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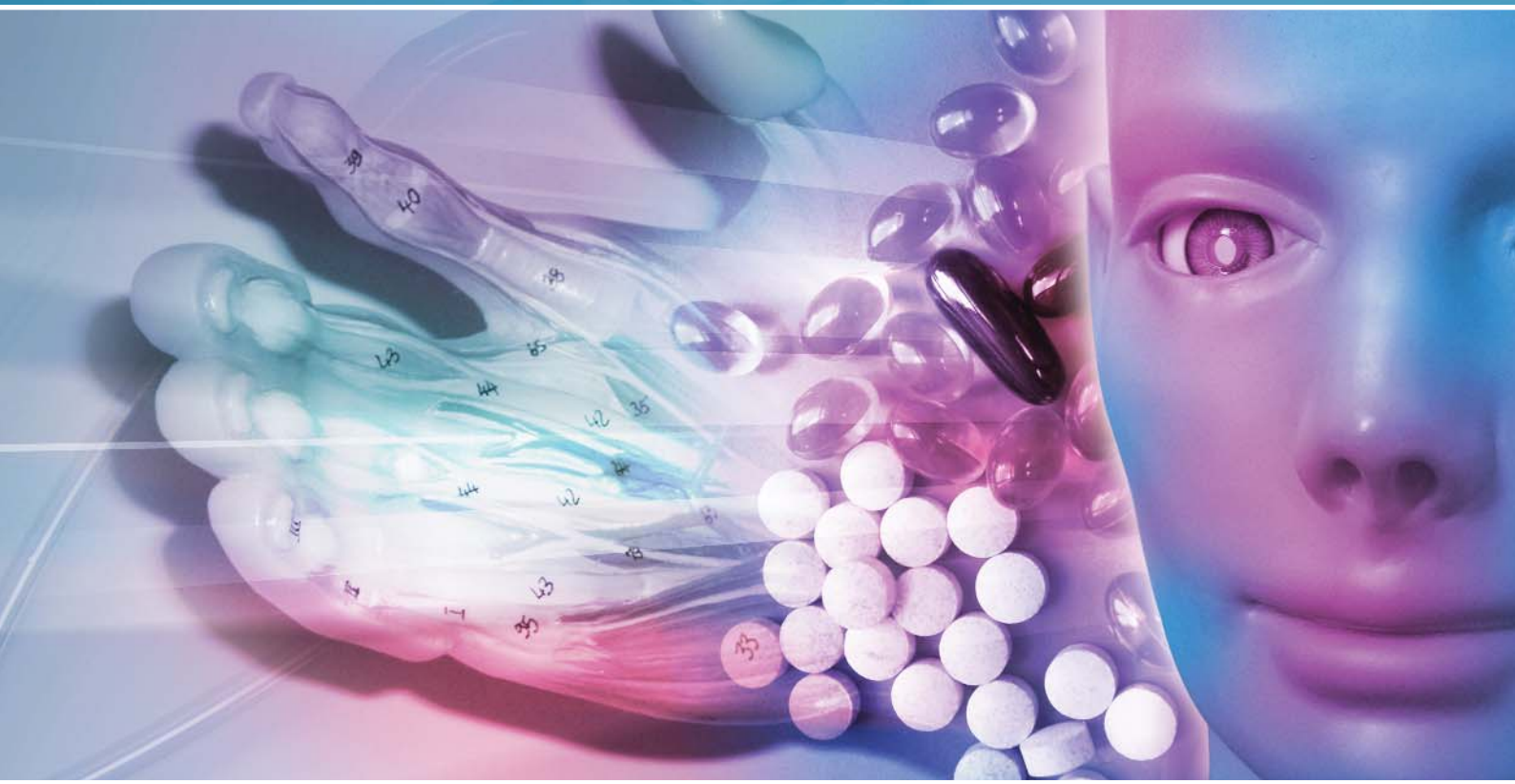

A Peer Reviewed International Journal for the Advancement of Clinical Skills
– 'docendo ac discendo' – 'by teaching and learning'

C.O.M.E.T. – A novel educational method in clinical skills

From simulation to reality

Shibboleths of incompetence

Development of a clinical skills bus: making simulation mobile

"See one, do one, teach one!" – the uphill struggle for clinical skills acquisition

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I would like to take this opportunity to show appreciation to all those involved with the production of the International Journal of Clinical Skills. This has been a time consuming task but every minute of it has been worth it!

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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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Mission Statement

The clinical skills arena is an ever expanding field with an increasing wealth of knowledge; however there is no central resource for the sharing of evidence based research and information. The International Journal of Clinical Skills (IJOCS) is a peer reviewed International Journal, which will promote the sharing of information and evidence based research, as well as bringing together the clinical skills community.

The Journal aims to develop and maintain standards in research and practice, lay a platform for discussion and debate, and provide opportunity to present evidence based medicine and critical appraisal of research. Provision of this much needed resource for both students, teachers and healthcare professionals, will ultimately enhance patient care.

The IJOCS will be a regular publication, three times a year in the first instance, both online and in print. The implementation of the IJOCS website will provide a continual resource for daily use. Also, in conjunction with the 'Clinical Skills Lab', the IJOCS will allow access to an online database on over 200 clinical skills – launching in 2008.

A diverse range of reviewers support the Editorial Board, all of whom are leaders in their respective fields and the IJOCS prides itself on the quality of content. Contribution of original ideas, research, audit, policy, reviews, case reports and 'Letters to the Editor' are welcome from all those involved in this multidisciplinary field. Submissions are not limited to these specific publication types and your novel suggestions will be considered.

I wish to thank all those involved in the development of this unique venture – a Journal whose remit is highly significant to today's needs.

Dr Humayun Ayub
Editor-in-Chief
International Journal of Clinical Skills

Foreword

International Journal of Clinical Skills – An exciting forum for clinical skills

There has been an explosion in the volume of medical information related to clinical skills, which are essential in our efforts to maintain optimal patient care. The International Journal of Clinical Skills (IJOCS) aims to disseminate this knowledge in an easily accessible form. This will not only enhance our attempts to provide a quality health service, possibly with some standardisation, but also provide a vehicle for teaching and learning, hence the Journal's motto – 'docendo ac discendo' (by teaching and by learning).

The IJOCS will not only serve as an avenue for publication of research papers, but will also act as a means of communication between clinical skills professionals at an international level. Consequently, those involved in the clinical skills field, can keep those in other countries informed of their activities, as well as offering best practice guidance.

Alongside this valuable publication, a continually evolving online database ('Clinical Skills Lab') will become available for students and teachers to access – this will hold extensive information on over 200 clinical skills. The Clinical Skills Lab will be regularly updated by all those involved in this field and provide a platform for discussion and debate.

The IJOCS also aims to present comment on items of specialist interest. For example, the current issue contains a paper by Professor Harold Ellis CBE, on 'Medico-legal consequences in surgery due to inadequate training in anatomy', and explores the potential niche for anatomical clinical skills training within the newly developed medical Foundation Years (F1 & F2). It is hoped readers will make use of the Journal to comment on matters such as this – and on others relating to the subject of clinical skills – by means of 'Letters to the Editor', research based evidence and shared practice.

In order for IJOCS to become an exciting forum for clinical skills, the Journal welcomes submission of innovative research, papers, reviews and case reports. Of course, submissions are not only limited to these specific publication types and your innovative ideas would be greatly welcome by the Editor.

I am confident that IJOCS will be appreciated by a variety of health care professionals, at an international level. It promises to be representative of an ever expanding field, and with the support of all those able to contribute, it will, without doubt become increasingly influential.

I wish those responsible for the production of the International Journal of Clinical Skills, the success which their initiative deserves.

Professor The Lord McColl of Dulwich CBE
September 2007

Shibboleths of incompetence

For examination of the hands

"I am looking for palmar arrhythmia"

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KEYWORDS:
Shibboleths
Incompetence
OSCE
Exam
Fidelity
Clinical skills
Assessment

Introduction

A shibboleth is a word, phrase, custom or principle that identifies a person's origins[1]. Over the last 8 years, sitting patiently through a large number of OSCEs, both undergraduate and postgraduate, both formative and summative, as an internal examiner, organiser and external examiner, I have collected a lexicon of words, phrases and actions which have indicated a likely diagnosis of incompetence.

In this paper I report some of these shibboleths and include some resulting personal reflections on the current state of student learning, skills training and skills assessment.

I've never said it before…
Even in current curricula with early clinical experience, clinical supervision of students remains poor[2] – for the more timid, or poorly attending students, the OSCE may be the first time that they have recited words that perhaps others take for granted.

- For an abdominal examination *"this will just involve palpitating the stomach"*, another student *"on abdominal palpitation…"*
- *"to conclude my examination I would like to conduct a pre-rectal examination"*
- For a respiratory examination *"I am just going to oscillate your chest"*
- For examination of the hands *"I am looking for palmar arrhythmia"* and *"I am looking for palmar epithelium"*

I've never done it before…
Similarly there are some clear give-aways in the OSCE that a student will not be able to perform a skill, that they have never successfully performed the skill.

- Students attempting to palpate with the heel of their hand.
- *"I don't seem to be able to feel the carotid pulse"*
  (hand on side of neck, Baywatch style)
- When timing the pulse *"My watch doesn't have a second hand"*
- *"I'll just decontaminate my hands"*
  (wiping the alcohol hand-rub off on trousers over the buttocks)

Performing OSCEs and the suspension of disbelief
Whist faculty may see the OSCE as a method of estimating a student's clinical (with patients) competence, many students seem to strive solely for "OSCE competence", to put on a good performance, to please the examiner above all else, to get that all-important tick in the box, to the detriment of common sense or usual practice.

- For abdominal examination *"usually, of course, I would expose the patient nipples to knees"*
- Repeatedly students look at the alcohol hand-rub and say *"I would decontaminate my hands"*, but don't, even when examining real patients.

There seems to be a strong desire for students to say something impressive, although the desired effect is often contrary to expected.

- Looking at a fit 24 year old simulated patient in an airy exam hall
  "I can see that the patient does not appear to be connected to a ventilator"
- Looking at the nail beds *"there is no ptosis, nor lymphosis"*
  (bonus marks for sounding impressive)
- For an abdominal examination *"Looking around the bed, there is no evidence of gluten free biscuits"* (On further questioning these students were uncertain how they might differentiate a gluten-free bourbon from the more traditional variety)

Similarly, some students, particularly at junior level, perform the steps of an examination rather like a child might recite a poem, with little comprehension of the underlying meaning. I have watched a number of first and second year students performing an abdominal examination verbatim from a well know Medical School's online video on the same subject. With my eyes closed these students would have scored well, sounding as fluent as the specialist registrar on the video, but on observation, they were not aware of how the anatomy and physiology of the ribs, diaphragm and liver interacted and linked to the skill of palpation of the liver, and most palpated the right nipple instead (the video is taken from a less than ideal angle).

More senior students seem to understand why they are performing the steps of the examination, but then again, perhaps they have just 'learnt their lines' more fluently.

Discussion

The temptation is to laugh at these students, admonish them or even condemn them – after all, in our day students were much better (although we all have stories to the contrary). However, rather than blame the students, perhaps we should look inward: what has gone wrong with Medical Education in general, and clinical skills' learning specifically, that has resulted in OSCEs full of students trying to bluff their way to a pass?

Brian Hodges[3] describes four predominant discourses of competence, including *"competence-as-performance"*, where competence is defined by *"performance-based assessments that require students to demonstrate their skills."* He warns that this conceptualisation may lead to *"hidden incompetence such as poorly integrated knowledge or fake performances."* This seems particularly relevant to many of the examples above. He warns specifically that *"medical educators must pay more attention to the side-effects of the discourses that shape medical education."* Although it is widely accepted that assessment drives learning, we still feign surprise when students learn to play-act to pass the 'performance' assessments that we set, rather than strive to become competent clinicians.

Similarly, in 2002, Barry Isenberg[4] warned of common difficulties with clinical skills training, including a lack of correlation with the basic sciences, a misunderstood purpose of the OSCE (he argues for a stronger formative role), and a lack of sufficient time to practise skills. In our current integrated curricula, the anatomy, physiology, pathology and even pharmacology of the heart are often taught together, they are heavily

integrated, often within the same lecture, PBL case or clinical scenario. How truly are clinical skills integrated with this basic and clinical science? How often do clinical skills objectives feature in PBLs, for example?

On the other side of the coin, as we know that transfer of learning from one context to another is difficult[5], how much attention do we place on integrating the basic sciences into our clinical skills training? Many of us attempt to do so, but looking at the published models for skills training (ATLS[6], 4C/ID[7], deliberate practice[4,8,9], structured clinical observation[10] and generic advice[11]) they tend to place emphasise the psychomotor steps - the 'performance' - and encourage little or no linkage to prior knowledge and basic science. Why then are we surprised that students perform as we teach?

The current emphasis on high fidelity simulation over reality clearly has its dangers. Patients are a valuable resource for learning[12], remain willing to help students learn, even in potentially embarrassing environments[13,14], feeling empowered in doing so[15] and representing the highest possible fidelity for learning - reality. There are certainly strong roles for skills centres, to prepare for practising on the wards, to practise rarely used or potentially dangerous skills, but it should not be forgotten that medicine is learnt from and with patients. Roger Kneebone[16] warns that *"simulations are often accepted uncritically, with undue emphasis being placed on technological sophistication"* and Geoff Norman[17] warns that learning in simulation may not transfer to genuine clinical contexts, and yet students are increasingly taught clinical skills in simulation centres[18] and are rarely observed performing skills in the clinical setting[2], the tacit message being that skills are learnt, practised and assessed in the skills centre, not on the wards.

Conclusions

Clinical skills learning, teaching and assessment need to change. Students need new approaches for learning clinical skills that put the patient in the focus, rather than the assessment, that encourage linking clinical skills to the relevant basic and clinical sciences, and that highlight the need for repeated and deliberate practice. Clinical skills teachers need to strive to move the focus of teaching away from clinical skills centres, back to patients and the wards, and will need innovative approaches to maximise both patient contact and feedback opportunities for students. Finally, clinical skills assessments must evolve so that patient care, diagnostic acumen and safety overcome the current emphasis on simulated performance.

References

1. The Oxford reference dictionary. Oxford [England]: Oxford University Press 1986.
2. Howley LD, Wilson WG. Direct observation of students during clerkship rotations: a multiyear descriptive study. Acad Med. 2004 Mar;**79**(3):276-80.
3. Hodges B. Medical education and the maintenance of incompetence. Medical Teacher. 2006 December;**28**(8):690-6.
4. Issenberg SB, McGaghie WC. Clinical skills training--practice makes perfect. Med Educ. 2002 Mar;**36**(3):210-1.
5. Simons P. Transfer of learning: Paradoxes for learners. International Journal of Educational Research. 1999;**31**:557-89.
6. Dacre J, Nicol M, Holroyd D, Ingram D. The development of a clinical skills centre. J R Coll Physicians Lond. 1996 Jul-Aug;**30**(4):318-24.
7. van Merrienboer JJG, Clark RE, de Croock M, B,M. Blueprints for complex learning: the 4C/ID model. Educational Technology Research and Development. 2002;50(2):39-64.
8. Moulaert V, Verwijnen MGM, Rikers R, Scherpbier AJJA. The effects of deliberate practice in undergraduate medical education. Med Educ. 2004 October 01, 2004;**38**(10):1044-52.
9. Ericsson KA. Deliberate practice and the acquisition and maintenance of expert performance in medicine and related domains. Acad Med. 2004 Oct;**79**(10 Suppl):S70-81.
10. Lane JL, Gottlieb RP. Structured clinical observations: a method to teach clinical skills with limited time and financial resources. Pediatrics. 2000 Apr;**105**(4 Pt 2):973-7.
11. Dent JA, Hesketh EA. Developing the teaching instinct, 13: How to teach in the clinical skills centre. Med Teach. 2004 May;**26**(3):207-10.
12. Spencer J. Patients in medical education. Lancet. 2004 May 1;**363**(9419):1480.
13. Shann S, Wilson JD. Patients' attitudes to the presence of medical students in a genitourinary medicine clinic: a cross sectional survey. Sex Transm Infect. 2006 Feb;**82**(1):52-4.
14. Hartz MB, Beal JR. Patients' attitudes and comfort levels regarding medical students' involvement in obstetrics-gynecology outpatient clinics. Acad Med. 2000 Oct;**75**(10):1010-4.
15. Coleman K, Murray E. Patients' views and feelings on the community-based teaching of undergraduate medical students: a qualitative study. Family practice. 2002 Apr;**19**(2):183-8.
16. Kneebone R. Evaluating clinical simulations for learning procedural skills: a theory-based approach. Acad Med. 2005 Jun;80(6):549-53.
17. Norman GR. Editorial: simulation--saviour or Satan? Adv Health Sci Educ Theory Pract. 2003;**8**(1):1-3.
18. du Boulay C, Medway C. The clinical skills resource: a review of current practice. Med Educ. 1999 Mar;**33**(3):185-91.

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Clinical Skills Lab (CSL)

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 Launching in April 2008 – view sample material at **www.ijocs.org** and take advantage of a 50% discounted rate if booked prior to **1st March 2008** *(enter promotional code **CSL63R** at registration)*