples are palliative care, ambulatory care, critical care, with the medical specialties of orthopaedics, medicine, surgery and psychiatry, and with other specialties are all within paediatric/child health nursing.

The need for specialty nursing practice is the result of external forces in society. It is also possible that nursing is changing as the political forces mentioned earlier impact on the profession. Outside the profession, influences such as the experience in the United Kingdom of managers designating individual nurses into specialty roles (McGee & Castledine, 1999), was not taking into consideration the needs of the public, and this same lack of consultation is currently being addressed in

the Health Professionals' Competency Bill (Ministry of Health, 2000a). Lay participation in both registration and disciplinary functions in relation to competence is being proposed. In the meantime in New Zealand the scopes of practice for nurse prescribing have been designated outside the profession and there is an underlying expectation that nurses will eventually be responsible to the public for their prescribing. The designated boundaries for prescribing, with their lists of specific drugs that nurses may prescribe, confine professional accountability into scopes of practice that do not acknowledge existing competence in nursing management of drugs.

Similarly in the United Kingdom specialisation in nursing began developing alongside Medicine in the 1950s and the Royal College of Nursing, the professional nursing organisation, took this opportunity to develop career pathways that gained advantages for the nursing profession and purportedly more positive outcomes for patients (Scott, 1998). Nurses in other western countries also began to examine the division of nursing practice into specialities and a variety of studies were being initiated to look at scopes of practice and processes to evaluate who was competent to practise in them (Andrews & Bujack, 1996; Baumgart, 1973; Georgopoulos & Christman, 1970; International Council of Nurses, 1992; Nursing Council of New Zealand/ Te Kaunihera Tapuhi o Aotearoa, 1997).

The development of specialties produced a need to determine the boundaries of the specialties, i.e. the scopes of practice that contained the area in which each nurse needs to develop competence. As with other developments in nursing the dissimilar backgrounds in time and place created different concepts of what constituted nursing specialties and with the internal and external influences on nursing this flexibility continues and new ways of defining specialty boundaries need examining.

Recent definitions of nursing speciality practice include attributes that incorporate skill, knowledge, ability, and expertise that are all implicit in competence in nursing practice (Castledine, 1994; Nurse Executives of New Zealand, 1998; Nursing Council of New Zealand/Te Kaunihera Tapuhi o Aotearoa, 1999). When it is argued that all nurses work in specialty areas of nursing practice, then the assumption may be made that those attributes develop after some time of working,

linked with education in a particular field. What then is the difference between definitions of specialist and advanced nursing practice? Is it when the nurse steps outside a specialty and competently applies her gained attributes to other specialties?

What is the Difference between Specialty and Advanced Practice: Scope of Practice or Role?

If competence is related to a designated area of work (Eraut, 1994) it becomes necessary to define those fields. When nurses become registered and enter the practice arena they are deemed to have reached a certain level of competence in an education programme that is governed by a regulatory board. In New Zealand the Nursing Council of New Zealand/Te Kaunihera Tapuhi o Aotearoa monitors competence.

It is not mandatory that each nurse demonstrates a level of excellence in the designated competencies for entering practice but they must demonstrate the basic requirements for a nurse to practise safely before they can begin nursing practice. A standard of care can be expected by those receiving that care and it is specified by regulatory nursing bodies who have the mandate to protect the safety of the public by ensuring that education programmes provide the essential components for competence in nursing practice.

Satisfactory completion of undergraduate nursing programmes should also provide the basis on which nurses can build on their knowledge and develop further learning that they can apply to their practice (Rolfe, 1996). The development of knowledge is also gained from experience and understanding (Sykes, 1988) and while some nurses continue building on their basic knowledge not all nurses with long experience automatically become expert in their fields of clinical nursing. Factors other than experience are involved in the development of expertise and competence to a higher level of practice (Benner, Tanner & Chesla, 1996).

Causes of Development

It can be argued that experience and expertise indicate competence. In turn, experience and expertise are integrated within competence. Benner (1982) defined competence as a level leading towards the development of expertise and pointed out

the difficulty of theoretically categorising clinical experiences. Her initial research, an ethnographic study of nursing behaviour in its natural environment, was aimed at finding measures of competence for certification, and it was there that she identified and described the process by which nurses achieve clinical expertise (Benner, 1982). Based on a study of the difference in the behaviour of a new nurse compared with that of a nurse considered by her colleagues to be an expert in her area of practice, Benner perceived levels of practice from which she titled her book "From Novice to Expert (Benner, 1984).

Some nurses, however, do not develop along the same pathway as Benner's "expert" nurses and Rubin (1996) developed a study of such nurses with five years in Intensive Care Units who were assessed by their supervisors as experienced but not expert in their nursing practice. The purpose of that study was to ask why, in relation to clinical knowledge and ethical judgment, this had been so. The emphasis of the study was on clinical practice where competence was demonstrated through performance measures.

Rubin found that these nurses had a common structure of practice, i.e. their lack of development of clinical knowledge prevented them from recognising the ethical elements of their practice and consequently impaired their patient care. It is therefore, not surprising that Rubin found that these nurses behaviour did not provoke them into thinking about the contradiction between their clinical practice and theoretical concepts such as an ethic of care. Competence includes application of concepts to clinical practice (Crowder & Herwane, 1999; Dunn, et al., 2000).

To be relevant for nursing, nursing knowledge needs to be grounded in nursing practice and critical thinking needs to be continuous to secure on-going development of individual and group nursing practice. In looking for reasons Rubin (1996) did not discard factors such as psychological or social considerations as possibly relevant, nor bestow extravagant attributes to the participants' practice, but she did conclude that nursing education needed to focus on the nursing knowledge relevant to the care of patients. Nursing programmes need to ensure that they produce competent nurses.

Maynard (1996) suggested that experience is the key factor in developing competence and that critical thinking develops with other competencies. But to teach

nurses to use critical thinking and then expect them to confine their worldview to clinical practice alone is not feasible. Once nurses learn how to critically analyse data, whether it is nursing practice, patient outcomes or health systems, they will begin to pick out ways of making changes. Maynard also suggested that the research methods were a problem and maintained that there is a need for study about developing a variety of measurement tools for critical thinking so that application of research is more than uncritical use of research as could happen with best practice protocols (Goldsmith, 1999).

However, it is argued that if experience gives rise to nurses applying analytical thinking to their nursing practice, then their actions will provide the necessary measures concerning how they make decisions as long as research develops the measurement tools. Maynard's (1996) study confirmed the findings of others that significant changes in thinking occur during professional nursing practice (Benner,1984; Benner, Tanner & Chesla, 1996; Rubin, 1996). The student participants in Maynard's study developed critical thinking in their practice over a period of time during their undergraduate education. Maynard's method was to use the Watson-Glaser Critical Thinking Appraisal tool to assess the students' critical thinking ability and then compare the data from students as juniors and again as seniors.

Further research on the links of critical thinking to competence was called for by Maynard to validate the results of this study. The possibility of finding the basic nature of how to encourage critical thinking in order to promote more complex nursing practice was also stated as an important need in future analysis. These changes will subsequently generate the kind of development in competence that emphasises the need for a flexible approach to the dynamic nature of the competency process.

On the other hand, Nolan (1998) suggests that developing competence measures becomes easy if the competencies are fixed, as in the Nursing Interventions Classification (International Council of Nurses, 1999). The participants in Nolan's study selected those aspects of competence from the Nursing Interventions Classification that they felt illustrated their capabilities, but the measures seemed task-oriented and only described a single action. Nursing activity covers many

simultaneous actions and includes the application of cognitive, performance and psychomotor skills to knowledge (Dunn et al., 2000).

The use of medical methods for categorisation of nursing practice, such as those contained in the Nursing Interventions Classification (International Council of Nurses, 1999), suggests that rigid direction rather than flexible guidelines can be imposed on nursing practice and this may affect definitions of competence. Control can stultify the creativity that nurses need to provide the care required in divers situations. Nurses need to practice within their own sphere of knowledge, not that of others. It is conceivable that under different conditions nurses would confine their actions within limits that protect themselves and seemingly their patients and cling to noncreative methods of practice (Rubin, 1996).

However, determining competence at a specialty level necessitates an awareness of what specialty practice is and what is either side of it. Having already asserted that all nurses today work in specialty areas, which have scopes of practice that are interconnected and interdependent in different ways, it becomes necessary to be clear about where the advanced nursing role begins and the sort of level of competence that is required for the nursing practice in that role.

The Relationship of Nursing Roles to Competence

McGee & Castledine (1999) developed a survey with the aim of determining differences in the roles of the Specialist Nurses and Advanced Nurses, who, in the United Kingdom, have specific designations, related to their professional recognition. The research objective was to determine the difference in the levels of practice between the two groups and identify any trends that were occurring. Because it was suggested that competencies needed to be developed to clarify the difference between these two roles, this study became important to the understanding of how competence should be arrived at. As a second stage in the research activity and using the same questionnaire the authors were also able to discern some trends in the roles of advanced and specialist nurses that illustrated external influences on their roles and the competence required to perform them.

Except for four of the replies, chief nurses were the senior personnel who responded to the survey forms. The 58% return rate was close to the accepted rate for surveys and only three were unusable. Specialist nurses were employed in larger and more concentrated numbers than advanced nurses and in 125 specialty areas. Some respondents named all nurses working in a specialty area as specialist nurses without any particular extra expertise and this could create some anomalies in final totals because of the different aspects of the foci. The method of analysis was not stated but was assumed to be simple counting of numbers.

Although the roles of the advanced and specialist nurses were perceived to be different it was interesting to see that the survey found little difference between their behaviours suggesting little difference in their competence also (McGee & Castledine, 1999). This finding supports the view that advanced practice may also be experienced within a specialty and Nolan (1998) also maintained that naming the role, and where the work is to be done, provides the focus of the nursing practice where competence measures may be developed. It could be asked that if others, e.g. the nurses themselves, or clients, were asked the same questions, whether they would have such a problem with role differentiation and consequently the competence required to work safely in the defined scope of practice.

The survey of McGee & Castledine (1999) asked the respondents about their expectations of the advanced and specialist nurses in clinical practice, advising, managing and research. The replies indicated expectations that the specialist nurse would be more clinically focussed in direct care with the advanced nurse being more autonomous in making assessments and referrals, and conducting clinics with ordering tests, prescribing and treating. Both management and research were expected to be included. Advanced nurses, however, extended their advice outside their organisations and were said to have greater creativity.

These findings indicated some changes from the previous study (McGee, Castledine & Brown, 1996) in that the advanced nurse role had become more clearly defined, but the authors felt more emphasis on research around advanced nursing roles was needed for agreement to be reached. Uncertainty still exists about the difference in specialist and advanced nurse roles and although they appear to be the same in the

United States of America, titles differ, so it is hard to compare actual nursing practice. Consequently the performance behaviours measured against the competence standards would also have to be different; in order to relate to designated nursing roles.

Industrial Links

With fiscal restraints in the health sector, reduced reward and poorer working conditions have resulted in a shortage of experienced nurses, causing industrial action by nurses out of concern for the safety of their patients, e.g. Wellington Hospital Critical Care nurses and British Critical Care Nurses. The British nurses' standard, of one nurse to one patient, was not the same expectation as that of their employers' who expected that each nurse could care for more than one patient at a time in critical care. Such industrial issues influence professional roles and the ability of nurses to maintain competence within their practice standards and thus maintain their professional accountability. The result is that nurses come into direct conflict with their employers and raises the question of who should be designating roles for nurses (McGee & Castledine, 1999).

The naming of the nurse person rather than the development of new roles for nurses and their reward negates the need for employers' investment in education as the nurse is deemed to be already competent for the role. The employer, alone, therefore proposes the role and decides the competence of the nurse to fulfill the position. The actions of the British Critical Care Nurses suggest there are serious dangers in that process. Research inviting a range of nurses and allied health workers and consumers to suggest what new roles there should be would perhaps be more useful for patient outcomes and safety, as well as being linked to the competence of the nurses.

In spite of the confusion about the role of specialist nurses, McGee and Castledine (1999) found that it was important for those who employ them and suggested that evaluation of nurses at a more advanced level would reduce lack of clarity of the difference between specialist and advanced nurses' roles and consequently, the competence required. They suggested that further study should include the views of the public as well as those of the nurses themselves to clarify the problem of the public understanding of what sort of competence to expect from the

different nursing roles. Input from the public means that they could claim information from the nurses or about them, as their own.

Levels of Competence

Continuing examination of the development of competence within nursing roles needs to look within the parameters of specialty and advanced nursing practice in order to test the competency measures that are proposed. Dunn, et al. (2000), illustrates these different levels of competence contained within nursing roles in their research where they identified competency standards that indicated a difference between beginner and advanced specialist nurses. Their method was to identify themes from which domains were developed that agreed with previous findings of Australian research on competency standards of advanced nurses (Scully, 1997). The ensuing competency standards of advanced nurses seemed to have been defined similarly to those of Benner's expert nurse (Benner, 1982). This similarity could be due to a different emphasis placed on the observed behaviour of use of technical skills that was measured.

Using the data from observation of the participants of over 800 hours in a variety of clinical settings within the context of the critical care units, constant comparative analysis was made with the emerging domains, competency standards, and performance criteria. The data collectors were also used to interpret the data through giving cues to develop measures that were analysed through consultation with a colleague. The participants sent out drafts of the report for confirmation. Inability to transfer the findings of this study was a stated limitation.

Dunn et al. (2000) had a comprehensive definition of competencies that included the concept of knowledge and the application of cognitive, performance and psychomotor skills, producing nursing care that was more than just skills and knowledge. This perception of competence was based on acquiring knowledge and applying it in context, in the actuality of the patient. The element of context was transferred to the clinical environment of critical care where the nurses were working whereas context for the patient, or for a manager there may have been different frames of reference.

The domains that were identified in the study of Dunn et al. (2000), professional and reflective practice, enabling, clinical problem solving, teamwork and leadership were recognised as applicable to any specialty area of nursing. Nurses participating in the study were considered expert in their areas of practice and able to ascertain competent performance that met the defined standards, and were asked to assess attributes required for nursing in critical care. It was in the competency standards where performance criteria were used to measure competence that the leaning towards the clinical context of critical care appeared. Using the same domains in other fields of nursing to demonstrate competence would surely reveal different emphases on behaviour measurements. The management of determining competence then becomes problematic.

Regulation of competence

Decisions about the method of regulating post-basic nursing practice includes a variety of ways of ensuring public safety such as competence being presented to the public through designation/recognition, registration, certification and/or licensing by the nursing profession (National Council of State Boards, 1993). It is important to unite specialty groups around common issues so nursing can influence changes in policy concerning health care. Nurses may practise in different groups within specialties that may be nominated by themselves or others, e.g. Child Health nurses have asthma and diabetes specialities contained within them. However, difficulty arises among different groups of nurses in determining the importance of different definitions and measures, who is to determine them and who is to make the assessments (Edwards, 1998).

Dunn et al. (2000) hoped that their results would provide the foundation for a credentialling process that could regulate nursing practice with levels of competence. Certainly the hoped-for stimulation of discussion around credentialling should occur with questions being raised about certificated nurses only being employed in specialty areas of nursing practice, but there are dangers inherent in regulation that could restrict growth and changes in nursing (National Council of State Boards, 1986). With international shortages of experienced nurses, demanding certification of nurses only

in clinical specialties and providing academically based nursing courses do not provide the experiential foundations on which to base competent advanced nursing practice.

Commonalties among specialties

Collaboration and co-operation among nurses actually working in specialty fields are needed so that decisions about the components of competence in their specific areas of practice can be made and who should be deciding. The Oncology Nurses Certification Corporation Research Committee and Executive Staff in the United States of America realised that little research had been done about the commonalities among nurses working in different specialties, and they convened a conference of specialty nursing groups responsible for the credentialling of their own areas of practice (Oncology Nurses Certification Corporation Research Committee and Executive Staff, 1999). The aim was to reach consensus around certification, measurement of competence, and the role of nursing specialty groups in working collaboratively and the effects of certification on health policy. Twenty-five national organisations in specialty areas participated representing almost 100% of nursing organisations involved in certification in the United States of America.

The areas of consensus reflect the development within nursing based on the needs of the public, the changes in the health services and the role of the nurses themselves in the credentialling process (Oncology Nurses Certification Corporation Research Committee and Executive Staff ,1999). The recommendations, based on consensus from the Oncology Nurses Certification Corporation Research Committee and Executive Staff conference (1999) contained issues about ongoing education, marketing, management and assessment of competence in nursing specialties.

Discoveries that are common to the practice of a number of disparate nursing specialties reflect my personal experience of a meeting where nurses from a group of specialties were threatened with removal of their right to order laboratory tests by a local funding authority. It had been decided that, due to the lack of finance for radiography in the community, nurses would be restrained from ordering laboratory tests to reduce the funding required for them and the money used for radiography.

With a united voice the nurses were assertive in their need to have access to diagnostic tests. They were able to persuade the representative from the funding body that it was going to be much more costly if they could not continue with the laboratory tests that enabled them to use their expertise in diagnosis. Their influence on funding policy is important to advanced nursing practice today.

Education

Nursing literature about nursing education includes competence and articles discussing competence related to education were organised into five main categories of continuing education, clinical education, academic education, integration of clinical and academic education and assessment of competence. Contained within those categories were points about education using competencies to learn, assess and measure, maintain and improve and change practice. Educational strategies, such as Competency Based Learning have not been included in the discussion in this paper, as such discussion requires a pedagogical knowledge of education methods.

Definitions

Education is defined as a "... systematic (course of) instruction." (Sykes, 1988) as opposed to ad hoc courses arising out of individual and worksite requirements. Nursing education incorporates that knowledge pertaining to nursing practice and the different aspects of skills training or studying nursing theory may take precedent at different times. Skills' training alone does not produce the behaviours that indicate appropriate use of skills. Education includes all aspects of knowledge: cognitive, affective and psychomotor, the behaviours that demonstrate competence. The difference between education and skills training does not lead to competence development if they are not interconnected within the nursing experience that generates competence.

Education for specialty practice in nursing is at a post-graduate level and includes components that need to be intimately connected to clinical practice to which all nursing education is ultimately directed by advancing nursing knowledge.

Components of knowledge are affective and cognitive knowing with psychomotor skills demonstrating the application of nursing knowledge to nursing practice that is

perceived as competence (Burchell & Jenner, 1996). The fact that nursing education needs to focus on nursing knowledge that is relevant to the care of patients is often restated in the literature (Gee, 1995; McGee & Castledine, 1999; Rubin, 1996; Veeser, Stegbauer & Russell, 1999).

It becomes imperative then that the individual nursing tutors have clinical experience and knowledge as well as a theoretical understanding of the areas in which they are teaching. It is not surprising therefore, that the International Council of Nurses takes the position that nursing teachers need to understand, not only the context in which the nursing care is to be delivered, but also the competence required of those nurses working in that environment (International Council of Nurses, 1998). This occurs through liaison with service managers who provide the opportunities for clinical experience so that the teachers maintain close links and merge the different constituents.

Although some nursing research discusses the lack of influence of post-graduate qualifications on nursing roles (Hupcey, 1994) and on career paths of experienced and educated nurses (Pelletier, Donoghue, Duffield, & Adams, 1998), there was no literature illustrating the effects of post-graduate education on competence. However, it would be extremely difficult to develop any consistent research with the diversity of definitions of competence with emphases on different aspects of competence in such countries as United Kingdom, United States of America and Australia.

Maintaining competence through continuing education

The Nursing Council of New Zealand (2000) and the New Zealand Nurses' Organisation (2000) maintain that a master's degree is needed for advanced practice. The suggestion then is that a master's degree is a measure of competence and the implication is that a nurse without a master's degree is not competent to practise in a specialty. The behaviour that is demonstrated is competence in the ability to study academically, but competence in academic study may not be transferred to clinical practice. To be relevant to nursing, education programmes have to be about the application of nursing knowledge to clinical practice. The Nursing Council of New

Zealand only governs clinical practice programmes because its role is to protect public safety.

Few nurses in clinical practice would disagree with the belief that it is possible for a practitioner's competence to diminish years after initial licensure and that finding ways to assure competence through out the working life pose challenges. However, Dixon (1999) argues that nurse tutors do not lose their skills. Hupcey's study (1994) examines how on-going education is necessary for a nurse to perform at a level above the basic competence of a newly graduated nurse which suggests the possibility of post-graduate education being used as a measure of competence.

The question in this study pertains to the need for this level of study to guarantee competent clinical practice. Because the literature did not show a comparison between master's prepared Nurse Practitioners and others in terms of their performance, role behaviours were chosen as a measure because they illustrated the performance of the nurse. From a variety of influences on role behaviours, experience and education were decided as being important to be examined (Hupcey, 1994).

The researchers theoretical framework was based on socialisation into roles and by comparing actual and ideal role behaviours they concluded that the master's degree did not influence the actual role behaviour of the nurse practitioners.

However, Hupcey (1994) surmised that the current environment influenced the nurses' actions and their role placed greater emphasis on the technical aspects of their work compared with those of the master's roles. Non-masters' nurses rated their ideal role higher than the master's prepared nurses and the researcher links this finding back to an environmental influence of using inadequate health funding for educating nurses to a master's level unnecessarily (Hupcey, 1994).

If competence is a dynamic process then post-graduate education must teach the importance of ongoing education and not expect the master's degree to be a measure of achieved competence for ever (Hupcey, 1994). Dunn, et al., (2000) believe that competence is the ability to think and reason out the best nursing care within the context of the situation and that requires an on-going knowledge of developments within and outside nursing process.

Competence measures need to reflect that a process is occurring, that change and development is taking place and that there is a transition from one state to another which needs to be defined as well as the place where the transition is expected to be achieved. Competence measures need to be flexible to accommodate new roles and assimilate the roles of others (Gee, 1995) to ensure that the 'competent' individuals contribute towards 'competent' units within 'competent' systems. Nurses are held accountable for their practice (Nursing Council of New Zealand/Te Kaunihera Tapuhi o Aotearoa, 1998) but competence has to link to the nurses' role and changes that are likely to occur in that role in the future.

Workplace differences

Post-graduate education is increasingly included as an essential part of competent practice but inadequate workplace support was cited as a problem for nurses (Pelletier, et al., 1998). They conducted a longitudinal survey over five years to examine the outcomes for those nurses attaining higher degrees and diplomas and found that nurses had great difficulty balancing their family and work commitments with the educational requirements. The participants, however, believed that their post-graduate studies enhanced their work ability, manifesting itself in career advancement, work satisfaction and consolidation of knowledge that lead to job changes.

Competence was not specifically mentioned but could be assumed in light of the personal improvements that were expressed.

Education and practice evaluations

There is a difference between practice-based competency measurement and education-based measurements of competency. Some discussion on competency has been linked to educational programmes (Hewlett & Eichelberger, 1999; Kuehn & Jackson, 1997), whereas more recently competency is also linked to on-going workplace requirements with education and practice components combined to meet both nursing needs and the requirements of the setting of the nursing practice.

Some problems develop with progress in competency evaluation. Technology progress causes a problem for nurses with learning new skills and gaining funding for

improvements in technology for nursing Maynard & Bulger (1990). Schroeter's (1999) research findings raised the question of capabilities in ethical decision-making and action becoming an aspect needing further study about competency issues for nurses.

Discussion

Competence is an issue for all nurses but because this literature review was originally aimed at looking at competence issues for Child Health/Paediatric nurses, consideration needs to be given to where specialty begins and ends. In New Zealand only two designated areas in the nursing workforce statistics (Nursing Council of New Zealand. Te Kaunihera Tapuhi o Aotearoa, 1999), would not have direct clinical contact with children and their families. On an individual basis, however, some nurses may not be involved with children at all. For nursing there arises a problem of developing competence for Child Health/Paediatric specialties within specialties, i.e., the differentiation between the generalist Child Health/Paediatric nurse and the specialist in, for example, oncology (Gibson, 1999).

Definitions of competence related to specialties in nursing practice became difficult due to the different premises on which research was based, be they methodology, methods, participants, informants, etc. Consequently no uniformity was found in definitions of competence.

However, Dunn et al. (2000) have a comprehensive definition of competence that includes the concept of the application of cognitive, and affective performance and psychomotor skills, i.e. nursing knowledge that produces nursing care that is more than just skills and knowledge combined. Other researchers have maintained that competence is related to experience (Eraut, 1994) while Benner (1984) found in her observation of nurses' behaviour that it required more than experience for a nurse to satisfy grades of competence.

There are many players with a vested interest in defining competence within specialty practice in nursing clients, nurses, employers, and educators and they provide different perspectives of their own needs. Not only are there differences in relationships between themselves and the nursing abilities/knowledge but also among

themselves and the measurement of nursing competence for their own purposes which they decide based on evaluation and research from their own perspectives.

Research problems

National measures of competence have been proposed in the United Kingdom and the United States of America (Carlisle, Luker, Davies, Stilwell & Wilson, 1999; O'Connor, Hameister & Kershaw, 2000). Definitions of competence and assessment of competence standards were different because they were based on unlike participants, methods, contexts, and so on. Nurses need to grasp an understanding of the dynamic processes that are evident in the relationships between nurses and others, the influences of others and their requirements. These are areas that ensure that their competence is secure for their most important relationship, that of the nurse and the client.

The lack of research about competence is demonstrated by the lack of research literature but there is a great deal of general discussion that is either based on the same few studies or based on opinion only. The resulting lack of integration of ideas and cognisance of influencing factors makes it difficult to combine the findings and conclusions into practical ideas.

To gain knowledge in nursing the use of context could have been the synthesising factor that allowed for such a dynamic process to be examined through research (White, 1995). The continual use of methods that asks 'experts' for lists of categories to label nurses using Benner's levels for specialist and advanced nurses creates task-oriented concepts of expertise rather than the ability to apply nursing knowledge to clinical practice. The resulting measures of competence tend towards rigidity rather than active participation by the nurses.

Walker (1995) used the word "anguish" for nurses' quest to find the answer to defining and measuring fitness to practice. She suggested that collaboration in critical thinking about the processes and less analysis of observable patient outcomes would help provide answers.

Professional issues

Nurses gain knowledge that allows them to step across specialties and nursing research has attempted to demonstrate that attribute. Learning goes on within the specialty because nowadays all registered nurses work in specialty areas. Problems arise with certification within specialties because competence is restricted to measuring performance within a specialty alone and denies the knowledge gained that is generic to all specialties.

Because competence is a dynamic process that continually changes, governance by regulatory bodies alone is not enough to make sure that competence remains appropriate. Competence standards need to be flexible and broad enough to allow measures of competence to change. Measures of competence may be used to restrict nursing scopes of practice and as a result reduce the creativity required to advance nurse practice (McAllister, 1997).

Technology progress is an area of rapid change and development that requires nurses to continually learn new skills and look for funding to improve and upgrade technology for nursing practice (Maynard & Bulger, 1990). However, the relationship of nursing to technology is that nurses do not have control over it but are just expected to use technology and include it within their competence measures, after common use has made it routine for other health professionals (Liaschenko, 1998).

Competence in nursing practice ultimately rests with the individual nurse, clinically, ethically, legally and, consequently, professionally. While it is acknowledged that management, education and politico-economic issues should contribute to the policy about the services where nurses practice, control over the professional standards against which competence is measured, should ultimately rest with the profession. Authority over the competence measures that guide the client-nurse interface regulates nursing practice.

Industrial

Nurses' organisational control of developing standards is through their industrial/professional nursing associations, which have published measures of competence, such as the Australian Nurses' Federation and the Royal College of

Nurses in the United Kingdom. In New Zealand it is the specialty groups of New Zealand Nurses' Organisation that have initiated the development of standards, and Kai Tiaki provides the only source of articles on competencies (Gunn, 1999; O'Connor, 1995; Oliver, 1999; Smith, 1999; Shaw, 2000). The Nursing Council of New Zealand/Te Kaunihera Tapuhi o Aotearoa is using the standards of the special interest groups in New Zealand Nurses' Organisation to regulate competencies for prescribing.

The International Council of Nurses (1992) suggested that regulation protects nursing specialties and is needed to ensure competence, coupled with education and workforce planning. Recommendations for evaluation of specialist nurses by International Council of Nurses provide accountability to the professional associations and their practice branches, with suggestions about regulatory measures that would guarantee competence as well as recognising the place of specialties within the profession (International Council of Nurses, 1992).

For those nurses working as managers a conflict of interest arises over the nursing competencies as skills may be useful to employers but not necessarily to the patients. However, it is important for nurses to show employers what they have to sell (Borbasi, 1999) because managers have been found to designate the nursing roles that suit them. With more clarification of the competence of the advanced nurses they would reduce the confusion that exists (McGee and Castledine, 1999).

On the other hand, it is all very well to have competence measures and standards, but if staffing levels do not allow achievement of competence, then either the measures or the conditions of work, including the staffing levels, have to be changed. Nurses can then become responsible and accountable for their own competence which regulation requires.

Political

Influencing local and national policies from nurses' perspectives will bring about positive change for their clients. There has been continual re-distribution of funding with no changes in health status in some sections of the population, e.g. Maori (Ministry of Health, 1999). Fiscal restraint has caused constant restructuring and

reforms over recent years and has affected competent nursing practice by reducing numbers of experienced and expert nurses remaining in clinical practice and placing stress upon younger, less-experienced colleagues.

The Association of Operating Room Nurses sees participation in groups as allowing opportunities for influence of national health policy as well as regulation in nursing (Schutz, 1999). In the United States of America there is considered to be a need for unity among advanced nurses in practice so that they may influence and change federal policy on the governance of nursing practice. Reimbursement for autonomous nursing practice, which is based upon competence in carrying out independent practice, is one such issue (Wong, 1999).

Education

Competence is developed and assessed by performance in nursing practice. In a pilot activity in the workplace, using measures of competence and combining academic and service requirements, Hewlett & Eichelberger (1999) report that the influence on competence in practice was found to be complex and needed more than an academic perspective on competence alone. Validation of competence has been about education but Kuehn & Jackson (1997) contended that patient outcomes should be the focus of competence and that standards should be built around care, practice and performance.

Development of levels of practice and judgment of performance need to be driven by nurses themselves as it is they who are able to define the nursing knowledge that is required. However, Rath, Boblin-Cummings, Baumann, Parrott & Parsons (1996) consider that competence assessment links with ongoing education and that personal assessment allows for the best use of funding. Evaluating the needs before education programmes begin can result in reduced useless spending, but the requirement is for keen nurses to take part (Rath & Boblin-Cummings et. al.).

Another question concerns the difference between practice-based and education-based measurement of competence. Some discussion of competence has been linked to educational programmes (Hewlett & Eichelberger 1999; Kuehn & Jackson, 1997) whereas more recently competence is also linked to on-going

workplace requirements with education and practice components combined to meet both nursing and requirements of the setting.

When experienced nurses are assessed as beginners, Shaw (2000) maintains that there is a problem. There are various methods of assessment of competence and the players are linked to different outcomes: formative for nurses to develop competence, summative for managers who employ competent nurses, the client is concerned with outcomes for themselves and the education establishments are interested in methods of learning and teaching. Consequently education is more than what those nurses with knowledge in the particular specialty area have. Competence includes the application of that knowledge to clinical practice in a dynamic process.

Legal

Competence is a basic element not expert practice. There are dangers in forming competence measures that are too high. They need to remain at a basic level or have 'floors with trap doors' as Chiarella (1995) describes the need. Some authors have called for fixing standards to enhance competence (Nolan, 1998. O'Connor, Hameister, & Kershaw, 2000) but Moniz (1992) alerted nurses to the problem of standards being too precise, thus enabling ease of prosecution, particularly when national influences on basic competence for nursing practice make litigation issues important. Alternatively she warned about comprehensive areas, such as psychological, spiritual, etc. being included and having to be taken into account in every situation.

Culture

It was evident in the literature that culture plays an important part in developing competence requirements (Goldsmith, 1999) and cultural issues are important in assessing competence. Consequently assessment must be culturally congruent for achievement of competent nursing practice. In transcultural nursing philosophical issues around an understanding of a specific culture is deemed necessary to be culturally competent (Leininger, 1999) whereas in cultural safety concern for respect for others' cultures, regardful of their race, ethnic background, age, gender, etc (Meleis, 1999; Ramsden, 1995) is the broader concept of competence.

There is a difficulty for nursing to gain a value for advanced nursing practice within specialties in the world of commercial benchmarking. The research of Redd & Alexander (1997) showed that certification improved practice and that the requirements for certification have developed into standard practice that enables employers to see what it is they are buying. Certification is based on competence measures that are demanded for nursing practice in specialty areas.

Competence in nursing practice is influenced by the context of the perceptions and needs of those involved in health care and they bring with them their worldviews which grow from their culture. Consequently the way in which competence is decided is influenced by participants' vested interests. Some research methods that reduce measures of competence to isolated units (Australian Nursing Federation, 1997) negate the holistic approach that nursing purports to have and those cultural beliefs in the totality of all the aspects that affect well-being. By breaking down exemplars and case studies to produce explicit measures of competence and then recreating 'standard' case studies for comment the Australian Nursing Federation could be accused of manipulating data to control the conclusions.

There is a cultural agenda in developing competence measures. The cultural views of employers are also based on their beliefs about their own requirements (Goldsmith, 1999). A compliant workforce could be promoted by using cultural differences in research methods (Walker, 1995). Methods of research on nursing competence must display validity and rigour in order to prevent measures of competence that are intolerant of the capacities of nurses and needs of clients.

Cultural safety is a behaviour that includes regard for all cultures, and nursing in New Zealand/Aotearoa is proud of its role in embedding the concept in nursing. However, the assessment of cultural safety in nursing practice has been fraught with contention and basically illustrates the difficulty of including concepts of behaviour that may be judged in the myriad of ways that people view the world. Culture is an on-going process (Durie, 1995) and competence in cultural safety, as in any kind of competence, requires a dynamic process to measure, assess, educate, act upon, etc.

Conclusion

Nurses at the workface are knowledgeable about competence and aware of competence needs. The main problem that shows itself is the need for definitions of specialty nursing to be separated from those of the advanced nurse. Competence standards can then be developed based on the practice of the nurses within those areas. The commonalties within the two groups can be developed and the differences noted to allow for the diversity that occurs among specialties, work settings, countries, and cultures.

Continuing research around competence needs to reflect the changing world in which nursing exists. For competence that is grounded in nursing practice to be developed, information gathered from practice itself is necessary for any accrued knowledge to be relevant for nursing. Development of evaluation of research methods for nursing processes also needs to occur and further study should include the views of the public as well as those of the nurses themselves.

Competence requires flexibility to cope readily with the inevitable changes in national policy, workplace requirements, technology, doctor-nurse-client relationships, and variables within communities. Due to this development in nursing and technology expertise may come at the expense of breadth of scope (Rolfe, 1996). Difficulty results in defining a clinical focus, and for child health where every nurse is involved with children there are child health specialties with areas of expertise requiring sets of competence measures in such areas as public health, environmental health, respiratory health, adolescent health and others.

Competence needs to reflect the environment in which nursing has been placed, where it is today and where it will be tomorrow.

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