A Quality Framework for Producing Clinically Competent Nurses Through Distance Education

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This paper considers the challenges of attempting to apply national quality standards for distance education onto online programmes designed for clinical practitioners. It addresses some of the quality frameworks available for UK Higher Education and their potential weaknesses in addressing learner needs. In contrast, we continue by describing how a framework constructed around a problem-based learning (PBL) approach has been used at City University to offer a more appropriate and robust mechanism for ensure quality standards in clinical practice education. The PBL approach offers adult learners a flexible and responsive method of learning whilst simultaneously meeting national quality guidelines.

Keywords:

Online learning, distance learning, quality, nurse education, higher education

Introduction

Provision of distance education has been growing rapidly in recent years, primarily with the growth in online learning. Whereas traditional paper-based open or distance learning might be regarded by some as cumbersome, difficult to administrate and unresponsive to students' individual learning; online learning, in contrast, is often regarded as cost-effective, scaleable, flexible and student-centred. Yet, whether distance learning is delivered using conventional methods or through new technologies the need to ensure standards and enforce quality mechanism is paramount. The open and distance learning quality council note that as in distance learning 'the emphasis [is] on learning from oneself [...] methods, advice and support must all be relevant, reliable and consistent' (ODLQC, 2003). Indeed the isolation and poor retention often associated with distance learning act as an even clearer indication that such quality frameworks are necessary.

The rise in online distance learning often throws this sharply into relief. As the ODLQC point out many 'new, and often inexperienced, providers are moving into distance learning. They may not understand how to monitor and maintain quality' (ODLQC, 2003). If resources are made available to face-to-face students within an online learning environment then it is often perceived as an easy step to translate this into a distance learning course. However, the realities, as anyone involved in distance learning will be aware, are different. There is a need to produce high quality courses that are responsive to the needs of learners by providing opportunities for interaction and engagement. Yet, developing such courses and providing communication opportunities can be problematic. How can we ensure quality whilst at the same time encouraging interactivity and student engagement? It is this exercise that forms the basis of this paper.

Needs of Adult Learners

At City University, online distance learning has been developed to deliver nurse education and training using an integrated model, where students undertake collaborative learning activities drawing on different learning resources (Mason, 1998). This model is highly suitable for autonomous learning in the renal care specialty in particular and is underpinned by the theoretical principles for adult learning and andragogy of Knowles (1980) which are:

- Adults need to know why they need to learn something.
- Adults need to earn experientially.
- Adults approach learning as problem-solving.
- Adults learn best when the topic is of value.

For the post registration nurse, educators need to combine this understanding with an evaluation of clinical need and potential students' present C&IT skills in order to access and utilise learning resources. The nurse educator seeking to use e-learning resources needs to clarify the intention, purpose and benefits to be achieved by using learning technologies. E-learning is used here to engender collaborative learning between students and develop more self-directed learning skills. Having understood these principles the context of problem-based learning was considered as being a useful framework for the design of the training course in renal nursing as it necessitates that students are active participants in the learning process.

Understanding and using learning technologies in post registration nurse training and development requires understanding of the technology, the adaptation of education philosophy and assessment of different media of education delivery in order to ensure learning has taken place in the student to effect competent clinical practice.

Mason (1998) speaks of a pedagogical revolution in higher education in the rush to 'digitise, virtualised and globalise the campus'. But the importance of interactivity and the learning process may overlook the end outcomes to be achieved by undertaking this course.

Problem-Based Learning (PBL) Approach

Problem-base learning (PBL) is a concept of learning in which students focus from the beginning of their course on a series of professional issues, where the knowledge of the various academic disciplines that relate to these issues is integrated (Sadlow et al 1994). PBL is not a new concept in clinical education with the model being integrated into medicine 25 years ago. Historically education for health personnel has been based around separate academic subjects, which are further divided into theory and clinical phases. However these methods do not necessarily meet the variety of needs of the students or the clinical environment. Indeed it may actually inhibit the attributes desired of those completing courses where analytical thinking, problem-solving and imaginative powers are required in order to meet the diverse

needs of the patients and families they meet. Studying *subjects* inevitably divides theory and practice and often leads to the criticisms that students are unable to use the theoretical knowledge in a practical way. Schon (1983) states that everyday problems that professional practitioners face do not present themselves in the tidy form of a textbook. This may be particularly relevant in the renal care environment where patients present with complex medical and clinical needs as well as diverse social, psychological and adaptive needs as they address chronic illness and the diverse challenges of including renal replacement therapy into their life. Education that focuses on academic disciplines and not on the knowledge the practitioners actually need may lead to the perception of irrelevance.

The World Health Organisation (1987) states, '*The explosion of scientific information makes traditional curricula increasingly irrelevant, because they are based on what is known today, to exclusion of how to learn what will be known tomorrow*'.

Nurses need to be able to be able to use strategies and frameworks to meet their patients needs and evaluate the ever changing and developing body of professional knowledge. Hence problem-focused education seems to offer the dual purpose of satisfying professional needs and the academic community as it conceives theory as central to the understanding of problems.

Further PBL is applicable as an education and training framework across the range of renal care delivery in the UK and across the world. Indeed it must be understood that the scope of practice of renal nurses in different countries is very different, as is the access to services that patients may have according to different country's health systems, and ability to fund and develop such a service. Hence if clinical educators are to address the professional and leaning needs for best evidenced-based practice, then it is vital that education is matched to local needs. The PBL model used for this course development is regarded as a key element in addressing the diverse clinical needs of students who may access the course from around the world. A traditional or text-based course may impose clinical thinking and practices that are not relevant in all areas of renal care delivery and create a sense of professional snobbery instead of addressing the local care needs of the patients.

PBL and Renal Nursing

The purpose of the renal training course is to develop a clinically effective renal nurse. The course is aimed at nurses who have been qualified for a minimum of one year and have at least six months experience in the speciality before applying for the course. Hence the course aims to develop specialist skills that include technical skills, reflective/evaluative skills and communication skills (Del Bueno 1984). It is not aimed at 'value added' knowledge to enhance generic nursing skills. These renal nurses will eventually be caring for patients in the broad areas of haemodialysis, peritoneal dialysis, transplantation, in-patient services, and in clinics and the community where preparation for renal replacement therapy (RRT) is considered, and follow up and monitoring of conditions are undertaken. Hence learning that is structured around the acquisition of knowledge, the development of self-directed learning skills and the application of clinical reasoning in PBL stimulates a questioning attitude where the recall of facts is not as important as the understanding of ideas and principles. Indeed in the clinical environment nurses work as part of a multidisciplinary team in order to affect holistic and individualised care for the patient and their family. Within the PBL framework problems are viewed holistically, and students have to collaborate and communicate in order to achieve the best learning outcomes. Surely this mirrors best collaborative working practices in the clinical environment?

Using PBL in the e-learning environment has a number of clear advantages. The course leader created patient scenarios in order to stimulate interest for these distance learners. The scenarios are explored by the students and developed with new events and incidents happening to the patients as they continue along their life experiences each receiving a different form of RRT. Students are required to follow triggers and links to explore further knowledge concerning the theoretical and actual care needs that a patient presents. This adaptation of PBL was utilised within the e-learning environment as our assessment and market research of potential students indicated that competent computer skills where often lacking. Indeed many of these potential students may not have experienced continuing professional development or other education opportunities in the recent past. Hence to expect the students to be able to use advanced C&IT skills would inhibit their learning. Additionally students needed to be able to access the learning resources when they are able, rather than at designated times. Shift-work, social and financial commitments prevent nurses from accessing more established forms of PBL or classroom-based learning. This was in contrast to enthusiasm for this mode of education delivery from both nurses and clinical mangers as access to this specialist type of education was at best very limited, or at worst non-existent. Additionally the National Health Service (NHS) strategy for change, outlined in 'working together' (DoH 2001) emphasises training and development issues in order that the nursing workforce is increased in number and provides effective and efficient care.

Of course there may be concerns that students using PBL in the e-learning environment for clinical training may not acquire sufficient knowledge for practice, or that the students' learning may be haphazard and not achieve competence (as defined by Benner 1984). However, there is little to reassure traditionally based curricula that learning occurs in students that have been taught subjects by experts in the classroom. During the distance learning renal nursing course the student is offered the opportunity to complete formative assessments in order to check their understanding and develop any gaps in their learning. The application of learning is also very clearly sought by the assessment strategy. Each student is required to complete two practice-based assessments (PBAs) of professional competencies that are assessed both by the clinical mentor and the academic supervisor. These PBAs form a professional profile that fits into established requirements by professional registering bodies for evidence of continuing professional development. Additionally students are required to write two research-based essays and complete a poster presentation. These assessments therefore assess the application of skills in the workplace, the skills of evaluation and reflection of the patients' experiences of healthcare delivery, and the student's ability to share and disseminate best practice information.

Issues of potentially overloading the student with one patient's issues have been addressed by introducing new triggers at timed points during the course. Discussion boards and group email have provided the opportunity to discuss subjects, patient scenarios, ethical and professional issues. Some discussions have been instigated as triggers from the patient scenarios, and some have been left up to the students in order that they can discuss best practice, or reflect on clinical experiences.

The use of problem-based learning in the delivery of online renal nursing courses at City University illustrates how new teaching and learning methods can enhance the overall quality of the educational experience. In particular, it highlights how the Quality Assurance Agency for Higher Education in the United Kingdom Distance Learning Guidelines (1999) can be put into practice. The aim of these guidelines is to 'offer advice on assuring the quality and academic standards of higher education programmes of study

provided through distance learning' (QAA, 1999). Whilst these guidelines are not legally binding nor do they constitute an official 'code of practice' they are a useful starting point for maintaining quality standards for distance education. However, one of the drawbacks of such guidelines is that they are rather vague in places. For example, 'guideline 5: student communication and representation' does not make any explicit suggestions or recommendations to how students should engage in the learning experience, but rather focuses on the dissemination of information to students. Likewise, 'guideline 6: student assessment' states that 'institutions should be able to demonstrate publicly that summative assessment procedures used for programmes studied at a distance are appropriate for the mode of study' but does not provide guidance on the design or development of such activities (QAA, 1999). Institutions, and course providers, are thereby left with the need to map these guidelines onto a pedagogical framework for distance course delivery that ensures that quality mechanisms are evident in a tangible form to both staff and students.

Qualty Guidelines in Practice

In attempting to practically apply the QAA guidelines for online distance learning courses, five clear precepts can be identified. These have all been implemented in the renal nursing courses offered at city.

Distance learning courses should include mechanisms for interaction with the course team and other students.

The provision of online discussion boards or email groups can be used to facilitate peer support and enable the creation of a sense of online community. Giving students a trigger to discuss from the patient scenarios, or giving them the opportunity to discuss issues in their own chat rooms facilitated this. Additionally, the course resources required interaction from the student so as not to be passive reader of materials.

A rationale for the development of a distance course should be provided, including evidence of market potential and an awareness of the different needs of distance learners.
This could take the form of departmental and school strategy documents and market analysis. Such information is required as part of the course review process. This document should address specifically how distance learning will be supported and administered.

The course was developed in light of grounded market research and profiling of potential students around the UK by the course leader. Collaboration with renal professional organizations and clinical practice areas informed the course delivery and curriculum content.

Course content development must make adequate provision for distance learner interaction and accessibility to online or off-campus resources. For example, online 'lectures' may include practical exercises or associated tasks. Students may be involved in more constructivist activities, such as problem-based learning rather than traditional learning techniques. Resource provision needs to be identified prior to the outset of the course and students need to be informed of specific resources they are required to purchase.

PBL enables the student to interact with the materials and develop their own understanding and skills. Formative assessments during the course enabled the student to evaluate their own learning. Learning resources personnel were made available to the student to enhance access to additional learning resources, as were C&IT personnel and academic staff. Each aspect of the course has detailed learning outcomes and literature references to aid further learning and reading.

Assessment must be appropriately tailored for distance learning, including the mode of submission and administrative arrangements. Tradition examinations may be replaced with other forms of summative and formative assessment which capitalise on online assessment or communication tools.

Formative and summative assessments seek to assess the clinical and academic development of the student. A variety of assessments enable those with different learning styles to be assessed according to their professional skills rather than academic recall only. The assessments are designed to form the basis of a reflective professional portfolio that all qualified nurses are required to keep for professional accreditation and registration.

Provision should be made for monitoring student activity to promote engagement and retention.

Access to materials or responses to tasks may be recorded and checked to ensure that students are engaging and ensure that the resources remain student-centred. This can also improve the quality of the course materials.

The interactive elements of the learning resources ask the student to engage with the content. The VLE that is used enables the course leader to monitor the student's access and thereby can track how students are using the resources. There always needs to be clear understanding of how students use the materials offered and the variety of ways that learning will occur in individuals. The evaluation and feedback structure seeks to underpin the students' support and ensure that the student can utilise the resources as appropriate.

Conclusion

Using PBL in this context is a new and innovative way to ensure students have the flexibility to learn at their own pace, and have access to resources needed to ensure learning rather than simply that the teaching has taken place. Collaboration between the academic and clinical environments has fostered relevant and careful course content, and direct application to the practice environment. Hence theory is not divorced from practice, and the student is encouraged to learn using resources for life-long learning. Necessarily having to study and develop professionally at a distance has enhanced the principles of PBL and provided opportunities to practice clinical work in a safe environment facilitated by an expert clinical academic. Students are able to access learning opportunities that are presented in a flattened structure, rather than a sequential linear process often represented in classroom delivery. Hence students are presented with a framework for learning that is more representative of the ways of working in clinical professional life, is more mindful of the processes of adult learning for effective understanding, and ensures that offering an education opportunity via the distance learning mode is mindful that these students are distance students and not distant students.

Quality education in the context of distance learning for nurses must ensure a quality experience for students that acknowledge the clinical and educational challenges. It is the PBL framework that has been able to address these diverse and dynamic challenges to ensure effective learning has taken place for nurses with varying clinical skills, varying access to educational opportunities, and from a wide variety of geographical areas and clinical contexts.

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