Work place - based assessment

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ABSTRACT

An important drawback of current assessment pattern in medical education is that it does not assesses the learner in all three domains of learning and also it fails to assesses learner as a performer in real life scenario. The Workplace-based assessments (WPBA) is an innovative method which can address these important issues. A comprehensive assessment system comprising of traditional assessment method along with WPBA can assess overall profile of an individual by testing their skills, knowledge and behaviours. The methods of assessment of learning are changing appropriately. The assessments of Medical competence now are taken to the higher level of miller's pyramid from Lower cognitive levels of "What do you know" traditionally tested in MCQS, to the "what do you do" of consultation, observation and performance indicators. The complexity of assessment can be overcome by assessing doctors in their actual working environment in multiple contexts at different point of time. This might include direct observation of performance as well as assessments of learning, accountability, certification and assessment of patient care and patients' outcome. This is known as WPBA. This article describes principles, need, and tools of WPBA and it's utility in assessing learner.

Introduction :

The medical profession training initially originated as an apprenticeship model. The learner observed, assisted, performed in the actual clinical setting and improved by feedback from the mentor based on his performance.

Subsequently the training part was compartmentalized as pre clinical, para clinical and clinical departments with assessment methods being appropriately utilized.

There was dissolution of boundaries of these three divisions and clinical evaluation was stressed with introduction of early clinical exposure and stress was given more on doing part of the training. The emphasis was given on the performance of the trainee rather than only on his competence. The two cardinal components emerged as 'direct observation' and 'conduction at workplace.'

Recent trends in medical education are moving rapidly away from gaining a certain number of marks in high-stakes examinations and towards gathering evidence of clinical competence and professional behavior on a daily basis in the workplace. For this reason, on-the-job workplace-based assessments (WPBA) have been developed to assess workplace-based learning programs.

Throughout medical training, particularly where there are large numbers of candidates for relatively small numbers of places in a particular training programme, a competitive culture exists. Competition can make people wary of assessment, and efforts to provide feedback on progress and attainment can unintentionally be seen as threatening. One aim of this guide is to emphasise that WPBA requires a change in that culture. It sets out principles by which WPBAs can be implemented in such a way that the environment of competition changes to one of nurture and of professional educational support.

Why work place based assessment?

WPBA is an essential part of an assessment system, alongside traditional examinations. A comprehensive assessment system will collectively form an overall profile of an individual by testing their skills, knowledge and behaviours against those identified in GMC-approved curriculum.

At the same time the methods of assessment of

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learning are also changing. Traditionally medical assessment is focused on ritualistic end point summative judgments conducted for away from the place of work. Knowledge based tests often uncoupled from examination of understanding or application in clinical encounters using surrogate or volunteer patients. Increasingly assessments of Medical competence now takes us to the higher level of miller's pyramid from Lower cognitive levels of "What do you know" traditionally tested in MCQS, to the "what do you do" of consultation, observation and performance indicators.

In Miller's framework for assessing clinical competence, the lowest level of the pyramid is knowledge (knows), followed by competence (knows how), performance (shows how), and action (does). "Action" focuses on what occurs in practice rather than what happens in an artificial testing situation. Workplace-based methods of assessment target this highest level of the pyramid and collect information about students' performance in their everyday practice.

Number of themes emerges from contemporary practice of medical education. One of the themes is about learning process where learner is an active contributor in the process, and learning is related to real life problems, and it is lifelong learning.

Educational supervision must include regular feedback about how agreed learning targets are progressing and encourage the practice of reflection. It also means keeping a record of such interactions between trainer and trainee so that both parties can look back on how an individual has been progressing. The inclusion of assessments of performance in the workplace, rather than relying on formal and infrequent high-stakes examinations alone, should foster an environment where assessment for learning (along with assessment of learning) is seen as normal.

"Competence indicates what people can do in a contextual vacuum under perfect conditions. Performance indicates how people behave in real life on day to day basis.

The complexicity of assessment can be overcome by assessing doctors in their actual working environment in multiple contexts at different point of time. It is called as work place based assessment.

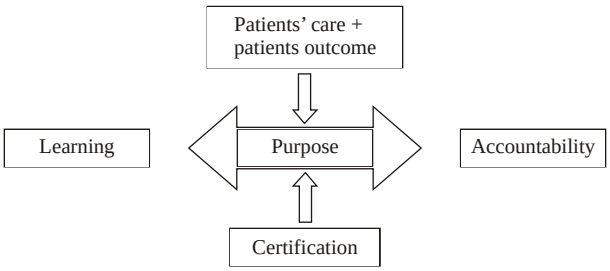
Work Place based Assessment : (WPBA)

Work place based Assessment has been defined as the assessment of working practices based on what doctors actually do in the workplace & predominantly carried out in the work place itself. This might include direct observation of performance as well as assessments specifically undertaken in the working environment.

WPBA is based on purpose for which assessment is to be done.

- Assessment for Learning
- Assessment for accountability
- Assessment for certification
- Assessment for patient care & patient outcome process.

Purpose of WPBA



Need of WPBA :

There is a need for inclusion of WPBA in the program of educational assessment.

Need of WPBA is very important in medicine where patient safety and competency is very important to be assessed.

1. The WPBA can help in recoupling of Teaching Learning methods with assessment, where assessment should be integral part of educational planning.
2. WPBA relates to more valid assessment which is known as authenticity which is particularly very important when dealing with assessment of medical expertise.
3. WPBA can be only process of assessment of professionalism. Final need is in some

competency area like professional development, team working etc. and are difficult to be assessed.

Principles of WPBA :

Any assessment system for postgraduates training must meet number of principles laid down by the "Postgraduate medical Education and training Board". It should have following fundamental principles.

Competency based

Development

Quality assured.

Clearly the design of any assessment system will also need to take in to account its utility or usefulness of assessment. It has been defined as product of reliability, validity, feasibility, acceptability and educational impact.

Competence is a complex structuring of attributes needed for "intelligent performance in specific situations." It is important to note that the concept of "Intelligent performance" comes from as integrated approach to constructing competencies and a move towards the more holistic construct of competence, based on outcomes defined by an overarching curriculum.

Competency areas defined within the draft of new membership examination of the Royal College of general practioners (NMRCGP) are as follows.

Communication and consultation Skills: communication with patents and use of recognized consultation techniques.

Practicing holistically: The ability of the Doctor to operate in physical, socioeconomic and cultural dimensions.

Making diagnosis / Decision making : It is a conscious structures approach for diagnosis.

Clinical management : Reorganization and management of common medical conditions in primary care.

Working with colleagues and in teams : Working effectively with other professionals to ensure patient care.

Community orientation : Management of the health and social care of the practice population and local community.

Maintaining Ethical approach

Fitness to practice : Doctor's awareness of his performance, conduct or health.

WPBA EXAMPLES OF TOOLS :

RATIONALE AND ADVANTAGES OF WPBA

The practice of medicine may be described as a 'performing art based on science and judgment'. This means that while there is a necessity to assess the scientific knowledge base, the assessment is essentially incomplete without an assessment of performance and judgment. There is no better place to do so than in the workplace itself, in real context. There are various advantages of WPBA. These are

1. *WPBA Conforms to highest level of Miller's pyramid :* Miller's pyramid [3] is a simple and useful model for assessment of clinical competence / performance. The three components of Miller's pyramid are knows, knows how, shows how & does. WPBA helps on assessing the higher level of Miller's pyramid as shows how and does.
2. *Focus on clinical skills including the necessary soft skills :* The clinical skills development is very important in medical training. Good history, physical examination and clinical skills are important aspects of clinical skills which are assessed in WPBA.

   The backbone of clinical skills lies in several soft skills such as such as communication skills, professionalism, and ethics. It determines how well a person uses his / her clinical skills for health care delivery. It is important to develop an effective assessment plan for these skills. There is some effort to assess these skills by methods that assess competence such as the OSCE but these remain confined to the examination situation and the results may not be generalized to the actual performance in real life.

   Many of the tools for WBPA such as the Mini-Clinical Evaluation Exercise (mini-CEX) and Directly Observed Procedural Skills (DOPS) inherently include an assessment of communication skills.

3. *Observation (in real situation) and feedback*
4. The WPBA not only provides the opportunity to observe and assess in the real life situation but also it provides feedback for improvement at the most appropriate time. Feedback is most effective when given for specific tasks. The feedback is grossly underutilized in medical education. While no such data is available from India, studies from western countries suggest that less than one third of clinical encounters are actually observed during training.

   At the Postgraduate level, up to 80% of Postgraduate students may have only one observed clinical encounter. The above facts make it amply clear that not only there is a limitation in terms of number of opportunities available for direct observation and feedback but also gross underutilizations of these sparse opportunities.
5. *Context and content specificity :* Context is important in any learning situation. It is a major determinant of how a physician will perform in a certain clinical setting.

   The content areas in a curriculum are also developed based on larger/local needs and context.

   The WPBA inherently maintains a certain level of context and content specificity of assessment as the work place is best suited for sampling the situations that a student will actually encounter in clinical practice after qualifying.
6. *Compensation for shortcomings of the traditional assessment methods :* The WPBA encompasses compensation for shortcomings of traditional assessment methods by the fact that it encompasses real life situations after completion of studies, ease of trainee while performing the activity, opportunity for feedback and thus keeping the trainee on a proper tract of learning.
7. *Alignment of learning with actual working :* Use of problems as a trigger for learning utilizes the principle of contextual learning. This has been the basis of teaching methods such as case-based learning or on a larger scale in the Problem based learning curricula.
8. *Encourages reflective practice :* The assessment based feedback to function as a tool for learning necessitates reflection by the student as well as the teacher. Feedback is more effective when provided around a specific task.

Tools for WPBA :

It may be emphasized here that WPBA is not being recommended as a replacement for conventional assessment system but as a complement to it for best benefit. The tools in use for WPBA are best used in a judicious combination as per the feasibility and context.

The various tools used for WPBA are;

- *Documentation* of work by the trainee through logs e.g. Logbook, Clinical Encounter Cards (CEC)
- *Direct observation* of trainees performance during clinical encounters such as the mini-Clinical Evaluation Exercise (mini-CEX), Direct Observation of Procedural Skills (DOPS), Acute Care Assessment Tool (ACAT), Clinical Work Sampling (CWS).
- *Discussion* of individual clinical cases such as Chart Stimulated Recall (CSR; also referred to as Case based Discussion or CbD in UK)
- *Feedback* on routine performance during clinical work from the peers, co-workers and patients (multisource feedback) using tools such as mini-Peer Assessment Tool (mini-PAT), and Patient Satisfaction Questionnaires (PSQ).
- A *longitudinal compilation* of above assessments and own reflections or learning from other sources into a Portfolio.

Strengths of WPBA :

It is potentially highly valid tool and can assess does part of Miller's pyramid. It helps to know whether the trainee can apply the skills and knowledge in a particular situation. It Maps achievement in a competency framework and identifies those learners who might need particular educational support early in training.

Limitations of WPBA :

WPBA does not assess knowledge directly. It can be

WPBA EXAMPLES OF TOOLS :

Sr. No.	TOOL	COMMENT
1	Mini - CEX	In this an observer assesses one candidate completing a focused interview or examination. Assessment is recording in standard format and takes 15, 20 minutes to complete. Mini-CEX is based on assessment of multiple encounters within hospital settings.
2	Longitudinal evaluation of performance	Similar to the mini-CEX, the longitudinal evaluation of performance piloted as a formative tool for the assessment of dental trainees, uses direct observation of the trainees in clinical practice and relies on judgments of an evaluator across eight broad categories, for each category a judgment is made on nine point scale which allows developmental progression.
3	Video Assessment	Various video assessment methods are available for general practitioners, for summative examinations. Most modules are available in Holland.
4	Direct observation of procedural skills. (DOPS)	DOPS Require educational supervisor to directly observe the student under about specific components of the procedure. DOPS has been included in WBPA of foundation medical students.
5	Direct observation of consultation skills. (DOCS)	Fraser et al described systematic formative feed back to students after direct observation of six consecutive and largely unselected patients.
6	Case based discussion	Or chart simulated recall, involves oral structured interview by assessor to assess. This may last per 30 to 60 min.
7	Multisource feed back	Has been Demonstrated most reliable and valid tool for the assessment
8	Patient satisfaction survey	The physician achievement Review is rolled out to all physicians every 5 yrs. Raters include systematically selected patients, a self Questionnaire and Questionnaire distributed by the participating physician to medical colleges and non physician Co-workers. The consultation and relational empathy measure (CARE) has been successfully evaluated as a mean of measuring patients perception of relational empathy in consultation.
9	Written assignments	Written assignment in a variety of formats are already currently used as part of the assessment process for summative assessment of GP registration in UK significant event analysis report analysis has also been piloted for UK with established practitioners.

opportunistic, not needs driven, unless there is proper understanding between trainer and trainee. If educational supervision is not working appropriately, trainees are more likely to try to delay or avoid assessments, or ignore feedback. WPBA requires both time and training, which must be allowed within the educational programme and properly resourced. Unless there is excellence in educational supervision and unless it is taken seriously by both trainee and assessor, WPBA is learner dependent and vulnerable.

Conclusion :

Assessments conducted in the work place are of high validity and serve to reconnect teaching and assessments. A competency based model accords

with the overall contemporary emphasis of medical assessment but is over atomized. In order to enhance educational impact the use of holistic competencies within a developmental continuum is recommended. Such a continuum has advantage of explicitly illustrating the direction of travel for trainees rather than merely pointing out the level below which they should not fall.

Clearly there is much to be done in the development of WBPA to create a vehicle for assessment that is robust, comparable and consistent. WBPA is a powerful tool for professional development. Further research in this area is urgently required.

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