

Academic Discipline in Competency-Based Medical Education

**Dr. Sharadkumar Pralhad Sawant¹, Dr. Shaheen Rizvi²,
Dr. Amit Manchanda³, Dr. Priyatama Sharadkumar Sawant⁴,
Viren Sharadkumar Sawant⁵**

¹ Department of Anatomy, ⁴ Department of Ayush,
Prince Medical College and Hospital, Sikar, Rajasthan, India

² Department of Anatomy, Geetanjali Medical College, Geetanjali University,
Udaipur, Rajasthan, India

³ Department of Anatomy, Prince Medical College and Hospital, Sikar, Rajasthan, India

⁵ Final Year M.D., Volgograd University Medical College, Russia.

Abstract

Competency-Based Medical Education (CBME) has transformed traditional medical education by emphasizing competency acquisition, learner-centered teaching, clinical skill development, professionalism, and patient-centered healthcare. Within this framework, attendance criteria play a crucial role in ensuring active participation, continuous learning, clinical exposure, and competency attainment among medical students. Attendance in medical education is not merely a regulatory requirement but an essential component for acquiring psychomotor skills, communication abilities, ethical values, teamwork, and clinical competence. Regular attendance enhances academic performance, facilitates experiential learning, improves student-teacher interaction, and strengthens professional discipline. In CBME, where learning is integrated, longitudinal, and competency-driven, absenteeism may adversely affect skill acquisition, reflective learning, and patient care preparedness. Attendance policies also promote accountability, punctuality, professionalism, and institutional discipline. However, strict attendance regulations may sometimes create psychological stress, student dissatisfaction, and logistical challenges. Therefore, balanced, learner-sensitive, and competency-oriented attendance systems are essential for effective implementation of CBME. The present article discusses the educational significance, advantages, challenges, implementation strategies, and future perspectives of attendance criteria in Competency-Based Medical Education. Strengthening attendance policies in alignment with competency acquisition can substantially improve medical training quality and healthcare outcomes.

Keywords: Attendance Criteria, Competency-Based Medical Education, Medical Education, Professionalism, Clinical Competence, Academic Discipline, Student Participation, Competency Acquisition

1. Introduction

Medical education has undergone profound transformation over recent decades due to rapid scientific advancements, changing healthcare demands, technological innovations, and the increasing emphasis on patient-centered care. Traditional lecture-based teaching models are gradually being replaced by learner-centered and competency-oriented educational approaches. (1)

Competency-Based Medical Education (CBME), introduced by the National Medical Commission, focuses on developing competent Indian Medical Graduates equipped with appropriate knowledge, clinical skills, communication abilities, ethics, professionalism, and lifelong learning habits. Unlike conventional education systems that primarily emphasize theoretical knowledge, CBME requires active participation, continuous assessment, experiential learning, and competency acquisition. (2)

Attendance is one of the fundamental components supporting effective implementation of CBME. Regular attendance ensures adequate exposure to lectures, small-group discussions, clinical postings, practical sessions, skill laboratories, integrated teaching, and early clinical exposure. Medical education is highly interactive and experiential; therefore, absenteeism can compromise competency development and patient-care preparedness.

Attendance criteria also promote discipline, punctuality, responsibility, teamwork, and professional behavior—qualities essential for future healthcare professionals. In recent years, regulatory bodies and institutions have strengthened attendance monitoring systems through digital technologies, biometric attendance, and competency tracking mechanisms. The revised CBME curriculum guidelines continue to emphasize learner participation, continuous engagement, and competency attainment. (3)

Despite its importance, attendance criteria remain a subject of debate among educators and students. While regular attendance improves learning outcomes and professional development, excessive rigidity may contribute to stress, burnout, and dissatisfaction among students.

The present article highlights the importance of attendance criteria in CBME and discusses its educational, professional, ethical, and institutional implications.

Material and Methods

The present article is a narrative review based on extensive literature related to attendance policies, medical education, competency-based learning, professionalism, and clinical competency development. Relevant information was collected from textbooks, peer-reviewed journals, educational guidelines, policy documents, and scientific databases including PubMed, Google Scholar, Scopus, and Web of Science. Literature published between 2000 and 2025 was reviewed using keywords such as “Attendance Criteria,” “Competency-Based Medical Education,” “Medical Student Attendance,” “Professionalism in Medical Education,” and “Clinical Competence.”

Recent publications regarding CBME implementation challenges, attendance systems, and educational reforms in India were also reviewed.

The collected information was critically analyzed and synthesized to develop a comprehensive understanding of the role and significance of attendance criteria in modern medical education.

Concept of Attendance Criteria

Definition

Attendance criteria refer to the minimum mandatory participation requirements established by educational institutions and regulatory authorities to ensure adequate learner engagement in academic, practical, clinical, and professional activities.

Objectives of Attendance Criteria

- i. Ensuring regular academic participation
- ii. Promoting competency acquisition
- iii. Enhancing clinical exposure
- iv. Developing professionalism and discipline
- v. Improving communication and teamwork
- vi. Encouraging active learning
- vii. Maintaining academic accountability
- viii. Supporting patient safety and ethical practice (4)

Importance of Attendance Criteria in CBME

1. Enhancing Competency Acquisition

CBME emphasizes the acquisition of competencies through active participation and repeated clinical exposure. Regular attendance allows students to:

- a. Observe clinical procedures
- b. Practice psychomotor skills
- c. Participate in bedside teaching
- d. Develop communication abilities
- e. Acquire clinical reasoning skills

Competencies cannot be effectively achieved through theoretical study alone.

2. Promoting Experiential Learning

Medical education is fundamentally experiential in nature. Attendance in:

- a. Clinical postings
- b. Skill laboratories
- c. Simulation sessions
- d. Integrated teaching programs
- e. Small-group discussions

provides students with hands-on learning opportunities that strengthen practical understanding and long-term retention.

3. Improving Academic Performance

Several studies have demonstrated positive associations between regular attendance and:

- a. Better examination performance
- b. Higher knowledge retention
- c. Improved practical skills
- d. Better conceptual understanding

Attendance enhances active engagement and continuous learning.

4. Developing Professionalism and Discipline

Regular attendance cultivates:

- a. Punctuality
- b. Responsibility
- c. Ethical conduct
- d. Commitment toward duties
- e. Respect for institutional regulations

These qualities are essential components of medical professionalism.

5. Strengthening Clinical Exposure

Clinical competency requires repeated patient interactions and supervised clinical training. Attendance ensures exposure to:

- a. Diverse patient conditions
- b. Clinical procedures
- c. Emergency management
- d. Interprofessional teamwork
- e. Real-life healthcare environments

Such experiences are indispensable for future physicians.

6. Facilitating Student-Teacher Interaction

Regular attendance improves:

- a. Mentorship opportunities
- b. Faculty guidance
- c. Feedback mechanisms
- d. Clarification of doubts
- e. Academic support

Strong student-teacher interaction enhances educational quality and learner confidence.

7. Supporting Teamwork and Communication Skills

Medical practice requires effective communication and collaboration. Classroom discussions, ward postings, and group activities help students develop:

- a. Teamwork
- b. Leadership skills
- c. Interpersonal communication
- d. Collaborative problem-solving

These competencies are difficult to acquire through self-study alone.

8. Ensuring Patient Safety

Poorly trained healthcare professionals may compromise patient safety. Attendance criteria help ensure adequate clinical preparedness before independent patient care responsibilities.

Simulation-based and supervised clinical learning minimize medical errors and improve patient outcomes. (5)

Attendance Criteria in Medical Education

The National Medical Commission has prescribed mandatory attendance requirements for medical students in theory, practical, and clinical training components to ensure competency attainment and examination eligibility.

Recent CBME curriculum revisions and implementation strategies have reinforced learner participation and structured competency tracking systems.

Many institutions now utilize:

- a. Biometric attendance systems
- b. Digital logbooks
- c. Competency tracking software
- d. Electronic learning portfolios

to improve transparency and accountability. Student discussions on implementation of biometric attendance systems in medical colleges reflect the increasing emphasis on attendance monitoring in CBME. (6)

Challenges Associated with Attendance Criteria

1. Psychological Stress Among Students

Strict attendance policies may contribute to:

- a. Anxiety
- b. Burnout
- c. Fear of detention
- d. Mental stress

especially during illness or personal emergencies.

2. Reduced Flexibility

Excessively rigid attendance systems may limit:

- a. Self-directed learning
- b. Research activities
- c. Online learning opportunities
- d. Academic flexibility

3. Administrative Difficulties

Maintaining attendance records and monitoring compliance require:

- a. Technological infrastructure
- b. Administrative staff
- c. Continuous supervision

4. Variation in Teaching Quality

Students may perceive mandatory attendance negatively if teaching methods are:

- a. Monotonous

- b. Non-interactive
- c. Repetitive
- d. Poorly organized

This highlights the need for innovative teaching strategies.

5. Strategies to Improve Attendance in CBME

Interactive Teaching Methods

- a. Problem-based learning
- b. Small-group discussions
- c. Simulation-based learning
- d. Case-based teaching

increase student engagement and attendance.

6. Mentorship Programs

Faculty mentorship helps identify students with poor attendance and provides academic and psychological support.

7. Digital Attendance Systems

Biometric and online attendance systems improve transparency and accountability.

8. Student-Centered Learning Environment

Creating supportive and motivating educational environments encourages voluntary participation.

9. Integration of Attendance with Competency Tracking

Attendance should be linked not merely to physical presence but also to competency achievement and active participation. (7)

Discussion

Attendance criteria remain one of the most important components of Competency-Based Medical Education because competency acquisition requires active participation, experiential learning, and continuous clinical exposure. Unlike traditional rote-based learning, CBME emphasizes integrated teaching, practical training, communication skills, and reflective practice, all of which require regular learner engagement. (8)

Medical students develop clinical competence not only through textbooks but also through repeated patient interactions, bedside teaching, procedural training, teamwork, and observation of professional behavior. Attendance therefore becomes essential for achieving the objectives of CBME. (9)

Regular attendance also promotes professionalism, discipline, punctuality, and ethical responsibility. These qualities are fundamental for future healthcare professionals who must function effectively within healthcare systems requiring accountability and teamwork. (10)

Recent educational reforms and updated CBME guidelines have strengthened the importance of structured attendance monitoring and competency tracking. At the same time, discussions among medical students indicate growing concern regarding stringent attendance regulations, detention policies, and biometric monitoring systems. (11)

Therefore, educational institutions must maintain a balanced approach. Attendance policies should encourage participation without creating excessive psychological pressure. Institutions should focus on improving teaching quality, promoting learner engagement, and supporting student well-being rather than relying solely on punitive measures. (12)

Modern technologies such as digital attendance systems, simulation-based learning, online modules, and competency portfolios may help create more flexible and competency-oriented attendance frameworks in the future. (13)

Conclusion

Attendance criteria play a pivotal role in Competency-Based Medical Education by ensuring active learner participation, competency acquisition, clinical exposure, professionalism, and patient safety. Regular attendance strengthens experiential learning, communication skills, teamwork, ethical behavior, and academic discipline among medical students.

In CBME, attendance should not merely represent physical presence but should reflect meaningful engagement in competency development and professional growth. Medical institutions should therefore adopt balanced, learner-sensitive, technologically integrated, and competency-oriented attendance systems.

Strengthening attendance policies alongside innovative teaching methodologies, mentorship programs, and supportive educational environments will contribute significantly to producing competent, ethical, confident, and patient-centered healthcare professionals capable of meeting modern healthcare challenges.

Declaration by Authors

Ethical Approval: Approved

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