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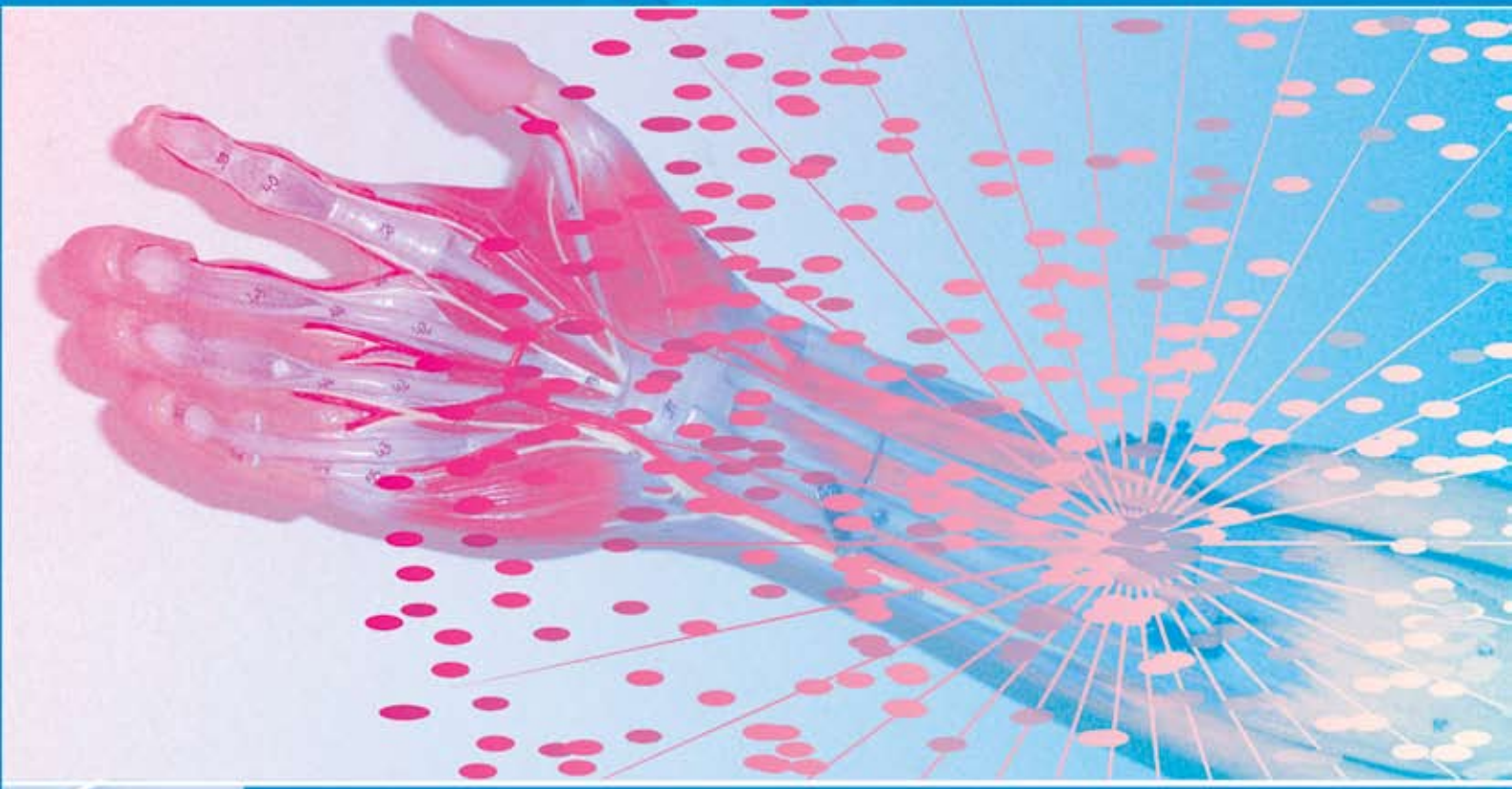

A Peer Reviewed International Journal for the Advancement of Clinical Skills
- 'docendo ac discendo' - 'by teaching and learning'

In this issue:

Executive Board

IJOCS
DOCENDO AC DISCENDO

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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

Globalisation and Clinical Skills

The International Journal of Clinical Skills (IJOCS) – the new road to new skills? Maybe – but it has certainly opened a platform for the globalisation of clinical skills. The World Health Organisation's (WHO) programme on globalisation targets public health risks, security and outcomes. Driven by the concept of "global public goods" and cross-border health risks, the underpinning issue is to promote health for the poor by way of achieving national health targets. As with the IJOCS, the WHO strategy seeks new technologies in the clinical arena to provide investigative tests – with the WHO being particularly interested in those tests which are suitable for developing countries along with new drugs for endemic diseases. The aims are indeed noble. Investigative and therapeutic technologies create a vacuum for the dissemination, sharing and globalisation of clinical skills, which remain the main asset and commodity which clinicians of poorer nations exercise, promote and share. The IJOCS has released a bolt for health professionals to do just that – share knowledge.

The provisions of the healthcare industry in developed countries by sheer volume and demand, streamlines clinical skills into sub-specialised areas. Clinicians (medical, paramedical and nursing) in these areas gain clinical expertise that are unique to their field and emerge from rich patient-clinician interactions. The clinical skills of dealing with children with disabilities, rehabilitation medicine and terminal care are mere examples that are deficient in the poorer health economies that spend the best part of their human resources to combat diseases of malnutrition and poor sanitation.

The IJOCS provides a global resource centre for sharing and promoting clinical skills between clinicians and health professionals. Senior clinicians, who practiced medicine during the last four decades, will have recognised a gradual and progressive pattern of dependence on technologies with less reliance on clinical skills. The IJOCS provides a platform for sharing and debating the inter-phase and interactions between new technologies and clinical skills. It promotes the development of a new layer of clinical expertise that will emerge from the interpretation, application and/or exclusion of new technologies, for the benefit of clinical care.

I trust that clinicians practicing in poorer health economies will enhance the Journal by sharing their clinical skills and knowledge. Their special expertise of managing clinical needs, within restricted resources, expectedly stimulates the human ingenuity and creativity, leading to the development of clinical skills suitable for each unique circumstance. I, for one, will be actively supporting the IJOCS innovative approach to collaboration of skills. The IJOCS will provide a vehicle for the transmission of these skills across the globe for sharing expertise between different health economies to enrich the overall clinical skills arena.

Hippocrates recognised the professional responsibility of the individual clinician by stating that physicians "must have a wealthy …medical knowledge, clinical skills, medical ethics, interpersonal skills,…". The IJOCS improves the physician's opportunity to enhance his/her clinical skills "by teaching and learning".

Dr Atef R Markos FRCOG FRCP

Is it possible to prepare medical students for clinical years using a laboratory based education programme?

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Abstract

Introduction: The new Cardiff / Swansea Graduate Entry programme has provided a unique opportunity to compare the preparation of students for clinical training by comparing an integrated, case based course with a more traditional course. In particular, we were interested in the effect of the students having a nine-week period of clinical placement compared to a full clinical year. **Methods:** We administered a qualitative questionnaire to an entire cohort of students. Data were analysed using a grounded theory approach. **Results:** Despite being the first cohort of a new course, students described the learning environment in the first two years as high quality. They felt well prepared for their clinical years despite the reduced direct clinical exposure. **Discussion:** Data suggests that laboratory based clinical skills teaching is as effective as the traditional ward based teaching. Students found they were well prepared for clinical placements. Concerns that they would have problems in the clinical environment were largely unfounded. Problems the students encountered were mainly administrative. Suggestions included a clinical induction programme as suggested elsewhere in the literature. We confirmed that the transition to the clinical environment can be challenging, and that medical students continue to have difficulty adapting to ward based teaching.

Introduction

The Graduate Entry Programme (GEP) started in 2004 as a partnership between Swansea and Cardiff Universities with the first two years taught in Swansea. The second two years are based in Cardiff as part of the 'All Wales' rotation, integrated with the much larger number of Undergraduate students. Although there are a number of graduate entry medicine courses throughout the UK, the GEP is the only such hybrid course. In keeping with the requirements of 'Tomorrow's Doctors' and with other UK medical schools, the Swansea course has an emphasis on preparing students to work in the medical environment. Current research suggests that this trend is producing the desired result [1], although there is a continued debate as to the best way to teach clinical skills [2, 3].

The first two years of the GEP includes weekly laboratory based skills teaching and a final nine, ward based clinical attachments, within a fully integrated case based curriculum. In the comparable initial three years of the Undergraduate course, there is more than a year of clinical attachments. The GEP students then join the 'All Wales' specialty/ block based rotation based in Cardiff for the last two years of a five year Undergraduate course. We studied the first academic cohort of 37 students, consisting of postgraduate students with 2:1 degree in any subject.

Students perception of good quality teaching and appropriate assessment have been shown to predict a deep approach to learning, which has consistently shown to result in better learning outcomes [4,5,6]. We therefore aimed to explore the students' experience and in particular, their perception of the quality of preparation afforded them by the first two years of the GEP.

Our question was whether the reduced clinical exposure would leave the graduate students unprepared for their final two years of clinical training. We also aimed to identify any social disruption caused by the GEP students joining the larger (290 student) Undergraduate cohort and changing base at the midway point. This approach also provided an opportunity to compare the confidence of postgraduate students compared to secondary school leavers [7].

Method

We used an email based; free text questionnaire and a grounded theory approach, allowing themes and theories to emerge from the students' responses. These themes were then analysed and interpreted using progressive focusing, with each theme analysed in detail for positive, negative and neutral responses.

The questionnaire was delivered by e-mail with a postal questionnaire (Appendix 1) follow up to non-responders producing an overall response rate of 75%. The students had the researchers e-mail address for clarification purposes and were reassured that all comments would be kept confidential. One student felt unable to answer in the questionnaire format and wrote their thoughts in an essay style answer which was included in the analysis.

Results

1. Learning environment

General comments

There were 23 general comments of which 21 were positive e.g., "it ran well even though it was the first cohort", "excellent". 2 comments were negative e.g., "living in Cardiff and commuting was very stressful". The students also commented on the quality of teaching which had 16 responses and 14 of these were positive e.g. "Lectures were high quality".

Curriculum and Assessment

Assessment was raised by three students and all comments were negative e.g. "questions in Intermediate MB were taken from Cardiff lectures". There were mainly positive comments (13 out of 17) about the Staff/Students e.g., "Good student teacher ratios and staff were enthusiastic and supportive". Negative comments [4] concerned the Mentorship scheme e.g. "they were helpful for academic problems but not for personal problems".

Course management

Of the five comments on the management of the course, four were positive e.g., "the learning weeks worked well".

Facilities

Of thirteen comments on the facilities, nine were positive, e.g. "integrated clinical methods laboratory was superb" with three of the four negative comments relating to a single lecture theatre.

Improvements

Four improvements were suggested including better staff communication, access to Blackboard, more student led teaching and a change to the pace of work.

2. Preparation for clinical years

General comments

Of fourteen comments, nine positive comments included, students were "well prepared in all aspects of the course". The five negative comments related to curricular information, e.g. "I had no prior knowledge of the syllabus so I didn't know about the third year exams".

Academic

Of nineteen comments seventeen were positive "we were well prepared" (10 comments), "better prepared than the Cardiff students" (2 comments), "there were differences but because we were post-graduate students we were capable of independent study" (1 comment).

Clinical competence

Of eighteen comments, sixteen comments were positive "well prepared due to exceptional clinical skills teaching", "felt at an advantage" (Appendix 2). Of the three negative comments, two were that the students felt "over taught".

Social

Of thirty comments, sixteen were positive, e.g. "they gelled well" [3]; "possibly better with the intercalators", that "going on placements helped the integration" and that "the Cardiff students were really open, friendly and welcoming". Students felt frustrated at the lack of information they received from the `black market' i.e. "information that was not handed down to them from the year above, past papers and good places for electives". The seven neutral comments were that the environment felt "very different being part of a larger cohort that was younger", that "you do have to work out how Cardiff works quickly" and that it "takes time to adjust to a new environment". The seven negative comments included "the buddy system which did not work well".

Improvements

Suggested improvements indicated a need for more prior social integration; "an introductory session at the beginning of the first term at Cardiff with staff explaining who they are and where they work", to be "invited to the Cardiff social events to allow integration" and "to do the same exams as them throughout both years in Swansea to dispel any myths the Cardiff students had" about them.

3. Specific difficulties

General comments

The eight positive comments included "no problems", that "Cardiff anticipated their arrival" and that "they were allocated a tutor". Negative comments indicated administrative problems; "Enrolment was a problem as the academic registry didn't know they were meant to be there", "the content of the year and its importance in terms of job applications was not highlighted to us until much later in the year." There were two neutral comments.

Academic

There was only one negative comment about a specific component where they felt "unsupported" and another neutral comment.

Accommodation/Financial

The one positive comment was that "Cardiff was very good organising placements once the student's individual case was known". Six negative comments related to the allocation of clinical attachments "I asked not to have a huge commute but was given placement that would have involved a huge amount of time and money spent".

Improvements

One student would have liked to have "more detailed information regarding the third year".

4. Change to the learning environment

General comments

All three were neutral e.g. "done less learning, so have re-discovered a life".

Student support

All nine comments were negative e.g. "they treat you more like students and less like colleagues", "it's a bit like returning to school", "library and IT facilities aren't as good and vary between hospitals".

Academic/clinical

Three comments were positive that the "teaching was excellent in Cardiff". The sixteen neutral comments were regarding the integration of the students into a much larger peer group with the problems of clinical medicine. E.g. "Being one of 330 instead of 37 is weird you feel invisible" "we needed to do more self

directed learning". The six negative comments related to the quality of teaching in Teaching Hospitals.

5. Advice for students in the following years

The advice included mainly academic tips, including "work consistently", to use the "black market" of past questions and that "teaching in District general hospitals was better than Teaching hospitals". Social advice is to make an effort to integrate with the Cardiff students by "joining in on social events" and advice on dealing with administrative staff.

Discussion

The transition period to clinical years is usually a difficult period for all medical students [4]. Our data suggests that our students had similar difficulties to previous reports in the literature [4, 7].

These data suggest that laboratory based clinical skills teaching is as effective as the traditional ward based teaching. The students were more confident of their clinical skills level in comparison to Undergraduate students at the same level. This confidence can translate into improved performance in history taking and physical examination skills [8]. Use of Clinical resource centres also have beneficial effects on preparation of students for their first year as a postgraduate doctor [9].

Although the students proved to be well prepared, their relative lack of clinical experience led to concerns that they would have problems in the clinical environment. In practice, the most common problems encountered were administrative which could be addressed by a better clinical induction programme as has been suggested elsewhere in the literature [4].
The anxiety felt by students that they were unknown to the staff in Cardiff led to a feeling of disadvantage and often related to personal issues, and appeared to cause more concern than academic shortcomings. Although this did not appear to cause lasting harm, the stresses of moving teaching centre and of moving around a large rotational scheme were clearly considerable.

An unexpected finding was that an apparent feeling of competence did not seem to alleviate anxiety related to entering later, more clinical years. Although longer clinical attachments might have benefited students, the existing pressure from teaching within the NHS would make this difficult to achieve, especially as students' perceptions of teaching hospitals are already negative [4].

The volume of negative comments regarding finance and difficulty balancing commitments may reflect the findings elsewhere, that Graduate students experience more stress at medical school compared to Undergraduates [7].

The findings from this study are limited in that although the students felt well prepared; there can be no direct conclusion that the students' clinical performance was equally good, although this is supported by anecdote.

A possible confounding factor was that the students might have focused on areas that are more negative after transition due to loyalty to their original teaching centre. In addition, the rating of the teaching in Swansea may be due to the relatively small cohort size (35 vs. 290) and the enthusiasm of the first year of a new course. However, some of this confounding may have been reduced by the primary researcher being unknown to the students.

Conclusions

In conclusion, laboratory based clinical skills teaching with a short clinical attachment appears to be at least as effective as longer clinical placements in the development of basic clinical skills. We suggest that the role of traditional ward based and laboratory based teaching of clinical skills should be further explored, as the best use of these expensive commodities is still poorly defined.

Approval was sought from both participating schools prior to starting this study and there was no specific funding. The authors would like to thank the participating graduates.

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Practice Points

- Laboratory based clinical skills sessions are as effective as ward based clinical skills teaching
- Laboratory based sessions may be more time efficient than ward based teaching.
- Medical students appear to be more concerned about social issues than academic.
- Medical schools should consider better induction programmes for clinical years
- Interaction between different years within medical schools can assist with personal and academic fears, medical schools should facilitate this.

Appendix 1 – Student Questionnaire

Please answer the following questions. Feel free to add any details you feel might be relevant.

- How do you feel about the quality of the learning environment during the first two years of the course?
- How well were your prepared for entry into the third year of the course? Please include detail on academic, clinical and social aspects
- Did you have any specific difficulties entering the third year of the course?
- Has your learning environment changed since entering the third year? If so, how?
- Would you have any advice for students in following years?

Any other comments.

Appendix 2 - A selection of the positive comments related to clinical competence

- We were ahead of our peers. I did have concerns that our 9-week placement period would not be equivalent to Cardiff. However, they seem not to have so much formal teaching.
- We hadn't spent as much time on the wards as Cardiff students, I think the time we did have was of greater quality.
- The lack of time on the wards didn't matter in terms of being able to do an abdo examination etc, because we were taught it really well in clinical skills sessions, and more formally than any other teaching you get on the wards.
- Well prepared for clinical aspects **(7 comments)**
- I think our ability was on a par with Cardiff. They'd had more of a chance to do practical things e.g. bloods, venflon.
- I was extremely well prepared. I had practiced many times taking blood, cannulating and catheterising patients before I had the opportunity to perform these tasks on the ward.
- I felt more than prepared for the third year, Did not feel the transition was that difficult at all and in fact clinically felt at an advantage.
- No difficulty adapting to the third year. Being new ground for both student groups anyway e.g. Psychiatry.
- I think that we are a lot more confident, which means we tend to get more out of the clinical placements
- I felt confident that I was competent in most aspects, considering my level of training.
- Excellent, I felt that I was at least on a par with the Cardiff students

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

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