



TYPES OF PEDAGOGICAL OBSERVATION METHODS AND IMPLEMENTATION IN MEDICAL PRACTICE

Boboyeva Maksuda Atakhanovna
Teacher, Pedagogy and Psychology Department
Tashkent State Medical University, Tashkent, Uzbekistan

Khakimov Shokhzodbek Daniyor o'g'li
Zayniyev Eldor Islambek o'g'li

Abstract

This article reviews the theoretical foundations of the pedagogical observation method, its main types and practical application in medical education. The observation method is analyzed as one of the main tools for assessing clinical skills, monitoring student development and improving the quality of education in the process of training medical specialists. Various forms of observation - systematic, free, participatory and direct observation types and their variants adapted to medical education are presented. The results of the study show that the correct use of the observation method allows for an objective assessment of the student's professional competence in clinical practice.

Keywords: Pedagogical observation, types of observation, medical education, clinical skills, competence assessment, medical pedagogue, practical education.

Introduction

The modern medical education system requires the formation of not only theoretical knowledge, but also practical skills and professional competence. Research conducted by pedagogical scientists and medical education specialists shows that traditional assessment methods often cannot fully reflect the real



Modern American Journal of Biological and Environmental Sciences

ISSN (E): 3067-7920

Volume 2, Issue 5, May 2026

Website: usajournals.org

This work is Licensed under CC BY 4.0 a Creative Commons Attribution 4.0 International License.

clinical activity of students. Therefore, the pedagogical observation method is of particular importance in medical education.

Pedagogical observation is a method of collecting information through purposeful, systematic and planned perception of phenomena and facts in the educational process. This method provides the opportunity to observe the object under study in its natural state without artificially influencing it. In medicine, this method is an important tool for assessing the attitude to patients, diagnostic thinking, and teamwork skills in clinical practice.

The purpose of the article is to systematically analyze the main types of the pedagogical observation method and scientifically substantiate their practical application in medical education. To achieve this goal, the following tasks were set: to study the scientific and theoretical foundations of the observation method; classifying its types and identifying forms adapted to medical education; and developing criteria for evaluating the results of observation.

THEORETICAL BASIS OF THE PEDAGOGICAL OBSERVATION METHOD

The pedagogical observation method is one of the main empirical methods of pedagogical science, the scientific foundations of which have been thoroughly studied by such scientists as Yu.K. Babansky, V.I. Zagvyazinsky and Uzbek pedagogical scientists N.N. Azizkhodzjayev, R. Mavlonova. The observation method is based, first of all, on drawing conclusions about internal, hidden processes through outwardly manifested behaviors, forms of communication and results of activities.

The use of the observation method in medical education became widespread in the second half of the 20th century, especially with the development of clinical competence assessment systems. Observation-based assessment methods (DOPS - Direct Observation of Procedural Skills; mini-CEX - mini Clinical Evaluation Exercise) are widely used in Asian medical academies and European medical schools and have become an integral part of clinical education standards.



Requirements for the observation method

In order for pedagogical observation to provide objective and reliable results, it must meet a number of important requirements:

- Purposefulness - observation must be carried out on the basis of a specific pedagogical goal
- Systematicity - observation must be carried out not randomly, but according to a certain plan
- Objectivity - the observer must not have personal bias and be free from subjective attitudes
- Naturalness - the observed must be in normal conditions, avoiding artificial situations
- Recording - the results of the observation must be immediately entered into the protocol
- Repeatability - conclusions must be drawn not from one observation, but from several observations

MAIN TYPES OF PEDAGOGICAL OBSERVATION METHOD

In pedagogical literature, the observation method can be classified based on various criteria. Below are the most basic classification criteria and the types of observation corresponding to them.

According to the level of observer participation

Depending on the level of participation of the observer in the observed process, observation is divided into two types.

Participant observation - the observer himself acts as a full participant in the process. An example of this in medical education: the observer enters the ward with the student, examines the patient, and at the same time observes the student's activities. This type allows for a deep, "inside" view, but objectivity may be partially reduced.

Non-participant observation - the observer observes the process from the outside, without interfering. For example, a teacher of the medical department secretly



Modern American Journal of Biological and Environmental Sciences

ISSN (E): 3067-7920

Volume 2, Issue 5, May 2026

Website: usajournals.org

This work is Licensed under CC BY 4.0 a Creative Commons Attribution 4.0 International License.

observes the student's attitude to patients in the clinic. This type provides a high level of objectivity, but may miss some subtleties.

By level of organization

Systematic (structured) observation - is carried out based on a pre-established plan, schedule and criteria. The observer has a clear protocol and records only the specified indicators. The DOPS assessment form in medicine is a vivid example of this type. In systematic observation, subjectivity is minimized and the results can be studied by comparison.

Free (unstructured) observation - there is no pre-established plan and criteria, the observer records everything he considers important based on a general goal. This type is useful for creating new hypotheses, identifying problems for the first time. When a new clinical module is introduced in medical education, free observation is carried out at the first stage.

In terms of time

Continuous observation - the process is observed from beginning to end, without interruption. For example, the student's activity during an entire work shift is observed. Although this type requires a lot of resources, it allows for a holistic understanding of the process.

Selective observation (selective) - only a certain time interval or certain situations are observed. For example, a student's communication during the initial contact with a patient or the diagnostic chain of logical thought is monitored separately. This type allows you to spend less time and focus on important indicators.

By purpose

Confirmatory observation - conducted to confirm or refute a previously formed hypothesis or assumption. For example, a teacher observes a student's handwashing technique to check whether it complies with standards.

Research observation - conducted to study unknown phenomena, identify new trends. For example, when a new simulation technology is introduced in clinical training, the characteristics of students' adaptation to it are studied through research observation.



Table 1. Comparative analysis of types of pedagogical observation

Observation type	Home feature	Medical in education application	Advantages
Systematic observation	Protocol based on, criterion	DOPS, mini -CEX, OSCE	Objectivity, repetitive
Free observation	Unplanned, general targeted	Clinical communication monitoring	Flexible, wide comprehensive
Participant observation	Observer - participant	Together clinical practice	Deep understanding
Non-Participant	From abroad observation	Chamber or operating room	High objectivity
Continuous observation	Complete process	Shift during observation	Whole image
Selectively observation	Separately situations	Diagnostic thinking observation	Effective, purposeful

APPLICATION OF THE OBSERVATION METHOD TO MEDICAL PRACTICE

The pedagogical observation method in medical education performs several important tasks: it determines the extent to which educational goals are being achieved; monitors the dynamics of the student's adaptation to the clinical environment; allows you to identify problems at an early stage and determine corrective measures.

DOPS - Direct Observation of Procedural Skills

DOPS (Direct Observation of Procedural Skills) is the most common observation-based method for assessing clinical procedures. In it, the student performs a specific medical procedure with a real patient, and the supervisor observes and provides immediate feedback based on a special protocol.



Modern American Journal of Biological and Environmental Sciences

ISSN (E): 3067-7920

Volume 2, Issue 5, May 2026

Website: usajournals.org

This work is Licensed under CC BY 4.0 a Creative Commons Attribution 4.0 International License.

The DOPS protocol usually includes the following indicators: pre-procedural preparation (selection of equipment, ensuring sterility), patient attitude and consent, technical performance, complication management skills, and post-procedural documentation. Each indicator is rated on a 1-9-point scale.

Mini-CEX - Clinical Evaluation Exercise

The Mini-CEX (mini Clinical Evaluation Exercise) method is based on observing the student's clinical interview and examination with patients. In this method, the supervisor observes and evaluates the student's skills in taking a history, conducting a physical examination, differential diagnosis, and developing a treatment plan for 15-25 minutes.

Experiments on introducing the Mini-CEX method into medical education in Uzbekistan are being conducted at the Tashkent Medical Academy and Samarkand State Medical University. Initial results show that this method provides a more complete assessment of student competence than traditional written exams.

OSCE - Objective Structured Clinical Examination

OSCE (Objective Structured Clinical Examination) is a form of assessment based on structured observation, organized at several stations. At each station, the student works with a simulated or standardized patient for a set period of time (usually 5-10 minutes). The examiner evaluates based on a special examination-observation sheet.

The main pedagogical value of OSCE is that it standardizes observation - that is, all students are assessed under the same conditions, based on the same criteria. This ensures fairness and minimizes observation errors.

Informal observation in clinics

In addition to observation based on formal protocols, informal (non-formal) observation often plays a large role in clinical education. The supervisor monitors the student's behavior in the hospital wards, operating room or reception room every day and takes immediate corrective measures if necessary. Informal observation is especially valuable in this area of medical ethics and professional



conduct. The student's culture of communication with the patient, adherence to the principles of confidentiality, and ability to work in a team are often determined not by formal examinations, but by observation in the process of daily practice.

Table 2. Main methods of observation-based assessment in medical education

Method	Observation type	Duration	Evaluation field	International standard
DOPS	Systematic, direct	10-20 minutes	Procedural skills	ACGME, GMC
Mini-CEX	Systematic, direct	15-25 minutes	Clinical skills	RCPCH, ACGME
OSCE	Systematic, many stationed	2-4 hours	Complex skills	USMLE, PLAB
Portfolio observation	Selectively, periodically	Semester during	Development dynamics	CanMEDS
360° assessment	Many source	Continued	Professional attitude	GMC, AMA

METHODOLOGY FOR CREATING OBSERVATION PROTOCOLS

In medical education, observation protocols are one of the important conditions for successful observation. To create a quality protocol, the object and purpose of observation must first be clearly defined - that is, what is planned to be observed and for what purpose?

The structure of an observation protocol usually includes the following elements: the purpose and task of observation; information about the observed person; time and place of observation; list of assessment criteria and indicators; rating scale (rating scale or checklist); space for observer comments; conclusions and recommendations.



Modern American Journal of Biological and Environmental Sciences

ISSN (E): 3067-7920

Volume 2, Issue 5, May 2026

Website: usajournals.org

This work is Licensed under CC BY 4.0 a Creative Commons Attribution 4.0 International License.

Methods for reducing subjectivity in observation

One of the main disadvantages of the observation method is the risk of biased assessment by the observer. In medical education, these risks can negatively affect the student's academic performance and professional development.

The following methods are used to reduce subjectivity:

- Simultaneous or separate assessments by several observers and comparison of results (inter-rater reliability)
- Preparation of observers and normative observation exercises (calibration sessions)
- Development of clear, behavior-oriented criteria and their inclusion in a table
- Anchor statements - detailed description of each assessment level
- Independent assessment of the same observation by several observers via video recording

PROBLEMS AND SOLUTIONS

There are several practical problems in implementing the observation method in medical education. The first problem is time constraints. Clinical teachers are often busy treating patients and do not have time to fill out observation protocols. As a solution, it is recommended to use mini-observation formats and use electronic protocols.

The second problem is the unnatural behavior of the observed (Hawthorne effect). If students know that they are being observed, they behave differently from usual. To prevent this, observation should be carried out regularly and routinely, and be perceived as part of the normal work process for students.

The third problem is the lack of sufficient knowledge of the observation methodology among teachers. In many medical departments, teachers are mainly trained as clinical specialists and have not specifically studied the methodology of pedagogical observation. The solution to this is to organize interfaculty seminars and trainings on medical pedagogy.



CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis conducted, the following conclusions can be drawn. The pedagogical observation method is particularly effective in the specific environment of medical education and is considered the most appropriate way to assess clinical skills and professional behavior. The best results are achieved when various forms of observation - DOPS, Mini-CEX, OSCE and informal observation - are used as complementary tools in a comprehensive manner.

Based on the analysis conducted within the framework of the article, the following practical recommendations are made to medical educational institutions:

- Develop and implement structured observation protocols appropriate for each clinical department
- Regularly train clinical teachers in pedagogical observation methodology
- Introduce Mini-CEX and DOPS methods as a mandatory form of assessment in undergraduate and residency education
- Create a system for collecting and analyzing observation data about students in an electronic portfolio
- Conduct feedback sessions to adapt observation results to individual curricula and directions

REFERENCES

1. Babansky Yu.K. Pedagogy. - Moscow: Prosveshcheniye, 1983. - 608 p.
2. Azizkhodjayev N.N. Pedagogical skills and pedagogical technology. - Tashkent: O'qituvati, 2003. - 196 p.
3. Norcini J., Burch V. Workplace-based assessment as an educational tool: AMEE Guide No. 31 // Medical Teacher. - 2007. - Vol. 29. - P. 855-871.
4. Kogan J.R., Holmboe E.S., Hauer K.E. Tools for Direct Observation and Assessment of Clinical Skills // JAMA. - 2009. - Vol. 302(12). - P. 1316-1326.
5. Holmboe E.S. Faculty and the observation of trainees' clinical skills: problems and opportunities // Academic Medicine. - 2004. - Vol. 79(1). - P. 16-22.
6. Mavlonova R., Hamroyeva F. Methodology for monitoring and analyzing the activity of a teacher. - Tashkent: New edition, 2018. - 120 p.



Modern American Journal of Biological and Environmental Sciences

ISSN (E): 3067-7920

Volume 2, Issue 5, May 2026

Website: usajournals.org

This work is Licensed under CC BY 4.0 a Creative Commons Attribution 4.0 International License.

-
7. Wragg E.C. An Introduction to Classroom Observation. - London: Routledge, 2012. - 176 p.
 8. Boursicot K., Roberts T. How to set up an OSCE // The Clinical Teacher. - 2005. - Vol. 2(1). - P. 16-20.
 9. Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 319 dated April 16, 2019 "On the development of medical education".
 10. Crossley J., Humphris G., Jolly B. Assessing health professionals // Medical Education. - 2002. - Vol. 36. - P. 800-804.