

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

Executive Board

Dr Humayun Ayub

Editor-in-Chief - editor@ijocs.org

Dr Alison Anderson

Executive Editor - a.anderson@ijocs.org

Mrs Sally Richardson

Senior Associate Editor - s.richardson@ijocs.org

Mr Keser Ayub

Managing Director - k.ayub@ijocs.org

Mr Kam Khunkhune

Management Consultant - k.khunkhune@ijocs.org

Dr Waseem Ahmed

Clinical Skills Lab Editor - w.ahmed@ijocs.org

Dr Raina Nazar

Clinical Skills Editor - r.nazar@ijocs.org

Miss Wing Mok

Business Development Manager & Associate Editor
wing.mok@ijocs.org

Ms Hind Al Dhaheri

Associate Editor, United Arab Emirates (UAE)
h.aldhaheri@ijocs.org



International Journal Of Clinical Skills
P O Box 56395
London
SE1 2UZ
United Kingdom

E-mail: info@ijocs.org
Web: www.ijocs.org
Tel: +44 (0) 845 0920 114
Fax: +44 (0) 845 0920 115

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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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Editorial Board for the International Journal of Clinical Skills

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United Arab Emirates (UAE)

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FRCS(Urol) FEBU MBA**

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FRCPE (Hon)**

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Ninewells Hospital & Medical School
University of Dundee, UK

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Malaysia

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Australia

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Specialist in Dermatology
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Health Authority - Abu Dhabi
United Arab Emirates (UAE)

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MHPE PhD**

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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.



Dr Alison Anderson
Executive Editor
International Journal of Clinical Skills

Challenges of transferring hand hygiene skills to clinical practice – medical students' perceptions of the impact of a self directed programme

Jean Ker MD FRCGP FRCPE FHEA

Director of Clinical Skills Centre
College of Medicine Dentistry and Nursing
Ninewells Hospital
Dundee

Gabby Phillips MB BS FRCPath

Consultant Microbiologist/Infection Control Doctor
Ninewells Hospital
Dundee

E Gillies

Director HAI Education
NHS Education for Scotland
Thistle House
Edinburgh

G J Mires MD FRCOG FHEA

Teaching Dean
School of Medicine
Ninewells Hospital
University of Dundee Medical School

Correspondence:

Jean Ker

Director of Clinical Skills Centre
Ninewells Hospital
Dundee
DD1 9SY
UK

E-mail: j.s.ker@dundee.ac.uk

Tel: +44 (0) 1382 633937

Fax: +44 (0) 1382 633950

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Abstract

A major challenge for medical educators is ensuring that graduates of healthcare curricular programmes are able to transfer skills learnt in a simulated environment into the reality of their clinical practice.

Preventing Healthcare Associated Infections (HAIs) is a major issue for the health service as it has been shown that medical staff are not good at adhering to Standard Infection Control Precautions (SICPs). Poor compliance may have its roots in a failure to learn about the importance of hand hygiene skills at medical school.

All final year medical students at the University of Dundee participate in a Cleanliness Champions programme to ensure they have the relevant skills to promote the prevention of HAIs in their foundation clinical rotations. The self directed programme which is supported by a system of mentoring, links theoretical and work based learning through a structured process of reflection.

An exploratory evaluation of the programme identified that the majority of students perceived that their own hand hygiene practice would change. They also (through their reflective accounts) identified a role for themselves as cleanliness champions in modelling best practice in the clinical area.

This study suggests that the use of a standard self directed programme can facilitate from a students' perspective, the transfer of skills to the workplace.

Introduction

Healthcare Associated Infections (HAIs) are estimated to affect 9% of patients in the NHS in the UK at any one point in time (SEHD 2002). A proportion of these can be prevented by ensuring healthcare staff adhere to Standard Infection Control Precautions (SICPs) which are the core infection control measures to be used by all health care staff, for every patient in a clinical setting in the UK. With costs of HAIs estimated at £1 billion per year in the UK, and with the inevitable costs of human suffering, it is essential that healthcare professionals play their role in their reduction [1].

A recurrent finding is that medical staff do not comply fully with standard infection control procedures (SICPs) [2, 3, 4] particularly hand decontamination. The reasons for this are multifactorial and include a failure to transfer learning from a medical school simulated skills environment to the realities of clinical practice [5, 6]. This may be as a result of infection control not being traditionally taught as part of an integrated planned programme [7], nor perceived as "a glamorous subject". It may also be due to hand decontamination being seen as a skill that everyone already has [8].

The ability of health care professionals to develop skills of reflection has received attention both in the educational literature [9] and in the goals of curricular programmes [10, 11]. This educational approach encourages critical thinking, interpretation and transformation of practice, therefore enhancing transferability from one context to another [12, 13].

There is limited evidence of the benefits of being able to reflect well. Deep (reflective) learners have better “professional” or contextual knowledge than those who are surface or strategic learners [14]. This implies that they are able to transfer knowledge and skills. In addition “committed reflectors” have been shown to achieve a greater sense of professional identity [15] and can therefore act as role models. In respect to learning the skills about HAIs, the challenge was to develop a programme which enabled students to transfer theory to practice using a reflective approach.

In response to the increase in HAIs, specifically the increase in incidence of MRSA infections, the Scottish Executive HAI Action Plan [16] called for “Cleanliness (infection) Champions” to be present on every ward or community healthcare setting to ensure the development of a safety culture related to infection prevention and control. NHS Education for Scotland in partnership with Health Protection Scotland developed a ‘Cleanliness Champion’ educational programme; a multi-professional distance learning pack consisting of eleven units to ensure the development of seven core competences. The self directed programme links theoretical and work based learning; transfer of learning is promoted through reflective accounts and mentorship.

This paper shares the evaluation of this Cleanliness Champions programme by a cohort of final year medical students in relation to their perceptions of the impact of the programme on their hand hygiene practice and their future role as a cleanliness champion.

Methods

Context: The undergraduate medical curriculum at the University of Dundee is a five year programme which uses a framework of 12 learning outcomes focused on three constructs: what a doctor can do, how they approach their practice and the doctor as a professional [17]. One outcome specifically highlights health promotion and disease prevention. The emphasis in the final year is on preparation for clinical practice and all students are required to complete the Cleanliness Champion Programme as part of their prescribed course work.

The Cleanliness Champion Programme: This is structured to support learning about infection control and prevention, using e-learning. There are seven core competences (Figure 1). Each of the 11 units in the package have identified learning outcomes and involves a series of interactive theoretical or simulated activities (including quizzes, references and exercises) which are reinforced by specified work-based activities (audit and observations). Each unit requires a written reflective account; participants use this as a trigger to discuss their reflections on infection control and prevention issues with their mentor.

Figure 1: Seven core competences of Cleanliness Champion

The Cleanliness Champion will be able to:
1. Be aware of risks in relation to cleanliness in health care practice
2. Carry out a risk assessment in cleanliness in different health care contexts
3. Identify how to break the chain of infection
4. Be aware and familiar with local and national infection control policies
5. Audit knowledge and skills in relation to cleanliness issues
6. Be accountable and responsible within scope of Cleanliness Champion role
7. Demonstrate compliance with role

The evaluation process

A semi structured questionnaire was developed through an iterative process by three experienced mentors of the Cleanliness Champion Programme. Each student was asked to complete this at the end of the self directed programme. This identified how they thought the programme would impact on their future practice. Some open ended questions were used in order to identify students’ perceptions of the Cleanliness Champion Programme and their role as ‘a champion’.

The open ended comments were then categorised by two researchers independently and then a consensus meeting was held to identify themes relating to the programme and their roles as a champion.

Results

All 152 final year medical students in 2004/2005 completed the Cleanliness Champion Programme satisfactorily and were awarded their certificate which they could transfer to their first provisional post as a foundation doctor. 81 (53%) of the students completed the questionnaire.

Students’ perception of influence of Cleanliness Champion Programme on future practice:

72 (89%) considered that participation in the Cleanliness Champion Programme would change their practice with only 4 students (5%) reporting that it would have no influence.

38 (47%) of those who indicated that it would change their practice reported that this would be in respect of the skills of hand hygiene, 13 (16%) in relation to ability to be a role model and 11 (14%) in relation to sharps handling.

Students’ reflections on their participation in the Cleanliness Champion Programme:

Four themes emerged from the open ended comments provided in the open ended component of the questionnaire and related to the following: (a) Mentors, (b) Content of package, (c) Relevance to practice, and (d) Transfer to practice.

a) Reflections on Mentors

Students had different experiences with their mentors which reflected their own learning needs, and the flexible approach adopted for the programme, in terms of meetings and contact, was appropriate. The majority of comments in respect of the mentors were positive as can be seen from the examples given:

“mentor style good - enabled me to rethink relevance of some of the units in discussion”

“good access to tutor - was able to discuss some of the difficulties I had in accessing materials without wasting time”

“3 hours with tutor going through book was useful - enabled me to think about how I could have done it better”

“difficulty contacting mentor”

b) Content of package

There were a number of comments that identified both positive and negative comments on the content of the package. Some students could not understand the relevance of some of the units to their professional practice, particularly the units which focused on mattress testing and how rooms were prepared after infected patients had occupied them. In addition, the majority of negative comments on content related to the organisation of the content as can be seen from the examples given:

Positive Comments

“good use of personal stories - helped to link things together”

“liked audit activities questions before answers good”

“made me think about my role”

“interactive way was good”

“helpful and informative”

Negative Comments

Negative comments included reflections on the organisation

“IT links poor”

“Should be on line review”

“Slow to load”

“Need to see this as valuable use of our time and resources – current method of delivery inappropriate”

“different checklists in different versions which made it confusing”

“vague instructions at times”

c) Relevance to clinical practice

Several students emphasised the relevance of the Cleanliness Champion pack for practice. The majority of students commented positively (see below), although one comment reflected the concern about the time involved in completing the programme in terms of efficient use of time.

“think all health care workers should do this”

“made me more aware of local policy

“increased awareness 10 fold”

“questionable use of medical student time”

d) Transfer to clinical practice

Comments by the medical students in relation to this theme identified some of the difficulties in carrying out some of the workplace activities especially in relation to their perceptions of their place in the hospital hierarchy as medical students.

“plan to observe my colleagues throughout my career”

“staff on ward not helpful”

“my advice to others considered as interference”

“good timing doing this in final year”

Discussion

The 53% of students who responded to the questionnaire found the self directed Cleanliness Champion Programme valuable both in terms of its relevance and potential influence on their future clinical practice in relation to HAI prevention. 89% indicated that it would change their clinical practice in infection control, particularly in relation to hand decontamination and their position as role models. The major difficulties encountered in the delivery of the programme related to technical issues e.g. IT support and the considerable time commitment required of the mentors. There is often a tension when developing a multi-professional educational package ensuring that all of the package will be relevant to each professional group. However to reduce adverse events such as HAIs, the evidence is that there should be one explicit standard, but perhaps different groups should be able to choose their own relevant options having completed a common core and this may be the approach for future cohorts.

The Cleanliness Champion package had been developed for qualified health care professionals but was perceived by the majority of students as relevant giving them the opportunity to link their theory with practice using reflective accounts. These enabled them to critically reflect on their experience, to identify some of the discrepancies in their own practice and to develop, with the help of the standard examples given, how they would address these. The opportunity to further reflect on the units with their mentor obviously gave students an opportunity to re-evaluate their experience [18, 19, 13] and to correct any discrepancies supporting the transfer of their knowledge for future practice.

Some of the students found it difficult to complete some of the workplace activities and their comments indicate reality was sometimes too far removed from the outcomes expected in the pack. This could be perhaps seen as a limitation to the pack in terms of its impact and students ability to transfer standards of practice to the workplace.

The majority of students commented positively in the open ended part of the questionnaire about their role as a Cleanliness Champion. Some students reflected that they found it difficult to carry out some of their workplace activities as senior students, because they were perceived by other members of the health care team as “interfering”. This will probably be addressed over time as the culture changes as more healthcare workers become Cleanliness Champions. Students identified some negative aspects related to the process of mentoring in terms of access and timing. More mentors and the identification of protected time for discussions with mentors may support greater transfer of skills to the workplace in future and requires further investigation.

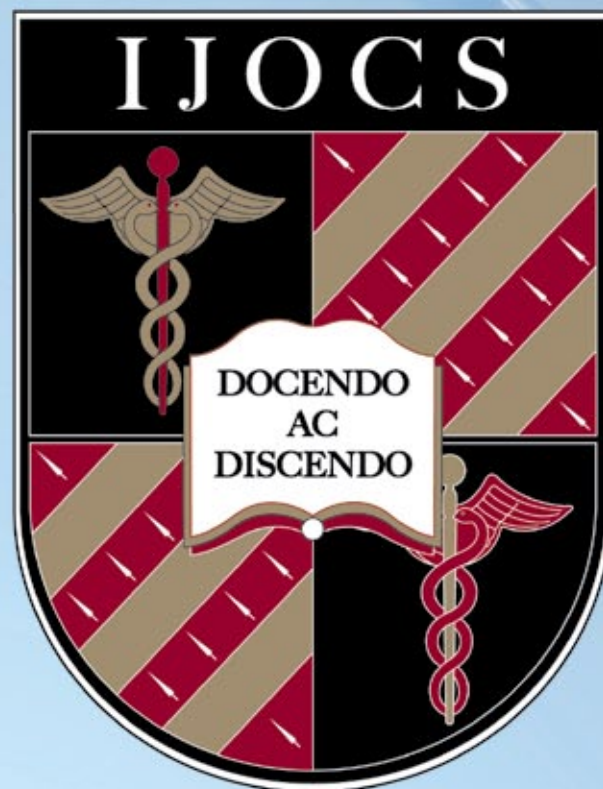
A follow up questionnaire when the students have taken up their posts as junior doctors in practice, may help to identify those who have successfully transferred their learning into practice.

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