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# INTERNATIONAL JOURNAL OF CLINICAL SKILLS



**A Peer Reviewed International Journal for the Advancement of Clinical Skills**  
- *'docendo ac discendo' - 'by teaching and learning'*



In this issue:

## The art of basic wound suturing

Prescribing skills of trainee medical staff  
Insight as a measure of educational efficacy  
The mental state examination  
myPaediatrics

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The International Journal of Clinical Skills looks forward to contributing positively towards the training of all members of the healthcare profession.

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# Foreword



As we head into the New Year of 2010, the International Journal of Clinical Skills (IJOCS) can feel justifiable pride that it has fulfilled its ambition to provide the international healthcare community with an arena for clinical skills education and research. For almost all the healthcare professions, clinical skills form the basic foundations and therefore a combined approach is absolutely what is needed for the future provision of a high quality health service.

The role of the ePortfolio in both education and continuing professional development of healthcare professionals continues to evolve as training and revalidation become increasingly important. Clinical skills are an essential element of this process and in 2010 the IJOCS will be proud to publish abstracts and papers from the 8th international ePortfolio conference hosted by EIFEL London Learning Forum 2010. Further information can be found at [www.ijocs.org/eportfolio](http://www.ijocs.org/eportfolio)

This year will also see the launch of the new and exciting 'CliniTube' website – a free resource providing a single portal for accessing and sharing an array of information. It should be a valuable resource for students and should give teachers of numerous disciplines the opportunity to share educational materials. I'm certainly looking forward to seeing the 'Clinical Skills Lab' which should become an integral component of CliniTube and will comprise information on a variety of clinical skills.

The International Journal of Clinical Skills is a unique publication in its devotion to clinical skills. I encourage professionals all over the world to continue contributing to its on-going success. After all, our patients deserve nothing less than the best.

A handwritten signature in black ink that reads "David Haslam". The signature is written in a cursive, flowing style.

**Professor David Haslam FRCGP FRCP FFPH FAcadMed (Hon) CBE**  
Immediate Past-President of the Royal College of General Practitioners (RCGP)  
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# Evaluation of the paediatric clinical teaching component of a new medical program

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Small group teaching  
Evaluation

## Abstract

This study was undertaken to evaluate the paediatric clinical teaching component of a new medical program based on integrated learning within authentic contexts. The study evaluated student perception of understanding, competence and confidence, and active involvement in learning. Rating scales, open ended questions and focus group discussions evaluated participant perceptions. Students thought the clinical setting does increase awareness and understanding of child health issues; and competence and confidence in clinical skills. However, engagement in activities was hindered by student perception of insufficient prior knowledge, lack of clear learning objectives, limited patient numbers, and inconsistency in tutor teaching styles. Focus group discussion cross-validated these findings, highlighting that while early exposure to paediatrics in a clinical setting is highly valued, there is scope for improvement by addressing the issues raised by the students.

## Introduction

In 2005 a new medical curriculum was introduced within the Faculty of Medicine, University of New South Wales (UNSW), Australia. This new medical program resulted in major changes to the structure and teaching methods. In particular, changes were based on integrated learning within authentic contexts. The paediatric curriculum was changed significantly to include clinical, small group, hospital based teaching in years 1 & 2 of the curriculum. Such resource intensive changes in the delivery of medical curricula are a result of a recent emphasis on student centred, active learning practices [1]. An evaluation to investigate the effectiveness of the introduction of these teaching activities is critical in the current climate of growing demands on teaching staff and limited patient availability for teaching.

## Aims

The purpose of this study was to investigate students' perceptions of the new clinical component of the paediatric program on student learning. The study evaluated development of student awareness and understanding of child health issues, competence and confidence in clinical skills, and student perception of active involvement in learning. Specifically, the evaluation investigated three tutorials within the clinical component of the course: 'Taking a paediatric history', 'Well baby check', and 'Examination of a normal child'.

## Methods

Mixed methods for data collection and analysis were used in this evaluation. The evaluation was divided into two phases. Phase 1 involved the collection of quantitative data using survey questionnaires from a random selection of tutorial groups (168 students from a population of 364). The quantitative data were assessed using the mean and standard deviations. Phase 2 involved the collection of qualitative data using focus groups from a convenience sample of students (n=18). The

survey and focus group questions were based on Brookfield's Critical Incident Questionnaire, which was designed to provide significant feedback on student experiences in the learning environment [2]. Qualitative data analysis procedures were used to code, categorise and identify themes in the data [3]. Ethics approval was obtained from the UNSW Ethics Committee.

## Results

In phase 1 of the study, the response rate was 71% (120/168). In phase 2 of the study, 18 students participated in focus groups.

Table 1 shows the students' responses to the questionnaires regarding the tutorials.

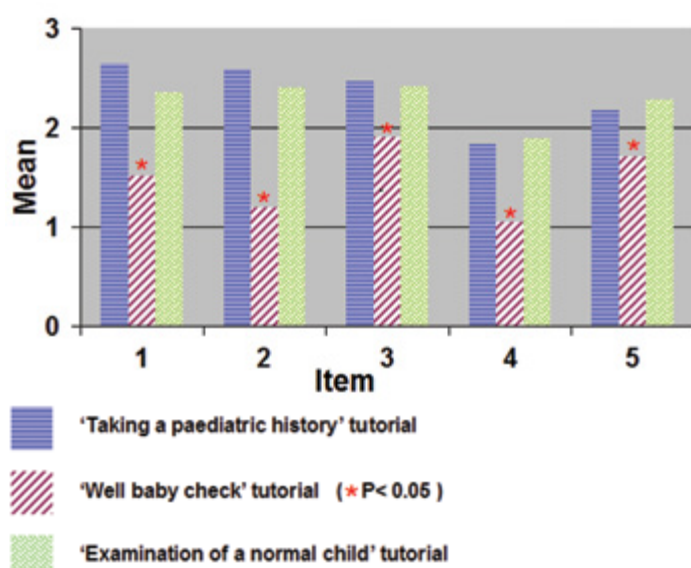
Table 1: Questionnaire responses

No.	Statement	†Minimum score	†Maximum score	†Mean score (95% CI)	Standard deviation	†Mean score (95% CI)	Standard deviation	†Mean score (95% CI)	Standard deviation
				“Taking a paediatric history tutorial”		“Well baby check tutorial”		“Examination of a normal child tutorial”	
Q 1	Did being in the clinical setting assist you in the development of confidence in (insert tutorial topic)?	0	3	2.64 (2.54-2.74)	0.57	1.51 (1.32-1.70)	1.01	2.36 (2.22-2.50)	0.76
Q 2	Did being in a clinical setting assist you in your learning development?	0	3	2.58 (2.48-2.68)	0.56	1.20 (1.02-1.38)	0.99	2.41 (2.28-2.54)	0.72
Q 3	Did the use of small tutorial groups assist you in your learning today?	0	3	2.46 (2.33-2.59)	0.71	1.91 (1.75-2.07)	0.89	2.41 (2.28-2.54)	0.70
Q 4	Did the clinical setting provide the opportunity for you to apply your prior knowledge about (insert tutorial topic)?	0	3	1.83 (1.69-1.97)	0.83	1.04 (0.86-1.22)	0.97	1.89 (1.71-2.07)	0.86
Q 5	Did the tutorial allow for collaborative learning?	0	3	2.17 (2.04-2.30)	0.77	1.71 (1.55-1.87)	0.90	2.28 (2.14-2.42)	0.76

<sup>†</sup>Scores on a four-point Likert scale ranging from 3 = "significantly", 2 = "moderately", 1 = "slightly", 0 = "not at all".

Figure 1 is a summary of the data and shows that in terms of clinical experience, the students consistently rated the 'Taking a paediatric history' and the 'Examination of a normal child' tutorials higher than the 'Well baby check' tutorial.

Figure 1: Mean item rating of scored responses to questionnaires (Likert scale of 0 to 3)



Participant responses to open ended questions identified interaction with patients and parents as the most useful 50% (60/120) aspect of the tutorials. Students found the most confusing aspect of the tutorials was the use of unfamiliar medical terminology 57% (68/120). Students felt the tutorials could be improved if they were able to see more patients with a greater diversity of ages and/or medical problems 71% (85/120).

The focus group data reinforced students' perceived benefits of active involvement in the clinical setting. This included the comments: "You can see how things really happen and how you have to think on your feet. The mistakes you make here actually matter. We will remember it better". The unique opportunities found in the clinical setting were rewarding and motivating for the students. This was reflected in comments such as: "It's different to explain how to take a history, and then to have to do it ourselves. When you think about it, you think that's logical, but then when you actually are talking to the patient, you interact and react to what the patient says", and "Things weren't where we thought they were, it was more complicated".

It also became evident that the "Well baby check" tutorial was rated poorly by students due to insufficient prior knowledge and clinical exposure, with comments such as: "In the baby check, there wasn't anything to develop our confidence, there was no hands on practice. A lot of people felt it was a shame. Watching our tutor do a baby check would have been good."

## Discussion

The use of both quantitative and qualitative data collection provides the opportunity to clarify student responses [4]. Students perceived that when properly utilised, the clinical setting does increase student awareness and understanding of child health issues by building upon prior knowledge, enabling collaborative learning and assisting in retention of information. Student perception of competence and confidence in clinical skills also increased.

According to the students, small group tutorials assist in their learning, as they have greater confidence to participate. However, engagement in activities was hindered by student perception of insufficient prior knowledge, a perceived lack of clear guidelines and learning objectives, limited patient numbers, and inconsistency in teaching styles. This suggests a need to consider whether students' prior knowledge is adequate and appropriate for the clinical component of this course.

## Conclusion

Early exposure to paediatrics in a clinical setting is highly valued by year 1 and 2 students. In particular, "Taking a paediatric history" and "Examination of a normal child" tutorials were highly rated, whereas the "Well baby check" tutorial was less useful. Modifications to the program based on student feedback are needed in order to maximise the benefits of the clinical setting and effectively utilise resources. Consideration should also be given as to whether students are at the appropriate stage in their training to participate in clinical tutorials at a children's hospital.

### Author information

**Annette Burgess** is an Executive Officer at Central Clinical School, Sydney Medical School. She has worked for a number of years in medical education and has an interest in evaluation.

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- Practical skills

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