Using vignettes to teach stroke care

In this article...
- How clinical vignettes can be used as a tool for learning
- Devising vignettes to teach student nurses about stroke care
- Evaluating their use in nurse education

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Abstract

Although nurses are best placed to meet the needs of patients with stroke and their carers, evidence suggests they are inadequately prepared for this role.

This article discusses the use of vignettes as a teaching and learning tool to develop pre-registration student nurses’ knowledge of stroke management. An evaluation found they could be a useful learning tool for use throughout the nurse education programme.

Stroke is the second most common cause of death worldwide, and the most frequent cause of disability in adults in many countries. It has an enormous physical, psychological and financial impact on patients, families, health and social care services (Feigin et al, 2008).

While nurses are best placed to meet the needs of patients and carers in the acute setting (Department of Health, 2008; Royal College of Nursing, 2008), evidence suggests they are inadequately prepared to fulfil their role (Smith et al, 2008; Booth et al, 2005).

Although modern healthcare requires nurses with sophisticated skills, knowledge and diagnostic expertise, educational preparation for those caring for patients with stroke in the UK is minimal (Booth et al, 2005).

This article reports on a curriculum innovation that used clinical vignettes as a tool to enhance student nurses’ knowledge of stroke management.

Vignettes as a learning tool
Since it moved into universities, nurse education has moved from the passive acquisition of knowledge towards both enquiry-based learning and the teaching of critical thinking (Hinchliff et al, 2008).

Students learn how to evaluate arguments in their formative work and, as part of their summative work, are expected to demonstrate critical thinking.

Polit and Beck (2008) defined vignettes as “brief descriptions of situations to which respondents are asked to react”.

They can help students to achieve competence-based curriculum outcomes.

Keywords:
Stroke/Nurse education/Curriculum

5 key points
1 Nursing is a profession in which practical and theoretical knowledge need to be highly integrated
2 Educational preparation for nurses caring for patients with stroke is minimal
3 Clinical vignettes can be used as a valid learning tool that focuses directly on the process of care in clinical settings
4 They can help students to achieve competence-based curriculum outcomes
5 Vignettes have the potential to enrich learning experiences throughout the pre-registration programme

Tomographic brain scan of a 60-year-old man who has had a stroke. The light-coloured area at lower right indicates the area of injury.
2008). The more students are exposed to such dilemmas through vignettes, the better they will understand the complexity of patient-centred decision-making.

Vignettes can be effective and economical in teaching large numbers of students (Rutten et al, 2006; Hughes and Huby, 2002). They can help to reduce bias, especially when participants assume the role of a character instead of asking questions from their personal viewpoints (Hughes and Huby, 2002).

We used the “holistic nursing practice in context” to introduce vignettes. Previously students had been taught about stroke in one four-hour lecture in the second year of the programme.

Aims

The aims were to:

- Introduce student nurses to stroke and its pathophysiology;
- Develop their knowledge of stroke and its management;
- Embed aspects of stroke within first-year pre-registration education.

The vignette project

To link students to clinical practice situations, we chose 10 evidence-based vignettes, representing an adequate case mix (Box 1 gives an example). The vignettes were developed using qualitative data from unpublished research in which health professionals had expressed concerns about stroke care delivery. A study programme normally has between four and 10 vignettes (Polit and Beck, 2008).

There were concerns that students would take a superficial view of vignette activity and work only at lower intellectual levels (remembering and understanding), by Bloom’s revised taxonomy of learning (Anderson and Krathwohl, 2001) (Fig 1). We intended to stimulate higher-level activity (applying, analysing and evaluating).

Students worked in groups of five and were allocated one vignette; they were given instructions on how to complete the task, and had access to a range of resources. They had five hours to complete the task and prepare PowerPoint or poster presentations for lecturers and peers, who provided formative feedback.

Participants

Participants (n=192) comprised a whole cohort of first-year student nurses who started their pre-registration programme in 2008 on diploma and degree nurse courses and had undertaken only one clinical placement.

Data collection

Data was collected between January and March 2009 from questionnaires completed by seven senior lecturers and 126 student nurses who were present when questionnaires were distributed.

Questionnaires were designed to elicit student and lecturer opinions of the use of vignettes, using an evaluation framework adapted from Rossi et al (2003).

The questionnaire for senior lecturers asked them to answer “yes” or “no” to several questions, comment on whether students had addressed the issues in the vignettes, and identify at which level of Bloom’s revised taxonomy the students had worked. They were also asked whether students had achieved the module outcomes as well as whether they thought vignettes should be used in the curriculum and, if so, where.

The student questionnaire used predominantly closed questions with Likert-scale answers. Students were asked to consider the effectiveness of the information provided, the readability and comprehensibility of the vignettes, and their inclusion in the common foundation nurse education programme.

An adapted version of Rossi et al’s (2003) procedure was used for analysing the data from the questionnaires.

Ethical considerations

Participants were informed that the activity was being introduced for the first time as a formative assessment and that no marks would go towards their final grade. The vignettes were used instead of the usual taught session in the module. The subject leader and module leader gave permission for this.

Results

Ultimately, 146 students were involved in presentations and discussions (some students had left the course or did not attend the presentations). Seven senior lecturers and 126 students evaluated the project.

Initially, the intention was to have two lecturers assess students’ presentations. However, lecturers were interested in finding out how well students used the vignettes to enhance their learning, so five more became involved in the evaluation.

As Fig 2 shows, most students (n=121) either agreed or strongly agreed that vignettes compared well with more traditional forms of learning. Most strongly agreed (n=72) or agreed (n=47) that vignettes motivated them to read about stroke, n=8 disagreed and n=1 strongly disagreed that vignettes motivated them to read about stroke.

While most students wanted vignettes to be used more, 14 disagreed and one strongly disagreed. All said the vignettes had enhanced their knowledge of stroke and its management, with 87 strongly agreeing and 39 agreeing. Most students (n=109) said using vignettes suited their style of learning, although 14 disagreed and four strongly disagreed.

Lecturers felt the majority of students (87%) had fully achieved the learning outcomes; students agreed with this (Fig 2).

Lecturers were also asked to identify the level at which students had been working when they presented and answered questions on stroke management, using Bloom’s revised taxonomy of learning (Anderson and Krathwohl, 2001) (Fig 1).
Analysis of data from lecturers indicated that no group had worked at the highest level (creating). It was encouraging to see that most students were perceived to be working at the next two highest levels, evaluating and analysing (26 and 21 groups respectively), with 12 groups working at the applying stage and only two working at the understanding and remembering stages.

Lecturers were also asked whether they thought vignettes should be used more in the curriculum for first-year pre-registration students and, if so, where. Six suggested using them throughout the whole three-year programme, while one suggested in years one and three.

**Discussion**

Evaluation data from students and lecturers showed that vignettes are valuable in enhancing learning on aspects of stroke management in the pre-registration programme. They may also be effective in enhancing learning throughout the pre-registration programme.

Peabody et al (2000) supported the use of vignettes as a valid and comprehensive method that directly focuses on providing care in clinical settings.

The rationale for using vignettes derived from research on stroke was that they would link students to real evidence-based clinical situations, as well as enhance learning in the early stages of nurse education.

Students were expected to construct meaning from a situation where a problem had to be solved. Constructivism is predicated on the notion that individuals construct meaning from situations in their own unique way (Bartlett and Burton, 2007). In constructivism, knowledge is not passively received; it is actively built up or constructed by students as they connect their previous knowledge and experiences with new information and skills (Santrock, 2004). Vignettes gave students the opportunity to work in small groups and construct their own meaning around different problems.

The results are consistent with other studies of vignettes in teaching student nurses (Leeuwen et al, 2008; Sandstrom, 2006; Chuk, 2002). Nurses’ and lecturers’ evaluations suggest the learning outcomes were achieved in most cases. Most student groups worked at a high level in Bloom’s revised taxonomy.

As a result of the evaluation, vignette-based activity is now embedded within the “holistic nursing practice in context” module for formative assessment.

**Limitations**

This project had several limitations that may mean findings do not apply generally.

First, participants were from one university school of health and similar results may not be seen in other contexts.

Second, the module team were concerned about the teaching of stroke care and this may have biased their perceptions of students’ learning.

A better case mix of vignettes to reflect the reality of practice and longitudinal vignettes covering the patient journey, used throughout the education programme could form the basis of a larger study.

**Conclusion**

Vignette-based activities were effective in enhancing students’ thinking about stroke and its management. Most students embraced this style of learning and favoured its greater use in the curriculum.

Nursing curriculums should use more vignettes based on real clinical situations to motivate students to engage more effectively with the different aspects of a multifaceted condition so they can link theory to practice more effectively.

**References**


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<tr>
<th>FIG 2. STUDENT EVALUATIONS OF VIGNETTES</th>
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<tr>
<td>Strongly disagree</td>
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<tr>
<td>Compared well to traditional forms of learning</td>
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<tr>
<td>Motivated me to read about stroke</td>
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<tr>
<td>Should be used more</td>
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<tr>
<td>Enhanced my knowledge of stroke</td>
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<td>Suited the way I like to learn</td>
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<td>Enabled me to achieve my learning outcomes</td>
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Number of students

All students (n=126) agreed or strongly agreed that vignettes enhanced their knowledge of stroke.