

Making the most of Competency-based Medical Education

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Disclaimer



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Chapter 1

The Clinical Competence

Conceptual Shifts: from then to now

Two thousand years ago.....

TS

Getting the Most from CBME

Competency-Based Medical Education

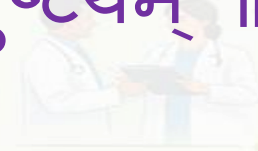
Training

- Clinical Experience
 - Hands-On Practice
 - Simulation & Skills Labs
- Focused Teaching
 - Case-Based Learning
 - Interactive Workshops
- Milestones & EPAs
 - Defined Competencies
 - Entrustable Professional Activities (EPAs)



Assessment

- Direct Observation
 - Workplace-Based Assessments
 - Feedback & Coaching
- Competency Evaluation
 - OSCEs & Simulations
 - Multiple Choice Questions
- Reflective Practice
 - Self-Assessment
 - Learning Portfolios



श्रुते पर्यवदातत्वं बहुशो दृष्टकर्मता ।
दक्ष्यं शौचमिति ज्ञेयं वैद्ये गुणचतुष्टयम् ॥

Thorough understanding of medical scriptures, theory, and science, extensive practical experience, having seen and handled many cases, promptness in action, dexterity in procedures, ability to handle critical situations, purity of mind, body, and intent are the qualities of a physician.

Charak Samhita, 100 BCE

Two centuries ago.....

TS

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Conceptual progression



"AI-generated conceptual illustrations (no real data)."

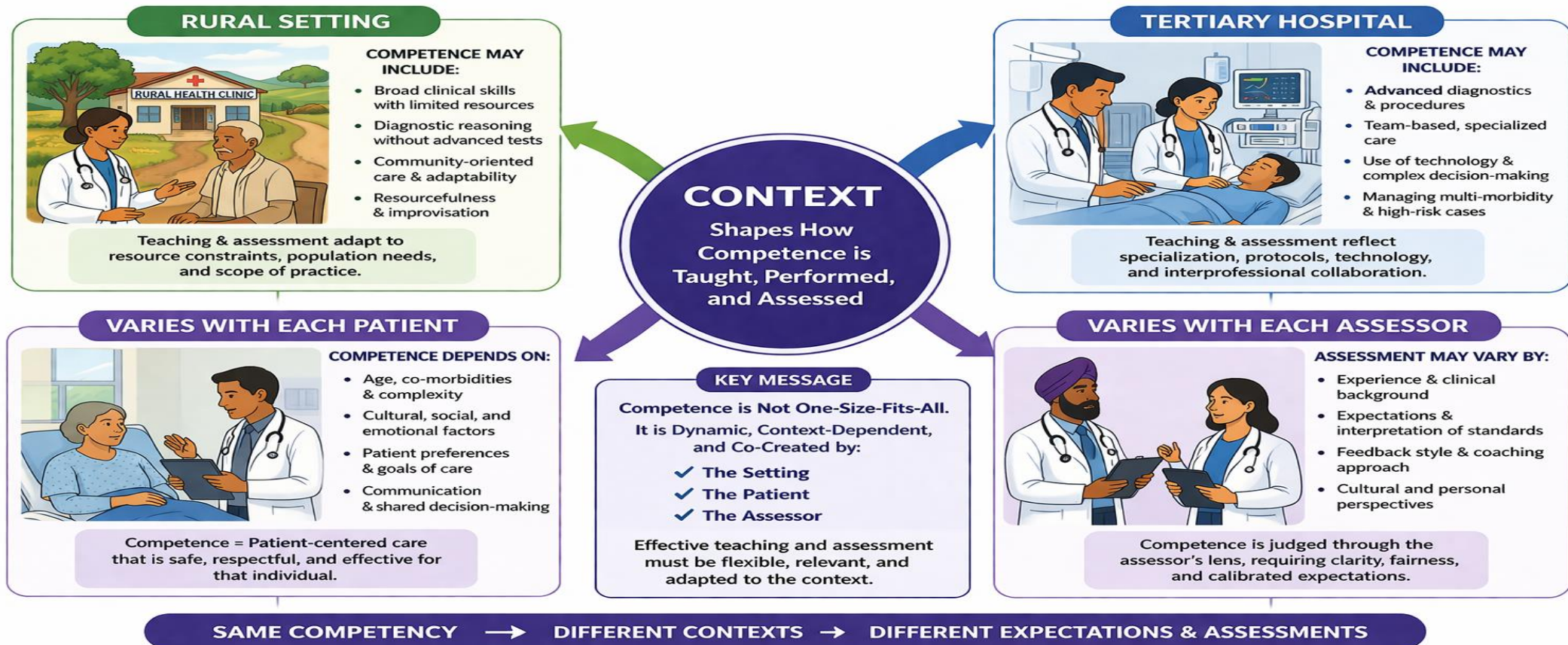
Competence



“Habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflections in daily practice for the benefit of the individual and community being served.”

Epstein and Hundert, 2002

Competence is contextual



Understanding context ensures meaningful teaching, fair assessment, and better patient care.

"AI-generated conceptual illustrations (no real data)."

Chapter 2

Competency-Based Medical Education

Caractéristiques essentielles du CBME

CBME



An *outcome-based approach* to the design, implementation, assessment, and evaluation of a medical education program using the *framework of competencies*.

The International CBME Collaborators, 2009

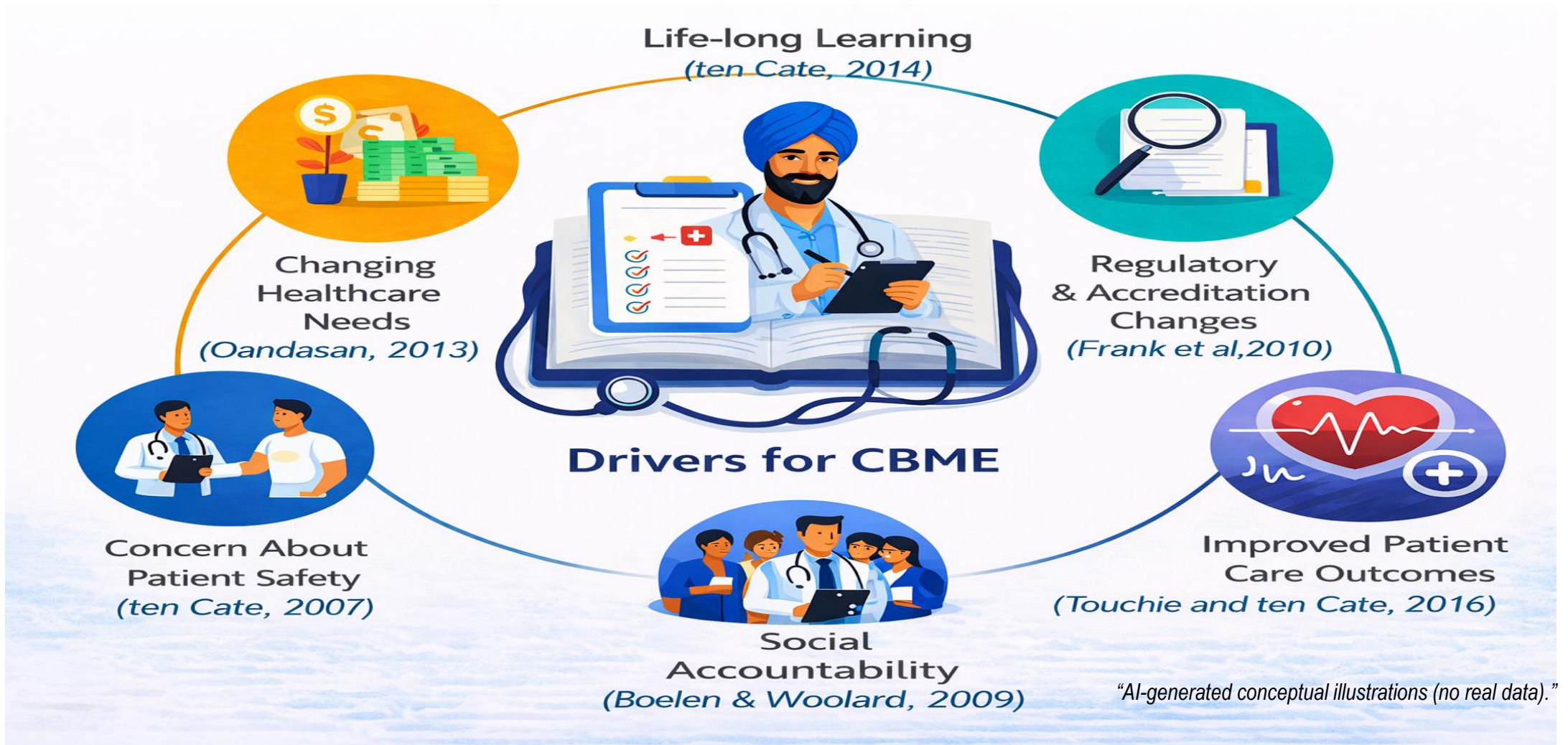
CBME



An *outcome-based approach* to the design, implementation, assessment, and evaluation of a medical education program using the *framework of competencies*.

The International CBME Collaborators, 2009

Driving forces





What CBME did?



- It brought clarity, shifting us from *'what we teach'* to *'what the learner can do'*.
- It gave us the language to articulate the outcomes of our training
- It clarified that graduation is not attendance but readiness to practice

Chapter 3

The Distortions

Shadows that shape the future

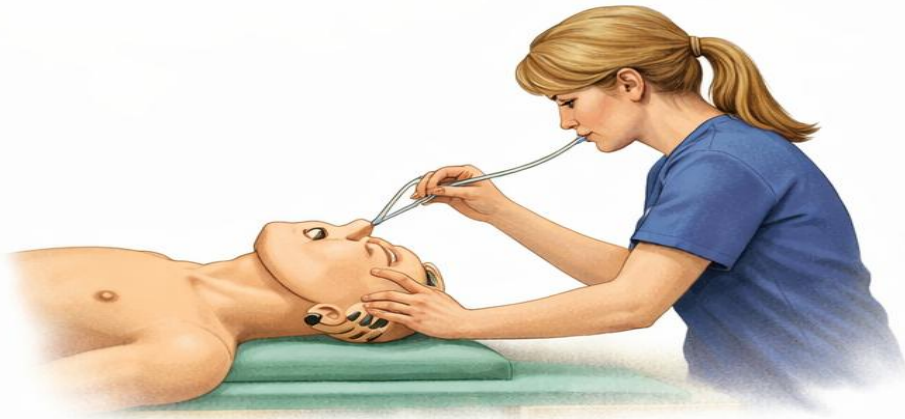
Decontextualization



- Medical practice is complex, uncertain, and dynamic
- Context restores meaning and authenticity to assessments
- Our systems fragment competence into small fragments, insufficient for understanding

Skill or competency?


Skill



Skill: A learned proficiency and actual performance of the task.

Competency



Competency: Integrates knowledge, attitudes, communication, values and is performed in a clinical setting for the benefit of the patient and society. 

Professional identity



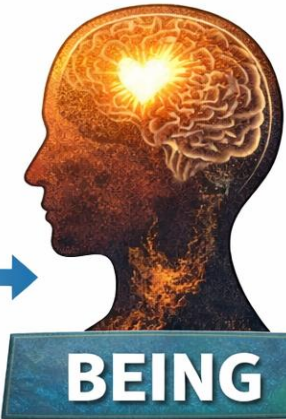
Who am I as a doctor?

Performance



CBME Focus:

Identity Needs:



Values
Responsibility
Belonging to profession

Identity shapes behavior long after examinations.

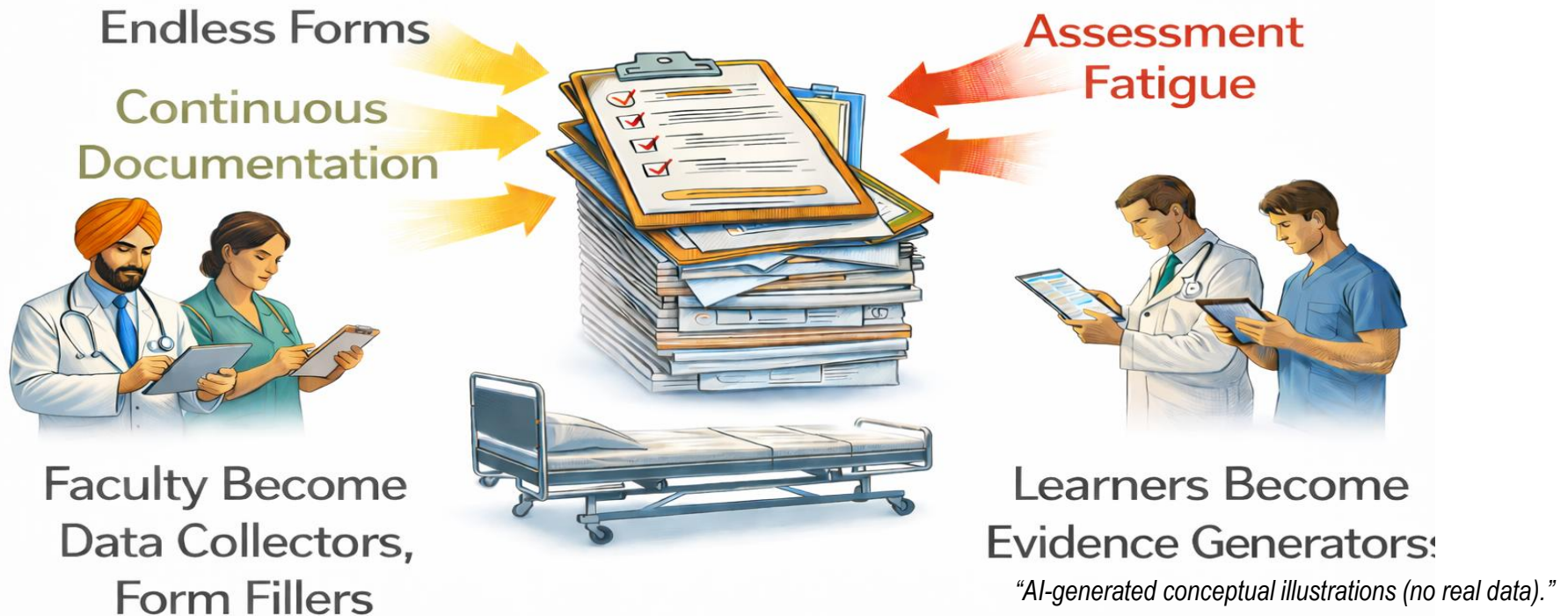
Run the risk of producing technicians rather than reflective practitioners



Administrative burden



When documents grow, learning shrinks.



Patient disappears from the center!

Chapter 4

The Assessment

Tail that wags the curriculum dog!



Any competency-based model is workable only insofar as its assessment yields data about students' prospects of future success.

Mc Carty et al., 2015

Assessment



Because...

Competency is a combination of various attributes and performed for the benefit of the patient

Competency behaviors must be demonstrated habitually and consistently

Hence

Assessment must rise above non-contextual knowledge and skills

A single assessment is unlikely to capture the degree of competence

Shah, Gupta & Singh, 2023

Multiple fragmented assessments are as insufficient for assessing competence!

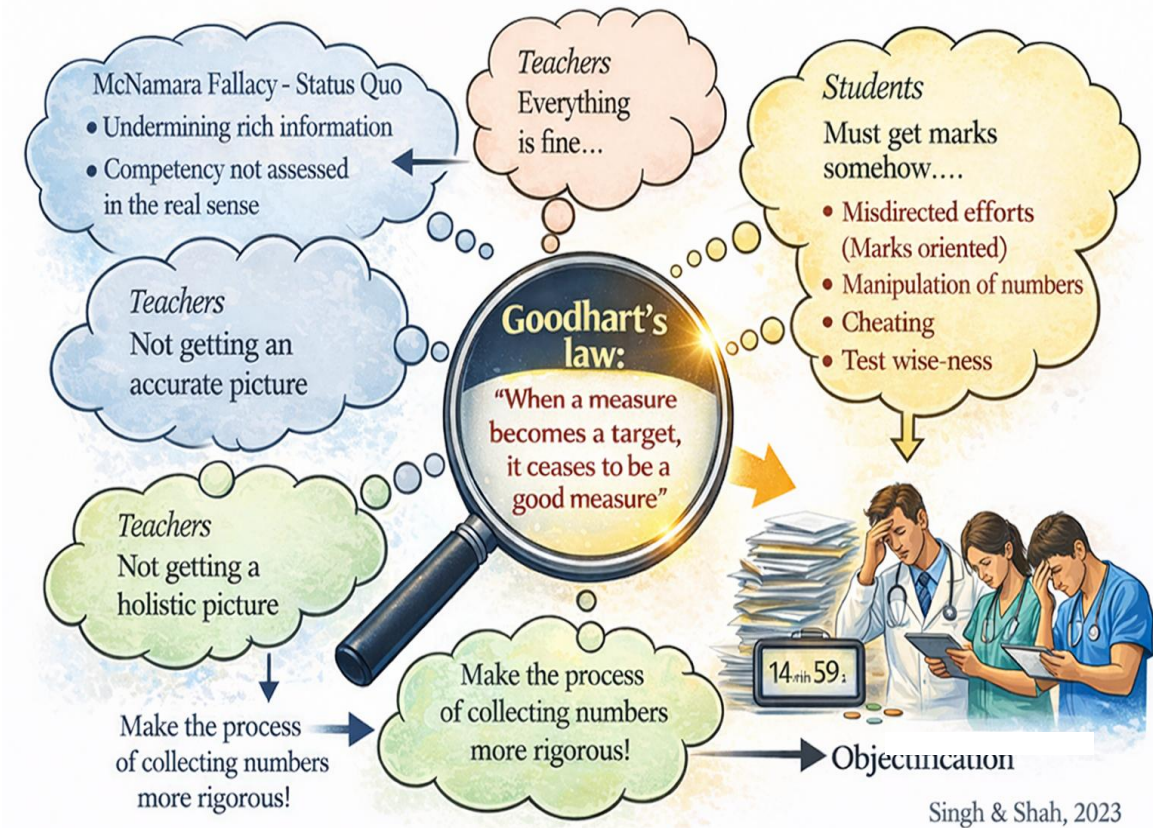
Numbers may not (always!) help



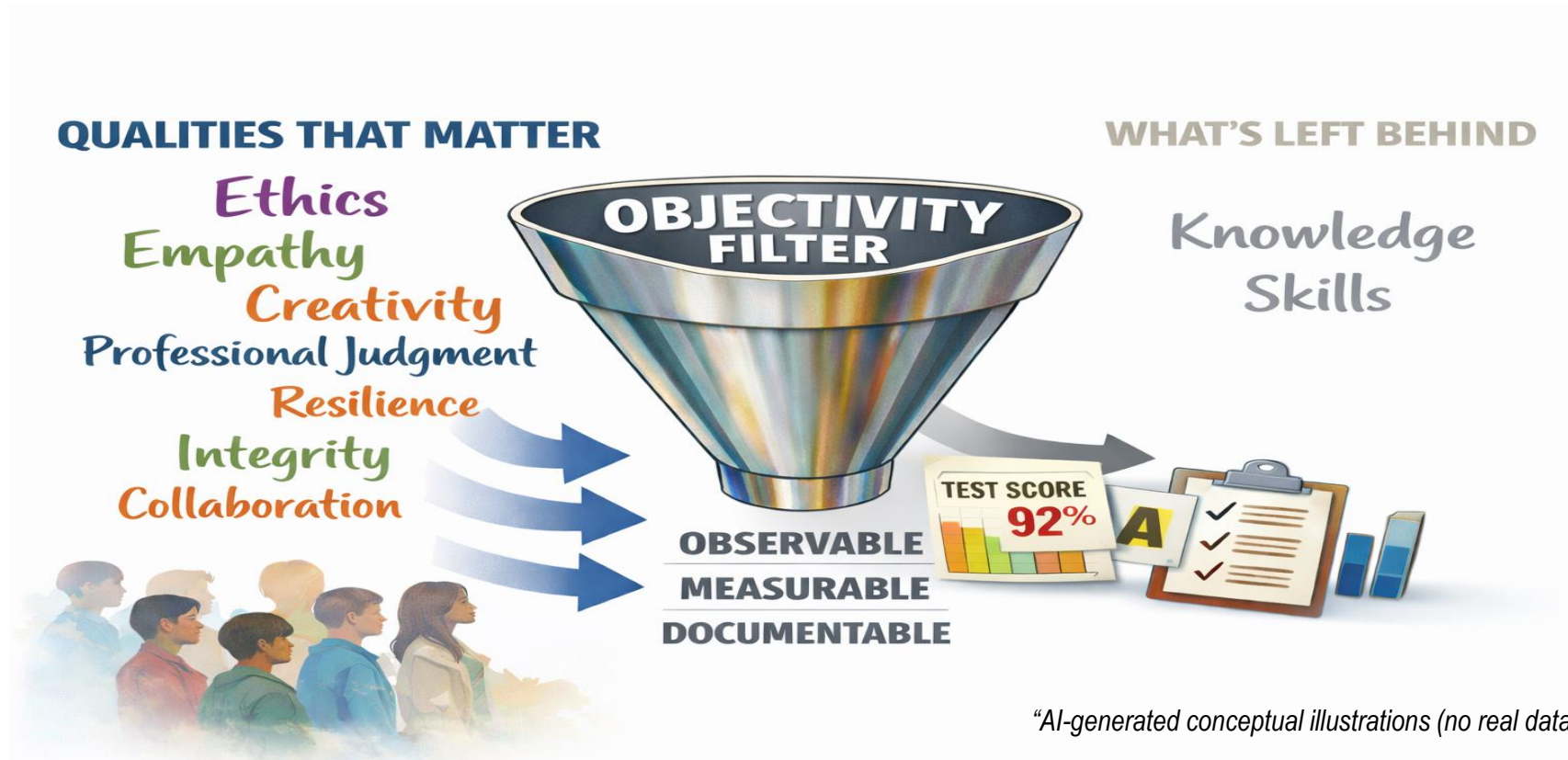
*Six out of seven roles can't be assessed using numbers alone!
What is not assessed is not learnt.*

Tyranny of metrics

- Quantitative assessment is reductionist
- Complex performance can't be split into binaries
- Doesn't provide feedback
- Meeting the numbers becomes the primary concern



The McNamara Fallacy



Distorted Assessment

Singh and Shah, 2023

Benefits of subjective assessment



Especially useful for formative and internal assessments.



Captures Complex Competence

Integrates knowledge, skills, and attitude



Enables Contextual Decision-Making

Assesses performance in real clinical context



Assesses Professional Identity

Evaluates professionalism & empathy



Facilitates Meaningful Feedback

Provides rich, narrative feedback



Enhances Entrustment Decisions

Informs readiness for independence



Allows Longitudinal Assessment

Tracks progression over time



Allows Different Perspectives

Expands student perspectives

“AI-generated conceptual illustrations (no real data).”

Singh, Virk & Mahajan, 2020; ten Cate & Regehr, 2019; Singh, 2012; Lockyer et al., 2017



Competency-based medical education and the McNamara fallacy: Assessing the important or making the assessed important?

Singh T, Shah N¹

ABSTRACT

The McNamara fallacy refers to the disregarding the meaningful quality reviewed in this paper. Competency-

Center for Health Professions Education, Adesh University

Teaching and Assessing Professionalism

*JYOTI NATH MODI, #ANSHU, [§]PIYUSH GUPTA AND TI From the Departments of *Obstetrics and Gynaecology, Pe #Pathology, Mahatma Gandhi Institute of Medical Science, New Delhi, India; and CMCL-FAIMER Regional Institute, Ludhiana 141 008, India. cmcl.faimer@gmail.com

Developing professional values and behaviour is an indispe are increasing reports of unprofessional behaviour by phys being 'caught'. Most regulatory documents in India mentio should be taught and assessed in the curriculum. Ti

Department of Pharmacology, Adesh Institute of Medical Sciences and Research, Bathinda, ¹Department of Physiology, Smt. NHL Municipal Medical College, Ahmedabad, ²Department of Community Medicine, Adesh Medical College and Hospital, Mohri, Kurukshetra, Haryana, ³Department of Pharmacology, Pramukhswami Medical College, Karamsad, Anand, Gujarat, ⁴Department of Medical Education, Sri Guru Ram Das University of Health Sciences, Amritsar,

Blended programmatic assessment for competency based curricula

Mahajan R, Saiyad S¹, Virk A², Joshi A³, Singh T⁴

ABSTRACT

The uncertainty in all spheres of higher education due to the COVID-19 pandemic has had an unprecedented impact on teaching-learning and assessments in medical colleges across the globe. The conventional ways of assessment are now neither possible nor practical for certifying medical graduates. This has necessitated thoughtful considerations in making adjustments to the assessment system, with most institutions transitioning to online assessments that so far have remained underutilized. Programmatic assessment encourages the deliberate and longitudinal use of diverse assessment methods to maximize learning and assessment and at present can be utilized optimally as it ensures the collection of multiple low-stake assessment data which can be aggregated for high-stake pass/fail decisions by making use of every opportunity for formative feedback

Keywords: Clinical competence, Competency-based medical education, Blended assessment, Assessment in the

MEDICAL EDUCATION

Professional Identity Formation in Indian Undergraduate Medical Students

Rajiv Mahajan,¹ Piyush Gupta,² Tejinder Singh³

¹Department of Pharmacology, Adesh Institute of Medical Sciences and Research, Bathinda, Punjab, India ²Former Professor, Department of Pediatrics, University College of Medical Sciences, New Delhi, India ³NAMS Emeritus Professor; Chair, Center for Health Professions Education, Adesh University, Bathinda, Punjab, India

ABSTRACT

Medical training in India is experiencing a paradigm shift. The competency-based medical education (CBME) for undergraduate medical training was adopted from the admission session 2019. The Indian Medical Graduate (IMG) was identified under CBME, by explicitly documenting its roles viz. clinician, professional, communicator, leader and life-long learner. In the recently released amended guidelines, two additional roles of IMG have been added. Looking at the roles of the IMG, it can be inferred that professionalism is one of the core roles assigned to IMG, and most other roles like – clinician, leader, and communicator fall under the broad definition of role as professional. It is argued that the objective of the curriculum should not only be to equip the students for identifying their professional roles but to support them to develop their professional identities. The potential of the CBME to equip the

Medical Education Sri Guru Ram Das rsity of Health ces, Amritsar, b, ¹Department siology, Smt. Municipal Medical je, Ahmedabad, at, ²Department mmunity ine, Adesh :al College and tal, Kurukshetra, na, ³Department armacology, layan Institute idical Sciences, idun, Uttarakhand, irtment of Pharmacology, Adesh Institute of Medical Sciences and Research,

The power of subjectivity in competency-based assessment

Virk A, Joshi A¹, Mahajan R², Singh T³

cy-based undergraduate curriculum in India, a paradigm shift in the he the need of the hour. Competencies are complex combinations of

ors

¹and ²University College of Medical Sciences, New Delhi; and

p to Promote Competency Based

llege, Ludhiana, India and ³Obstetrics and Gynaecology, People's L-FAIMER Regional Institute, Christian Medical College,

utcomes of medical education in terms of 'performance' of s in terms of 'competence' that encompasses mostly 'potential contextual adaptations and behavior judgments of the trainees are best assessed by a program of in-training assessment. Workplace based assessment (WPBA) is one of the modalities

Assessment toolbox for Indian medical graduate competencies

Singh T, Saiyad S¹, Virk A², Kalra J³, Mahajan R⁴

ABSTRACT

The new competency-based medical education curriculum for Bachelor of Medicine and Bachelor of Surgery is being implemented in a phased manner in medical colleges across India since the year 2019. The Graduate Medical Education Regulations enlist a total of 35 global competencies for the five roles expected of an Indian medical graduate, the roles being clinician, communicator, leader, professional, and life-long learner. Along with an effective implementation of the new curriculum, both in spirit and in action, it is imperative to assess the listed competencies. The new curriculum demands a more careful and mature selection of assessment tools, based on the competency and its expected level of achievement. It is these two variables that make choosing the right assessment method not just a matter of choice, but also of expertise. An array of tools in our armamentarium can sometimes separate confuse and the teachers. So, using the right tool, in the right context, at the right juncture, supplemented by other tools, and backed by constructive feedback, can help nurture the good intent ingrained in the competency-based curriculum. Hence, an attempt was made to compile an assessment toolbox for various global competencies. A PubMed, Science Direct and Google Scholar search, with relevant keywords was carried out. To the initially extracted 90 121 articles, limitations were applied

Chapter 5

Mahabharat

Dialogues with the Mahabharata: Reflections on Competence

Eklavya

TS

Shastra

शस्त्र

Shaxtra

शास



Duryodhan

TS

Shastra
शस्त्र

Shaastra
शास्त्र



Ethics
आचारनीति

Arjun

TS

Shastra
शस्त्र

Shaastra
शास्त्र



Ethics
आचारनीति

The Context (and Conflict)

TS

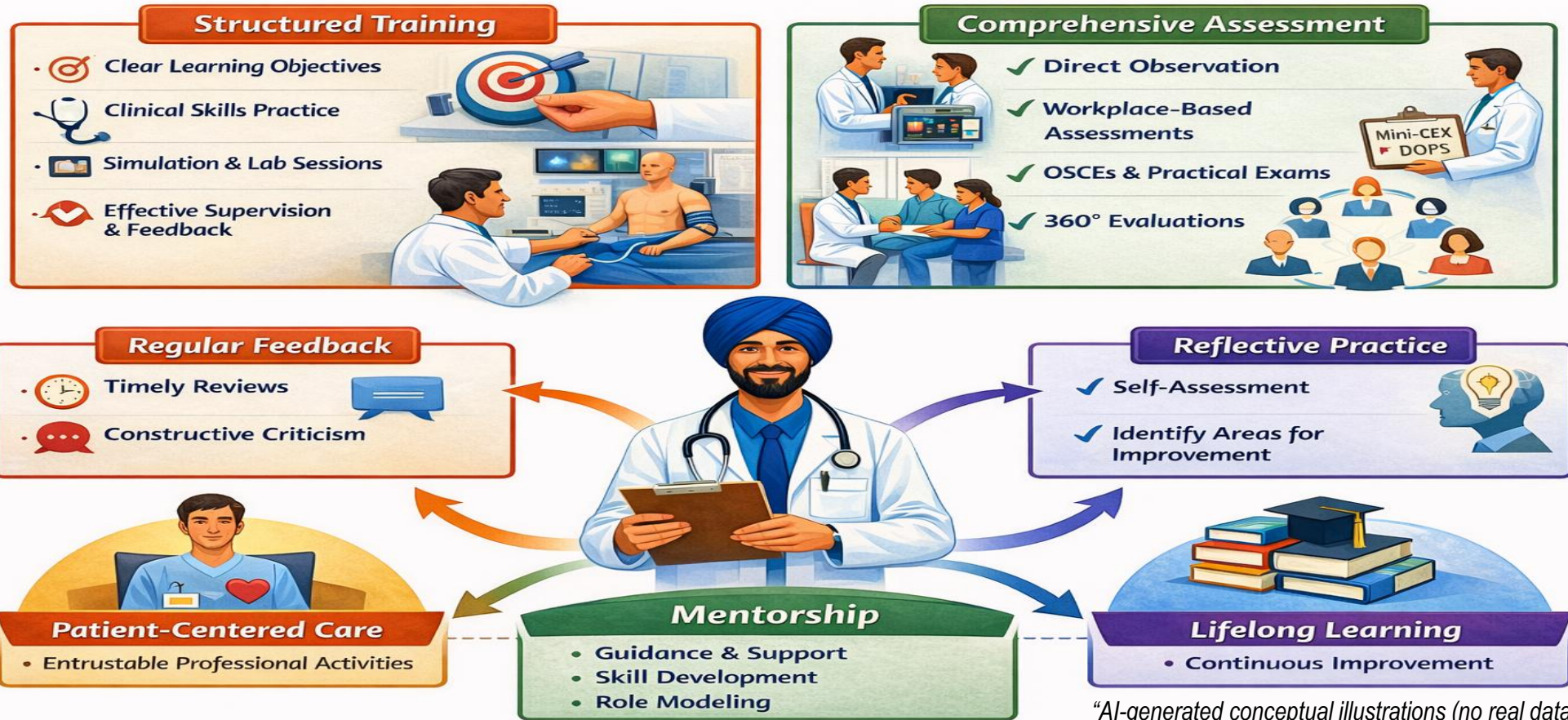


Chapter 6

The Key Takeaways

Lessons that matter

The key Takeaways



“AI-generated conceptual illustrations (no real data).”

The key Takeaways



If Competency-based medical education reduces medicine to checklists, scores, and documentation, we must pause, reflect, and recalibrate.

Cooper & Holmboe, NEJM, 2025

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