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Sharing Experiences of Clinical Assessment between Scottish & Egyptian Nursing Degree Programmes:

Introducing the OSCE into emergency & critical care modules at Alexandria University

Lynn Wallace, Lecturer, Queen Margaret University, Scotland, UK

Dr. Eman Zahran, Lecturer, Alexandria University, Egypt



Outline

- Sharing experiences – how it started
- Process of collaboration in developing OSCEs at Alexandria University
- Different approaches to clinical skills assessment – Clinical exam & Objective Structured Clinical Exam (OSCE)
- Issues and challenges along the way



How it started

- Eman studying at QMU (post graduate diploma Professional Education) in 2007/8
- My role as Personal Academic Tutor
- Eman assisted with QMU pre-reg. OSCEs
- Shared background in critical care
- Both co-ordinating acute/ critical care modules in our roles as Lecturers and interested in OSCEs



Bachelor Nursing: Alexandria



Eman co-ordinator for:

- Year 2 – Emergency Nursing course
- Year 3 – Critical Care I & II courses
- Clinical assessment by practical & oral exams
- Large cohorts (75-260)



BSc (Hons) Nursing: QMU

Co-ordinator of Year 3 Problem Based Learning module (WebCT, 6 week block)

ACUTELY ILL ADULT

- Trauma learning package
- ICU learning package
- Simulation skills labs (CVP monitoring, ET suctioning, chest drains, trauma care)
- Small cohorts 45-55 students
- Lack of time & specialised equipment for OSCEs



Eman back to Alexandria

- Resume lecturer post
- Wishing to maintain links with QMU nursing staff
- Idea of collaborating on curriculum development to introduce OSCEs into Emergency & Critical Care courses



Alexandria University

1st Egyptian University to establish
Nursing Department

- ‘Higher Institute of Nursing’ set up in 1955 and more recently developed into ‘Faculty of Nursing’



Drivers for change at Alexandria University

- Ministry of Higher Education: government encouragement and funding for educational reform
- Revised National Quality Assurance & Accreditation 2004 : *includes* curricular & assessment standards, quality of learning opportunities
- Nursing Sector Committee of Supreme Council of Universities 2008 – developed National Academic Reference Standards (NARS) for Bachelor Degree Nursing



Collaboration for change

- Alexandria Faculty of Nursing received substantial government funding to improve clinical assessment
- Faculty OSCE lab established with High Fidelity Patient Simulators for adult, paediatric and maternity care
- Action Research Project – introducing OSCEs into critical care & emergency modules
- My role as ‘expert’ external advisor on OSCEs



The collaboration process

“... through the process of collaboration, people with a variety of strengths & backgrounds can collectively address substantive issues in education and ensure that the results are disseminated over diverse educational cultures.”

(Elliot 2001 p1)



Features of collaborating

- Working equitably, commitment, respect
- Not necessarily the same goals but compatible, clear & agreed
- Sharing of prior experience, collective self-reflection, shared 'language'

(Elliot 2001)



Recent experiences of international collaboration

Establishing BSC (Hons) Nursing programmes

- Jeddah, Saudi Arabia
- British University in Egypt, Cairo

Applying UK model of clinical assessment which includes OSCEs



Secondment to Egypt: 2009



- 4 months working in the new Nursing Faculty of BUE, Cairo
- Need to find out more about Nursing & Higher Education in Egypt
- Opportunity to link with established Nursing Faculty of Alexandria University



Process of collaboration

1. Together in Edinburgh
2. Keeping in touch: Edinburgh – Alexandria
3. In Egypt
4. Back in Scotland



Process of collaboration 1

In Edinburgh:

- Eman observed and participated in pre-reg OSCEs
- ‘Sharing stories’ - discussions between Eman & QMU Lecturers on our background knowledge and experiences of clinical assessment (clinical exams and OSCEs)
- Eman - literature search on clinical examination & OSCE



Process of collaboration 2

Keeping the links

- Eman and team formulating plans for curriculum development
- Action Research Project: Staff workshops, designing & testing OSCE stations, preparing students, preparing for and running OSCEs, student & staff evaluation with questionnaires and video analysis
- Regular critical discussions (via email & Skype) as project evolved - delay in my secondment to BUE
- Sharing documentation – exchanging examples of OSCE material and literature findings



Alexandria: problems with existing Clinical Exams

- Increasing student numbers (e.g. 15:4 student: teacher ratio)
- Time intensive 3 hour 'long case' style exam per student
- Finding enough patients with the required conditions to match Intended Learning Outcomes (ILOs), permission to access
- Uncontrolled environment: ensuring patient safety and rights, noise, interruptions
- Examiner subjectivity



Global problems? –shift from real to simulated assessment

- All of the factors experienced in Alexandria
PLUS
- Shorter length of patients stay & higher acuity
- Staffing shortages
- Issues of standardisation, reliability & validity

(Walder & Olson 2007, Rushforth 2006)



Issues: 'Long Case' exam

- 'real world' clinical exam may have greater face validity than simulated or standardised OSCE situation
- Inter-case reliability is more of a problem than inter-rater reliability – content specificity
- Need broad sampling across cases to reliably assess clinical competence – number needed may be unachievable given limited clinical resources
- Greater 'depth' of assessment than OSCE
- Lacks standardisation – but is this a problem?

(Wass & Van Der Vleuten 2004)



Adapting the Long Case?

- Improvements which incorporate some direct observation– the Objective Structured Long Examination Record (OSLER) or mini-Clinical Evaluation Exercise (mini-CEX)
- Further research: impact of inter-case, inter-examiner & real patient variance, construct & consequential validity
- Argument for retaining use in formative capacity or combine long cases with OSCE stations (achieve depth & breadth)

(Wass & Van Der Vleuten 2004, Fernando et al 2008, Donato et al 2008, McCrorie & Boursicot 2009)



OSCE: the 'gold standard'

- Scotland home of the OSCE (Harden et al 1975)
- Introduced to Egyptian medical education in line with 2004 proposed higher education reforms
- Small number of Egyptian Nursing Faculties now using OSCEs



Issues: choosing OSCEs for Nursing?

- Student's stress: but enhances validity of 'real world'
- Risk of fragmentation: skills as tasks, not holistic
- Complex to organise (time, staff, cost)
- Greater Objectivity: reduces bias with wider range of examiners
- High level of validity & reliability
- Cover broad range of skills
- Students and staff value, motivates

(Rushforth 2008)



Nursing OSCEs: innovations

- Holistic patient centred designs
- Small number of stations or only 1
- Allocated more time e.g. 30min stations
- Incorporating 'reflection' / video analysis
- Global ratings

(Nicol & Freeth 1998, Major 2005, Joy & Nickless 2007, Byrne & Smyth 2008)



Value of OSCEs: learning and assessment

Hodges (2003) suggests OSCE

- Powerful transformative tool
- An instrument of change
- Contextual fidelity (content validity)
- Role representation (predictive validity)



Integrative OSCE approach

Alinier et al (2003)

- OSCE is integrated way of measuring learning outcomes in skills based learning
- Encourages deep learning by testing higher cognitive functions



Integrative OSCE approach

Dickieson, Carter & Walsh (2008) - factor analysis of 20min OSCE with simulated patient

- *safety*: fundamental tenet of clinical competence
- *anticipation* (pre-thinking & pre-planning): characterizes higher order concepts of critical & integrative thinking, evidence of mental processing



Process of collaboration 3

In Egypt:

- Continue with regular communication (phone calls, email, Skype)
- April visit to Alexandria University Nursing Faculty, Critical Care & Emergency Nursing Department
 - Observe and review summative OSCE
 - Visit hospital setting where clinical exams take place
 - International Guest speaker at dept.'s Critical Care Conference: Revamping Clinical Evaluation in Acute Care Nursing – paper on developing OSCEs: the QMU experience
 - Report on findings from visit and make suggestions for continuing the development of OSCEs



Issues : different educational language & norms

- Course = module
- Grading = marking
- Formative assessment = mid term summative assessment
- Heavy assessment schedule in comparison to UK for equivalent study
- Student HE culture – expect & want lots of assessment to motivate study, won't see value in formative assessment unless graded



QMU: programme pattern of Clinical Assessment

Work –Based ‘Clinical Practice’ modules

Practice Record

- Learning activities mapped with NMC proficiencies – complete and discuss in reflective tutorials with lecturer
- Professional assessment by mentor

University based modules

- Year 1 Skills module – Multi station OSCE incorporating ‘reflection’, e-OSCEs
- Year 2 & 3 Enquiry/Problem Based modules – Integrated OSCE
- OSCEs conducted in Simulation Suite



QMU Clinical Simulation Suite



QMU: Simulated patients

- Bank of Volunteers from local community and Edinburgh area
- Year 4 student nurses act as simulated staff nurses for Integrated OSCEs



Alexandria: revised pattern of Emergency / Critical Care assessment

- Portfolio (includes assignment activities, some of which graded)
- Mid semester & Final exams
- Continuous clinical assessment
- 2 OSCEs incorporating oral exam (in university skills labs)
- Final Clinical evaluation (exam in clinical setting)



Alexandria Skills labs

Range of rooms and equipment including High Fidelity Patient (HFP) Simulators



OSCE : Emergency nursing

FIRST

- Pre-hospital CPR
- Recovery Position & Log Roll
- Written (MCQ)
- Written (Audio-visual/ computer based)

SECOND

- Acute coronary syndrome (cardiac monitoring)
- Inhalation therapy (Nebulisers)
- N/G insertion & lavage
- Trauma (problem solving)



OSCE: Critical Care I & II

FIRST

- CVP measurement
- N/G feeding
- Written (MCQ)
- Written (Audio-visual/
computer based)

SECOND

- Endo-tracheal suction
(ventilated patient)
- Ventilated patient
(Communication with
family)
- Respiratory
Assessment: intubated
SIM MAN (critical
thinking)



Issues & Challenges

What are the priorities?

- OSCE results revealed areas of teaching weaknesses – how to address once identified? (e.g. increase teaching & learning in skills labs)
- Interpreting ILOs - choosing priority & range of skills (emergency/critical, common or rare) and deciding feasible number of stations
- Balanced assessment strategy - holding onto the old ways as well as introducing new approaches could lead to over assessment

Creativity v Resources?

- Create realistic station design to enhance holism and clinical complexity while giving consideration to resource limitations (expanding time allocation and integrating several skills e.g. the way that assessment skills, communication, problem solving are included)
- Maximise use of HFS / patient simulators and consider ways of developing simulated patients



Issues & Challenges: students

- Unhappy about long waits between stations
- Not enough time at stations to complete skills
- Rooms very noisy
- Grading mid-semester formative OSCE: what effect does this have on students' learning?
- Concerns about opportunity for collusion over station information / answers between sets of students



Issues & Challenges: staff

Enhancing preparation of teachers in role as OSCE examiners

- Realistic time commitment (attending ahead of start time to prepare stations, sticking to starting & finishing times of stations, how many hours contribute to timetable)
- Consistency (involve markers in preparation of check lists to increase familiarity and enhance reliable marking, students prompts during stations, when to give and nature of feedback, tracks of same station match same standards of set up and running)



Issues & Challenges: staff

Spreading the organisational load

- Take forward excellent staff suggestion of OSCE Committee in order to distribute responsibilities across team but retain designated person as overall OSCE Co-ordinator.
- Making timetables work ?
Experiment with other methods of processing large cohort numbers to prevent student and examiner fatigue.



Process of collaboration 4

Back in Scotland:

- Reflection on experience of nursing culture where clinical exams assessed by university teachers in practice setting are still the norm. What are the issues? Has UK lost something valuable?
- Differences in roles and responsibilities of university (Teaching Assistants/ Lecturers) and clinical (nursing) staff between the two countries. Does this impact on quality of clinical assessment?
- Forthcoming curriculum review: Should there be changes made to include OSCEs in Year 3 Acutely Ill Adult module (as formative simulated learning experience or summative assessment). Has the Egyptian experience demonstrated value of using OSCEs in specialist areas of pre-registration programme?
- Eman completing Action Research



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