


Theoretical foundations of the pedagogical project of a Medicine course in the outback of the state of Paraíba, Brazil: contributions to the debate on medical education

Henrique Gonçalves Dantas de Medeiros^(a)

<henriquegdmedeiros@gmail.com> 

Thiago Gomes da Trindade^(b)

<thiagogtrindade@gmail.com> 

^(a) Unidade Acadêmica de Ciências da Vida, Centro de Formação de Professores, Universidade Federal de Campina Grande. Rua Sérgio Moreira de Figueiredo, s/no, Casas Populares. Cajazeiras, PB, Brasil. 58900-000.

^(b) Departamento de Medicina Clínica, Centro de Ciências da Saúde, Universidade Federal do Rio Grande do Norte. Natal, RN, Brasil.

Considering the reform of medical education, it is necessary to study experiences that have arisen recently. Therefore, the pedagogical project of the medicine course of Universidade Federal de Campina Grande in Cajazeiras (Paraíba, Brazil) was analyzed in order to recognize its theoretical foundations. It is a qualitative research, descriptive and exploratory, in which indirect documentation and intensive direct observation were used for data collection, and the hermeneutic-dialectical method was utilized for the analysis. Based on presuppositions related to Rural Medicine, the project is eclectic: it encompasses Historical and Dialectical Materialism through Latin American Critical Epidemiology and Problematicization Methodology; having the Pedagogy of Competencies as reference, it approaches rationalist, individualist and neopragmatist schools of thought; finally, it converses with Oppositional Postmodernism and Complex Thought. Seeking to overcome the Flexnerian paradigm, the project approaches the Paradigm of Integrality, but faces difficulties to materialize, for which practical proposals are made.

Keywords: Medical education. Curriculum. Health education.

Introduction

The creation of the Brazilian National Health System (SUS) motivated efforts to consolidate a primary care network and to change the care model in Brazil. This has demanded a reformulation of health professionals' education, to align them with the ethical-political principles that underpin the Right to Health. Thus, in recent years, undergraduate courses have experienced a set of curricular reforms aiming to adjust the graduate's profile to the new reality. These reforms express an attempt to overcome the Flexnerian model from a new perspective: the integrality paradigm.

The Flexnerian model is characterized by the following aspects: predominance of theoretical classes focusing on the disease and fragmenting knowledge in disciplines; teaching-learning process centered on the teacher in classes based on demonstrative lectures; practice predominantly developed in hospitals; teacher qualification centered solely on technical-scientific competence; reference to the labor market based on the traditional medical office; and medicine practiced in a private, doctor-centered way¹.

On the other hand, although the integrality paradigm still has a diffuse definition, it is possible to state it is guided by: an approach to the health-disease process that lays more emphasis on the health pole; teaching-learning process centered on the student; development of practical activities in the SUS network in its different levels of care, targeted at the population's basic health needs; teachers' qualification based on the technical-scientific competence and also on the didactic-pedagogical one; and reference to the labor market in the area of health based on a critical reflection on its economic and humanistic aspects and its ethical implications¹.

It is in this scenario of changes in medical education that the medicine course of the Cajazeiras *campus* of Universidade Federal de Campina Grande (state of Paraíba, Northeastern Brazil) is created in 2007, incorporating the National Curricular Guidelines (DCN) modified in 2001. The course's structuring axis, functioning as a transversal and integrative module, are the disciplines of Family and Community Health, grounded on knowledge from Collective Health, Family and Community Medicine, the Amplified Clinic and on Paulo Freire's Pedagogy. The main field of practice is the primary care network of that city, which has approximately sixty thousand inhabitants and is located in the outback of Paraíba².

In light of the recent changes in the DCN, published in 2014 in an attempt to intensify the reform process that started in 2001, and considering the context of increase in the number of seats and medicine courses in regions of difficult retention of doctors, inaugurated by the Project More Doctors for Brazil (PMMB), it is fundamental to conduct studies on the experiences accumulated so far.

Therefore, we analyzed the pedagogical project of the medicine course of UFCEG, Cajazeiras *campus*, aiming to recognize its theoretical and philosophical presuppositions and foundations and to extract contributions that can underpin pedagogical projects (created after the 2014 DCN or being reformulated due to them) and public policies related to medical education.

Material and methods

According to the methodological reflections made by Marconi and Lakatos³, this is a research located within the Marxist theoretical framework, based on dialectical and historical materialism and on the dialectical method of approach. It uses the methods of historical and monographic procedure, with a qualitative approach of a descriptive and exploratory nature. Its specific data collection techniques are Indirect Documentation - documentary and bibliographic research using the course's pedagogical project, the 2001 and 2014 DCN, UFCG's directives and resolutions, and documents of the World Organization of Family Doctors (WONCA) and of the Brazilian Society of Family and Community Medicine (SBMFC) -, as well as Intensive Direct Observation - participant, non-systematic, natural, individual observation in real life.

Non-systematic because the researcher collected and registered facts from reality without using special technical means nor asking direct questions. It is usually employed in exploratory studies (like this one) with no previous planning and control; it is characterized by the fact that "knowledge is obtained through a casual experience, without anyone determining beforehand which relevant aspects should be observed and which means should be used to observe them"³ (p. 192).

The observation is participant due to the researcher's real participation in the community or group (in this case, the university community of UFCG in Cajazeiras). Participant observation can be classified as artificial or natural, and the latter is the one that best fits this case, as the observer belongs to the same community or group that he investigated. Individual because only one observer/researcher performed it. In real life because the observations were performed in the course's environment, based on the researcher's experience in key positions as former coordinator of the course, former coordinator of the internship, former member of the course's Board, and current coordinator of the medical residency program, participating in meetings held by the academic unit and by other administrative levels.

The data analysis technique was the hermeneutic-dialectical method⁴ in the recognition of the theoretical and philosophical presuppositions and foundations of the course's pedagogical project. This method of analysis aims to locate the social actors' speech (in this case, the pedagogical project text) in its context (enabled by Intensive Direct Observation) to better understand it. The point of departure of this understanding is the interior of the speech (of the text) and its point of arrival is the field of the historical and totalizing specificity that produces the speech (text). To operationalize the proposal, the recommended steps were followed: data organization, data classification and final analysis. In the first stage, all the documents related to the course's pedagogical project were collected. In the second, the texts were exhaustively and repeatedly read, and questions were asked to disclose what is relevant, based on the understanding that the datum does not exist in itself; it is constructed through the questions we ask about it, based on a theoretical framework. Supported by what is relevant, specific categories were created - in this case, the course's theoretical and philosophical presuppositions and foundations. Finally, in the third and last stage, the researcher attempted to establish the relationship between the surveyed data and created categories, on one side, and the research's theoretical framework, on the other.

Concerning ethical aspects, the research did not involve the participation of human beings. Therefore, it did not need to be approved by the Research Ethics Committee.

Results and discussion

The presupposition for the existence of the pedagogical project of UFCG, Cajazeiras *campus*, present not only in the “Justification”, but in several sections of the text (for example, in the “Introduction”), is the need to face the historical liability in the field of public policies for higher education and health in the promotion of the outback population’s social welfare. Following the same line of reasoning, the argumentation in the “Justification” discusses the maldistribution of doctors and their concentration in large urban centers, criticizes the limits of the expansion of the Brazilian higher education happening from the private sector, and addresses the importance given to the local population’s health needs as an element to be considered under the perspective of the region’s development⁵.

The increase in the number of enrolled students in state-run higher education institutions, especially in less geographically developed regions, better qualifies the provided care and offers an opportunity of permanence and retention for professionals born in the region, who, in other circumstances, would probably not be able to attend a school of medicine⁵. (p. 23)

Although there is no explicit reference, it is interesting to observe that the two sections converse with the perspective of Rural Medicine, defined by WONCA as medical activity practiced outside urban zones, where the place of practice obliges some general practitioners to have, or to acquire, procedures and other skills that are not usually necessary in urban practice⁶. Although it is considered a regional urban center, Cajazeiras still maintains an undeniable profile of rurality. This happens because the rural dimension cannot be conceptually understood in a restricted way, merely as the space par excellence of agricultural production, but in a broad way, involving small and medium-sized cities. Thus, the rural way of being is present in the countryside and in the city and is called rurality⁷.

In this sense, due to the problem of shortage of family doctors in rural regions, WONCA makes nine recommendations to qualify the health services in these areas:

1. Increasing the number of medicine students recruited from rural areas.
2. Substantial exposition of rural practice in the medical undergraduate curriculum.
3. Specific, flexible, integrated and coordinated vocational training programs in rural medicine.
4. Specific and adapted continuing education and professional development programs that meet the identified needs of rural family doctors.
5. Appropriate academic positions, professional development and financial support for rural medical teachers to stimulate rural research and education.
6. Medical schools must assume the responsibility of educating qualified doctors to meet the needs of their general geographical region, including needy areas; in

addition, the schools must play a fundamental role in the provision of regional support for health professionals and accessible tertiary healthcare.

7. Development of adequate baseline rural needs and culturally sensitive resources to rural healthcare with the involvement of the local community, regional cooperation and government support.

8. Improvement in professional and personal/family conditions in rural practice to promote the retention of rural doctors.

9. Development and implementation of national strategies for rural health with support of the central government.⁶ (p. 25)

It is possible to notice that the meaning of these recommendations points to the same direction followed by the introductory texts of the Cajazeiras pedagogical project, that is, local development from the identification of social needs, and the course would play an extremely relevant role in facing these needs. This is clear when we focus on recommendation no. 6, but it is possible to perceive this general direction in the other recommendations, too, as they point to aspects that go beyond the undergraduate studies. For example, continuing education and professional development programs (recommendation no. 4), like the medical residencies; community participation and partnership with local managers (recommendation no. 7), which, here in Brazil, we call teaching-service-community integration; and national strategies for rural health (recommendation no. 9), which, in the Brazilian context from 2013 onwards, has the PMMB as its main public policy. Although PMMB is targeted both at urban and rural regions with shortage of doctors, it focuses on the latter.

However, regarding the aspects more closely related to the undergraduate sphere, it would be interesting to emphasize that the course has absorbed them only partially in its organization. Concerning rural education and practice (recommendation no. 2), in addition to the rurality profile that Cajazeiras still maintains and that shapes its health services, a supervised internship in Collective Health II will be developed in even smaller towns in the surroundings or at Primary Care Units located in truly rural zones.

However, the course does not have any strategy to select or recruit students coming from rural areas, in accordance with recommendation no. 1. In its first years, UFCG's selective process was an examination called *vestibular*, organized by the *Vestibular Commission* (COMPROV/UFCG). From 2011 onwards, it has had the National High School Exam (ENEM) as a selection criterion⁸, and only in 2015 did it adhere to the Unified Selection System (SiSU) of the Ministry of Education⁹. In this period, UFCG also started to adapt to what had been established by Federal Law no. 12711 of August 29, 2012, which provides for admission to federal education institutions (higher, technical and high school education), instituting a reserve of seats for students coming from public schools, low-income students and according to the proportion of black, mixed-ethnicity (black and white) and indigenous individuals in each Brazilian state's population¹⁰. Therefore, only recently did UFCG and, by extension, the Cajazeiras medicine course start to adopt other selection criteria apart from meritocracy.

The fact that UFCG adhered to SiSU belatedly explains only partially one of the problems the course has been facing recently: student dropout. In 2011, the medicine course had already reduced its annual admissions from eighty (forty per semester) to thirty (once a year), due to problems involving the absorption capacity of the local health network. Also in this year, UFCG adopted ENEM as a selection criterion for the first time, but did not adhere to SiSU. Through SiSU, it is possible to dispute seats of one course in different institutions, but the student can enroll in only one. This prevents candidates from occupying two seats, optimizing them. As UFCG had not adhered to SiSU yet, students enrolled in the Cajazeiras medicine course but, as they were successively called by other higher education institutions according to their scores in the Unified Selection System, they abandoned the course, which, because of its enrolment calendar, accumulated empty seats. It is in this context that the classes that started the course in the first semesters of 2011, 2012 and 2013 had, in 2016, 23, 12 and 10 students, respectively.

Nevertheless, even after the adherence to SiSU, these numbers, although relatively better, still maintain dropout rates that can be considered worrisome, as this reduces the course's social impact, opposing what is set forth in its pedagogical project. Thus, the classes that started the course in the first semesters of 2014, 2015 and 2016 have, respectively, 23, 14 and 28 students. Therefore, the roots of this phenomenon should be investigated in the course's difficulty in consolidating itself, which maintains part of the students trying to be admitted in other medical schools in subsequent years. Furthermore, and this is what interests us here, this phenomenon derives from the regions' low capacity to absorb students. One example of this is that the percentage of students coming from capital cities in the class that completed the course in 2016, having been admitted in the second semester of 2010, is 69.2%; 38.4% of them came from the city of Fortaleza (state of Ceará) and absolutely none came from Cajazeiras or from cities that form the Ninth Health Region of Paraíba.

Experiences around the world show that students of rural origins are much more inclined to insert themselves in rural practice after graduation.

[...] To ensure that an adequate proportion of students of rural origins is recruited in medicine schools, it is necessary to have specific mechanisms in the selection process⁶. (p. 28-29)

Thus, it is possible to perceive that the course's pedagogical project, even though implicitly, is based on elements addressed in the debate about rural medicine; however, perhaps precisely because it does not take this field of knowledge explicitly as its presupposition, it indicates, only partially, measures congruent with the intention manifested in the text in relation to the region's social development. On the other hand, it is necessary to consider that advances in this direction depend eminently on clear political definitions on the part of the institution, going beyond declarations of good will and materializing in action. In this sense, UFCG's history in relation to affirmative policies - for example, when it adopts them only after the promulgation of a federal law and only almost a decade after the first experiences of selective processes with a reserve of seats (for economically vulnerable students, ethnic groups or students coming from public schools) - seems to translate resistances against the democratization process of

higher education (an aspect inherent in and inseparable from the changes in medical education) that, ultimately, go against the transformational potential embedded in its pedagogical proposal.

The next step in the analysis is the investigation of the theoretical lines and fields of knowledge present in the “Theoretical Framework” described in the pedagogical project’s fourth section. In it, eight aspects or presuppositions, as the text defines them, are approached, namely Medicine, Dialectical Articulation between Theory and Practice, Diversification of Learning Spaces, Research as the Axis that Drives Teaching, Humanism-based Curriculum, the Human Being, the Student as Subject, and Curricular Flexibility.

In the definition of Medicine, the authors summarize its scientific development throughout history, highlight the contributions of Hippocratic medicine and approach Social Medicine and its exponents in 19th century Europe, discoveries in the field of microbiology, the World Health Organization’s concept of health and, finally, the recognition of the Latin American Critical Epidemiology and its contribution to the understanding of the social determination of the health-disease process.

What is clear in the treatment of this aspect is the remarkable influence of Latin American Critical Epidemiology on the comprehension of the role of medicine, expressed in the approach (summarized, but historical) with which the text addresses the theme. Based on historical and dialectical materialism, this line of epidemiological thought is characterized by the theoretical presupposition that it is necessary to analyze the population’s health conditions taking into account the structural components of capitalist societies: working process, relations of production, social class, etc.¹¹ This theme is also present in other sections of the course’s pedagogical project, like the “Graduate’s Profile”, where it is stated that graduates should be

capable of clinical, dialogic and social actions focused not merely on disease, but centered, in an integral way, on the person, on the family, on the community where the individual is inserted, interacting with the structure of society and the social determination of the health-disease process⁵. (p. 30)

Despite the influence of historical and dialectical materialism, the theoretical incongruence in relation to the philosophical nucleus that underpins the second aspect of this section - “Dialectical articulation between theory and practice” - called our attention. The reason is that, although the term points to the dialectical relation between these two dimensions, nurturing the expectation that they will be approached under the perspective of the concept of praxis, its theoretical reference is, in fact, the Pedagogy of Competencies.

In the Pedagogy of Competencies, learning is grounded on the integrated construction of knowledge, skills and attitudes that, together, are capable of articulating, dialectically, knowing and doing, synthesizing a new level: knowing-doing⁵. (p. 23)

However, according to Araújo¹², this pedagogy is based on presuppositions of a rationalist, individualist and neopragmatist nature, in opposition to an educational conception founded on the philosophy of praxis.

Rationalism is expressed in the influence of the cognitive sciences, founded on the trio knowledge, knowing-doing and knowing-being. The idea of objectification (identification and regulation) of competencies underlies the attempt to describe human acts, particularly at the workplace, in a logical sequence, and it is believed there is a possibility of control and self-control in order to generate performances and efficacy. This perspective, however, is not able to capture some subjective elements that define competent behavior, like imagination, creativity and transgression, succeeding only in promoting students' conformation to the processes in which they come to be inserted.

Another characteristic of the Pedagogy of Competencies is its individualist inspiration. Although the notion of competency is still vague, it is used assuming individualization in education, in the assessments, and in the analyses of competencies. Thus, an individualist pedagogy promotes an educational process in which the development of individual capacities, rather than social capacities, is valued. Consequently, the idea of development of motor, intellectual and behavioral capacities common to all individuals of an educational process is not considered important.

Finally, the last characteristic is neopragmatism. Contradictorily, pragmatism in itself configures an anti-rationalist line, as the pragmatic method opposes the movement of rationalism by proposing an attitude of looking beyond "categories", searching for products, consequences and facts, denying the possibility of truthful, objective knowledge. Neopragmatism, in turn, shares some characteristics of the post-modern discourse of irrationalism when it considers the impossibility of a truthful knowledge of reality, discrediting theories that propose to be objective and defining them as mere narratives. That is, pragmatism and neopragmatism question the entire building constructed by the cognitive sciences around the idea of objectified competencies, considering them mere "representations" or "narratives". Thus, the Pedagogy of Competencies tries to combine rationalist and pragmatist ideas. Rationalism contributes the attempts to objectify competencies in view of the planning and control of the education system. Pragmatism contributes utilitarianism, immediatism, adaptability, the objective of producing useful, applicable learning and of adjusting the individual to a reality that is extremely dynamic and mobile¹².

It is important to mention, however, that, despite the criticism against the Pedagogy of Competencies, this pedagogical conception has been widely disseminated and valued in different educational forums all over Brazil. Araújo¹² himself remarks that it also brings positive aspects, like the return of the activity's role in teaching-learning processes and the concern about connecting these processes with the reality in which they are included. Furthermore, this conception is frequently present in the sphere of medical education and in the spaces of ABEM and SBMFC. One example is the document called Competency-based Curriculum for Family and Community Medicine¹³. In fact, the DCN themselves point to the development of these competencies, in a rich dialog with this pedagogical conception. Therefore, the course's pedagogical project is in conformity with this perspective of the DCN and the only thing we would like to comment here is the contradiction between the philosophical principle of this aspect of the "dialectical articulation between theory and practice" and that of "medicine".

The third element addressed in the theoretical framework is “Diversification of Learning Spaces”, which explains that “the axis of education, which had been, up to this moment, centered on the institution, now incorporates the different places where life and health work happen”⁵ (p. 24). Referring, implicitly, to the concept of teaching-service-community integration, this section recommends “the early inclusion of the student in the social and health reality where the health-disease process is produced, as well as a teaching practice that accompanies a progressive chain of care constituted in different levels of assistance [...]”⁵ (p. 24-25).

According to Albuquerque et al.¹⁴, one of the obstacles to teaching-service integration is pedagogical methodologies based on knowledge transmission, which emphasize teaching to the detriment of learning, strengthening the idea that the university’s only role in society is that of creating, preserving or transmitting knowledge, leaving the mission of acting in the production of services aside. On the other hand, one of the focuses of curricular change in the area of health is the education of professionals to configure a healthcare model centered on the user. However, teaching-service integration presupposes the presence of students and teachers in settings where healthcare is still produced under a hegemonic technical-assistance model “centered on the procedure”, that is, a model in which the main commitment is to the production of procedures, and only secondarily to users’ needs.

This mismatch between theory and practice raises the critical reflection that practice becomes a requirement without which theory can become a fallacy, and practice, activism. When teaching-service integration effectively occurs, focused on the user, the dichotomy between teaching and production of healthcare is diluted¹⁴.

Problematization Methodology is considered a teaching-service-community integration strategy. Associated with other problem-based methods as a teaching and learning strategy, it is an alternative to introduce innovative models - when the student interacts with systematized culture in an active way, as an actor in the construction of knowledge, significant learning occurs¹⁵. Therefore, through the problematization of vulgar knowledge mediated by theory, it is possible to promote conceptual reconstructions in this knowledge, comprehension and enhancement of scientific knowledge¹⁶.

Thus, the presupposition of teaching-service-community integration present in the “Diversification of Learning Spaces” walks hand in hand with the presupposition of “The Student as Subject”, the fourth element of the theoretical framework, and the two presuppositions are joined by Problematization Methodology. This methodology, in turn, refers to theoretical accumulations enabled by, among others, Paulo Freire. Therefore:

Grounded on humanism, Problematization Methodology recognizes man and human values above all the other values. Of phenomenology, it adopts the basic postulate of the intentionality of human conscience, when it states that the object only exists to the subject that gives meaning to it, and that conscience of the object is progressively unveiled and never ends, becoming an exhaustive exploration of the world. Of existentialism, it uses the belief that man constructs himself and can be a subject. When integrated in his context, he reflects on it and commits to it, aiming to perform awareness-raising through the process of becoming critically aware of the reality that is progressively unveiled. Finally,

of Marxism, it uses the concept of praxis as a transformational activity, when it enables the passage from theory to conscious practice, between thought and intentionally performed action¹⁶. (p. 210)

Thus, we can point to a second pedagogical conception whose philosophical bases are different from those of the Pedagogy of Competencies, although they have similarities, like the importance they give to practical activity.

As it was mentioned above, one of the tributary philosophical schools of thought of Problematization Methodology is Humanism. This is an element reaffirmed in the presupposition of “Humanism-based Curriculum”, present in the course’s pedagogical project. However, Humanism is a polysemic term. From the philosophical point of view, it encompasses conceptions that put the human being in the center of his concerns and reflections. Therefore, in addition to Classical Humanism, it is possible to cite Renaissance Humanism, Rationalist Humanism, and a myriad of philosophical schools that take root in this concept, like Phenomenology and Existentialism. Marxism itself has lines that claim for themselves the humanistic heritage of the Enlightenment¹⁷. Nevertheless, what can be understood from the reading of the pedagogical project as far as this item is concerned is the influence of Bioethics and, above all, of an Ethics on the comprehension of what a “Humanism-based Curriculum” might be.

This Ethics, in turn, refers to the multifaceted sociocultural movement of “post-modernity”, of which Boaventura de Sousa Santos and Edgar Morin are two of the most important theoreticians; the former in the line he coined Oppositional Post-modernism¹⁸, and the latter in the line of Complex Thought or Complexity Theory. This influence appears when the pedagogical project states it is in the daily routine of the practices “that we can construct an ethics that ‘nurtures the desire of all men to search for less suffering for themselves and the others, preventing them from separating citizenship spaces in daily life’”⁵ (p. 25), reaffirming the conception of human being as a set of historical possibilities.

These authors’ influence extends to two other attributes found in the pedagogical project’s “Theoretical Framework”: “The Human Being” and “Research as the Axis that Drives Teaching”, in which this Ethics would cross and guide the understanding of both. Thus, when we find, in the pedagogical project, a claim for a “new paradigm ‘of prudent knowledges for a decent life’”; the understanding of human being “in his complexity as a biological, cultural, historical, social and linguistic being” “who does not have ‘a fixed and stable identity, but open, contradictory, unfinished and fragmented identities’”; the confirmation that “in view of the complexity of reality, there is not a single knowledge, as there is not a single answer”; and the “search for the interconnection among discursive knowledges, in the theory-practice articulation, according to the best scientific evidences to ensure a high-quality provision of services” (p. 25), in view of these statements, we have strong evidences of the influence of the Portuguese philosopher, especially when we relate them to his proposal of the Ecology of Knowledge.

Within it, an Ethics is implicated in the approach to the human being, to the sciences, to knowledge and research, stimulating a dialogic relationship deriving from the will to know in order to understand, instead of knowing in order to dominate or to dictate a set of rules and precepts to guide moral conduct¹⁹, which would derive from the postulate of the precedence of science in the marks of Modernity. This ethical

perspective is aligned with Edgar Morin's propositions when he emphasizes that every knowledge can be employed to manipulate and that complex thought leads to an ethics of solidarity and non-coercion (thus nurturing ethics), claiming "science with conscience", whose principle of action does not give orders, does not manipulate, does not direct, but organizes, communicates and stimulates²⁰.

Finally, the eighth and last presupposition of the "Theoretical Framework" is "Curricular Flexibility", in which the curriculum is understood as "land of production and cultural policy" and not as a mere "vehicle of something to be transmitted and absorbed passively", balancing the "rigidity of the 'curricular grid'" with a "flexible dynamics, where interdisciplinarity and student's participation are fundamental in the construction of a critical education"⁵ (p. 26). This perspective corroborates what Lampert²¹ states when he says that the curriculum must be located in the sphere of social and historical determinations and also within its context; therefore, when we are dealing with curricula, besides issues related to procedures, techniques and methods, it is fundamental to include a critical conception of reality, guided by sociological, political and epistemological approaches.

Therefore, it is clear that the course's pedagogical project presents a critical conception of reality. Based, implicitly, on presuppositions related to the issues of Rural Medicine - a sub-area of knowledge connected with Family and Community Medicine -, the pedagogical project presents great theoretical and philosophical eclecticism: it encompasses Historical and Dialectical Materialism, which strongly marks the conceptions of the Latin American Critical Epidemiology (here, underpinning the understanding of Medicine) and of Problematization Methodology (underlying the understanding of students as subjects and the teaching-service-community integration implicit in the presupposition of the diversification of learning spaces). Having the Pedagogy of Competencies as the reference within the presupposition of the dialectical articulation between theory and practice, it interacts with rationalist, individualist and neopragmatist philosophical schools of thought. Finally, it is related to postmodern thought, more specifically on Boaventura de Sousa Santos' Oppositional Postmodernism and on Edgar Morin's Complex Thought, which underpin an ethical understanding of the Human Being and of Science, and Science, in turn, guides the presuppositions of humanism-based curricula and of research as the axis that drives teaching.

If this eclecticism, in some moments, brings to light relevant contradictions among the different philosophical schools, on the other hand, it is perfectly aligned with the principle of pluralism of ideas and pedagogical conceptions expressed in paragraph III of Art. 206 of the Federal Constitution²¹, and also with the 2001 DCN, which underpin the pedagogical project, especially Art. 10, which states that the curriculum must "contribute, also, to the understanding, interpretation, preservation, reinforcement, fostering and dissemination of national and regional, international and historical cultures, in a context of pluralism and cultural diversity"²² (p. 4).

Conclusion

While the Flexnerian paradigm is founded on Biomedicine, the integrality paradigm encompasses a myriad of philosophical schools that are epistemologically diffe-

rent but share the criticism against the positivistic and neopositivistic presuppositions of Biomedicine. Thus, considering that the latter needs to overcome the former, it is possible to state that the theoretical and philosophical presuppositions and foundations of the Cajazeiras course are substantially close to the integrality paradigm in its pedagogical proposal.

However, regulation and institutional rearrangements are not sufficient for the process of change in medical education to occur. As a political process, it depends on the capacity to conquer hegemony in society around its alternative project. This is also revealed by the Cajazeiras experience, which, having in the theoretical dimension of its pedagogical project an advanced proposal, has difficulties in materializing it.

The Intensive Direct Observation in academic management spaces reveals teachers' difficulty in understanding the pedagogical project's principles, mainly on the part of focal specialists. Low participation in meetings of the academic unit, the fact that many live in other cities, the posture of considering teaching as something secondary (given the low salaries when compared to earnings in medical assistance), the large proportion of teachers with part-time jobs (20 hours per week), and lack of experience in didactic-pedagogical preparation are some obstacles that reinforce the difficulty in materializing the course's pedagogical project.

Therefore, facing the tendency of reemergence of a traditional pedagogical conception requires answers that, instead of making concessions to the Flexnerian model, intensify the pedagogical project's transformational potential. Some proposals would be:

Stimulating the composition of a faculty formed mainly by family and community doctors and general specialists (general pediatricians, general surgeons, etc.), reserving less space for focal specialists in demands from the local health network;

Valuing, in civil-service examinations, professionals who live or develop their care activities at the city in question;

Organizing selection processes that adopt criteria to positively discriminate candidates coming from interior regions and that, instead of valuing knowledge of the natural sciences, give higher weight to humanistic knowledge, adjusting the profile of new students to the DCN presuppositions;

Fostering managerial and didactic-pedagogical qualification through postgraduate (specialization) programs, regional events, workshops and courses in the Administration area and in the sphere of active teaching-learning methodologies, through partnerships with scientific entities like ABEM and SBMFC.

Undoubtedly, detailing these proposals lie outside the scope of this article and calls for further research, but they suggest ways to be followed in the current process of medical education reform triggered by PMMB.

Authors' contributions

All the authors participated actively in all the stages of the preparation of the manuscript.

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