RBEM Revista Brasileira de Educação Médica

REVIEW ARTICLE

DOI: https://doi.org/10.1590/1981-5271v48.4-2023-0057.ING

# Teaching the Person-Centered Clinical Method in undergraduate Medicine: a narrative review

*Ensinando o Método Clínico Centrado na Pessoa na graduação em Medicina: uma revisão narrativa*

Jomara Oliveira dos Santos Yogui[1,2] jomaraosyogui@ufjf.br
Tiago Maia Magalhães[3,2] tiago.magalhaes@ufjf.br
Danielle Bivanco-Lima[3,4] danielle.lima@fcmsantacasasp.edu.br

## ABSTRACT

**Introduction:** The National Curricular Guidelines (DCN) for Undergraduate Medicine recommend that graduates should be empathetic and humanized, critical and reflective, with their training linked to the needs of society, centered on the person, the family and the community.

**Objective:** This narrative literature review study focused on verifying the strategies used in the teaching-learning process of the Person-Centered Clinical Method (PCCM) in undergraduate medical courses.

**Method:** We used scientific productions available in the SciELO, LILACS and PubMed/MedLine databases, which were selected for convenience and relevance in the areas that address the topic of this study, from 1990 to 2021. Legislation and publications found on government websites and in the gray literature via Google Scholar (2002-2018) were also used, as well as books from private collections (2010-2017).

**Results:** It was evident that it is essential to incorporate the teaching of the PCCM, which articulates aspects of communication, power in the doctor-patient relationship, professionalism, centered on patient autonomy. The PCCM incorporates integrative skills, such as communication, valuing the bond and a good doctor-patient relationship, awareness of the humanistic aspects of care, as well as guidance and agreement skills. Because of its complexity, the PCCM requires a multiplicity of methods in the teaching-learning process, with an emphasis on active methodologies, the teaching of humanities in health and application in real practice, longitudinally in the curriculum.

**Conclusion:** The teaching of PCCM is therefore central to the construction of a humanized, person-centred health professional. It is essential that the teaching of PCCM be included in undergraduate medical curricula in a systematic and longitudinal way, with expanded use of methodologies for the construction of competencies related to person-centered care.

**Keywords:** Humanization of Care; Undergraduate Education in Medicine; Professionalism; Patient-Centered Care.

## RESUMO

**Introdução:** *As Diretrizes Curriculares Nacionais (DCN) para Graduação em Medicina preconizam que o egresso seja empático e humanizado, crítico e reflexivo, com a formação articulada às necessidades da sociedade, centrado na pessoa, na família e na comunidade.*

**Objetivo:** *Este estudo de revisão narrativa da literatura centrou-se em verificar as estratégias utilizadas no processo ensino-aprendizagem do Método Clínico Centrado na Pessoa (MCCP) na graduação em Medicina.*

**Método:** *Utilizaram-se as produções científicas disponibilizadas nas bases de dados SciELO, LILACS e PubMed/Medline, que foram selecionadas por conveniência e pela relevância nas áreas que abordam o tema deste estudo, no período de 1990 a 2021. Também se utilizaram legislações e publicações encontradas nos sites governamentais e na literatura cinzenta, via Google Scholar (2002-2018), além de livros de acervo particular (2010-2017).*

**Resultado:** *Evidenciou-se que é fundamental incorporar o ensino do MCCP, que articula aspectos de comunicação, poder na relação médico-paciente, profissionalismo, centrado na autonomia dos pacientes. O MCCP incorpora competências integrativas, como comunicação, valorização do vínculo e de boa relação médico-paciente, sensibilização quanto aos aspectos humanísticos do cuidar, além de habilidades de orientação e pactuação. Por sua complexidade, o MCCP requer uma multiplicidade de métodos no processo ensino-aprendizagem, com ênfase nas metodologias ativas, no ensino das humanidades em saúde e na aplicação na prática real, de forma longitudinal no currículo.*

**Conclusão:** *Dessa forma, o ensino do MCCP se configura como central na construção de um profissional de saúde humanizado e centrado na pessoa. É fundamental que o ensino do MCCP seja inserido nos currículos de graduação em Medicina de forma sistemática e longitudinal, com ampliado uso de metodologias para a construção das competências relativas ao cuidado centrado na pessoa.*

**Palavras-chave:** *Humanização da Assistência; Educação de Graduação em Medicina; Profissionalismo; Assistência Centrada no Paciente.*

[1] Faculdade de Ciências Médicas da Santa Casa de São Paulo, Postgraduate Program in Public Health, São Paulo, São Paulo, Brazil
[2] Universidade Federal de Juiz de Fora, Juiz de Fora, Minas Gerais, Brazil
[3] Universidade de São Paulo, São Paulo, São Paulo, Brazil
[4] Faculdade de Ciências Médicas da Santa Casa de São Paulo, São Paulo, São Paulo, Brazil

Chief editor: Rosiane Viana Zuza Diniz.
Associate editor: Fernando Almeida.

Received on 10/24/23; Accepted on 08/22/24.

Evaluated by double blind review.

DOI: https://doi.org/10.1590/1981-5271v48.4-2023-0057.ING

## INTRODUCTION

In the training of health professionals, especially physicians, it is necessary to act, through public policies and institutional measures, to strengthen the Unified Health System (SUS, *Sistema Único de Saúde),* especially regarding aspects of the humanization of care[1]. Health professionals with a humanistic education are one of the basic expectations of the population[2], being clearly expressed in the National Curricular Guidelines (DCN, *Diretrizes Curriculares Nacionais*) for Undergraduate Medicine, with the recommendation that health care should be centered on the person, families and the community[3]. Furthermore, as a way of transforming the health system, the National Humanization Policy (PNH, *Política Nacional de Humanização*)[4] was created, which aims to implement actions and services with humanization as one of its fundamental dimensions. Humanization, according to the PNH, is defined as: "offering quality care by articulating technological advances with embracement, improving care environments and working conditions for professionals"[4]. The PNH advocates interactions between managers, workers and users, allowing continuous communication between them, so that creative solutions can be produced for the needs of society and the improvement of the SUS, with the implementation of an expanded and shared clinic[4].

Therefore, it is necessary that educational practices aimed at building professionalism and humanization skills in medicine, such as the Person-Centered Clinical Method (PCCM), be continually present in medical training[5-7]. The American Board of Internal Medicine (ABIM) recommends that professionalism skills include six axes of values, articulating technical excellence (highlighting communication skills), humanism, accountability, duty, honor and integrity, and respect for others[8]. However, the development of communication and professionalism skills, although recommended by the academic community, as present in the Canadian framework of medical competencies[6], among other widely respected medical entities, shows challenges for implementation in training[8-11]. The PCCM is a strategy that can be used in this context, which encompasses good health care practices by including aspects of humanization, communication and professionalism in patient care. It is an important tool for medical students to learn about humanization and professionalism, valuing the patient as co-responsible for their care and health[5,12,13].

The PCCM facilitates the teaching-learning process in medical school by including only four components of biomedical care, facilitating the method incorporation into professional practice: i) incorporating the patient's perspective on their health and illness; ii) understanding the individual as a whole; iii) strengthening the relationship between doctor and patient; and; iv) building a common path (with shared decision-making)[5]. With the PCCM, professionalism can be taught with elements to be carried out in meetings with users, so that, according to Merhy & Franco[14], the knowledge package is based on soft technologies, but with the mastery of evidence-based medicine, being valued in a similar way to the soft knowledge package, of the technology of relationships with patients[14].

Thus, each consultation can be made into a unique moment: therapies adapted to the patient's real needs, in addition to an ethical, respectful contact that seeks to value the human being in their unique characteristics, which is also therapeutic in itself. Although the PCCM does not incorporate all the elements of the teaching of interpersonal communication, it values important aspects brought up in the Kalamazoo Consensus on essential elements of communication: building the relationship between doctor and patient, understanding the patient's perspective and their contexts, sharing information about illness and health care, as well as the shared construction between doctor and patient of a consensus regarding the therapeutic plan[10].

When compared to the biomedical model, the person-centered approach shows positive results[5], such as: greater patient and physician satisfaction; increased adherence to the proposed treatments; decreased concerns related to the disease; decreased symptoms; reduced recurring demand for health services; reduced judicialization of medicine; mental health promotion; and; reduction in the number of regular visitors to health units[5,12,13]. However, one of the biggest challenges in implementing the PCCM is its systematic inclusion in the curricula of medical schools[15]. Considering the above, this essay focuses on reviewing in the literature, using a narrative model, the strategies used in the teaching-learning process of the PCCM in undergraduate medical courses.

## METHOD

This is a narrative literature review, which is characterized by a robust method of investigation and critical evaluation based on a compilation of evidence on the addressed topic. This type of review is based on the definition of criteria for data collection, critical analysis and presentation of results[16]. It is also a descriptive study, which exposes characteristics of a given population or a given phenomenon[17] and can also establish correlations between variables and define their nature. It is not aimed at explaining the phenomena it describes, although it serves as the basis for such an explanation. Moreover, it has a qualitative approach, as it involves five basic characteristics that constitute this type of study: natural environment as a direct source of data and the researcher as its main instrument, descriptive

DOI: https://doi.org/10.1590/1981-5271v48.4-2023-0057.ING

data, concern with the process, concern with meaning and inductive analysis process[18].

The method consisted of the following steps: i) identification of the topic and selection of the research question for the preparation of the review; ii) establishing the inclusion and exclusion criteria of studies/sampling or literature search; iii) defining the information extracted from the selected studies/categorization of the studies; iv) evaluating the studies included in the review; v) analysis and interpretation of the results; and; vi) presentation of the review/synthesis of knowledge[16].

Without a time frame, the focus of this review was directed to scientific productions from 1990 to 2021, available at the Scientific Electronic Library Online (SciELO), Latin American and Caribbean Literature in Health Sciences (LILACS) and PubMed/Medical Literature Analysis and Retrieval System Online (MedLine) databases, which were selected for convenience and relevance in the areas that address the study topic. Legislation and publications found on government websites and in gray literature, via Google Scholar, were also used, in addition to books from private collections.

In the "advanced search" mode, the terms from Medical Subject Headings (MeSH) and the Entry Terms of Health Sciences Descriptors (DeCS) were used, combined with the Boolean terms "AND" and "OR". The following descriptors and their combinations in Portuguese and English were used to search for the articles: "undergraduate medical education"; "medical education"; "patient-centered care"; "humanization of care"; "patient-centered care", and; "person-centered clinical method".

The inclusion criteria that determined the eligibility of the selected articles were: publications in Portuguese and English, clinical trials, retrospective and prospective studies using strategies in the teaching-learning process of PCCM in undergraduate medical education, and systematic reviews, all with full texts available. Articles in other languages and studies without full texts were excluded. In the next stage, the abstracts of the selected articles that met the inclusion criteria were read.

Forty-eight articles published between 1990 and 2021, five pieces of legislation/government publications between 2002 and 2018, and seven books (2010-2017) were used for the production of this review,.

## THE TEACHING-LEARNING PROCESS OF THE PERSON-CENTERED CLINICAL METHOD

One of the biggest challenges in implementing the PCCM is its incorporation into the teaching-learning process, as well as its systematic inclusion in the curricula of medical schools. Despite being provided for in the DCN, the humanization of medical practice during the training of general practitioners faces barriers to its consolidation[15,19]. Medical schools value the technical and scientific training of their students; however, subjective skills such as communication and empathy are not equally valued in training[20,21].

Teachers also need to have a sensitive view of each student, with the aim of providing student-centered teaching, as each student has personal experiences that uniquely influence their training[5,22]. However, medical school teachers have gaps in pedagogical training, with greater emphasis on content in relation to skills and attitudes, in addition to less training in the use of active methodologies, conducting formative assessment, providing effective feedback, and promoting critical reflection. Therefore, teaching PCCM in medical schools poses numerous challenges[15,19].

The teaching-learning process of PCCM is quite complex; after all, it includes knowledge, skills and attitudes, with the awareness and incorporation of several values related to professional ethics and posture in daily practice. However, values need to be expressed in conducts and communication skills, in addition to requiring regulation skills and emotional intelligence, which are so challenging to be incorporated into medical training[23,24]. Knowing the experiences of teaching PCCM in different institutions is a way to advance, so that more educational strategies are incorporated into the medical training process.

Smith et al.[25] recommend that the teaching of person-centered interviewing have some foundations: student-centered teaching, the welcoming relationship between teacher and student, and the teaching of self-observation and metacognition. Direct observation of consultations, with feedback, video recording of consultations, and discussion in small groups with support for difficulties and expression of emotions (similar to Balint groups) are described as core methods in teaching PCCM, in addition to reading articles and theoretical support material. However, the study[25] was conducted with residents, allowing a greater level of autonomy and complexity of the used methodologies.

### Medical humanities disciplines

Medical humanities disciplines are present in the curricula of several institutions and have extremely relevant educational objectives. Despite the differences between medical schools, they generally work to build the students' critical capacity, stimulating metacognition, as well as a broader view of human suffering, in the cultural construction and the field of human ideas, contextualizing health and disease in society[26].

In 2009, at the Faculty of Medicine of Universidade de São Paulo (USP), in an attempt to train doctors with the desired human professional profile, the discipline "Medicine and Humanities" was implemented. It was implemented for

DOI: https://doi.org/10.1590/1981-5271v48.4-2023-0057.ING

first-year undergraduate students, and has an interdisciplinary nature, combining the topics of health and humanities, with the participation of teachers from several areas: Sociology, Anthropology, History, Psychology, and Philosophy. Different didactic and pedagogical methodologies are used, such as films and videos, the use of practical cases from medical life, and humanities concepts. The discipline was well evaluated by students and teachers at the institution[21].

One strategy articulated with the teaching of humanities is Narrative-Based Medicine (NBM), which legitimizes the therapeutic role that attentive listening by physicians can have for patients[27]. NBM originates from the stories that patients or their companions tell to healthcare professionals, whether physicians or medical students, or other team members[28], through the writing of reflective narratives and articulation with the field of humanities[29]. Narrative medicine can support physicians in developing the narrative competence of recognizing, absorbing, interpreting, and acting on the patients' stories and perceptions. It is considered a model for humanized medical practice[30].

## Simulation and role play

Role play activities are educational practices based on simulations, usually of low fidelity, aimed at students experiencing a situation through representations of a real event[31,32]. Role play and simulations are especially useful for learning PCCM in medical school (both at the beginning and the end of training) and for communication and professionalism skills used in more complex situations, such as communicating bad news, managing aggressive patients or dealing with strong emotions. After all, in real practice, these situations will be handled by experienced professionals[5,31].

Role play and simulation activities are privileged strategies in the teaching of PCCM, as they provide individualized feedback, in a protected context and with a central learning objective, with direct supervision and without risk to the patient. These are activities that incorporate greater integration of learning in Miller's pyramid, as they reach the level of demonstrating a skill or competence.

## Role models

Role models are professionals who serve as professional examples, which can be positive or negative, for students. According to Lemire[22], a positive role model is defined as a person considered a professional standard of excellence and whom students can follow. From the point of view of Horsburgh & Ippolito[33], role modeling can be an educational method of medical influence based on the opportunities that students may have when exposed to role models, causing a great impact on professional training, such as knowing how to use the right words to approach the patient and being able to develop a good doctor-patient relationship, allowing students to understand the application of scientific knowledge in medical practice, in addition to exemplifying professional attitudes, values and behaviors.

The teachers can be models of coherence for students, when they comply with values that convey humanized care, compassion and empathy in doctor-patient relationships, attitudes that, for many students, are the main reasons that encouraged them to study medicine and can even influence the choice of medical specialty the student will choose[33-35]. However, students are equally sensitive to reprehensible attitudes, which would be negative models, when adopted by their teachers and report wanting to avoid similar behaviors in their professional lives[34-36]. Thus, it can be said that role models are extremely important for the teaching of PCCM, as students observe in real scenarios the use of the method, the appreciation of the patient's perspective, their context and their decisions. Family doctors as teachers or preceptors can function as good examples for the teaching of PCCM, as these professionals usually prioritize empathy, a broader approach to the patient with social, economic and family dimensions and the longitudinality of care, very important points in PCCM[22].

However, Benbassat[37] brings a perspective on role models; despite their clinical importance, the lack of a critical posture of students in relation to the examples they take as models, can perpetuate behaviors such as centered medical care. The students need to be encouraged to develop reflective attitudes towards role models, and institutions must develop mechanisms when hiring their teachers, so they have an academic and professional trajectory that is conducive to being positive role models for the students[37,38].

## Insertion in Primary Health Care (PHC) practice scenarios and extension projects

Inserting students in the PHC scenario from the beginning of their undergraduate studies is an important teaching strategy for the PCCM, whether by initially observing the practices of multidisciplinary teams or by providing care supervised by preceptors, educational groups and home visits[39-41]. Experiences in the SUS from the beginning of the medical course allow students to articulate the concepts of evidence-based medicine with the social needs of the community[42]. The students should be encouraged to work together with the interdisciplinary teams in the units[43]. Interprofessional experiences must occur so that, from the beginning of the undergraduate course, medical students have a positive perception of interprofessional experiences

DOI: https://doi.org/10.1590/1981-5271v48.4-2023-0057.ING

and the knowledge, skills and attitudes necessary for building the collaboration competence, as well as the construction of unique therapeutic projects, which incorporate the humanization of care[6,41,44].

Extension projects in the PHC setting are important teaching activities, prioritizing listening to the population's needs, as they allow students to carry out practical work at the unit and contribute to the teams in health promotion and prevention work[43]. Another way of teaching the PCCM is to encourage joint deals with PHC teams, local managers and the community, in individual and collective activities and actions to be carried out by the students[44]. Students from the School of Medicine of *Universidade Federal de Juiz de Fora* (UFJF) developed, in partnership with the City Hall of Juiz de Fora, a pilot project to implement the Health in Schools Project, with the objective of establishing a partnership between health and education services to expand health promotion and disease prevention actions focused on schoolchildren from the public network[45,46]. These activities allow students to be included in the daily lives of patients, enabling the development of essential skills for learning the PCCM[44,47].

For Miller[48], the most elaborate way to acquire professional skills is "doing" and for Cruess et al.[49] it is "being", with both authors[48,49] agreeing that the ideal learning scenario is the real one. Therefore, for the student to learn PCCM and develop it as a professional skill, the best field to experience it is the varied practice scenarios. PCCM can be taught in different practice settings, as it is an activity involving contact with the patient and where good, humanized learning models and good professionals are found. Therefore, the best place to learn PCCM is in practice with patients.

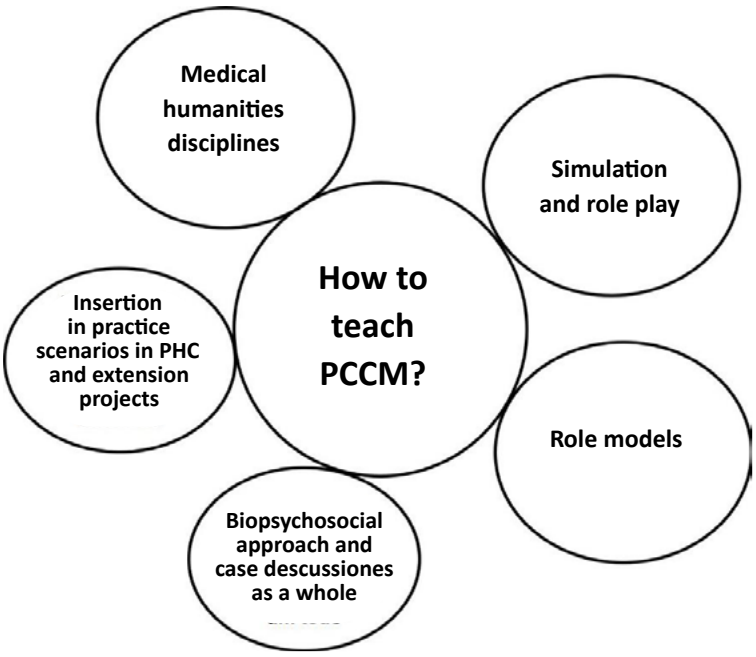
## Evaluation in the teaching of the Person-Centered Clinical Method (PCCM)

### *Evaluation of the PCCM*

Evaluation is the monitoring of student learning throughout medical teaching activities and is part of the educational process. Evaluating the PCCM learning process is not easy, as it involves analyzing the medical students' attitude and behavior, both regarding medical power and patient care and assistance[50-52]. To assess the PCCM, it is necessary to certify whether or not the student has obtained the necessary skills or abilities for the proposed learning objectives, and also to provide feedback to the students. The evaluation has a purpose: formative and/or summative. Generally, summative evaluation is carried out to make decisions such as whether the student has passed or failed through open or multiple-choice tests. Formative evaluation is based on feedback and informs the student about their performance. Typically, in the educational process of assessing the PCCM, the ideal approach is to combine both modalities, since assessing the PCCM is complex and involves analyzing whether the student has developed skills such as empathy, communication, a good doctor-patient relationship, and a satisfactory agreement on treatment possibilities with the patient[50].

The most commonly used tools to assess the PCCM in a summative manner are Likert-type scales, or sum of averages, which are self-response scales that allow measuring

**Figure 1.** Different approaches in the teaching of PCCM.



DOI: https://doi.org/10.1590/1981-5271v48.4-2023-0057.ING

the intensity of students' attitudes and/or feelings toward a situation or patient, with the classification of statements that range from "favorable" to "unfavorable," in varying degrees, in relation to that situation or person[5,52]. The scales used to assess the PCCM must be reliable and validated. It can be said that the more reliable the instrument is, the better it is. Reliability is the ability of the result to be repeated in a similar way in other tests[50]. Another important characteristic of an instrument is whether it is validated. Validity is the ability of the exam to verify whether the specific skill that is intended to be tested is actually being verified[53]. An important example of validated evaluation instruments for PCCM assessment is the Patient Practitioner Orientation Scale (PPOS). The scale consists of 18 items related to the doctor-patient relationship, nine of which are related to sharing and nine related to caring, with each item scored from "1" (strongly agree) to "6" (strongly disagree) on the Likert scale. The items related to sharing (subscale "power") reflect the extent to which the individuals who responded believe that the patient wants information and should participate in the decision-making process; while the items related to caring (subscale "care") reflect the extent to which it is believed that the patient's expectations, feelings and life circumstances interfere in the treatment process[55]. Higher scores mean more patient-centered attitudes. It can be used to assess pre- and post- exposure of students to the various PCCM teaching techniques/training[55].

To formatively assess the learning of the PCCM in medical students, the Objective Structured Clinical Examination (OSCE) can be used, which has become very popular for assessing practical skills[50]. Through evaluation stations, it is possible to observe the student's interaction with the simulated patient to apply the principles of the PCCM. In an OSCE, a candidate enters several different rooms or stations sequentially. In each room there is a specified assignment (for example, how to reach an agreement with the patient in the PCCM). Grades are given by observers using a checklist. One limiting factor of the OSCE is the short time the student can remain at each station, which can negatively influence their performance[56]. The important thing in the OSCE is to always set aside time during the exam to provide feedback on the student's performance in the test, valuing the formative aspect of the practice.

The Mini Clinical Evaluation Exercise (Mini-CEX) can be used as a method to assess learning of the PCCM. This is a form of direct observation of the student's medical practice using a structured form and with immediate feedback to the student. The interesting thing about the method is that it uses real patients at different times and by several observers. The mean time between observation and feedback is 30 minutes. With this formative assessment, the teacher can observe whether the student has acquired the skills to conduct the clinical interview, valuing aspects of the patient as a whole, professionalism, capacity to solve situations involving the patient's social, economic, family and physical factors, and communication skills that value the doctor-patient relationship. The Mini-CEX is more authentic than assessments in a simulated environment and can be an excellent evaluation method for learning the PCCM, as it observes the student applying the PCCM in a real scenario, for example, expressing concern for the patient's feelings. The difficulty is that evaluation in a real environment is not part of the culture of assessments in medical education[50,57].

The reflective portfolio is an excellent method for assessing the PCCM, as it allows the teacher to read the students' reports and perceive how much they are focused on the disease or on the patient. The teacher can assess whether the student has considered the patient as a whole with their physical, family, social and economic aspects or only as "a machine of organs with altered functioning". This instrument allows observing the student's ability to solve complex problems that involve multiple factors, such as access and adherence to the proposed treatment. Medical students should be encouraged throughout the course to develop a critical and reflective attitude towards their activities, since, throughout their professional life, continuous reflection on their practice will be necessary. The most important thing in the portfolio is not the result, but the construction process the student went through to achieve it[53,55]. The portfolio can be a simple record and organizer of the content learned by the students or, preferably, it can be a continuous and dynamic teaching-learning tool, allowing the student to reflect on their trajectory, express their feelings, difficulties and facilities. The student writes about the care provided to patients, using the PCCM, which represented milestones in their training in the medical course[58]. The reflective portfolio can be used as an instrument to assess the learning of the PCCM with a formative characteristic, and not a mere exercise of power[53,59]. The portfolio is perfectly aligned with the new directions in medical education, focused on learning from practice as well as on competency-based education and learning[60].

## FINAL CONSIDERATIONS

Teaching PCCM in medical schools can facilitate the development of empathetic physicians who care about patients in a holistic manner. However, teaching PCCM is a complex process, as it involves breaking paradigms within the schools themselves regarding medical training, which is still largely focused on the disease and the power of the physician, to teach patient-centered practice, with shared decisions with the patient.

DOI: https://doi.org/10.1590/1981-5271v48.4-2023-0057.ING

**Chart 1.** Evaluation in the PCCM.

| Evaluation | Type | Comment |
|---|---|---|
| *Patient Practitioner Orientation Scale* (PPOS) | *Likert* scale | The scale consists of 18 items related to the doctor-patient relationship; 9 of them related to sharing and 9 related to caring. |
| Objective Structured Clinical Examination (OSCE) | Practical skills evaluation | Through evaluation stations, it is possible to observe the student's interaction with the simulated patient to apply the PCCM principles. |
| Mini Clinical Evaluation Exercise (Mini-CEX) | Structured form with standardized and comprehensive feedback | The interesting thing about the method is that it uses real patients at different times and by different observers. |
| Reflective portfolio | It allows the teacher to read the students' reports and understand how focused the student is on the disease or the patient. | The most important thing in the portfolio is not the result, but the construction process the student went through to build it[5]. |

Source: Naghettini, 2010.

For PCCM to be effectively taught in medical courses, teacher training must begin to value the teaching of medical humanities similarly to knowledge of physiology, pathology, pharmacology, and the various medical specialties. To train general practitioners with technical excellence, who are empathetic, effective and humane, as recommended by the National Curricular Guidelines, schools must have in their curricula the multiple ways of teaching PCCM, such as: medical humanization disciplines, extension projects focused on PCCM practice, early inclusion of students in PHC settings, preparation of reflective portfolios, simulations and role plays aiming at developing a good doctor-patient relationship, as well as the vital presence of teachers in their faculty who fulfill the role of positive role models, exemplifying in practice for the students the practice of medicine with technical excellence, respect for individualities, empathy and social concern.

## ACKNOWLEDGMENTS

We would like to thank the authors who contributed to the development of the research at all its stages.

## AUTHORS' CONTRIBUTIONS

Jomara Oliveira dos Santos Yogui: Research, Methodology, Writing – first draft, Writing – review and editing. Tiago Maia Magalhães: Writing – review and editing, Methodology. Danielle Bivanco-Lima: Writing – review and editing, Methodology, Supervision.

## CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

## SOURCES OF FUNDING

The authors declare no sources of funding.

## REFERENCES

1. Gomes AP, Rego S. Transformação da educação médica: é possível formar um novo médico a partir de mudanças no método de ensino-aprendizagem? Rev Bras Educ Med. 2011;35(4):557-66. doi: https://doi.org/10.1590/S0100-55022011000400016.
2. Goulart BNG, Chiari BM. Humanização das práticas do profissional de saúde: contribuições para reflexão. Cien Saude Colet. 2010;15(1):255-68. doi: https://doi.org/10.1590/S1413-81232010000100031.
3. Brasil. Resolução CNE/CES nº 3, de 20 de junho de 2014. Institui Diretrizes Curriculares Nacionais do Curso de Graduação em Medicina e dá outras providências. Brasília: ME/CNE; 2014 [acesso em 1º mar 2023]. Disponível em: https://normativasconselhos.mec.gov.br/normativa/view/CNE_RES_CNECESN32014.pdf?query=classificacao.
4. Brasil. HumanizaSUS: Política Nacional de Humanização: a humanização como eixo norteador das práticas de atenção e gestão em todas as instâncias do SUS. Brasília: Ministério da Saúde; 2004 (Série B. Textos básicos de saúde) [acesso em 6 fev 2023]. Disponível em: https://bvsms.saude.gov.br/bvs/publicacoes/humanizasus_2004.pdf.
5. Stewart M, Brow JB, Weston WW, McWhinney IR, McWilliam CL, Freeman TR. Medicina centrada na pessoa. 3ª ed. Porto Alegre: Artmed; 2017.
6. Frank JR, Snell L, Sherbino J. CanMEDS 2015 Physician Competency Framework. Ottawa: Royal College of Physicians and Surgeons of Canada; 2015.
7. American Board of Internal Medicine (ABIM) Fundation, ACP-ASIM Foundation, European Federation of Internal Medicine. Medical professionalism in the new millennium: a physician charter. Ann Intern Med. 2002 Feb;136(3):243-6. doi: https://doi.org/10.1590/S1413-81232010000100031.
8. Van Mook WN, van Luijk SJ, O'Sullivan H, Wass V, Schuwirth LW, van der Vleuten CP. General considerations regarding assessment of professional behaviour. Eur J Intern Med. 2009 July;20(4):90-5. doi: https://doi.org/10.1016/j.ejim.2008.11.011.
9. Laidlaw KE, Foulsham T, Kuhn G, Kingstone A. Potential social interactions are important to social attention. Proc Natl Acad Sci U S A. 2011 Apr;108(14):5548-53. doi: https://doi.org/10.1073/pnas.1017022108.
10. Makoul G. Essential elements of communication in medical encounters: the Kalamazoo consensus statement. Acad Med J Assoc Am Med Coll. 2001;76(4):390-3. doi: https://doi.org/10.1097/00001888-200104000-00021.
11. O'Sullivan H, van Mook W, Fewtrell R, Wass V. Integrating professionalism into the curriculum: AMEE Guide No. 61. Med Teach. 2012;34(2):64-77. doi: https://doi.org/10.3109/0142159X.2012.655610.
12. Fuzikawa AK. Método clínico centrado na pessoa: um resumo. Belo Horizonte: [s. n.]; 2013 [acesso em 3 mar 2023]. Disponível em: https://www.nescon.medicina.ufmg.br/biblioteca/imagem/1684.pdf.

13. Souto BGA, Pereira SMSF. História clínica centrada no sujeito: estratégia para um melhor cuidado em saúde. Arq Bras Ciênc Saúde. 2011;36(3):176-81 [acesso em 3 mar 2023]. Disponível em: http://files.bvs.br/upload/S/1983-2451/2011/v36n3/a2663.pdf.

14. Merhy EE, Franco TB. Por uma composição técnica do trabalho centrada nas tecnologias leves e no campo relacional. Saúde Debate. 2003;27(65):316-23.

15. Barbosa MS, Ribeiro MMF. O método clínico centrado na pessoa na formação médica como ferramenta de promoção de saúde. Rev Médica Minas Gerais. 2016;26(supl 8):216-22 [acesso em 3 mar 2023]. Disponível em: https://rmmg.org/artigo/detalhes/2152.

16. Sousa LMM de, Firmino CF, Marques-Vieira CMA, Severino SSP, Pestana HCFC. Revisões da literatura científica: tipos, métodos e aplicações em enfermagem. Rev Portug Enf Reabil. 2018;1(1):45-54. [acesso em 26 jun 2023]. Disponível em: https://rper.aper.pt/index.php/rper/article/view/20.

17. Marconi MA, Lakatos EM. Fundamentos de metodologia científica. 8a ed. São Paulo: Atlas; 2017.

18. Gil AC. Como elaborar projetos de pesquisa. 6a ed. São Paulo: Atlas; 2017.

19. Gomes AP, Rego S. Paulo Freire: contribuindo para pensar mudanças de estratégias no ensino de medicina. Rev Bras Educ Med. 2014;38(3):299-307. doi: https://doi.org/10.1590/S0100-55022014000300003.

20. Gallian DMC. Literatura e formação humanística em medicina: o experimento do Laboratório de Humanidades da EPM/UNIFESP. Rev Med. 2012;91(3):174-7. doi: https://doi.org/10.11606/issn.1679-9836.v91i3p174-177.

21. Ayres JRCM, Rios IC, Schraiber LB, Falcão MTC, Mota A. Humanidades como disciplina da graduação em Medicina. Rev Bras Educ Med. 2013;37(3):455-63. doi: https://doi.org/10.1590/S0100-55022013000300019.

22. Lemire F. Role modeling in family medicine. Can Fam Physician. 2018 Oct;64(10):784 [acesso em 3 mar 2023]. Disponível em: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6184955/.

23. Green BN, Johnson CD. Interprofessional collaboration in research, education, and clinical practice: working together for a better future. J Chiropr Educ. 2015 Mar;29(1):1-10. doi: https://doi.org/10.7899/JCE-14-36.

24. Chiarella T, Bivanco-Lima D, Moura JC, Marques MCC, Marsiglia RMG. A pedagogia de Paulo Freire e o processo ensino-aprendizagem na educação médica. Rev Bras Educ Med. 2015;39(3):418-25. doi: https://doi.org/10.1590/1981-52712015v39n3e02062014.

25. Smith RC, Lyles JS, Mettler J, Stoffelmayr BE, Van Egeren LF, Marshall AA, et al. The effectiveness of intensive training for residents in interviewing. A randomized, controlled study. Ann Intern Med. 1998;128(2):118-26. doi: https://doi.org/10.7326/0003-4819-128-2-199801150-00008.

26. Rios IC, Schraiber LB. Humanização e humanidades em medicina: a formação médica na cultura contemporânea. São Paulo: Editora Unesp; 2012.

27. Zaharias G. What is narrative-based medicine? Narrative-based medicine 1. Can Fam Physician. 2018 Mar;64(3):176-80.

28. Shapiro J. Stories medical students tell. Storytell Self Soc. 2005 Fall;2(1):48-61.

29. Milota MM, van Thiel GJMW, van Delden JJM. Narrative medicine as a medical education tool: a systematic review. Med Teach. 2019 July;41(7):802-10. doi: https://doi.org/10.1080/0142159X.2019.1584274.

30. Charon R. The patient-physician relationship. Narrative medicine: a model for empathy, reflection, profession, and trust. JAMA. 2001 Oct;286(15):1897-902. doi: https://doi.org/10.1001/jama.286.15.1897.

31. Pereira AT, Gallian DMC, Reginato V, De Benedetto MAC. Percepção de alunos de medicina com a dramatização: uma experiência pedagógica. Rev Bras Educ Med. 2016;40(3):497-505. doi: https://doi.org/10.1590/1981-52712015v40n3e00242015.

32. Rabelo L, Garcia VL. Role-play para o desenvolvimento de habilidades de comunicação e relacionais. Rev Bras Educ Med. 2015;39(4):586-96. doi: https://doi.org/10.1590/1981-52712015v39n4e01052014.

33. Horsburgh J, Ippolito K. A skill to be worked at: using social learning theory to explore the process of learning from role models in clinical settings. BMC Med Educ. 2018 Jan;18(1):1-8. doi: https://doi.org/10.1186/s12909-018-1251-x.

34. Jochemsen-van der Leeuw HG, van Dijk N, van Etten-Jamaludin FS, Wieringa-de Waard M. The attributes of the clinical trainer as a role model: a systematic review. Acad Med. 2013 Jan;88(1):26-34. doi: https://doi.org/10.1097/ACM.0b013e318276d070.

35. Passi V, Johnson S, Peile E, Wright S, Hafferty F, Johnson N. Doctor role modelling in medical education: BEME Guide No. 27. Med Teach. 2013 Sept;35(9):1422-36. doi: https://doi.org/10.3109/0142159X.2013.806982.

36. De Benedetto MAC, Gallian DMC. Narrativas de estudantes de medicina e enfermagem: currículo oculto e desumanização em saúde. Interface Comun Saúde Educ. 2018;22(67):1197-207. doi: https://doi.org/10.1590/1807-57622017.0218.

37. Benbassat J. Role modeling in medical education: the importance of a reflective imitation. Acad Med. 2014 Apr;89(4):550-4. doi: https://doi.org/10.1097/ACM.0000000000000189.

38. Jochemsen-van der Leeuw HG, van Dijk N, Wieringa-de Waard M. Assessment of the clinical trainer as a role model: a Role Model Apperception Tool (RoMAT). Acad Med. 2014 Apr;89(4):671-7. doi: https://doi.org/10.1097/ACM.0000000000000169.

39. Massote AW, Belisário SA, Gontijo ED. Atenção primária como cenário de prática na percepção de estudantes de Medicina. Rev Bras Educ Med. 2011;35(4):445-53. doi: https://doi.org/10.1590/S0100-55022011000400002.

40. Toassi RFC, Olsson TO, Lewgoy AMB, Bueno D, Peduzzi M. Ensino da graduação em cenários da atenção primária: espaço para aprendizagem interprofissional. Trab Educ Saúde. 2020;18(2):1-18. doi: https://doi.org/10.1590/1981-7746-sol00267.

41. Zechariah S, Ansa BE, Johnson SW, Gates AM, Leo GD. Interprofessional education and collaboration in healthcare: an exploratory study of the perspectives of medical students in the United 42. States. Healthcare. 2019 Oct;7(4):1-11. doi: https://doi.org/10.3390/healthcare7040117.

43. Silva ATC, Medeiros ME, Fontão PN, Saletti HC, Vital PF, Bourget MMM, et al. Medicina de família do primeiro ao sexto ano da graduação médica: considerações sobre uma proposta educacional de integração curricular escola-serviço. Rev Bras Educ Med. 2017;41(2):336-45. doi: https://doi.org/10.1590/1981-52712015v41n2RB20160016.

44. Cunha ACM, Salomão AFS, Correia HPC, Yogui JOS. Educação interprofissional no cenário da atenção primária à saúde: relato de experiência. Rev APS. 2017;20(2):306 [acesso em 3 mar 2023]. Disponível em: https://periodicos.ufjf.br/index.php/aps/article/view/16593/8393.

45. Demarzo MMP, Almeida RCC, Marins JJN, Trindade TG, Anderson MIP, Stein AT, et al. Diretrizes para o ensino na atenção primária à saúde na graduação em medicina. Rev Bras Educ Med. 2012;36:143-8. doi: https://doi.org/10.1590/S0100-55022012000100020.

46. Salomão AFS, Yogui JOS, Colugnati FAB, Silva BN. Ocorrência de fatores de risco cardiometabólicos em escolares atendidos pelo projeto piloto do Programa Saúde nas Escolas em uma Unidade Básica de Saúde de Juiz de Fora. Rev APS. 2019;22(3):633-44. doi: https://doi.org/10.34019/1809-8363.2019.v22.16845.

47. Brasil. Saúde na escola. Brasília: Ministério da Saúde; 2009. 96 p. (Série B. Textos básicos de saúde).

48. Brasil. Resolução CNE/CES nº 7, de 18 de dezembro de 2018. Estabelece as Diretrizes para a Extensão na Educação Superior Brasileira e regimenta o disposto na Meta 12.7 da Lei nº 13.005/2014, que aprova o Plano Nacional de Educação – PNE 2014-2024 e dá outras providências. Brasília: CNE/CES; 2018 [acesso em 3 mar 2023]. Disponível em: https://normativasconselhos.mec.gov.br/normativa/pdf/CNE_RES_CNECESN72018.pdf.

49. Miller GE. The assessment of clinical skills/competence/performance. Acad Med J Assoc Am Med Coll. 1990 Sept;65(9 Suppl):63-7. doi: https://doi.org/10.1097/00001888-199009000-00045.

50. Cruess RL, Cruess SR, Steinert Y. Amending Miller's pyramid to include professional identity formation. Acad Med. 2016 Feb;91(2):180-5. doi: https://doi.org/10.1097/ACM.0000000000000913.

51. Swanwick T, Forrest K, O'Brien BC, organizers. Understanding medical education: evidence, theory, and practice. 2a ed. Hoboken: Wiley-Blackwell; 2013.

DOI: https://doi.org/10.1590/1981-5271v48.4-2023-0057.ING

52. Rodrigues SG, Neves MGC. Avaliação formativa: vivências em metodologia ativa de ensino aprendizagem na visão docente e discente. Comun Ciênc Saúde. 2015;26(03/04):105-14. doi: https://doi.org/10.51723/ccs.v26i03/04.304.

53. Ribeiro MMF, Amaral CFS. Medicina centrada no paciente e ensino médico: a importância do cuidado com a pessoa e o poder médico. Rev Bras Educ Med. 2008;32(1):90-7. doi: https://doi.org/10.1590/S0100-55022008000100012.

54. Cotta RMM, Costa GD. Instrumento de avaliação e autoavaliação do portfólio reflexivo: uma construção teórico-conceitual. Interface Comun Saúde Educ. 2016;20(56):171-83. doi: https://doi.org/10.1590/1807-57622014.1303.

55. Peixoto JM, Ribeiro MMF, Amaral CFS. Atitude do estudante de medicina a respeito da relação médico-paciente x modelo pedagógico. Rev Bras Educ Med. 2011;35(2):229-36. doi: https://doi.org/10.1590/S0100-55022011000200012.

56. Krupat E, Rosenkranz SL, Yeager CM, Barnard K, Putnam SM, Inui TS. The practice orientations of physicians and patients: the effect of doctor-patient congruence on satisfaction. Patient Educ Couns. 2000 Jan;39(1):49-59. doi: https://doi.org/10.1016/s0738-3991(99)00090-7.

57. Biscegli TS, Gonsaga RAT. OSCE: evolução histórica do desempenho dos alunos de uma escola de medicina. CuidArt Enferm. 2020;14(1):55-60 [acesso em 3 mar 2023]. Disponível em: http://www.webfipa.net/facfipa/ner/sumarios/cuidarte/2020v1/p.55-60.pdf.

58. Naghettini A, Silva ER, Lindoso F, Moreira MAC, Campos N. Diretrizes em métodos de ensino e avaliação do processo ensino-aprendizagem do curso de Medicina. Goiânia: UFG; 2010.

59. Junqueira JJO. Análise da capacidade reflexiva e da presença dos componentes do método clínico centrado na pessoa em portifólios discentes da estratégia educacional "prática médica na comunidade" do curso de medicina da Unifenas-BH [dissertação]. Belo Horizonte: Universidade José do Rosário Vellano; 2021.

60. Gomes AP, Arcuri MB, Cristel EC, Ribeiro RM, Souza LMBM, Siqueira-Batista R. Avaliação no ensino médico: o papel do portfólio nos currículos baseados em metodologias ativas. Rev Bras Educ Med. 2010;34(3):390-6. doi: https://doi.org/10.1590/S0100-55022010000300008.

61. Barboza JS, Felício HMS. Humanidades médicas e seu lugar no currículo: opiniões dos participantes do Cobem/2017. Rev Bras Educ Med. 2020;44(1):1-8. doi: https://doi.org/10.1590/1981-5271v44.1-20190155.