

Review

Pedagogical practice: from the teacher training of the medical professor.

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Sent: 11/02/2024

Accepted: 16/04/2024

Published: 16/07/2024

Abstract. This scientific research was conducted based on an analysis of the literature encompassing pedagogical practice from the perspective of medical teacher training. Reliable information on works in this field was considered for the research, utilizing bibliographic data, electronic consultations, scientific articles, and journals. The results obtained highlight the importance of strengthening the educational efforts in medical sciences through educational practices that guide educators with clear elements, aiming to address the current societal needs in medical education. The concept of pedagogical practice is developed according to established axes. Additionally, differences and similarities between various approaches are identified. Furthermore, a planning approach is presented to clarify the concept of pedagogical practice from the perspective of the medical teacher. In conclusion, it is presented that pedagogical practice in the field of medical education possesses distinctive elements that characterize it and make it applicable in various scenarios within this field.

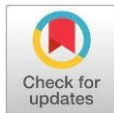
Keywords: University professor; Medical education; Teacher training; Pedagogical practice.

1. Introduction

Research related to medical education and its various forms of development within the university setting is a topic of great interest in this educational field. It can be said that this raises concerns when addressing medical education and, consequently, the pedagogical practice of medical educators.

In this regard, it was noted that higher education teachers, in addition to their professional training, must possess pedagogical training that enables them to guide and adapt teaching-learning

processes in alignment with the goals and objectives of higher education at the university level¹. Therefore, one of the primary objectives for improving teaching is related to the planning of pedagogical training for educators, aiming to integrate experiences and insights with pedagogical discussion and debates on theoretical principles of education. From this perspective, Bernate and Vargas proposed that the pedagogical renewal in the 21st century has generated a reflective movement on the role of the university teacher, questioning conceptions, pedagogical practices, and participation in



sociopolitical processes of change and social transformation².

Torres described that this century presents medical education with the challenge of undertaking a profound transformation in the continuous training of its faculty to meet societal demands, where teacher training and pedagogical practice constitute a dimension of vital importance. In this sense, it was determined that there is a shift in attitudes toward the pedagogical training of medical school professors³.

Accordingly, investigating the professional pedagogical practice of medical educators is of marked relevance in the educational context, as it facilitates reflection on the acquisition of knowledge, the appropriation of pedagogical elements, and the visibility of the theory-practice relationship. This approach enables a pertinent exploration of the construction of pedagogical knowledge and how it can be promoted concerning the need for pedagogical training in the medical field, specifically highlighting its potential for medical teaching professionals in pedagogical practice within this area of health.

2. Method

In the present scientific research, an analysis of the literature closest to pedagogical practice from the perspective of medical teacher training was conducted. For this reason, the current research considered reliable information from works addressed in this field; furthermore, bibliographic information, electronic consultations obtained from e-books, scientific articles, and journals were used. This was carried out through a unified search framework in the following relevant electronic databases: ERIC, HAPI, MeSH PubMed, Scielo, EMBASE, and ScienceDirect, complemented by a free search in Google Scholar, to obtain updated information on university teaching, teacher training, medical education, and pedagogical practice, preferably from the last five years and covering different regions: Europe, North America, South America, Central America, and the Caribbean.

Subsequently, the methodology used in this applied study was descriptive. The objective was to understand the concept of pedagogical practice from the perspective of medical teacher training in order to guide educational-reflective intervention by professionals in the medical field. Additionally, the applied design was approached from a documentary perspective, and the data collection technique used was content analysis⁴.

Table 1. Characteristics of the selected studies

Date of publication		Type of publication		Region/country of origin	
Year	Number	Type	Number		Number
2023-2020	17	Scientific article	16	North America	4
2019-2016	17	Disclosure article	10	South America	24
2015-2012	2	Results article	9	Central America and the Caribbean	4
		Book	1	Europe	4
Total	36		36		36

For the selection of studies, the following eligibility criteria were established: the research topic was defined as the pedagogical practice of the medical teacher and its relationship with university teaching, teacher training and

medical education. Out of the 36 studies, 35 were selected. These were then analyzed in full text in order to identify how the research addressed the established components.

Table 2. Selection of the relevant studies

Dimension/topic	Description/findings	Key words	Author(s)
University Teaching	<p>Higher education is related to the capacity to reason efficiently, supported by the cultural and human considerations that underpin the essence of university educational management. University professors are professionals who must be highly qualified and possess the necessary experience in teaching areas.</p> <p>Professors play a key role in the academic formation and development of university students. They must have a solid academic background and a deep understanding of the theories and practices in their respective disciplines. They should possess effective teaching skills and excellent communication abilities to convey knowledge effectively to university students.</p> <p>Professors should be capable of designing curricula that are engaging and suitable for university students; additionally, they should stay updated on the latest advancements and trends in their field and be able to communicate that knowledge clearly and effectively.</p>	<p>University, teaching, university education, educational trends, university teacher, educational models</p>	<p>Bernate, J. y Vargas, J. (2020); Colina, A. (2020); Paredes, M. et al. (2018); Trillo, F. et al. (2017); Vera, O. (2016); Vergara A. (2017)</p>
Teacher training	<p>It encompasses all policies and procedures focused on preparing teachers to acquire the knowledge, attitudes, and skills necessary to effectively carry out their work in the classroom and the school community.</p> <p>It allows educators to develop their educational competencies, appropriate the didactic tools needed to perform their work in classrooms, and acquire the necessary knowledge to better understand both the teaching-learning process and the characteristics of interactions with students, regardless of their area of specialization.</p> <p>This approach leads to offering students the highest quality and most up-to-date education possible, making it truly significant. It allows for continuous renewal as the world changes, to provide students with current and useful knowledge.</p>	<p>Theory of education, educational knowledge, pedagogy, pedagogical knowledge, pedagogical training, teaching experience, teaching, learning</p>	<p>Álvarez, G., et al. (2021), Charino, N. y Plachot, G. (2023), Herrera, J. y Ruiz, A. (2018); Lozano, E. y Rodríguez, R. (2022); Macanquí, M. et al (2020); Martín, (2019); Orellana, E. et al. (2020); Suárez et al. (2019); UNESCO. (2017)</p>

Table 3. Cont...

Dimension/topic	Description/findings	Key words	Author(s)
Medical Education	<p>Since the principles of Flexner, changes in medical education have necessitated a reevaluation of training plans to align with the performance expected in the new social, scientific, and professional context of the medical community.</p> <p>Medical education is a demanding and complex task, requiring specific pedagogical knowledge in addition to the scientific knowledge possessed by each medical educator.</p> <p>In the context of the 21st century, university medical education has distanced itself from the classical positivist pedagogical model of teaching, where students merely repeat and memorize content imparted by the teacher.</p> <p>Medical education is now characterized by continuous efforts to improve the training of future physicians.</p> <p>Currently, medical education is moving towards teaching and learning strategies designed to train autonomous physicians who are capable of adapting to constantly changing contexts, are critical thinkers, possess collaborative working skills, and are proficient in seeking and selecting information.</p>	<p>Medical schools, teaching, quality in medical education, medical curriculum; Flexner report; medical education</p>	<p>Campbell, C. (2017); Huguet, Y. et al. (2018); Jara-Gutiérrez, N. et al. (2015); Morán, (2019); Patel, M. (2016) Gómez López, W. (2022); González, P., y Luna, V. (2019); Torres, C. (2023); WMA (2015)</p>
Pedagogical practice	<p>Pedagogical practice involves the ability to manage pedagogical knowledge to ensure that theoretical knowledge is easily conveyed to learners through the employed methodology.</p> <p>This practice guides educators towards a perception of their professional performance, focusing on more technical aspects: planning, didactic contextualization, content management, teaching strategies, a variety of didactic means, and evaluation.</p> <p>Pedagogical practice is a means of transforming realities in social contexts, encompassing both the duty and the essence of being an educator. It enables teachers to implement actions with students to achieve the expected learning outcomes through various didactic strategies and resources.</p> <p>It positions the teacher as a creative individual capable of contributing innovative experiences aimed at facilitating better educational environments, in addition to contributing to the educational field through teaching, pedagogy, and research.</p> <p>Furthermore, it involves identifying opportunities to improve the quality of the educational process in medical sciences.</p>	<p>Pedagogical practice, didactic axis, university didactics, teaching experience</p>	<p>Arreola, A; Palmares, G y Ávila, G. (2019); Casasola, W. (2020); Castellano, N. y Díaz, B. (2020); Cuentas, H., et al. (2020), Chávez-Vega, R. (2021); Guerrero C, Correal-Cuervo R, Bohórquez-Olaya C, Burgos-Díaz J, Jaimes-Bernal C, Montañez-Torres C., (2023); Guerrero- Pineda, Y. y Loaiza, Y. (2018); Mantilla, G. et al. (2021); Ripoll-Rivaldo, M. (2021); Torres, A. y Álvarez, M., (2021)</p>

3. Dimensions:

3.1 University profesor

Colina described that "the university is not limited to the knowledge of skills but to the integral formation of human individuals, competent and autonomous in solving real community problems"⁵; assuming this as both a principle and a goal of pedagogical action implies conceiving higher education not only as a tool but as the maximum possibility of development. This requires relying on an educational experience of complex thinking from the perspective of didactics, pedagogy, and the way of approaching knowledge, which allows teaching to be constituted not only as an act that trains professionals but also as integral formation.

It is increasingly necessary and urgent to define and reinforce the specificity of university teaching because, in addition to their normal accumulation of knowledge, sciences expand their fields, becoming increasingly complex and diversified. In this regard, Paul Freire affirmed that "teaching is not transferring knowledge, but creating the possibilities for its production or construction; the one who teaches learns by teaching, and the one who learns teaches to learn"⁶. This is applicable in medicine because a large amount of knowledge is acquired, but without an idea of how to adequately transmit what has been learned.

Similarly, Macanchí et al. described that the university teacher is responsible for

facilitating, tutoring, advising, managing, and guiding the learning process; at the same time, they have the inescapable task of reviewing initial and continuous training implications, a key aspect in this entire process⁷. Additionally, being a teacher today is not an easy task; today, teachers are required not only to be experts in their subject but also to master teaching techniques, methods, and strategies, but not solely from a technical perspective, as expressed by Lozano and Rodríguez⁸.

In this respect, and as proposed by Bermejo and Suarez, teaching at any level, whether in initial education or throughout university education, including undergraduate and postgraduate studies, becomes one of the most complex activities in society. It has led to the issuance of a conglomerate of concepts and theories about how teaching and learning occur, supported by theoretical elements from pedagogy, philosophy, and other sciences⁹.

Similarly, Forero-Jiménez stated that university education faces increasing pressures to meet societal needs, where knowledge constitutes an important instrument for development¹⁰. Therefore, this educational level integrates various elements such as the institutional project, academic processes, national and international visibility, research, relevance and social impact, well-being, and alumni. All these elements influence the achievement of training objectives; however, it is the teacher who, through

their teaching action, trains their students, as they materialize the teaching-learning process.

3.2 Teacher Training

Teaching related to teacher training is a demanding and complex task that requires specific pedagogical knowledge, in addition to scientific knowledge, as stated by Charino and Plachot¹¹. Generally, medical teaching has traditionally focused exclusively on transmitting knowledge to students through teaching practices that have been generationally transmitted for a simple reason: many times, doctors and other health professionals have not been taught to be teachers, and programs do not include teaching and pedagogy topics in their curricula¹². In this sense, from the perspective of teaching in the health field, as in other knowledge areas, teaching responds to the demand for constructing pedagogical knowledge expressed in the daily practice of training future doctors.

Similarly, the variables addressed from the concept of pedagogical knowledge are revisited, and derived from this, the teaching role and pedagogical practice according to the context of authors and perspectives that contemplate these aspects¹³. Therefore, pedagogical knowledge arises from a triple relationship of concepts such as pedagogical practice, reflection, and the teaching role, where practice is constituted in everyday life and reflection. This is a tool to establish the pedagogical relationship between theory, practice, and experience.

Today, teaching, like research and the practice of any profession, demands specific training. Besides the specific competencies to practice the profession, there are competencies related especially to university teaching, such as mastery of a knowledge area, pedagogical mastery, and the exercise of the political dimension of higher education¹⁴. This implies emphasizing that pedagogical training is extremely relevant for teaching, as it needs to be adopted as a priority by health science programs.

In educational practice, various aspects are combined, such as teacher training, education, curriculum, didactics, pedagogy, human development, and teaching competencies. Thus, complex thinking in higher education is related to the capacity to reason efficiently, supported by cultural and human considerations that underpin the essence of university educational management, articulated in a dialectical relationship with the accumulated result of knowledge construction by humanity and the constant development of scientific knowledge¹⁵.

In this same line, Cejas et al. and Ramirez et al. pointed out that a good teaching profile is oriented towards communicative competencies, leadership, emotional intelligence, teamwork, and the ability to face complex situations^{16,17}. Therefore, the university teacher must possess three characteristics: pedagogical, methodological, and personal¹⁸.

With these ideas, Lozano and Rodríguez described that teacher training equates to the appropriation of teaching culture but also leads to its transformation⁸. In this sense, this does not only imply teaching at an institution; it is not about repeating and applying what others do or what the teaching staff has been taught or required to do in the health field. Consequently, becoming a teacher means that the individual has adopted the project of being a teacher who reflects on it to transform themselves as a professor, confronting their old practices, accepted practices and ideas, and even institutional demands to improve their teaching role and transform the teaching culture they are embedded in.

Therefore, in the context of the 21st century, it is urgent for university education to distance itself from the classical positivist pedagogical model of teaching, where the student repeats and memorizes content imparted by the teacher, prioritizing the teacher's discourse. Conversely, it is necessary to transform the unidirectional teacher-student interaction into a bidirectional dialectical relationship that surpasses rote or repetitive learning, advancing towards meaningful and deep learning, as pointed out by Gómez-López¹.

3.3 Medical Education

According to the World Medical Association [WMA] declaration¹⁹, medical education is composed of three stages: undergraduate university, specialization or postgraduate studies, and continuous academic training. In this sense, it is considered a dynamic and changing academic and professional continuum from the first semester in medical schools until the professional retires. Its main objective concerning the education of doctors, whether in training or specialization, is to prepare them to apply scientific discoveries and treat diseases.

In this regard, Morán, in the document on the competencies of the 21st-century doctor, stated that:

"Adaptive processes to social, economic, and political contexts are crucial in the education of future doctors and make it clear that this training is demanding in adapting to the new, avant-garde, and globalized world, whose universal actions directly impact global health"²⁰.

It can be said that perspectives on learning are important because they influence almost all decisions about the curriculum, teaching, and the evaluation process in medical education. From this perspective, and from the 1910 Flexner Report on medical education to the Canadian definition of medical competencies outlined in the CanMEDS Framework by the Royal College of Physicians and Surgeons of Canada²¹, the profile of a medical teacher as an innovative and

creative professional was proposed. This involves incorporating information technologies and changing teaching methods, emphasizing practice and adjusting evaluation methodologies, consistent with Torres's description³.

Indeed, Huguet proposed that:

"Medical education is that broad and complex set of events, processes, and influences, both deliberate and spontaneous, with which the aspiring doctor is surrounded from the day they enter medical school until the end of their practical life"¹².

From this, significant changes occurred in the understanding of the fundamental aspects of medical education, regarding effective learning and the professional attributes required of doctors.

When one wishes to be a medical teacher within this new conception, Torres's proposal, describing that learning-facilitating experiences—teaching-learning activities—must be planned and not left to chance or randomness, and the desired changes—learning objectives—must be defined beforehand, as well as the methodology and evaluation criteria for learning³, must be considered. Additionally, the ability to communicate, manage one's emotions, work in a team, do so with ethical criteria in a multicultural environment, identify one's training needs and stay updated, analyze a rapidly changing environment, and adapt professionally to it must be taken into account.

In turn, González and Luna estimated that medical education is characterized by constant efforts to improve the training of future doctors and the care they provide to patients²². From a pedagogical perspective, we are experiencing an era of improvement in medical education, innovative teaching, and the current teaching methods employed. Similarly, competency-based learning and passive lectures have given way to interactive learning experiences in small groups, simulation training, procedural skills, communication skills, and decision-making, parallel to the growth of scientific knowledge about health and disease.

Similarly, Orellana et al. warned in their study that significant changes allowed for initiatives of important reform in medical education that may require a broader conceptualization of the educational process²³. In this vein, medicine is a constantly evolving profession; therefore, to ensure that medical training aligns with the continuous evolution of the profession, multiple transformations occurred in medical education, including changes in structure, governance, and implementation of education, as described by Gómez-López. In the context of the 21st century, university medical education has distanced itself from the classical positivist pedagogical model of teaching, where students repeat and memorize content imparted by the teacher, prioritizing the teacher's discourse, to transition to a new competency-based pedagogical model with a constructivist approach. This breaks away from the logic

of pure and simple knowledge transmission, favoring the acquisition of new knowledge from practice in a given context¹. Indeed, this approach gives meaning to learning.

Pedagogical Practice

3.4 Pedagogical practice

Talking about pedagogical practice, and considering what Jara-Gutiérrez et al. described, requires that the teacher accounts for their disciplinary and pedagogical knowledge from their classroom experiences. This allows them to identify knowledge construction in the teacher-student interaction within an educational framework²⁴.

In this regard, Arreola et al. stated:

"It consists of the ability to manage pedagogical knowledge to make theoretical knowledge easily accessible to students through the methodology employed by the teacher, considering the group's characteristics, their contextualization, and current needs"²⁵.

Thus, pedagogical practice positions the teacher as a creative being capable of contributing innovative experiences aimed at facilitating better educational environments, in addition to contributing to the educational field through teaching, pedagogy, and research²⁶.

Therefore, addressing the theoretical component in the topic of the pedagogical practice of medical teachers from teacher training leads to the conclusion that educational processes must be carried out

in an analytical, critical, and reflective manner. Consequently, from an educational perspective, a teacher's sense of purpose arises from their previous experiences, where their pedagogical practice should be interpreted as a process of representation, training, and transformation in response to the new challenges academia needs²⁷. Additionally, it must be understood that teaching is not just about transmitting knowledge, as it must be grounded in a sense of humanity, rigor, quality, and demand.

Thus, pedagogical practice is considered a dynamic, changing, and complex tool that serves as a knowledge strategy and is directly related to the sociocultural environment in which the teacher operates, as well as relationships with political practice, theories, or disciplines that support it, among others. Likewise, it encompasses three methodological elements: the institution, the subject, and pedagogical knowledge²⁸. Therefore, in the context of university teaching, teachers must ensure that students learn new concepts and not just memorize them. Indeed, the qualitative difference lies in teaching students to learn; this is the role of the university professor: a facilitator of learning.

Therefore, the teaching role in health areas is transformative and emancipatory of its pedagogical practice when reflecting on its actions, performing a permanent self-evaluation of each of its learning models, and consequently questioning its practical exercise. This responsibility

transcends to their students, creating warm and reliable learning environments where the student is an active, reflective, and dynamic participant in their learning²⁹.

In this regard, a teacher's sense of purpose arises from their previous experiences, where their pedagogical practice should be interpreted as a process of representation, training, and transformation to the new challenges academia needs²⁷. It is also necessary to understand that teaching not only involves transmitting knowledge but also must be grounded in a sense of humanity, rigor, quality, and demand, which leads to the transformation of pedagogical knowledge from pedagogical practice and configuring the teaching role.

On the other hand, it must be clear that medical teachers do not usually come from a pedagogical background, as often happens in the humanities and teaching degrees. Instead, they come to the classroom as a subsequent activity to their medical practice, not as their main reason for exercising medical knowledge. Therefore, the medical teacher faces challenges in their pedagogical intentions, where the doctor must primarily be an expert in the subject and present themselves as such to their students. They must be facilitators of their students' learning, who will become their future colleagues, instilling in them all the principles of medical responsibility. A third challenge is being a model and a teacher of medical vocation⁹.

In this regard, Bermejo and Suarez recommended that the role of the doctor in their pedagogical practice should be oriented towards reflection and introspection, and to that extent, critically reviewing strategies and methodologies to improve the teaching and learning processes in their students⁹.

According to Ripoll-Rivaldo, pedagogical practice is one of the academic processes that require greater rigor in teacher training, which is reflected in their educational management and professional practice³⁰. He also pointed out that the teacher is recognized as a principal actor who should direct their formative work considering values, competencies to be developed, and a holistic and complex vision of knowledge.

Similarly, in any disciplinary training process involving teaching and learning, the key is achieving a perfect combination between the rigor of the medical discipline and good pedagogical practice when educating future medical professionals³¹. In this sense, what the teacher does and executes becomes important and fundamental actions to achieve the stated objective. However, it is common to find that many medical staff teaching at universities have strong scientific training and clinical knowledge of the discipline.

Meanwhile, Torres and Álvarez suggested that the teaching-educational process is concretized in the instruction that expresses the result of the teacher-student interaction regarding the

assimilation of knowledge and skills systems, as well as their ability to apply them creatively and the integral development of the student. This allows identifying opportunities to improve the quality of the teaching-educational process at the University of Medical Sciences³².

4. Results and Discussion

From the present research, it was observed that being a higher education professor underscores the importance of considering the complexity and plurality of knowledge involved in university teaching. Additionally, this implies contemplating the dimensions proposed in singular and collective processes to strengthen, enhance, and revitalize the role of the teacher for the academic, educational, and social community. This perspective aligns with Charino and Plachot, as it reflects on the commitment and ethics of teaching practices¹¹. It involves recognizing this diversity, generating possibilities for dialogue and articulation, and constructing specificity in certain theoretical approaches, methodological strategies, and areas of focus through a situated learning process, the development of university functions, academic activity, and professional expertise.

Teacher training, as a field of faculty development, provides the opportunity to apply various theories and postulates on this subject. Likewise, it allows teachers to take advantage of the training space to

develop multiple skills and abilities that make them competent professionals, guiding their work with skills for the teaching-learning process of their students. This is consistent with Álvarez et al., where such training processes enable teachers to improve their performance and, consequently, the quality of teaching³³. Therefore, these should be maintained continuously, not only as training spaces but also as reflections on pedagogical practice.

According to the results of the documentary analysis on the understanding of pedagogical practice from the perspective of medical teacher training, advances and contributions with relevant information on the general characteristics of university faculty, teacher training, and medical education were observed. These allow identifying critical aspects related mainly to context, the pedagogical field, the teaching-learning process, and teaching practice. These, in turn, greatly contribute to guaranteeing the quality of medical education.

In this regard, medical education and the pedagogical practice of medical professors, in the years since the Flexner study, have allowed an understanding that almost all aspects of pedagogy have evolved in three major ways: the roles of teacher and student have changed; the dynamic nature of teaching and learning has become evident, both in individual and collective aspects; and finally, the importance of the environment in

supporting learning has been highlighted. This has enabled medical educators to have new ways of thinking about themselves, their work, and their relationships with learning and students. Therefore, it could be said that this aligns with what Gómez-López proposed¹.

With the process of globalization, there is a significant transformation in the role of the medical teacher and the need for them to be trained to contribute to the quality and innovation of medical education. This, in turn, allows the application of the most advanced tools to ensure superior educational management with modern methodologies that ultimately influence the quality of graduates and their future actions in the community. Hence, teacher training is crucial for the quality of the educational process and society. This aligns with the United Nations Educational, Scientific, and Cultural Organization (UNESCO)³⁴, which indicated that "if the teacher does not change, significant changes in educational processes to meet social demands cannot be made."

Furthermore, pedagogical practice is the scenario where the teacher accounts for their disciplinary and pedagogical knowledge based on their classroom experiences. This allows them to identify knowledge construction in the teacher-student interaction within an educational framework. Thus, pedagogical practice positions the teacher as a creative being capable of contributing innovative experiences aimed at facilitating better

educational environments and contributing to the educational field through teaching, pedagogy, and research, as proposed by Guerrero et al.³⁵.

In medicine, pedagogical practice and innovative teaching methods coincide with what Pineda and Loaiza formulated²⁸, who emphasized that the formulation of didactic or teaching models, beyond hegemonic paradigms, contributes to evolutionary and relativistic views of knowledge and, in that sense, builds social value related to the commitment and responsibility that facilitate the development of professional competencies in students.

4. Conclusions

From the previous interpretations and findings, it was highlighted that higher education presents significant challenges in a world of continuous changes that demand reflection on the formative purpose of institutions. This is essential to respond to the needs of the environment and society in this new century, where topics such as quality, the teaching-learning process, teacher training, and pedagogical models must be considered.

For this reason, teacher training is essential to provide quality education and ensure the future success of students. This corresponds to the responsibility that teachers have to transmit knowledge and skills that are essential for student development. This practice is not only about acquiring new skills but also about

helping teachers improve their teaching and motivate their medical students.

Following the documentary analysis conducted in the time since Flexner's principles, changes in medical practices have necessitated a reevaluation of training plans to meet the expected performance in the new social, scientific, and professional context of the medical community.

Moreover, as has been corroborated, pedagogical practice requires conceptual, procedural, and strategic preparation from teachers. This preparation should lead professors to reflect on daily life and how to intervene with theoretical concepts and bring them to life to meet the challenges of pedagogical practice in line with the ever-evolving needs of medical sciences.

Therefore, the use of active pedagogies by teachers energizes the teaching and learning process, allowing them to go beyond traditional methods and, consequently, transition to an educational model based on the theory of complex thinking. This is related to the positive valuation of their experience, which allows them to identify how this practice contributes to the formative process of students and the continuous improvement of their pedagogical practices.

In summary, it is necessary to advance in developing dynamic and flexible tools that enable the establishment of the degree of knowledge of medical teachers

concerning the established pedagogical model. Additionally, there needs to be coherence in their actions when executing teaching knowledge and the evaluation styles used in the process, which determine the efficiency of their teaching with quality in any scenario of medical education.

5. Statements

5.1 Conflict of interest

The author states that there is no conflict of interest that could bias the results or the interpretation of the study.

5.2 Funding

Non-monetary

5.3 Acknowledgments

To my family and to the Universities of Antioquia in Medellin Colombia and Baja California in Mexico.

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