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Postgraduate assessments in Brunei Darussalam

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BACKGROUND

Defining what competence is, and then devising methods to assess it has been difficult. There are many definitions of competence in the literature. Southgate defined competence in a doctor as being 'composed of cognitive, interpersonal skills, moral and personality attributes. [1] It is in part the ability, in part the will, to consistently select and perform relevant clinical tasks in the context of the social environment in order to resolve health problems of individuals in an efficient, effective, economic and humane manner'. Miller however earlier argued that assessment of performance is more important than competence as performance reflects on real life practice. [2] Competency-based assessments were defined as measures of '*what doctors do in testing situations*', while performance-based assessments were defined as measures of '*what doctors do in practice*'.

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Assessment of the performance of junior doctors has always been a grey area in medical training. Most junior doctors will have undergone medical examinations specifically targeting medical knowledge during their medical careers. Rethans *et al*. however reported that trainees' performance in examinations do not always reflect their actual clinical practice. [3] The Miller triangle (Figure 1) is a useful model to assess clinical competence and performance which involves staging at four progressive levels;- '*Knows*', '*Knows how'*, '*Shows how*' and '*Does*'. [4] Rethans *et al*. also emphasised the importance of systems and individual related influences in their Cambridge model which add further depth and complexity to the original Miller triangle (Figure 2). [3]

At the base of the Miller triangle, the '*Knows*' and '*Knows how*' components can be tested by multiple choice questions (MCQs) and essays. Further up the triangle, performance assessment can be tested in vivo via the Objective Subject Clinical Examination 'OSCE'

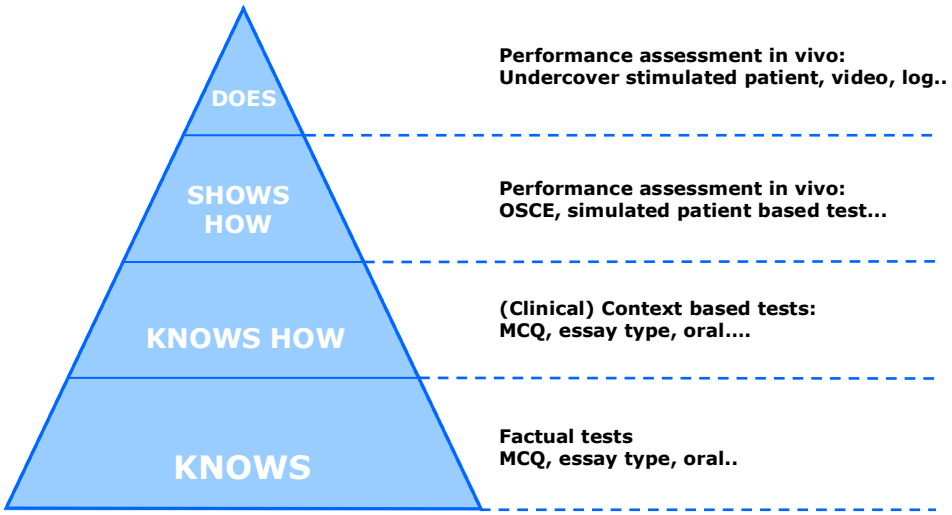

Fig. 1: The Miller Triangle.

and simulated patient based tests. However, of the most interest is the area at the top of the triangle which tests the ability to perform competently in real life situations. In clinical practice however, there are also many other factors that may influence clinical performance. The Cambridge model broadens the Miller's triangle by categorising these factors into system influences like government programmes and initiatives, patients' expectations and guidelines and individual related influences like physical and mental health, relationship with other healthcare professionals and family.

Until recently, the assessment of trainee doctors was a subjective process and was based on an educational supervisor signing up a trainee as competent in their record of training. [4] However this method of assessment is now considered old fashioned and widely criticised because it is too one dimensional and heavily dependent on the supervisor-trainee rapport. Since then, there has been rapid and extensive change in the way assessment is conducted in medical education and many new methods of assessment have been developed and implemented which focus on clinical skill, communication skills, procedural skills and professionalism. [5]

ASSESSMENT METHODS

Medical foundation training which includes pre-registration houseman training was started in Brunei in 2008. This is a two year postgraduate training programme which provides a basis of producing competent doctors able to deliver a high quality, reputable and sustainable health care system. [6] The system was adapted from the established foundation training programme of the United Kingdom as this is an educational system familiar to many Bruneian doctors.

Assessment of performance is an integral part of any training programme and is needed for patient safety, discrimination for advancement, to provide motivation and direction for learning and to judge the adequacy of the training programme. The post-

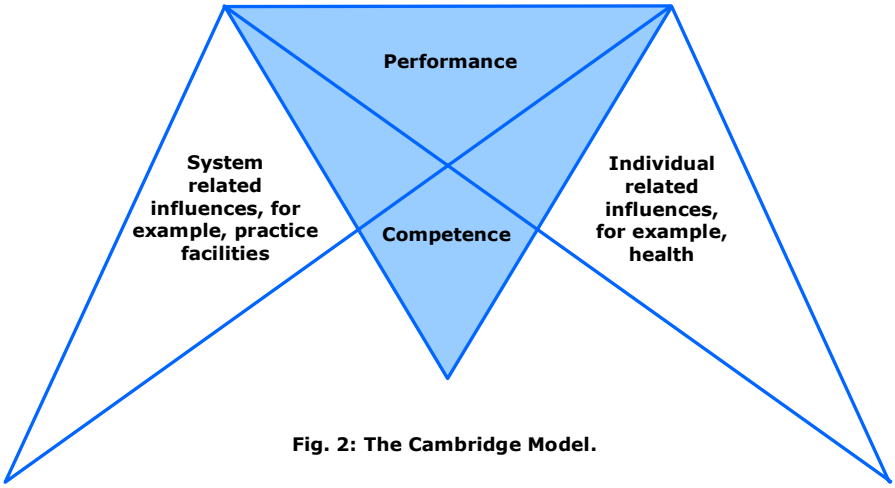

Fig. 2: The Cambridge Model.

graduate programme utilised adaptations of a number of assessment tools (DOPS, MSF/360 degrees, Mini-CEX, CBD) which have been widely used not just in the United Kingdom but in the United States and Europe as well. The assessment methods were chosen with a focus on the five principles of good assessment: validity, reliability, feasibility, educational impact and acceptability. [7]

Directly Observed Practical Skills (DOPS)

DOPS was designed by the Royal College of Physicians (RCP) specifically for the assessment of doctors' procedural skills. Prior to DOPS, there were no validated methods of procedural performance assessment described in the literature. [8] Traditionally procedural competence was assessed by logbook documentations of numbers and complications. DOPS can potentially offer more validity and reliability than a log of numbers because it is thought that numbers needed to reach competence varies with different individuals.

The encounter should be representative of the trainee's normal workload (e.g. for Postgraduate Year 1 [PY1] venepuncture or insertion of urinary catheter) and there should be time for formative feedback after each encounter. The supervisor will assess by scoring the performance of the trainee in a standardised DOPS form which has been modified from the original RCP format (See Appendix-*Supplementary text*). In order to achieve acceptable levels of reliability, each trainee must be assessed by at least three judges, each assessing two cases through the duration of their training. [8] Our PY1 and PY2 trainees perform six DOPS per year with at least two different assessors per procedure.

MINI Clinical Examination (Mini CEX)

The mini-CEX involves a direct observation of doctor/patient interaction in a real life setting with emphasis on assessment of clinical skills and attitude of trainees important to providing quality care. It was adapted from the traditional CEX which involves an experienced physician observing a trainee during his or her routine clinical practice and assessing competence in formulating management

plans. The traditional CEX encounter usually last about two hours and most trainees will only have one evaluation per year. [9] This traditional method was however time consuming and the use of only one observer and one patient per exercise created issues regarding reliability and validity. [10] The mini-CEX is a shorter version of the traditional CEX, usually lasting 20 minutes.

It was first introduced and piloted in the United States and is now widely used for residency programmes. [11] Unlike the traditional CEX, it was found that when repeated on multiple occasions with different patients in different clinical environments and it showed better reproducibility of results and offered residents better opportunities for feedback and observation by more than one assessor and with more than one patient. [11] Like DOPS, the supervisor will score the performance of the trainee in a modified version of mini-CEX specifically designed for use in Brunei, (See Appendix- *Supplementary text*) with emphasis on real life communication and management skills. Our trainees are required to perform six mini-CEX assessments per year with specialist or senior medical officer input to ensure feedback is of adequate quality. For reliability purposes, each trainee must be assessed by at least two judges per year, each assessing a maximum of two cases per year.

360 Degree Assessment

360 degrees assessment also known as Multisource feedback (MSF) assessment is an objective systematic collection and feedback of performance data about an individual derived from others working directly with him or her. This method had been used widely in industry and business to assess performance, encouragement, improvements in employee performance and to inform on decisions regarding promotion and job planning. [12] This had also been evaluated and found to be a useful tool in medicine. [13-16] In the context of hospital-based practice, 360 degrees assessment can give useful information particularly regarding generic skills like communication, leadership, team working, punctuality and reliability. [17]

The Brunei PY1 and PY2 programme requires one set of MSF returns per year from a range of colleagues. The trainees will choose twenty raters from within the area that they worked in but these raters must include five doctors, five nurses, five allied healthcare professionals (e.g. physiotherapists, pharmacists, dieticians) and five clerical staff. The raters will score the trainee in a wide range of categories (see Appendix) and then returned the completed forms to the Postgraduate Medical Education centre for analysis. The trainees will not be aware of the scores given by an individual rater but will instead be given the results collectively in a constructive feedback format.

Case Based Discussion (CBD)

CBD is a structured discussion designed to explore professional judgement exercised in a clinical case selected by the trainee. In CBD, the trainee picks a patient record in which they have made entries. A discussion between the assessor and trainee ensues, centred on this written record and is designed to assess clinical decision making and the application of medical knowledge.

Our trainees perform a slightly modified version of this with a Powerpoint present-

ation of a case to two specialists and other trainees. The trainees are scored by two assessors on the clarity of note keeping, presentation skills and patient management skills. This modification was introduced partly with the aim of improving trainees' presentation skills and also to allow adequate time for exploration of aspects of the case such as investigations and follow up. The main difference between CBD and mini-CEX is that CBD allows the assessment of the real life performance of doctors (albeit in a retrospective manner) whilst the latter prospectively assesses what a trainee would do under 'assessment conditions'. CBD has been successfully implemented with junior doctors in the UK where it has received favourable reports from those involved. [18]

Other Assessment Methods

In addition to the above methods, trainees from the PY1 and PY2 programme are required to complete their clinical skills and clinical encounter logbooks and complete an audit in a department that they have worked in. The logbooks will allow a scrutiny on the number of cases seen or the number of procedures performed by the trainees during the training period. This will inform the training committee on the need for further exposure or experience in any specific areas. The audit will give the trainee valuable grounding on research and quality management skills which should enhance their learning experience. A clinical supervisor report summarising the overall performance of the trainees during the period of clinical attachment is also required.

Record In Training Assessment (RITA)

RITA is an interview style meeting conducted by a panel of specialists appointed by PGATB. Strictly speaking, RITA is not an assessment but a review of all the assessments performed by the clinical supervisors. The trainees are required to produce documents pertaining to all the assessments done during the set period. Failure to produce the documents or unsatisfactory assessments will usually lead to trainees repeating the assessments. In the worst case scenario, trainees may be required to repeat a segment or the whole of a post. Table 1 summarises all the assessment methods and their requirements described.

OVERVIEW

In the context of a newly developed training programme, it is essential to have a system in which doctors are reliably assessed for competence. If not done well, this may have implications on the credibility of the programme which may ultimately affect patient safety and impact upon the quality of doctors produced. This is in accordance with the drive by the Ministry of Health, Brunei Darussalam to ensure quality assurance in health services. Under-performing doctors could be identified at an early stage where additional training or remediation is needed. In addition, regular assessments will provide motivation and direction for learning and keep trainees in check on a continuous basis. It will also provide justification and discrimination for advancement of overseas training particularly as there is currently no provision for advanced specialty training in Brunei Darussalam. It is essential that foreign training institutions accepting Bruneian doctors for advanced specialty training be confident that Bruneian doctors have trained in an internationally accepted system of sufficiently high standard.

Over the past two years, formal anonymised feedback has been taken for all those undergoing the PY1 and PY2 programme. All the assessment methods were well received by the trainees with overall satisfaction ranging from moderate to high. Like any new programme, more experience is required to improve the quality of delivery and to develop new ideas. Amongst the newer ideas proposed are the introduction of other assessment methods like patient satisfaction survey and videotaped medical consultations which will help to assess other aspects of medical competences. However, it must be emphasised that sustainability of the program will depend to a greater extent on the acceptability of the methods and this can only be achieved by continuous cooperation and hard work from all the relevant stakeholders.

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