WORKPLACE BASED ASSESSMENT

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WORKPLACE ASSESSMENT IN CONTEXT

• New graduate/PGY1 year

• 2 intern level posts – 6 months General Surgery and 6 months Internal Medicine

• 1 supervisor ‘sign off meeting’ at 8 months by internal medicine supervisor = permission to progress to next year of training

• What are the issues:
  – For the PGY1?
  – For faculty/supervisors?
  – For responsible / licensing institutions?
  – For patients?
THE STONE AGE

- Assessments disorganised – excessive focus on ‘summative’
- High ‘face validity’ but little blueprinting or true application of principles
- Little attention to supervision and in course assessment
Mini CEX

First described in 1995 (Norcini et al)
More focused – 20 minute intervention
BUT
Inter-rater variability
Content specificity and global judgement concerns

Norcini et al Ann Internal Medicine 1995
WHY WORKPLACE BASED ASSESSMENT?

- Situated, workplace learning & assessment:
  - Assessor-candidate-patient interaction
  - Multiple sampling!
  - Demonstrate what actually happens on the ground = authentic
  - Inferences can be adjusted for level & complexity
  - Consensus as assessment for learning

- Mandates (better) supervision and feedback across multiple events = proven effect size/impact

Norcini & Burch Medical Teacher 2007
Boursicot et al Medical Teacher 2011
WHAT CAN WE ASSESS? WHAT ARE YOUR EXPERIENCES?

- Consultation
- Explanation
- Examination

- Practical skills
- Technical procedures
- Prescribing

- Diagnostic reasoning
- Case management
- Applied knowledge & interpretation

- Professionalism
APPROACH

- Selection of case
  - Trainee/student or Faculty
- Observation of case
- Interaction of trainee, assessor and patient
- Early Scoring Mechanism
  - Typically a number (0-3 unsatisfactory, 4-6 satisfactory, 7-9 excellent) or rating scale
- Feedback (Initially limited – now much more focus!)
TYPICAL (ORIGINAL) FORMAT

Mini-CEX Assessment Form

Please use capital letters
Student name: Date: ________/
Assessor name: _____________________________
Patient problem/description: ______________________________
Complexity of case: Low ___ Moderate ___ High ___
Setting: GP Surgery ___ OPD ___ Ward ___ Other: (please state) _____________________________
Focus: History ___ Examination ___ Explanation/patient information ___
1. History taking skills: Not observed ___
   Unsatisfactory ___ Satisfactory ___ Superior ___
2. Physical examination skills: Not observed ___
   Unsatisfactory ___ Satisfactory ___ Superior ___
3. Professionalism: Not observed ___
   Unsatisfactory ___ Satisfactory ___ Superior ___

4. Clinical judgement: Not observed ___
   Unsatisfactory ___ Satisfactory ___ Superior ___
5. Explanation: Not observed ___
   Unsatisfactory ___ Satisfactory ___ Superior ___
6. Organisation/efficiency: Not observed ___
   Unsatisfactory ___ Satisfactory ___ Superior ___
7. Overall clinical competence: Not observed ___
   Unsatisfactory ___ Satisfactory ___ Superior ___

Mini-CEX time: Observing minutes: __________ Feedback (minutes): __________
Assessor's comments: ________________________________

Assessor's signature: ____________________________
Student's signature: ____________________________

DRAFT
MAIN (UK) ASSESSMENT METHODS

• Single Case focussed assessments
  – mini-CEX (Clinical Evaluation Exercise)
  – CbD (Case Based Discussion)
  – DOPS (Direct Observation of Procedural Skills)

• Multiple case focussed
  • (ACAT) Acute Care Assessment Tool
  • Professionalism
  • (MSF) Multiple Source Feedback/360
  • TAB (Team Assessment of Behaviour)

• Patient based Feedback (e.g. PROMs type formats)
OTHERS....

• Clinical Encounter Cards
• Similar to mini CEX
• Domain based Assessment
• Mandatory Feedback

• Clinical Work Sampling
• A mix of DOPS, CBD and MSF
• Multiple assessments of encounters between resident & patient
• Early work (2006) using a PDA device
MINI CEX

- Assessor supervises a trainee with a patient
- Trainee performs (domain/outcome based) task
- Assessment scored
- Feedback given
- Usually 15-20 mins
DOPS

• Structured observation and assessment of a practical skill e.g. cannulation
• Similar to mini-CEX
• Focus on procedural elements – e.g. hand hygiene, safety
CBD (CASE BASED DISCUSSION)

- Case/chart stimulated
- Discussion with trainee about a case they were involved with
- Ability to explore knowledge application in greater detail (e.g. decision making)
- Contextualised – aligns well with trainee
• In the UK
  – Also known as 360° feedback, peer ratings
  – All stages of training and revalidation

  – Examples
    • mini-PAT (Peer Assessment Tool)
    • TAB (Team Assessment of Behaviour)

  – Samples health care colleagues opinions of professional performance
    • Content specific mapping to Good Medical Practice (GMC)

Archer et al Adv Health Sciences Education 2006
RELIABILITY?

- A topic of considerable debate

✓ Evidence of reasonable reliability ($\alpha > 0.7$)
✓ 10-15 different, combined assessments

- But
  - Limited sampling across different tools
  - Work from ‘expert’ groups ≠ ‘real life’ Faculty
  - Psychometric properties ≠ Meaningful scoring & feedback
  - Authenticity (and value of WBA) may be sacrificed in pursuit of reliability

CHALLENGES

• Faculty development can be difficult = *unhelpful for institutions*

• Feedback techniques are clear, but often not applied = *unhelpful for trainees*

• Method of feedback capture can be difficult (paper, online, voice tag?) = *unhelpful for assessors*
DO A DOPS/MINI CEX…….

• No medical knowledge needed – enjoy!!

• We want you to watch a dance performance involving a novice (celebrity) who has been working with a professional dancer for the last 4 weeks.

• We want you to rate the performance using a 1-10 rating scale (1 = the worst; 10 = the best).

• No training or support material has been provided – the local education/training budget has been slashed!
http://www.youtube.com/watch?feature=player_detailpage&v=sISZFKR-L3o#t=50
YOUR FEEDBACK

Please rate the dance performance on a 1-10 scale
SCORING / SOURCES OF BIAS

- Gender (from established work in OSCEs)
- Ethnicity
- Country of graduation
- Occupational group of assessor
- Experience/training of assessor
- Clinical setting
WHAT ELSE AFFECTS SCORES?

• Length of working relationship (and almost certainly the nature of relationship)
• Halo effect
• Contrast effect (Yeates and Eva)
• Pre-formed ‘person models’ and stereotypes (Park; Mohr & Kenny)
• Non verbal behaviours

• ‘It does not need to be voiced to be counted’ (Alnasser)
REMEDIATION 1: TOOL REDESIGN

- Construct Alignment
- ‘Respecting Assessor Expertise’ by ‘asking the right question’
- E.g. Does the trainee still need supervision? Can practice independently? Can teach others? (rather than fail, ok, excellent) – not 0-9!
- Surgical PG training study – better reliability, agreement and acceptability

- Much more focus on (better) feedback
- E.g. RCP’s Supervised Learning Events – no numerical scoring, expanded requirement for feedforward and planning

Crossley & Jolly. Med Educ 2012;46
EPA?

- Entrustable Professional Activities (Ten Cate & O’Sullivan)
  - Entrustment decision based on levels of supervision & responsibility
  - Combine multiple competencies into integrated, ‘real’ clinical practice
  - May represent a way to manage some tensions
    - RELIABILITY
    - AUTHENTICITY
    - FEEDBACK
    - MEANINGFUL ‘PROGRESSION’
REMEDIATION 2: ASSESSORS

• Assessors
  – Who should assess?
  – Who should ‘control’ the case? (Highly individualistic dependant on characteristics of the trainee)

  – Constructivist view of assessment:
    • Black boxes and variation (Kogan)
    • Decisions as Social Judgements (Gingerich)

  – ‘More’ training in current formats unlikely to help

• FOCUS ON GIVING (and receiving) MEANINGFUL FEEDBACK

Kogan et al. Med Educ 2011;45
Gingerich et al. Acad Med 2011; 10(S)
IMPROVING FEEDBACK IN WBA....

• Need to overcome cultural ‘history’
  – Feedback to pass the test
  – Feedback to get a better grade
• ‘Activity’ requires
  – Dialogue between staff and students
  – Maturity of approach – students and faculty need to ‘learn’ how to deal with feedback
  – Efforts need to be longitudinal to enact this (Boud, Sadler 2013)
  – Entrustment scales may again be helpful here
GETTING WBA RIGHT

- Clarity about why we are doing it
- *Formative or summative?*
- What are we measuring?
- *Numbers or values/behaviours?*
- Can we do it differently?
- *Mobile?*
- Can we do it better
- *Ottawa Consensus Recommendations*

- What does the future hold?
WHY ARE WE DOING IT?

• Disseminate the purpose of the assessment
  ✓ Faculty and trainees/students

• Place within a programme of assessment

• Ensure consequential validity
  ✓ What happens if complete/incomplete
  ✓ What’s in it for me?
    ✓ Feedback and development (success stories)
    ✓ Trainee reflection about the quality of my assessment and supervision (e.g. for appraisal)
DOING IT BETTER?

• For individuals
  • See assessment as learning not tick box
  • Articulate purpose of assessment

• For institutions
  • Time for meaningful assessment in clinicians’ schedules
  • Individualise assessments – normal vs. underperforming trainees
  • Predictive validity – can we identify ‘at risk’ trainees?

• Outstanding issues
  • Reliability in naturalistic settings. Achievable?
  • Impact of WBA on learning in practice
  • Using WBA to assess ‘transfer’ & transition?
  • Trust vs tools and the ‘competency trap’*

*Boursicot et al. Medical Teacher 2011
University of Leeds (UK)
Blended learning curriculum
Learner held assessment and content on smartphones and tablets across programme
Feedback, reflection & student evaluation to learner and assessor

Measures student engagement – correlations with behaviour patterns and high stakes exams – assessment as ‘diagnosis’
Allows early support & remediation
Insight into feedback and reflection
Interventions ‘nudges’ to those at risk
Assessing CPD – helping us keep up with a rapidly changing world
WHAT DOES THE FUTURE HOLD?

• Senior clinicians – competence and career progression?

• Link WBA with process of care and patient outcomes

• Explore individual practice and the environment

• Targets for remediation, development
How would you design a new programme of WBA for a new PGY1 training programme?

Use an assessment system you are familiar with to answer one or more of these questions:
- What tools will you use? Why?
- What resources will you need?
- What challenges could you face?

Post your answers in Module 4 on the ESMEA discussion board (I'll start a thread)

Review each other’s comments and provide ideas and feedback – particularly if you have experience of WBA in your own contexts

This will operate as a group discussion – please contribute ideas, resources and experience!!
QUESTIONS?

• If you need a copy of references and a useful reading list – please email

• R.Fuller@leeds.ac.uk