

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:

Should surgical training start with the medical student?

Lend me your watch and I'll tell you the time...

Effectiveness of online clinical skills education

Transferring hand hygiene skills to clinical practice

Examination of the gastrointestinal system

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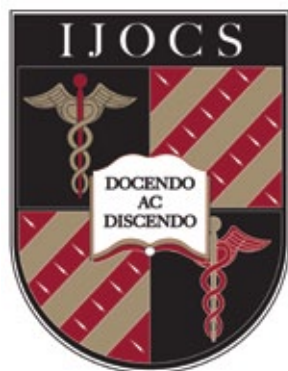
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The International Journal of Clinical Skills looks forward to contributing positively towards the training of all members of the healthcare profession.

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Foreword

Surviving the Global Economic Crisis in the World of Clinical Skills

After a tremendously successful beginning, the International Journal of Clinical Skills (IJOCS) has had the pleasure of bringing together the international clinical skills community. Throughout 2008 the extremely positive response from both students and teachers has demonstrated the need for this quality peer reviewed Journal, whose remit is not only to publish research, but also to provide a centre point in the world of clinical skills.

The variety of papers published in IJOCS to date is in itself unique, many of which have been changing the way all healthcare professionals practice within the clinical arena. Only time will tell whether such change does ultimately lead to improved patient outcomes and quality healthcare; however, the remarkable feedback received from the many doctors, nurses and other professionals who read the IJOCS, encourages us to continue developing this exceptional resource.

As 2009 begins, countries all over the globe face what may be the worst economic outlook since the 1950's, hence it is prudent not only to be conscious of our spending habits, but also to consider how this may impact the teaching and learning of clinical skills – a vital part of healthcare. Many healthcare institutions have had to significantly reduce their educational budgets, which no doubt has a detrimental impact on the training of all professionals. Moreover, it is important not to lose sight of the fact that quality healthcare delivery is required to maintain healthy nations, which, in turn, can reduce financial burden.

Following the global financial crisis, the in-house publishing company for the IJOCS (SkillsClinic Ltd) has decided to launch the website www.clinitube.com in 2009. This will be a free website where professionals will not only be able to download clinical skills guidelines (the aim of the originally proposed Clinical Skills Lab – CSL), but also upload their own information and files onto clinitube.com so that other professionals can share these materials for free. At a time when resources are limited, clinitube.com will build an online community for the sharing of much needed resources.

In addition to our colleagues at clinitube.com, the IJOCS will continue to publish many articles which present novel research and offer readers comprehensive guidance on a variety of clinical skills subject areas, including effective teaching methodology. We hope our readers take advantage of this knowledge by disseminating the information, putting it into practice and benefiting from the numerous incentives.

We reflect with much enthusiasm, for what the IJOCS has achieved so far and look forward to what has begun.



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The predictive value of self assessed clinical skills competencies by graduate entry medical students

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Self reporting

Abstract

The acquisition of clinical skills by a single cohort of Graduate Entry Medical students was assessed by using a self completed electronic log submitted by email over a period of 6 months. Of the 66 skills measured, students completed a median 41 skills in the laboratory setting (range 11-60) and 16 with real patients (range 0-42). The reliability of the logs was very high with Cronbach's alpha of 0.83 and 0.89 respectively. Despite this, the number of skills performed on real patients was only weakly correlated ($R = 0.177, p > 0.05$) with their performance in an Objective Structured Clinical Examination (OSCE).

Introduction

Despite the requirements of the GMC (General Medical Council) contained within 'Tomorrow's Doctors' [1] there is evidence that the clinical skills of doctors on qualification are deficient [2] and that this situation must be corrected; "such assessment and certification is a high-stakes activity which must accurately identify those who are not competent" [3]. Although the need for high levels of 'competence' is difficult to deny, the definition of 'competence' and its measurement are less certain, although frameworks for the implementation of skills training within a medical course have been described [4].

If competence is viewed as attaining the highest band of Miller's Pyramid of performance [5], at the level of 'Does', competence is measured by the outcomes of the practitioner in the real world. Unfortunately, by this measure, incompetent practitioners can only be identified after they have caused significant harm and so this approach cannot be used to prevent 'incompetent' practitioners starting work.

Within medical schools, the paradigm of competence as a set of well defined behaviours that can be defined and measured can often be linked to the use of criterion based, summative assessments and, to the use of an Objective Structured Clinical Examination (OSCE) [6, 7].

Despite the obvious appeal of this approach, Evans et al [8] documented a group of 26 pre-registration House officers who were able to identify a range of skills that they felt unable to complete confidently, despite having passed a final, summative OSCE style assessment. Clearly, these results indicate that success at an OSCE examination cannot be assumed to indicate readiness to undertake clinical work in a clinical context.

From the above, it follows that while a Medical School must aim for its students to reach clinical competence, no one assessment can achieve this aim. However, a combination of skills based and

self-assessed confidence could better reflect subsequent real-world performance.

The aim of this study was to determine whether it was feasible for students to monitor their own progress by completing an email based skills log and whether their progress would correlate to their performance in a summative Objective Structured Clinical Examination (OSCE) taken by all students at the end of their second year of study.

Method

The Graduate Entry Programme is a four year, graduate medical course based on a partnership between Swansea and Cardiff Universities. The first two years, based at Swansea University is a case based, fully integrated course with weekly 'Integrated Clinical Method' sessions. These sessions are supported by a range of half day, student selected attachments in a very wide range of clinical environments, known as 'Learning Opportunities in the Clinical Setting' (LOCS). Students were encouraged to observe and practice the 66 skills identified in their curriculum whenever the opportunity arose.

Each student was emailed a copy of a spreadsheet with a list of 66 clinical skills, in 4 groups of History taking (10), Examination (20), Explanation (2), Clinical procedures (32) and Generic skills (2). With space to mark each skill as having been practiced in a laboratory setting (Lab) and having been performed successfully with a real patient (Real).

At the end of each month, each student was asked to return their completed log by e-mail with non responders contacted until all forms had been returned. All results were collated into an Excel (Microsoft) spreadsheet.

Data were collected during the first six months of the course, with student performance measured during an Objective Clinical Skills Examination (OSCE) at the end of their second year.

The internal consistency of each student's data was assessed using Cronbach's Alpha, and the relationship between each student's final self assessment and their total score during the OSCE assessment, was determined by linear regression and single correlation using SPSS v13.

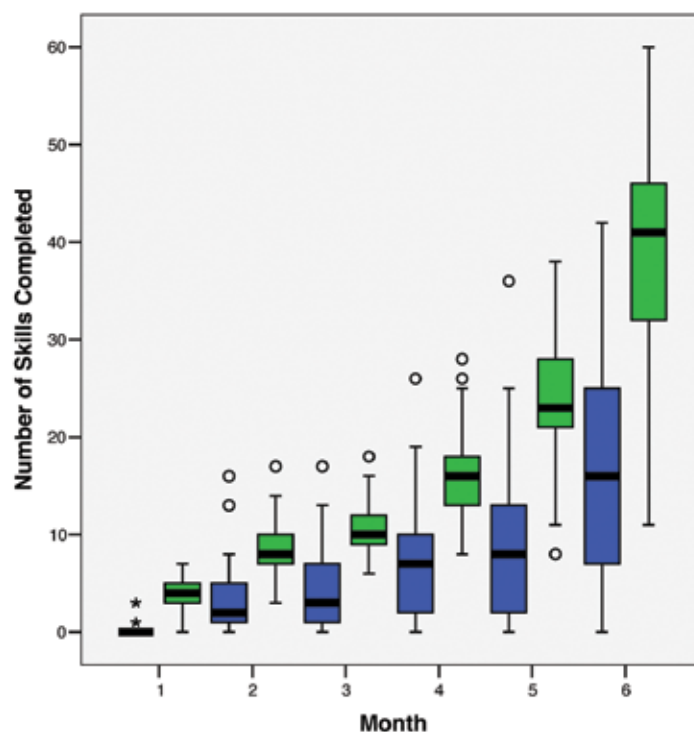
This research was approved by the School ethics committee, with all students being informed of the nature of the research and being given the opportunity to have their data excluded from the analysis.

Results

All students (n=35) were able to receive a copy of the empty spreadsheet, complete the form and return it successfully. Although a majority of students returned the forms by return of the e-mail request, it required multiple (maximum = 9) e-mail reminders to provoke a response from all students.

As expected, the skills marked as completed were largely those included in their weekly Integrated Clinical Method (ICM) sessions. These sessions combine the teaching of clinical, procedural and communication skills in a small group, experiential format. Figure 1 shows the gradual increase in skill levels at both the 'Lab' and 'Real' levels. Students accumulated a median of 41/66 'Lab' skills and 16/66 'Real' skills after 6 months, representing almost two skills per week in the 'Lab' and two skills every three weeks for 'Real'.

Figure 1: Gradual increase in skill levels



There was marked variability between the students in the number of skills performed, with one student having completed 60 skills after 6 months and three others having completed none. Cronbach's Alpha applied to these data showed a value of 0.83 and 0.89 respectively.

The results of the summative OSCE assessment showed a 100% pass rate with a median score of 67 (range 59-78).

Finally, the almost year long gap between the completion of the final log and the OSCE assessment fails to take into account changes in individual student performance during the course.

Conclusions

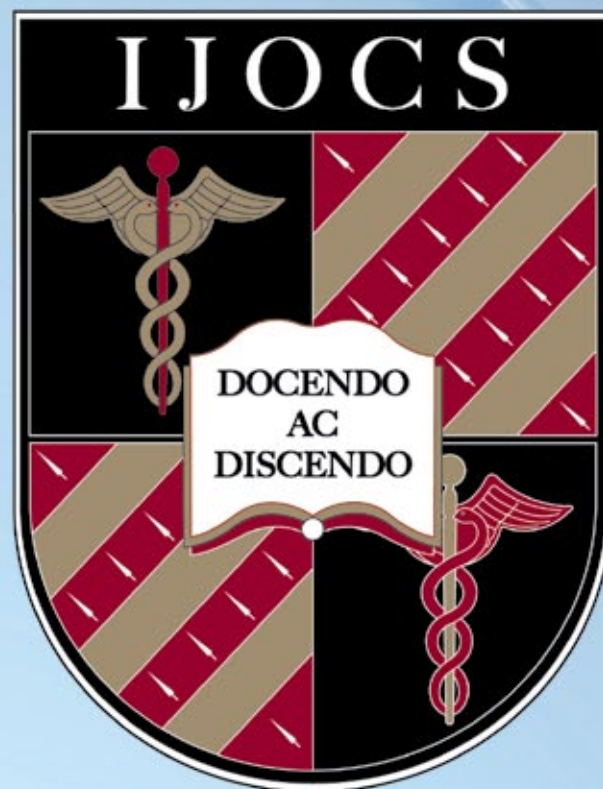
Self assessed competency of clinical skills by medical students is a feasible method of assessing student progress, although the methods used during this study were too labour intensive to permit routine use. We were also not able to assess the utility of this method within a more structured assessment strategy and whether this has an adverse effect. However, the high internal consistency and positive prediction of OSCE performance indicates that it may prove useful. Further investigation of this method is required to define its correct place in a wider assessment strategy.

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The Clinical Skills Lab database will comprise information on over 200 clinical skills, broadly separated into:

- History taking skills
- Communication skills
- Clinical examination/interpretation skills
- Practical skills

Not only will this valuable resource provide material to students as a learning tool and revision aid, for example, OSCEs, it will also offer educational materials for teachers from all disciplines, allowing some standardisation of practice. The Clinical Skills community will also be encouraged to contribute, making this database interactive.

CSL is a free not for profit database. Visit www.ijocs.org for access