Measuring vital signs: an integrated teaching approach

In this article...

› Why an integrated teaching approach helps to engage students early in their nursing careers
› What such a systematic process entails and how it works
› An evaluation of the approach and recommendations

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Nurse educators have an important role in developing innovative teaching approaches.

A holistic, integrated approach to teaching essential nursing skills helps prepare students for clinical practice.

Students practise in a simulated environment, using real-time demonstrations;

the module uses blended learning, including e-learning, tutorials and skills laboratories.

The module has four core themes: communication; infection prevention and control; patient safety; and moving and handling.

Students are introduced to ward assessment tools, such as the modified early warning system, to teach them how to identify patient...

Simulation enables students to practise skills...
A holistic approach, rather than a reductionist one, was adopted. This allows students to practise in a simulated environment and prepare for clinical practice. The module uses a blended learning approach, which includes e-learning, tutorials and skills laboratories (UWS, 2008).

The e-learning component provides initial engagement with theory, which is then discussed more fully and linked to practice in tutorials and skills laboratories. A holistic real-time demonstration of the measurement, observation, feedback and recording of vital signs is done at the first face-to-face contact between lecturer and student.

Simulation
In the real-time demonstration, lecturer and student adopt the roles of nurse and patient respectively in a scenario.

Simulation, which is described as the reproduction of the essential features of a real-life situation, mostly involves patient scenarios to introduce and develop essential nursing skills (Medley and Horne, 2005). Students are able to observe, question, discuss and then practise these skills in a safe environment.

They also learn about:
» Hand hygiene and its importance in infection prevention and control;
» Effective communication including language and physical contact;
» Moving and handling, including positioning patients and proximity to patients when measuring vital signs;
» Use of equipment, and ensuring patient safety with this;
» Infection prevention, including cleansing of shared equipment, and calibrating equipment.

The Nursing and Midwifery Council (2008) code of professional conduct is also introduced, and discussed in relation to duty of care, consent, confidentiality, communication, feedback and recording observations.

The concepts of dignity, autonomy and respect are introduced and demonstrated through the use of language, facilitation of choice, appropriate physical contact and minimal exposure of the patient.

Teaching sessions
The structure and content of the teaching sessions allow students to recognise normal ranges for vital signs and encourage the development of observation skills.

Lewis (2011) suggested over-reliance on technology could lead to deskillling, so no technology is used for the observation, obtaining and recording of pulse, blood pressure and respirations at this stage in students’ training. This module introduces the importance of vital signs as an essential nursing skill, a prerequisite of the skilled practitioner (Brooks et al, 2010).

Measuring vital signs
Students are encouraged to locate and palpate the radial pulse, and to observe the rate, rhythm and volume (Lewis, 2011). They are also taught the location of other pulse sites. While observing respirations, students have to acknowledge the rate, rhythm and depth of respirations. Each of these observations is monitored for one full minute (Dougherty and Lister, 2008).

Local NHS charts are used to familiarise students with the documents used in healthcare settings, and to record their findings. While using the modified early warning system (MEWS) chart, students are given the opportunity to record vital signs and are introduced to a system that enables deterioration to be identified. At this stage, the emphasis is on the recognition of normal vital signs, allowing students to identify deviations from the norm and their relevance.

Evaluation
A questionnaire was distributed to all first-year students (n=208) after they had completed that year’s skills sessions. The aim was to measure the effectiveness of the approach, and provide data to inform and enhance teaching and learning for future cohorts. Most of the student evaluations were extremely positive (Fig 1).

Between 3% and 6% of the responses were negative about the approach, but comments from these students were limited. Only two provided feedback, with both saying more practice would have been beneficial. This implies they were not negative about the approach, but about the time available for practice.

Conclusion
This teaching approach is an effective way of introducing the importance of assessing vital signs as an essential nursing skill.

The teaching team plans to embrace this approach in relation to all skills taught within the essential nursing skills module.

Future developments include the production of DVDs to provide students with an opportunity to identify any questions they have for first face-to-face contact with module lecturers.

The students will also be able to revisit the teaching and learning DVDs at any point throughout the module. It is expected that this will reinforce the importance of a holistic integrated approach in the measuring, observing and recording of vital signs.

References
University of the West of Scotland (2008) BSc Adult Nursing Course Document. Hamilton: UWS.