

Assessment of learning in contemporary nurse education: Do we need standardised examination for nurse registration?

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Summary

In Australia and Norway final examinations to determine eligibility for registration as a nurse were discontinued during the period when nurse education moved into the higher education sector. In response to recent calls for the reintroduction of final examinations we explore the range of knowledge needs for the practice of nursing. These various forms of knowledge demand different forms of mediation and acquisition as well as assessment. There are numerous problems identified in the literature about the shortcomings of examinations as the foundation of assessing clinically based professions. There is a need to develop systems of appropriate assessment to ensure that graduates of nursing demonstrate adequate knowledge and competence to enter their profession.

Keywords: Knowledge, Student assessment, Nursing education

Background

Assessment of student learning and knowledge is a contentious topic in education. In higher education, a considerable amount of students' activity is focused in assessment. Assessment of students is undertaken for a number of interrelated reasons: feedback mechanism for academic staff about student learning (Ramsden, 1988); a measure of accountability for the quality of education (Vleuten, 1996); and, to certify student acquisition of knowledge and skills to graduate. In many countries external examinations are used to determine eligibility for registration as a nurse, but in others including Australia and Norway such examinations were discontinued at the time of the transfer of education into the higher education sector. Registering authorities accredit curricula and monitor teaching and assessment in courses as a mechanism for ensuring quality in graduate outcomes.

In Australia, there has been a recent recurrence of debate about state examinations as a requirement for registration as a nurse (Nelson, 2005, Gendek, 2005, Grealish, 2005, Chapman and Francis, 2005). Proponents for general registration examinations argue that these will ensure quality of nurse graduates and protect public interests. Opponents raise concerns about the

limitations of examinations which include being a poor indicator in determining readiness for safe practice. Assessment of learning has always been, and will always be, an important issue to discuss in education generally, and not at least in nurse education considering nurses are educated both in academic and clinical settings.

In any debate about assessment it is important to remember that assessment impacts on student learning, and assessment tasks frequently dominate the ways in which students orientate their learning (Ramsden, 1992). Over the past decade there has been a paradigm shift in education from a focus on teaching to a focus on student learning (Havnes, 2004, Barr and Tagg, 1995). There has been recognition that the preparation for practice requires a more complex interplay of different ways of knowing for students to begin to develop connoisseurship in nursing practice (Higgs et al., 2001). Nursing is a practice based discipline and is dependent on its practitioners demonstrating competence in clinical practice. In Australia over the last decade there has been an adoption of professional standards developed by the Australian Nursing and Midwifery Council National Competency standards (ANMC, 2002). These standards must be reflected in curricula accredited by nursing regulatory authorities. In addition to discipline specific knowledge, there is an emphasis on the development of generic skills in students, in particular life long learning skills, that is, of fostering learning rather than simply training. Consequently, students need to engage in a range of assessment practices that reflect the variety of knowledge they need to learn. Assessment defines what students regard as important, how they spend their time and how they see themselves as students. It follows, then, that it is not the curriculum that shapes assessment, but assessment also shapes the curriculum (Brown and Knight, 1994).

Our aim is to discuss the recent proposition to reintroduce of state standardised examinations as a mechanism to assess and ensure quality in graduates of nurse education. We argue that the complexity of knowledge needed for practice is not able to be assessed using a single examination, but demands the development of multiple assessment approaches which reflect the complex and diverse forms of practice knowledge required to support safe and effective nurse practice. It is important therefore to clarify what is knowledge for nurse practice, and then to explore the means for assessing student attainment of that knowledge.

Knowledge for practice

In the western culture there is a long tradition associated with the concept of knowledge. For the last two thousand years to denote something as knowledge, it has been important to articulate what the phenomenon is about in verbal language. Therefore, abstract reasoning is first and foremost knowledge. An image or a representation that can be articulated verbally in a series of statements is knowledge (Polanyi, 1967). Secondly, within western culture, knowledge has been seen as having a definitive hierarchical structure with general principles, statements and rules positioned at the top of a

hierarchy, while concrete, personal experience is positioned at the bottom (Grimen, 2002).

This conventional view of knowledge has been challenged over the past three decades with the study of the social, cultural, physical and tacit dimensions of knowledge in nursing (Benner, 1984, Heggen, 1994, Palmer et al., 1994). The single critical criterion of having the ability to carry out procedural skills is no longer understood as defining the knowledge for nursing practice. Care and interaction with patients demands a variety of knowledge. What then, characterises a body of knowledge for nursing practice? Schön's well-known research (1987) attempted to construct a theory of knowledge that could describe the complexity and the uniqueness of the training for, and the practice of, a number of different professions. He detailed the cognitive processes involved in the professional development of practitioners. Benner's (1984) now classic 'From Novice to Expert', demonstrates the complexity and uniqueness of nursing's body of knowledge. The work of both Schön and Benner reveal the multi-faceted character of knowledge for professional practice.

Tacit knowledge

Tacit knowledge is a keyword for understanding knowledge in nursing. Polanyi (1967) introduced the idea of tacit knowledge to describe the embodied knowledge we have in 'knowing-how' about things without consciously reflecting on theory or rules underpinning that knowing. Both fascination and scepticism surround the concept of tacit knowledge, the associated debate has made it apparent that knowledge is articulated in various ways. Not all knowledge can be verbally expressed and captured in text as indicated in the following example from aesthetic experience. It is widely accepted that one cannot learn about the sound quality of a clarinet without listening to that instrument. In the same manner, learning to differentiate the various sounds of respiration cannot occur without listening to those sounds through a person's chest wall. The smell of secretions is another example, where recognition of the different odours in wounds is learnt through smelling the different secretions.

Various forms of knowledge demand different forms of mediation and acquisition, as well as assessment. The relationship between knowledge and the individual must therefore be regarded as more intimate than it is in classical theories of knowledge, where objectivity and generalisation are central. In a professional education, such as nursing, important knowledge and skills must be acquired through concrete personal experience. One cannot learn about smell through theoretical study. Concrete experiential knowledge requires physical closeness to the phenomenon that is to be studied. This does not imply that language has no part to play in the learning process – language will help to enrich the experience. However, students themselves must actually smell the wound secretion, and this means that they must be close to the wound. By recording similarities and differences of odour and discussing them with nurses and/or fellow students, more learning occurs.

Practising such professional tasks provides unique insights which cannot be obtained through theoretical study.

Higgs et al. (2001) argue that three types of knowledge come together in clinical encounters and are:

- Propositional knowledge (theoretical knowledge),
- Professional craft knowledge, and
- Personal knowledge of self and in relationship with others.

This means the boundaries of the previously described hierarchical division of knowledge are blurred in health practice and therefore the preparation for practice requires a more complex interplay of different ways of knowing to begin the development of what they refer to as connoisseurship.

Connoisseurship, first introduced by Eisner (1998) to explain the knowing involved in the practice of artists, has been applied to the practice of health professions by Beeston and Higgs (2001). They argue that to be connoisseurs requires intentional incorporation of different ways of knowing. Importantly connoisseurs need the capacity to critically discriminate between different situational elements and have the reflective capacities to be able to justify the judgements and subsequent actions they make. The expert nurse, as well as physician, is first and foremost characterised by the ability to combine exact knowledge about what is typical for this patient (suffering from this disease/diagnosis) with insight about what is unique for the problem this patient reveals in this situation.

Assessment appropriate to the learning associated with developing connoisseurship needs to reflect the complexity of the knowledge required. It is clearly documented that research about student assessment reveals that assessment processes which predominantly focus on a demand for recall of information result in surface learning (Scouller, 1998). To achieve deeper learning there is a need for greater flexibility and variety in learning and assessment activities (Dahlgren et al., 2004). This is reinforced by Havnes (2004) who demonstrated that student learning, as well as teaching practice, is strongly influenced by the assessment and examination procedures.

Eraut (2003) clearly asserts the current desire for the 'perfect' assessment of learning is a delusion. "The search for perfect equity and reliability leads to decontextualized and eventually meaningless assessment; while the search for perfect validity and total authenticity will lead to endless assessment in order to cover every possible aspect of performance and every conceivable context (p. 180)".

Assessment of knowledge attainment

In accepting that the knowledge base for nursing is complex and consists of different forms of knowledge, we need to question how can and will this influence assessment practices in nurse education. Can we develop a system for assessing the knowledge and skills of nursing students which reflects our

awareness of this complexity without succumbing to the delusion of seeking the 'perfect' assessment?

The methods we use for assessing knowledge attainment highlight and measure certain forms of knowledge and leave other forms of knowledge in the background. Those methods of assessment that are given privilege over others will in turn influence the types of knowledge the students focus on and subsequently emphasise in their practice as future nurses. Assessment activities are instruments of power that influence the learning process (a student's operational definition of knowledge is what is measured at the exams); as a result there is the potential for state examinations to shape the curriculum. Examinations also contribute to establishing what is considered the valid knowledge of a discipline. The emphasis is on the knowledge evaluated, tested, graded, and certified by the examination as the legitimate knowledge of the discipline.

There is a considerable body of the literature reviewing the use of examinations for assessing student knowledge. While this form of assessment is deemed useful in some situations, there are a range of problems associated with their use. Examinations have repeatedly been associated with surface learning (Struyven et al., 2005, Scouller, 1998, Posiadly, 1995), which Lundberg (2004) argues as predominantly arising from the difficulty in constructing exam questions that measure more than detail knowledge in a limited time. Multiple-choice formats of most examinations are favoured by students because they appear easier and are perceived to lead to a higher success rate (Struyven et al., 2005). Vleuten (2000) questions the reliability and validity of the examinations as a form of final assessment in medical education. He challenges the notion that it is possible to reliably determine a student's competence for a total program in an examination format. Additionally, he questions the validity of measuring clinical skill in isolation, removed from the context and complexity of the clinical environments in which they need to be enacted. These arguments reinforce the earlier work of McManus et al. (1998) who demonstrated a lack of correlation between final examination performance in medical students and the clinical performance of the same students. Their work demonstrated clinical competence did not result in success in examinations and therefore the validity of the examination was called into question. These findings reinforce our scepticism about the reintroduction of a state standardised examination for registration of nurses.

Boud and Falchikov (2005) argue that professional bodies are normally more interested in the validity of assessment for professional practice than they are with other features such as the impact on student present or future learning. Given there is little evidence supporting the validity of examinations, there is a need for research about valid assessment strategies that can provide confidence for all stakeholders (nursing students, universities, the profession, registering bodies and the public) in the level of knowledge and competence of graduates. An important issue this research must address is that of clarification of the knowledge needed for beginning practice as a registered nurse.

Biggs (2003) outlines a range of formative and summative assessment practices which correspond with the principle that assessment tasks should comprise a genuine representation of the objectives of the course. These include a range of assessment practices from norm referenced through to peer and self assessment strategies. Others report of the success of peer and self assessment (Struyven et al., 2005, Dochy et al., 1999), portfolios (Pitts et al., 2001, Lettus et al., 2001) and simulation (Boulet et al., 2003, Weis and Guyton-Simmons, 1998). The role these should play in nursing assessment also needs exploration.

Conclusion

The knowledge needed to support a nurse in contemporary practice combines theoretical, tacit and personal knowledge. Therefore, the assessment of knowledge attainment by students of nursing should be consistent with the complexity of this broad knowledge base. We ought to strive for an understanding and practice of assessment in nursing which provides confidence to the graduate and the communities in which they will work. Reintroduction of a standardised state examination as a final test in nursing signals a simplification and limited understanding of assessment of knowledge attained. We argue there is a need for a far more challenging and ambitious approach to assessment to assure quality in nursing education for practice.

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