ISSN 1753-044X

Volume 4 Issue 2
May 2010

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:

Executive Board

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Published by SkillsClinic Ltd.

Acknowledgements

We would like to take this opportunity to show appreciation to all those involved with the production of the International Journal of Clinical Skills (IJOCS). Many thanks to all members of the Editorial and Executive Boards.

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

Head of Clinical Communication King's College London

Since its inception, the International Journal of Clinical Skills (IJOCS) has provided a unique platform for the teaching and learning of clinical skills in a variety of healthcare disciplines. It has become a well established peer reviewed Journal publishing a diverse range of clinical skills articles.

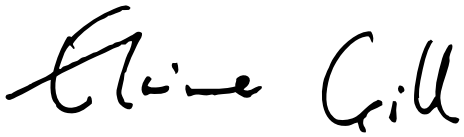
The Editorial Board consists of people active in the field of clinical skills teaching and this is reflected in the journals philosophy to encourage sharing of ideas and practice. Pertinent contributions aim to meet the current needs of researchers and practitioners.

Clinical skills teaching is going through a definite 'growth spurt' at present with increasingly responsive models, manikins and e-learning programmes - not dismissing financial investment that comes along with this. High quality clinical simulation is becoming more sophisticated as a teaching and learning methodology. The need to equip health professionals with the skills and competencies to improve patient-safety is one of the drivers behind this growth. However, alongside the purchase of the 'Sim'-men/women/babies and linked e-learning, let's not forget the importance of personal interactions through faculty support, i.e. experienced clinical teachers. In addition, simulated patients and the delivery of interprofessional sessions, bring clinical simulation closer to the realms of reality and validity, for both undergraduate and postgraduate health professionals.

The use of simulated patients, relatives and carers is well established in clinical communication education. More recently, additional interesting and innovative approaches to clinical communication teaching are in various stages of substantive core curricula and special study activity across medical schools in the UK.

The IJOCS is now established in the world of clinical skills publications by providing a niche specific arena that welcomes quality research, thereby promoting excellence in healthcare internationally. The wide range of papers covering research, discourse and reflection in clinical education and practice, plus the inclusivity of interprofessional approaches in one publication, raises the validity of this journal. There remains room for research based evidence to support teaching and practice of patient-centred clinical learning. The IJOCS welcomes additions to the literature that encourage critical debate.

Without doubt, the International Journal of Clinical Skills has continued to exceed its original ambitions and I wish it growing success.



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Inter-professional simulation: the experience of occupational therapy and child branch nursing students participating in a simulation and problem based learning activity

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Keywords:
Simulation
Inter-professional
Occupational therapy
Child branch nursing

Abstract

This paper presents an innovative project that enabled occupational therapy and child branch nursing students to participate in an inter-professional simulation, supported by a two week problem based learning activity, which centred upon exploration of the case presented in the simulation. The simulation took place in a simulated residential flat environment and centred on the case of a child returning home following a head injury and rehabilitation. The simulation was a joint visit of the community occupational therapist and community children's nurse, with the aim of agreeing a joint discharge care plan. The overall evaluation of the experience from students was extremely positive, with all students actively engaging in all stages of the work and making a positive contribution to the evaluation.

Introduction

In recent years principles for children and young people's health care services in the United Kingdom have been agreed by various professional bodies, voluntary and parent groups and children's welfare organisations [1, 2, 3]. These have been incorporated in to the National Service Frameworks for England and Wales [3, 4]. There are numerous standard setting documents and guidance from the Royal College of Paediatrics and Child Health and Royal College of Nursing. These include standards around: better communication and co-ordination of children and young peoples' public services; child and family empowerment; services closer to the child's home; children only being admitted to hospital if medically required to do so; the importance of considering developmental issues with the provision of age appropriate services; and an increasing emphasis upon preventative health and health promotion strategies [5 - 10].

With increasing medical technological advances, particularly in neonatal care, along with enhanced care giving practices and new medical treatments, children and young people with chronic illnesses are living longer, requiring more complex and continuing care needs to be addressed into adulthood [11]. To enable the effective delivery of high quality integrated partnership services for children and young people, staff need to be educated and skilled to develop the leadership, research and clinical competencies to achieve this. The Children's National Service Frameworks for England [3] and Wales [4] emphasise that children and young people should receive high quality evidence based care that is appropriate to meet their specific needs and delivered by staff that have the right knowledge base, expertise and skills [12].

The real challenge however lies in the development and delivery of clinical skills for practice through simulation which is realistic and facilitates learning in clinical assessment, decision making, skills acquisition, team work and communication [13, 14]. In December 2007 the UK Nursing and Midwifery Council [15] endorsed the use of simulated clinical skills teaching, following an evaluative project which explored the usefulness of this type of educational approach. Currently within children's nursing and occupational therapy practice, some difficulties can arise in the

context of the availability of skills acquisition, due to a number of factors which include: the limited number of available children's placements; the number of students on practice at any one time; and the need for compulsory fieldwork supervision and mentorship [13]. In allied health disciplines such as occupational therapy, students encounter few placement opportunities centred specifically on the care of children, young people and families.

Cardiff University (Wales, UK) is fortunate in having not only a School of Nursing, but a School of Healthcare Studies and this pilot project took advantage of the opportunity to share knowledge and skills not only between the undergraduate students but also the staff of the Schools. Child branch nursing already had extensive experience of simulated learning with undergraduate nursing students and had excellent facilities for this, albeit on a different site some sixteen miles from Cardiff. When the children's nurse lecturers were considering adding an inter-professional and problem based learning (PBL) approach to one of their simulations they contacted the Department of Occupational Therapy in the School of Healthcare Studies. In addition to a partnership in inter-professional simulation, the department has run a PBL curriculum for many years and is well recognised for its innovative learning and teaching.

Both Heads of Schools were supportive of this initiative in inter-professional learning and staff were enthusiastic to work collaboratively on this as a pilot project. In both nursing and occupational therapy curricula, it became apparent that the second year of both undergraduate programmes was the most appropriate place for this, both pragmatically in terms of timetabling but also, importantly, in terms of the theoretical content of the curriculum. Added to this both the occupational therapy and children's nursing students would be studying issues of children and young people with complex and special needs in year two of their programmes.

No further resources were required for the project to go ahead, as the most suitable environment for this pilot study was the simulated flat that belonged to the School of Nursing, who were able to make it available for use by the students. Both programmes had access to Blackboard™, the university's e-learning resource tool (virtual learning environment) and arrangements were made for a unique module to be set up using this electronic resource.

An important factor at the beginning was the commitment of staff to overcome potential problems. Staff worked well together, pooling knowledge and experience of different learning and teaching techniques, which was important for the success of the project. It is important to note that, as experienced academics, there was a considerable degree of autonomy in making decisions about the form and content of this pilot project, to ensure it met the needs of both groups of students. This combination of enthusiasm and autonomy was a crucial factor in the success of the project.

Project outline

- Provide the opportunity to undertake a collaborative project, where there is transferability in terms of learning and teaching between two healthcare disciplines
- Enrich the student experience of collaborative teaching and learning activities through the use of a problem based learning and simulated case study
- Enhancement of simulated learning through digital media analysis, peer review and reflection on practice, provided through the e-learning and small group experience
- An innovation which creates inter-professional opportunities for research and development in learning and teaching within children's services

The students were not involved in the planning of the simulation, but the occupational therapy students did give a presentation about PBL to the nursing students, as this was a new way of working for the nurses. The students were put into three groups, each group consisting of three occupational therapy students and five nursing students. The simulation experience was delivered over a two week period and contained six specific timetabled sessions (Figure 1).

Figure 1: Timetable of inter-professional simulation events

Day 1:	PBL & simulation launch – getting to know your activities
Day 2:	Agreement of PBL groups and research time (PBL)
Day 3:	Research time (PBL)
Day 4:	Simulation of case study: takes place in simulated residential flat with roles of community occupational therapist, community children's nurse, mother, sibling and grandmother, observer and camera operator. One hour maximum length including debriefing
Day 5:	Peer review of video footage and observers' notes, production of joint assessment and discharge plan which is placed in Blackboard™
Day 6:	Presentation of experience, case and discharge care plans at the occupational therapy PBL feedback day

The students met in an ice-breaker session initially and they then had three sessions together to research the case study (Figure 2) and plan a joint discharge assessment in the child's home. Following this the simulation took place in the flat environment, each group having an hour to complete their simulation, including time to de-brief with the academic team. The students video recorded their simulation on a hand-held camera and the video footage was then made available to the group via Blackboard™ for peer analysis. The groups then met to review their video and complete the care plan. The final session involved the nursing and occupational therapy students presenting their case and the experience to the whole occupational therapy group during their normal PBL feedback.

Figure 2: Inter-professional case study

Tom Williams *[fictitious patient character]*
Tom is a seven year old boy who sustained a head injury as a result of a road traffic accident which knocked him off his bike. He was admitted to hospital with a major diffuse head injury with cerebral oedema and spent three weeks in intensive care before being transferred to an acute children's ward. He has now been on the ward for several weeks, visited regularly by his family.
In addition to this case study, students were given notes from the last multi-disciplinary meeting.

The case study was designed both to engage the specific knowledge base of each profession and to enable application of generic knowledge and skills, including communication. It was expected that the students would share and negotiate key areas before deciding on their assessment plan and carrying out their simulation. The simulation experience of all three groups achieved excellent responses from the students. They were animated and interactive, clearly enjoying the experience and openly stating that they felt empowered by realising they knew more than they thought when carrying out the simulation.

For all the students taking part in the project the community orientated simulation was a new experience. Students were given scripts which indicated the role they were to play in the simulation, for example, a children's community nurse, community occupational therapist, the child's mother, grandmother or sibling. The script was not especially directive; it set the scene and allowed the students to develop their own character for the simulation. Students playing the same characters were able to discuss their character and the issues it raised for them.

Within each group one student became an observer and one filmed the experience. These roles were essential as the students conducted the simulation without the lecturers being present and this enabled the students to feel at ease and gave them the opportunity to manage the situation in the way they felt appropriate. This offered a level of autonomy not normally available to students from either profession during their clinical practice experiences. The observer made notes during the simulation and these were made available by the observer via Blackboard™ to enhance the peer review of the video footage.

Results & Discussion

The outcome of the project was very positive, however, some challenges were identified during the process. The majority of these came at the beginning of the pilot, which was expected, as the use of PBL was always going to be a challenge for the nursing students, who were more used to a didactic teaching approach.

Other challenges at the beginning were more pragmatic in nature, due to the different timing of placements and university theory weeks. The occupational therapy students volunteered for the project and were told about it at the outset of the term, a couple of weeks before the project started. This was in contrast to the nursing students, who had been out on placement and had received a letter telling them about the project and that it would start during their first week back in the university. Also, the nurses were not given a formal opportunity to talk about their accustomed learning style to the occupational therapy students, who had talked about PBL, a pedagogy they had adjusted to since the onset of their programme.

Some of the nursing students initially found it difficult to extend their usual hospital role, bridging into the community on a home visit, though the necessity for nursing advice in the home situation had been incorporated into the case study. The smaller number of occupational therapy students in each group found these issues challenging but it is to the credit of both professions that they negotiated between themselves to come to a working solution that did indeed seem, in retrospect, to favour the occupational therapy students.

All the students agreed on their evaluations that the shared experience had been worthwhile and that they had learnt a great deal from each other. They all enjoyed the project as an innovative teaching and learning experience.

Data to evaluate the experience of students participating in the inter-professional simulation was collected via an anonymous questionnaire and through small focus groups. In addition, the notes of the observers were used to evaluate the usefulness of the experience. The data is presented in four themes: the short quantitative questionnaire; the observer's comments; recognising learning; and the general experience.

The students were asked seven short, quantitative questions to obtain a focussed overall evaluation of the project. Table 1 shows the results of this; not all 22 students provided a response to all the questions. Overall this part of the evaluation showed that students overwhelmingly valued the usefulness of the project. The use of Blackboard™ was less convincing.

Table 1: Quantitative student evaluation (n = 22)

Question	1	2	3	4
How enjoyable was the overall experience?	13	9		
How useful was it to work with another profession?	16	6		
You used a PBL scenario – how well did it work?	19	2		
How useful was it to take part in the role play simulation?	19	3		
How well were the learning outcomes for the pilot met?	11	9	1	
Did you use Blackboard™ as a communication tool?	19 (Y)	3 (N)		
Was Blackboard™ helpful?	11	9	1	
Was Blackboard™ helpful to review the observers' comments?	15	5		

Scale from 1 to 4 with 1 = very positive; 4 = very negative

Observers offered their peers both positive and critical comments, for example:

'OT gave a very good explanation of the reason of the home visit and why they were there.' [OT = occupation therapist]

'Nurse gave a very good description of the PEG tube feed and reassured mum on how she would be able to cope doing it herself.' [PEG = Percutaneous Endoscopic Gastrostomy]

'Also takes in to account Tom's preferences such as bath or shower and what chair he usually sits in.'

'Tried to involve all members of the family in their intervention plan.'

'Addressed sister's needs about being scared for Tom and involved her as much as possible.'

'Not much empathy shown when asked, "Will Tom make a full recovery?" Mum was looking for support and none offered.'

'Some sympathy shown regarding mum struggling to get back to work.'

It is clear from the comments of the observers to their peers that they took their role seriously and that they wanted to make comments regarding the performance of their colleagues. This was demonstrated by all the observers. In addition, they demonstrated their own understanding of the simulation and their personal interpretation of professional knowledge, for example, communication and client centredness, a holistic approach to Tom's return home and an understanding of the importance of family involvement.

Students in the evaluation clearly recognised the learning that had taken place, for example:

'IPL is effective, in terms of communication and understanding different roles.' [IPL = inter-professional learning]

'Many things which I can take away with me, e.g. nurses roles, IPL and the discharge process.'

'How a situation is perceived from the viewpoint of another professional; a different method of learning.'

'That as nursing students we do not know much about PBL & IPL; good to work as an MDT.' [MDT = multi-disciplinary team]

'The role of the OT discharge process in depth from different angles.'

As with many inter-professional learning experiences that have been evaluated, the learning that took place was much broader than the clinical case that has been investigated [16]; rather than these comments being concerned with the specific issues of the simulation, for example, head injury and rehabilitation or social care of a child with disability, the students recognised the wider learning that has taken place, learning about each others unique contribution, working together, communicating effectively and learning from each other.

General comments from the students were positive overall, for example:

'I really enjoyed this experience. I would urge any health student to participate in any opportunity like this if one arises, great experience.'

'It was a thoroughly enjoyable experience and I felt I was able to contribute and develop my own knowledge, I also had fun! Thank you.'

'I feel that I did not learn as much new knowledge as with other case studies, but learnt more practical skills suitable for placement, i.e. thinking on my own feet, dealing with a new situation, communication etc.'

It was clear from all of the student comments that the experience had been enjoyable, useful and stimulating. For the occupational therapy students who were experienced in using a problem based approach it was evident that they may have not developed the same level of new knowledge that other cases had offered, however, they felt this was outweighed by the experience of working with another profession in a safe environment and being enabled to think independently when faced with a new challenge.

Future thoughts

We need to address the perceived imbalance between the nursing and occupational therapy students at the outset of the inter-professional simulation experience. Face to face meeting is always preferable to establish good relations, so this needs to be built into each profession's current timetable to allow the students to introduce themselves and their profession earlier to each other. PBL could also be built into this session. The expectations of what the students were anticipated to achieve was very high. As a team we need to review our expectations and make these clear to students.

The remainder of the occupational therapy student cohort were sorry not to be extended the same opportunity to have the simulated learning experience and this needs consideration in terms of allocation of groups and scenarios. We intend to repeat this project next year, trying to reduce the problems by improved timetabling and better preparation. We would also like to incorporate other professional groups, enabling more students to gain from this valuable experience.

Conclusion

This project enabled two professional groups to work and learn together through the use of problem based learning, which culminated in participation in a simulated children and young peoples case scenario. The experience of the academic staff and the two student groups involved was overwhelmingly positive, and the pragmatic challenges of planning and the curriculum in both programmes were overcome with negotiation. The students were able to clearly articulate the learning that had taken place citing more general rather than professional centric examples, such as team working, role differentiation and communication. The remaining challenge for the future of this project will be to expand to include more students and other professions.

Declarations

This project received no external funding and requires no declarations.

Acknowledgements

The authors wish to thank their colleagues for their ongoing support and the students that took part in this project for their enthusiasm and trust.

Author Information

Jane Davies has been a Lecturer at Cardiff University for eight years and in this time has worked with her colleagues to develop the children's nursing clinical skills laboratory and the associated teaching programme. The laboratory simulates a four bed children's ward. Jane has a varied clinical background in general paediatrics, cardiology and neonatology. Jane is currently Professional Head in Children and Young Peoples field of practice at the university and is responsible for leading developments in this area.

Dave Clarke has been a Lecturer at Cardiff University for eight years and in this time has worked with his colleagues to develop the children's nursing clinical skills laboratory and the associated teaching programme. Dave's clinical background is Children's Intensive Care. He is Programme Manager for the undergraduate child branch and contributes to a number of programmes and projects in the School of Nursing and Midwifery Studies (SONMS).

Pam Stead worked as an occupational therapist for 24 years before coming into education in 1997. Experience included a wide range of professional areas, including overseas working and management at District Head level. She completed an MSc in Medical Education in 2003. Pam contributes across the schools academic programmes at both undergraduate and postgraduate levels.

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