

## ASSESSMENT IN MEDICAL EDUCATION AND THE CONSTRUCTION OF SUBJECTIVITIES UNDER LOGICS OF GOVERNMENTALITY

### *A AVALIAÇÃO NA FORMAÇÃO MÉDICA E A CONSTRUÇÃO DE SUBJETIVIDADES SOB A LÓGICA DA GOVERNANCIALIDADE*

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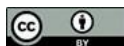
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**Abstract**

Assessment constitutes one of the structuring axes of educational processes in health, traditionally understood as a tool for measuring students' performance. However, contemporary

**Resumo**

*A avaliação constitui um dos eixos estruturantes dos processos educacionais na área da saúde, tradicionalmente entendida como uma ferramenta para medir o desempenho dos*

perspectives in medical education have expanded this understanding, recognizing assessment as a social and pedagogical practice permeated by power relations, institutional norms, and regulatory dispositifs that shape behaviors and professional expectations. In this context, the present study aimed to analyze, within the scientific literature, how assessment in medical education has been understood beyond its technical dimension, considering its role in the construction of professional subjectivities under logics of governmentality. This study is an Integrative Literature Review, conducted based on the PICO strategy, with searches performed in the PubMed/MEDLINE, Scopus, Web of Science, and ERIC databases. Studies published between 2019 and 2026, in Portuguese, English, or Spanish, addressing assessment in medical education in relation to pedagogical, institutional, ethical, or sociopolitical aspects were included. The selection process followed PRISMA recommendations, with subsequent methodological characterization and interpretative thematic analysis of the included studies. The findings indicate that assessment, beyond being a tool for verifying learning, operates as a technology of regulation and normalization in medical education, influencing curriculum organization, the definition of performance standards, and the educational experience of medical students. It becomes evident that such practices contribute to the internalization of professional norms and to the construction of subjectivities aligned with institutional expectations. It is concluded that understanding assessment in medical education as a practice of governmentality, in light of Michel Foucault's contributions, broadens the debate on its formative, ethical, and institutional effects, highlighting the need for assessment models that foster the development of critical, reflective physicians committed to the complexity of healthcare.

**Keywords:** Medical Education. Educational Assessment. Professional Training. Governmentality. Subjectivity.

*alunos. No entanto, as perspectivas contemporâneas na educação médica ampliaram essa compreensão, reconhecendo a avaliação como uma prática social e pedagógica permeada por relações de poder, normas institucionais e dispositivos regulatórios que moldam comportamentos e expectativas profissionais. Nesse contexto, o presente estudo teve como objetivo analisar, na literatura científica, como a avaliação na educação médica tem sido entendida além de sua dimensão técnica, considerando seu papel na construção de subjetividades profissionais sob lógicas de governamentalidade. Este estudo é uma Revisão Integrativa da Literatura, conduzida com base na estratégia PICO, com pesquisas realizadas nas bases de dados PubMed/MEDLINE, Scopus, Web of Science e ERIC. Foram incluídos estudos publicados entre 2019 e 2026, em português, inglês ou espanhol, que abordassem a avaliação na educação médica em relação a aspectos pedagógicos, institucionais, éticos ou sociopolíticos. O processo de seleção seguiu as recomendações do PRISMA, com subsequente caracterização metodológica e análise temática interpretativa dos estudos incluídos. Os resultados indicam que a avaliação, além de ser uma ferramenta para verificar a aprendizagem, opera como uma tecnologia de regulação e normalização na educação médica, influenciando a organização do currículo, a definição de padrões de desempenho e a experiência educacional dos estudantes de medicina. Torna-se evidente que tais práticas contribuem para a internalização de normas profissionais e para a construção de subjetividades alinhadas às expectativas institucionais. Conclui-se que compreender a avaliação na educação médica como uma prática de governamentalidade, à luz das contribuições de Michel Foucault, amplia o debate sobre seus efeitos formativos, éticos e institucionais, destacando a necessidade de modelos de avaliação que promovam o desenvolvimento de médicos críticos e reflexivos, comprometidos com a complexidade da assistência à saúde.*

**Palavras-chave:** Educação Médica. Avaliação Educacional. Formação Profissional. Governamentalidade. Subjetividade.

## 1 INTRODUCTION

Over recent decades, educational assessment has assumed a central role in debates on the quality of health professional training, particularly within the context of medical education. Traditionally associated with performance measurement and the verification of learning, assessment has been incorporated as a structuring element of curricula, guiding pedagogical practices, defining criteria for academic progression, and influencing professional certification processes. In this scenario, there has been a growing emphasis on assessment models grounded in competencies, clinical performance, and decision-making, aligned with the contemporary demands of healthcare systems and the curricular guidelines of medical training (Lee; Chiu, 2022; Szulewski *et al.*, 2023; Torre; Schuwirth, 2025).

However, the expansion of assessment systems has been accompanied by reflections that transcend their strictly technical dimension. Different theoretical approaches have emphasized that assessment is not limited to a neutral instrument of measurement, but rather constitutes a social and institutional practice permeated by power relations, norms, and expectations that shape behaviors and produce specific formative effects. In this sense, assessment is increasingly understood as an element that actively participates in the organization of educational processes, influencing not only what students learn, but also how they perceive themselves and position themselves as future professionals (Liao *et al.*, 2023; Chen *et al.*, 2024; Sternszus *et al.*, 2023).

From this perspective, it becomes pertinent to mobilize the framework of governmentality in order to understand the broader effects of assessment practices in medical education. The concept of governmentality, developed by Michel Foucault, refers to the set of strategies, rationalities, and dispositifs through which the conduct of individuals and populations is guided, articulating knowledge and power in the production of subjects (Foucault, 2008). In the context of medical education, assessment can be understood as one of these dispositifs, insofar as it establishes performance standards, defines criteria of acceptability, and contributes to the shaping of professional subjectivities aligned with specific institutional norms and social expectations (Silveira *et al.*, 2023; Sarraf-Yazdi; Goh; Krishna, 2024; Liao *et al.*, 2023).

In light of this context, it becomes relevant to critically analyze how assessment has been addressed in the scientific literature on medical education, considering its effects beyond the measurement of performance. Thus, the present study aims to analyze, within the scientific literature, how assessment in medical education has been understood in relation to the construction of subjectivities under logics of governmentality.

## 2 METHOD

This study consists of an Integrative Literature Review (ILR), a method that enables the identification, critical appraisal, and synthesis of studies on a given phenomenon, contributing to the construction of knowledge applicable to educational practice and the formulation of institutional policies. Grounded in the principles of evidence-based practice, the integrative review allows for the inclusion of diverse methodological designs, thereby fostering a comprehensive understanding of complex phenomena, such as those related to assessment in medical education (Ganong, 1987; Whittemore; Knafl, 2005; Lockwood; Munn; Porritt, 2015).

The guiding research question was developed based on the PICo strategy (Population, Interest, Context), considering as population (P) students and professionals in medical training; as interest (I) educational assessment practices and models; and as context (Co) contemporary medical education. Based on this framework, the following research question was formulated: how has the scientific literature addressed assessment in medical education in relation to processes of regulation, normalization, and the construction of subjectivities?

The bibliographic search was conducted in the PubMed/MEDLINE, Scopus, Web of Science, and ERIC databases, using English-language descriptors combined with Boolean operators: ("medical education" OR "undergraduate medical education" OR "medical training") AND ("assessment" OR "evaluation" OR "educational assessment") AND ("professional identity" OR "subjectivity" OR "hidden curriculum" OR "power" OR "governance"). The search strategy was adapted according to the specific requirements of each database.

Studies published between 2019 and 2026, available in full text in Portuguese, English, or Spanish, and addressing assessment in medical education in relation to

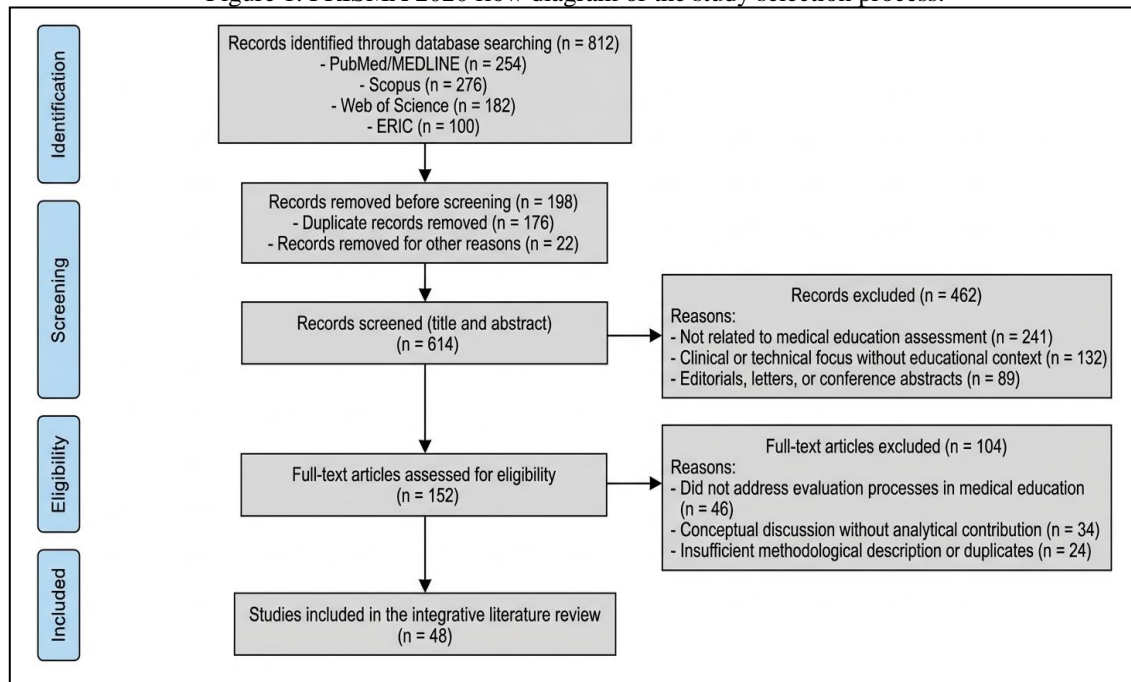
pedagogical, institutional, ethical, or sociopolitical dimensions were included. Editorials, letters to the editor, and studies with an exclusively technical focus, without formative or critical discussion, were excluded.

The study selection process followed the recommendations of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) (Page *et al.*, 2021), encompassing the stages of identification, screening, eligibility, and inclusion of studies. Following this process, 16 studies met the inclusion criteria and were included in the final analysis, as illustrated in Figure 1. The included studies were then characterized in terms of authorship, year of publication, country of origin, methodological design, and main contributions.

After the final selection, the studies were characterized in terms of authorship, year of publication, country of origin, methodological design, and main contributions. Additionally, studies were classified according to the levels of evidence proposed by the Joanna Briggs Institute (JBI), following the methodological recommendations described by Lockwood *et al.* (2020). The studies were categorized as follows: Level I – systematic reviews or randomized clinical trials; Level II – experimental studies; Level III – quasi-experimental studies; Level IV – observational studies; and Level V – qualitative, descriptive, or theoretical studies. This classification was used for critical appraisal and to characterize the methodological robustness of the included studies, and was not employed as an exclusion criterion.

Data analysis was conducted through interpretative thematic analysis, enabling the construction of analytical categories that express convergences, tensions, and gaps in the literature regarding assessment in medical education.

Figure 1. PRISMA 2020 flow diagram of the study selection process.



Source: Prepared by the authors.

### 3 RESULTS

The analyzed studies indicate that assessment in medical education has been progressively understood beyond its traditional function of measuring performance, being recognized as a structuring element of educational processes and institutional dynamics (Flauzino *et al.*, 2025; De Heer *et al.*, 2024). Part of the literature highlights the centrality of assessment systems in curriculum organization, in the definition of competencies, and in guiding teaching practices, suggesting that assessment directly influences how students direct their learning efforts, select priority content, and develop study strategies. Furthermore, assessment emerges as an organizing axis of the educational experience, contributing to the integration of theory and practice across different learning environments (So *et al.*, 2026; Lakhtakia *et al.*, 2022; Szulewski *et al.*, 2023; Torre; Schuwirth, 2025; Gauthier *et al.*, 2024).

In addition, assessment is shown to play a role in the construction of standards of excellence and normality within medical training, establishing criteria that delimit what is considered acceptable or desirable performance. In this sense, several studies indicate that assessment practices contribute to the internalization of professional norms,

influencing students' behaviors, attitudes, and ways of thinking throughout their educational trajectory, particularly in clinical and simulation settings (Farooq *et al.*, 2025; Avargil; Saleh; Kerem, 2025). These processes reinforce the idea that assessment not only measures outcomes but also shapes expectations and regulates conduct, directly impacting the construction of professional identity (Liao *et al.*, 2023; Silveira *et al.*, 2023; Braund *et al.*, 2024).

To provide a comprehensive overview of the included studies, their main characteristics are summarized in Table 1, encompassing methodological design, context, and key findings.

Table 1. Synthesis of the studies included in the integrative review

<b>Title of the article / First author</b>	<b>Journal / Country</b>	<b>Language / Year</b>	<b>Objective of the study</b>	<b>Method / Level of evidence</b>	<b>Main findings / Contributions to the understanding of assessment in medical education</b>
From workplace-based assessment to programmatic assessment / So	Hong Kong Medical Journal / Hong Kong	English / 2026	To discuss the evolution from workplace-based to programmatic assessment in medical education	Narrative review / Level V	Highlights assessment as a longitudinal and integrative process shaping learning trajectories and professional development, reinforcing its structuring role in medical education
Programmatic assessment for learning / Torre	Medical Teacher / UK	English / 2025	To present conceptual and practical guidance for programmatic assessment	AMEE Guide / Level V	Establishes assessment as a system that integrates multiple data points to guide learning, emphasizing its regulatory and formative functions
The assessment burden in competency-based medical education / Szulewski	Academic Medicine / USA	English / 2023	To analyze how programs are adapting to assessment burden in CBME	Mixed-methods / Level IV	Demonstrates how assessment systems regulate training processes and generate institutional

					pressures, including overload and adaptation strategies
Assessment as learning in medical education / Lakhtakia	JMIR Medical Education / Canada	English / 2022	To evaluate feasibility of student-generated formative assessments	Quantitative study / Level IV	Shows how assessment actively shapes learning strategies and student engagement, reinforcing its pedagogical centrality
Assessment-seeking strategies / Gauthier	Teaching and Learning in Medicine / Canada	English / 2024	To explore how learners initiate workplace-based assessments	Qualitative study / Level V	Reveals how learners strategically engage with assessment, demonstrating its influence on behavior and decision-making
Lessons learned spanning 17 years of CBME / De Heer	Frontiers in Medicine / Netherlands	English / 2024	To analyze long-term implementation of CBME training plans	Qualitative study / Level V	Highlights how assessment systems structure curricula and influence educational reforms over time
Faculty development for programmatic assessment / Flauzino	BMC Medical Education / Brazil	English / 2025	To evaluate faculty development in programmatic assessment implementation	Longitudinal study / Level IV	Demonstrates the institutional dimension of assessment and its role in shaping teaching practices and educational governance
Professionalism and professional identity in medical students / Farooq	Frontiers in Medicine / UAE	English / 2025	To analyze correlation between professionalism and identity formation	Mixed-methods / Level IV	Shows how assessment practices contribute to internalization of professional norms and identity development
Exploring aspects of professional identity / Avargil	BMC Medical Education / Israel	English / 2025	To explore identity formation through reflective writing	Qualitative study / Level V	Indicates that evaluative and reflective processes influence self-perception and

					professional identity construction
Professional identity constructions in assessment activities / Liao	Medical Education / UK	English / 2023	To analyze identity construction in clinical assessment contexts	Qualitative study / Level V	Demonstrates how assessment contexts shape identity through normalization and performance expectations
Assessment of professional identity formation / Silveira	BMC Medical Education / Brazil	English / 2023	To validate instrument for assessing professional identity	Methodological study / Level IV	Highlights assessment as a tool for measuring and shaping identity formation processes
Making assessment a team sport / Braund	Canadian Medical Education Journal / Canada	English / 2024	To examine group feedback in residency assessment	Qualitative study / Level V	Shows how collective assessment practices influence professional development and shared norms
Bias in observed assessments / Ismaeel	Academic Medicine / USA	English / 2024	To review bias in assessment practices	Scoping review / Level III	Reveals how evaluative processes are affected by systemic biases, influencing recognition and fairness in training
Understanding resident assessment burden / Ott	Journal of Graduate Medical Education / USA	English / 2022	To explore residents' experiences with assessment burden	Qualitative study / Level V	Demonstrates emotional and psychological impacts of assessment, including stress and reduced well-being
Assessing EPAs in pre-clerkship / Nixon	Academic Medicine / USA	English / 2026	To assess EPAs in early medical training	Quantitative study / Level IV	Highlights assessment as a mechanism structuring competency development and early professional expectations
Programmatic assessment in LMIC / Claramita	Medical Teacher / Indonesia	English / 2026	To analyze implementation of programmatic assessment in LMIC	Qualitative study / Level V	Demonstrates how assessment systems operate within broader governance and

					institutional contexts
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Source: Prepared by the authors.

The studies presented in the summary table correspond to those that provided the most significant contributions to the development of the analytical categories. It is important to emphasize that all included studies were considered in the interpretative thematic analysis, regardless of their inclusion in the table, allowing for a broader understanding of the trends and gaps within the investigated field.

#### 4 DISCUSSION

The results of this review indicate that assessment occupies a central position in the organization of contemporary medical education, operating not only as a tool for verifying learning, but as a practice that structures the educational process and guides conduct within medical training. The literature shows that assessment systems influence how students learn, define priorities, and construct their professional identity, revealing the formative and normative dimensions of assessment in the context of medical education. In this scenario, assessment assumes a strategic role in mediating the relationship between the formal curriculum, pedagogical practices, and the institutional expectations inherent to medical training (Torre; Schuwirth, 2025; Day *et al.*, 2023; Liao *et al.*, 2023).

When considering assessment through the lens of governmentality, it becomes possible to understand how these practices operate in shaping conduct and producing specific ways of being a physician, particularly within clinical training and supervised practice settings. According to Foucault (2008), governing entails structuring the field of possible actions, guiding conduct through dispositifs that articulate knowledge and power. In this sense, assessment is no longer understood solely as a technical mechanism, but rather as a dispositif that actively participates in the production of subjectivities within medical education, especially as it permeates repeated evaluative experiences, feedback processes, performance judgments, and institutional recognition practices characteristic of medical training (Foucault, 2008; Liao *et al.*, 2023).

Based on the analysis of the included studies, two analytical categories were identified: (1) assessment as a technology of regulation in medical education and (2) assessment and the construction of professional subjectivities within the context of medical education.

#### **4.1 Assessment as a technology of regulation in medical education**

The analyzed literature indicates that assessment plays a central role in regulating educational processes in medical education, guiding behaviors and establishing performance parameters deemed appropriate for professional medical practice (Szulewski *et al.*, 2023; Torre; Schuwirth, 2025; So; Chan; Cheng, 2026). By defining criteria for approval, progression, and certification, assessment systems function as mechanisms that organize the trajectories of medical students, delineating expectations and directing learning practices, often in implicit and naturalized ways. In this sense, assessment contributes to the structuring of academic routines and to the consolidation of specific modes of organizing study and clinical practice across different medical training settings (Nixon *et al.*, 2026; Ott *et al.*, 2022).

From a Foucauldian perspective, such processes can be understood as practices of normalization, in which standards are established to distinguish what is acceptable from what is deviant within the context of medical education. In this framework, assessment operates as a disciplinary technology that classifies, hierarchizes, and compares performances, producing regulatory effects on subjects in training (Ismaeel *et al.*, 2024; Sternszus *et al.*, 2023). These standards extend beyond the evaluation of technical competencies, incorporating values, attitudes, and dispositions deemed desirable in medical practice, thereby shaping a specific professional profile. In clinical settings, this dynamic is also reflected in how assessment practices contribute to the construction of professional identities and to expectations regarding what constitutes legitimate performance and institutional recognition (Nixon *et al.*, 2026; Liao *et al.*, 2023).

Furthermore, the literature indicates that assessment processes are deeply intertwined with institutional structures and educational policies that shape medical training. The emphasis on performance, productivity, and standardization reveals the presence of regulatory logics that extend beyond the pedagogical domain, situating

assessment within a broader framework of governance in medical education (Claramita; Cianciolo; Torre, 2026; Ismaeel *et al.*, 2024). In this sense, assessment can be understood as part of a set of dispositifs that operate in the conduct of conduct, articulating educational practices with broader strategies of management and control in medical training. This becomes particularly evident when assessment models themselves generate overload, curricular adaptations, and ongoing debates concerning bias and fairness in performance judgments (Szulewski *et al.*, 2023; Torre; Schuwirth, 2025).

#### **4.2 Assessment and the construction of professional subjectivities**

Beyond its regulatory function, the analyzed studies demonstrate that assessment actively participates in the constitution of professional subjectivities in medical education. Through continuous exposure to evaluative practices, medical students progressively internalize criteria of judgment that shape their self-perception, influencing how they understand their performance, their capabilities, and their position within the medical field. This process involves the incorporation of norms that come to operate as internal reference points for conduct within the context of medical practice (Zhang; Zhang, 2025; Silveira *et al.*, 2023; Sarraf-Yazdi; Goh; Krishna, 2024).

Drawing on the contributions of Foucault (2008), these processes can be understood as related to the formation of subjects who govern themselves, adjusting their behaviors to the institutional expectations of medical training. In this sense, assessment does not operate solely as an external mechanism, but also contributes to the production of modes of subjectivation in which individuals engage in practices of self-assessment, self-regulation, and self-surveillance, internalizing criteria that guide their actions and decisions within the medical field (Liao *et al.*, 2023; Silveira *et al.*, 2023). In recent literature, this dynamic is particularly evident in discussions on professional identity in medicine, in the tensions between observable competence and broader identity formation processes, as well as in the centrality attributed to self-reflection, recognition, and belonging in medical education (Sternszus *et al.*, 2023; Kim; Applewhite; Shelton, 2024; Nixon *et al.*, 2026).

Additionally, the literature suggests that assessment may produce ambivalent effects in the constitution of these subjectivities within medical education. While it may

foster the development of autonomy and professional responsibility, it can also generate anxiety, competitiveness, and conformity to rigid standards (Nixon *et al.*, 2026). This tension highlights the need to critically examine the assessment models adopted in medical education, considering their effects on the formation of reflective and critically engaged professionals capable of questioning the norms that guide their practice and acting in an ethical and context-sensitive manner. Recent studies indicate, for instance, that assessment burden may compromise well-being and intrinsic motivation, while biases in observational judgments may interfere with recognition and the validation of educational trajectories, ultimately affecting the subjective experience of medical students (Ott *et al.*, 2022; Ismaeel *et al.*, 2024).

## 5 CONCLUSION

This integrative review demonstrated that assessment in medical education extends beyond its traditional function of measuring performance, emerging as a central practice in the organization of educational processes and in the construction of professional subjectivities. As a technology of regulation and normalization, assessment influences not only what medical students learn, but also how they perceive themselves, self-regulate, and position themselves as future physicians across different training contexts.

The incorporation of the framework of governmentality, as proposed by Michel Foucault, enabled a broader understanding of the effects of assessment practices in medical education, highlighting their embeddedness within networks of power and knowledge that permeate educational processes. This perspective contributes to problematizing naturalized assessment models in medical training, opening space for more critical reflections on the ways in which professionals are produced and conduct is regulated within the field of contemporary medical practice.

Finally, this study underscores the need to expand investigations that explore the effects of assessment practices in medical education, particularly regarding the construction of subjectivities and the ethical implications of these processes. Such reflections are essential for the development of assessment models that contribute not only to the regulation of performance, but also to the formation of critical, reflective

physicians committed to the complexity of healthcare and to contemporary social demands.

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