Specific acute care training for final year medical students: does it improve the confidence of pre-registration doctors in the management of acutely ill patients?

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This poster describes a study asking whether specific acute care training for final year medical students improves their subsequent confidence as new doctors in the management of acutely ill patients. Although confidence and competence are not the same thing, it is likely that decreased confidence is linked to a reduction in skilled performance.

From August 2006 a structured, competency-based 2 year Foundation Programme will replace 1 year pre-registration posts for medical graduates in the UK. There are two main educational themes of this programme: generic skills (communication, professionalism, ethics etc) and acute care - the recognition and management of an acutely ill patient in any context. New graduates will be formally assessed in terms of their knowledge, skills and attitudes by direct observation, peer review and case-based discussion.

The teaching of acute care has come into focus in recent years due to the large number of papers in peer reviewed journals that show when patients in hospital deteriorate, effective intervention is often too little, too late. A recent Department of Health review has highlighted this problem, and other studies have shown the dramatic improvement in patient outcome which can be achieved when optimal acute care is delivered (see chart).

An initial questionnaire of Leeds University final year medical students (139) in February 2004 asked about their confidence in recognising and managing acutely ill patients. Questions were answered on a Likert scale and in addition there was space for free text comments. Of immediate impact was the reported high levels of anxiety at the prospect of being faced with an acutely ill patient. Of the 60% that said they had received specific training in the management of an acutely ill patient in the last two years, only 28% felt confident after this training.

88 of these students at the University of Leeds attended a one-day course in May 2004. The course contained reading material, one lecture, and a series of workshops including group work on a medium fidelity simulator (SimMan™ shown here). SimMan is a manikin with visual, auditory and palpable vital signs and can be operated via remote control by the instructor. The students were allowed to practice the theoretical skills learned earlier in the day, and to work together as a team.

Approximately 4 months in to their new posts, all pre-registration house officers in the Yorkshire Deanery were contacted (235) and asked about their confidence in dealing with an acutely ill patient. The questionnaire had the same Likert scale questions on with again space for free text comments. Evaluation and analysis of the numerical responses is ongoing and free text responses are being coded and grouped.

Initial statistical analysis shows that when compared to no training, specific acute care training days significantly improve the students confidence scores. In addition the responses were subdivided into the different types of specific acute care training. Below is a simple example of one response from the follow up questionnaire. There are 49 students who filled in the initial questionnaire and the follow up questionnaire and students’ tests are being performed on this subset of data.

“Best place to learn is on the ward”
“A year of PRHO is definitely not enough to be confident with any acutely ill patient”
“Experience has taught me more than specific training – although teaching is invaluable as well”

The training I received prior to working on the wards prepared me for practically managing an acutely ill patient.

However, of interest is the fact that the free text comments did not match up with confidence scores. From the initial questionnaire students talked about how scared they were and their lack of experience of dealing with sick patients.

“I don’t want to feel responsible for the death of patients”
“Not received any real training specifically for acutely ill patient”
“Worries are due to lack of experience and therefore lack of confidence”
“Poor experience in handling such patients is needed as opposed to ‘theoretical’ knowledge”

Good acute care is very simple: giving the right oxygen, the right fluid and getting the right help at the right time. It is relatively easy to teach, but is learned with experience. Medical students have spent many years learning how to take a history, perform a detailed examination, provide a diagnosis and then a treatment plan. This systematic method of teaching clinical skills leads to deliberation rather than resuscitation when new graduates are faced with a critically ill patient.

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This project makes its methodological foundations in the dominant positivistic school of thought, with the crux of the research being the comparison between the groups that have and have not received the specific acute care training. However, the project takes also a hybrid approach, with statistical analysis and developing themes from free text responses.

It is difficult to assess the impact of any educational intervention on competence in acute care, and there are ethical limitations in trying to do so. However, previous research has indicated that the areas that cause most stress in new medical graduates are professional responsibility beyond their competence or experience. Simulation can show how theoretical knowledge can be used in real life situations, as long as it is relevant and contextualised.