

Development of medical values in the training in active methodologies

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Abstract

With the growing expansion of medical education in Brazil, in parallel with the updating of the National Curriculum Guidelines (2001, 2014 and 2022), reflection on the teaching-learning process of ethics and bioethics becomes necessary. The study correlates moral values developed during medical training with their application during the mandatory internship in a medical course in southern Brazil. This is a qualitative study with 72 students from the internship classes, and data collection consisted of an individual questionnaire. The results of the content analysis indicate that the moral values learned during training and the values practiced and considered essential for internship experience are respect, responsibility, patience and humility, and discussions and learning about these moral/social values take place more frequently when educational strategies characteristic of active methodologies are adopted.

Keywords: Education, medical. Ethics, medical. Social values.

Resumo

Desenvolvimento de valores médicos na formação em metodologias ativas

Com a crescente expansão do ensino médico no Brasil, paralela à atualização das Diretrizes Curriculares Nacionais (2001, 2014 e 2022), é essencial refletir acerca do processo de ensino-aprendizagem de ética e bioética. A pesquisa correlaciona valores morais desenvolvidos durante a formação médica com sua aplicação no estágio obrigatório – regime de internato em um curso de medicina no sul do Brasil. Trata-se de pesquisa qualitativa, com 72 estudantes das turmas em internato, cuja coleta de dados consistiu na aplicação individual de questionário. Os resultados, pela análise de conteúdo, indicam que os valores morais aprendidos durante a formação e os valores praticados e considerados essenciais para a vivência no internato são respeito, responsabilidade, paciência e humildade, e as discussões e aprendizados a respeito desses valores morais/sociais acontecem com maior frequência quando são adotadas estratégias educativas características das metodologias ativas.

Palavras-chave: Educação médica. Ética médica. Valores sociais.

Resumen

Desarrollo de valores médicos en la formación en metodologías activas

Dada la expansión de la educación médica en Brasil en paralelo con la actualización de los Lineamientos Curriculares Nacionales (2001, 2014 y 2022), es esencial reflexionar sobre el proceso de enseñanza-aprendizaje de la ética y la bioética. Este estudio correlaciona los valores morales desarrollados durante la formación médica con su aplicación en las pasantías obligatorias en medicina en el sur de Brasil. Se realizó una investigación cualitativa a 72 estudiantes de las clases de internato, y la recolección de datos consistió en la aplicación individual de un cuestionario. A partir del análisis de contenido, los resultados indican que los valores morales aprendidos durante la formación y los valores practicados y considerados esenciales en el internato fueron el respeto, la responsabilidad, la paciencia y la humildad; además, las discusiones y el aprendizaje sobre estos valores morales/sociales ocurrieron con mayor frecuencia cuando se adoptaron estrategias educativas características de las metodologías activas.

Palabras clave: Educación médica. Ética médica. Valores sociales.

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The implementation of the National Curriculum Standards (DCN) for medical education¹, academic training, based on the understanding of the social determinants of the health-disease process, aims to provide physicians with a generalist, humanized, ethical, reflective and critical education^{2,3}. This shows how important it is for the teaching-learning process to create opportunities for academic experiences founded on an effective physician-patient relationship and in agreement with the principles of the DCN and the Unified Health System (SUS).

The traditional teaching model—isolated subjects, disconnected from each other, with little room for social, economic, cultural and ethical discussions, which alienates students from real-life health problems and promotes the specialization and fragmentation of individuals^{2,4}—is being replaced by a teaching-learning process that integrates active participation and student autonomy, aiming for reflective action in which students become leaders². Active learning methodologies integrate theory and practice and insert students in the health system from the beginning of the course, while recasting faculty in a mediating role.

In this sense, the practice of humanized care should be developed and the doctor-patient relationship should be modified^{2,4}. To impart health care that is generalist, humanized and effective, medical education must necessarily address in the teaching-learning process moral/social values such as responsibility, respect, patience, prudence, trust, justice, compassion, hope, truth, generosity, humility, charity, harmony, benevolence, courage and gratitude³.

This study aimed to correlate the moral values developed during medical education with their application in daily internship activities at a medical school in southern Brazil.

Method

A qualitative, descriptive and cross-sectional survey was conducted with students from a medical course that uses active learning methodologies, at a higher education institution located in a city southern Brazil. The research sample consisted

of 72 students (97% confidence level) undergoing mandatory internship in the aforementioned course (9th, 10th and 11th term) during the second semester of 2022. Participation in the study was confirmed by signing an informed consent form, according to CFM Resolution 466/2012⁵, being over 18 years old, and regularly enrolled and attending academic activities during the data collection period (second semester of 2022).

Following approval by the university's Research Ethics Committee, data were collected by administering a questionnaire adapted from Marques³. The first part of the questionnaire related to the sociodemographic identification of participants (age, gender, skin color, religion, marital status and previous undergraduate education), and the second part addressed moral values and how students perceived them in the medical course. The students checked multiple-choice items to identify the moral values they considered important for the internship, those that were applied in the mandatory internship program and those developed during the undergraduate course.

The questionnaire was administered via Google Forms during weekly clinical meetings that included all students from each academic term (9th, 10th and 11th). Each individual answered the questionnaire independently, with guaranteed confidentiality of responses, anonymity and the right to withdraw from the study at any time, minimizing the risk of embarrassment.

The data were processed and grouped according to the study variables, based on graphs generated by Google Forms. Subsequently, data analysis and interpretation were performed based on Bardin's content analysis⁶ and supported by a theoretical framework of the current technical and critical literature, resulting in four thematic categories: student profile, developed values, practiced values and essential values.

Results

Student profile

The study mainly included women students (68.1%) aged between 22 and 26 (76.4%). Of the respondents, 87.5% had no prior undergraduate

degree and self-identified as white (98.6%). Regarding marital status, 87.5% reported being single, and in terms of religion, most were Catholic (69.4%), followed by Evangelicals (12.5%).

Developed values

Regarding moral values developed during the medical course, it was found that respect (90.3%), responsibility (90.3%), patience (81.9%) and humility (76.4%) were the most addressed in academic activities. On the other hand, compassion (16.7%) and harmony (13.9%) were the least checked. It is noteworthy that truth features with 61.1%, which contrasts with the results in the other categories (practiced values and essential values), where it appears more often.

Table 1. Developed values

Value	%
Respect	90.3
Responsibility	90.3
Patience	81.9
Humility	76.4
Prudence	69.4
Trust	63.9
Truth	61.1
Courage	52.8
Gratitude	51.4
Generosity	48.6
Justice	40.3
Benevolence	37.5
Hope	36.1
Charity	25
Compassion	16.7
Harmony	13.9

Regarding the curriculum units (CU) and subject areas of the medical course curriculum, students indicated that discussions and learning about moral values occur most frequently in professional skills CUs. These come under the

subject areas of digital health, communication skills and clinical skills and are offered during the basic and clinical cycles of the course, from the 1st to 8th term. Communication Skills I, in the 1st term of the course, was indicated by 95.8% of students. The other professional skills CUs had percentages ranging from 87.5% to 76.4%, with an emphasis on the subject areas of communication skills and clinical skills.

A highlight was CUs related to Integration of Health Education in the Community (IESC), offered from the 1st to 8th term of the course. They comprise theoretical-practical activities that place students in Family Health Strategy units (SUS). The percentages ranged from 90.3% to 75% as CUs that convey knowledge on moral values, with IESC IV (4th term) and V (5th term) being the most noted, with 90.3% each. Other notable CUs included ethics and bioethics in the 3rd term, with 48.6%, and undergraduate monograph I and II in the 7th and 8th terms, with 25%.

In the questionnaire, students were also asked to reflect on how these topics were discussed during academic activities throughout the course, that is, the educational strategies used. Practical experience/internships (even observational) were noted by 84.7%, and group discussion instruction (small group sessions of problem-based learning) by 73.6%. Additionally, the reflective portfolio activity stood out with 43.1%, ranking 8th out of 11 options.

Moreover, 63.9% of students believe that moral values appear implicitly in the CU content/ or subject areas and that horizontal and dialogical educational relationships between students and faculty (84.7%) facilitate the teaching-learning process of moral values.

Practiced values

In this category, the students checked the moral values experienced during mandatory internship activities (9th to 11th term), with the following standing out: respect, 97.2%; patience, 90.3%; humility, 88.9%; and responsibility, 88.9%. Conversely, compassion and harmony had the lowest percentages, 30.6% and 25%, respectively.

Table 2. Practiced values

Value	%
Respect	97.2
Patience	90.3
Humility	88.9
Responsibility	88.9
Trust	77.8
Generosity	73.6
Prudence	73.6
Trust	68.1
Justice	59.7
Gratitude	59.7
Courage	55.6
Hope	47.2
Charity	45.8
Benevolence	43.1
Compassion	30.6
Harmony	25

Essential values

Regarding the participants' assessment of the moral values they deemed essential for the practical activities of the mandatory internship, respect, humility and responsibility appeared with 97.2%, followed by patience (93.1%) and prudence (86.1%). Benevolence (38.9%), charity (38.9%), compassion (27.8%) and harmony (20.8%) were the least checked as important during internship training.

Table 3. Essential values

Value	%
Respect	97.2
Humility	97.2
Responsibility	97.2
Patience	93.1
Prudence	86.1
Trust	75
Truth	75

continues...

Table 3. Continuation

Value	%
Generosity	58.3
Courage	58.3
Gratitude	56.9
Justice	55.6
Hope	44.4
Charity	38.9
Benevolence	38.9
Compassion	27.8
Harmony	20.8

Discussion

Regarding the profile of the survey participants, there was a predominance of women over men, reflecting the feminization of medicine, a phenomenon described in studies such as those by Scheffer^{7,8}, which observe this trend and predict the increasing involvement of women in healthcare professions.

Most of the surveyed students are young adults and self-identify as white. This raises questions about privileged access to higher education in Brazil. According to a 2021 survey conducted by the Union of Higher Education Institutions in the state of São Paulo⁹, the net enrollment rate (which estimates the percentage of young people aged 18 to 24 enrolled in higher education relative to the total population in this age group) was only 18.1%—much lower than goal 12 of the National Education Plan, which aims to reach 33% by 2024.

Due to erratic governmental efforts to democratize education in recent decades, access to higher education is still reserved for those who can afford to pay for it. Therefore, it should be understood that social inequality is embedded in Brazil's historical development, impacting the country's current student population, especially as access to higher education is considered one of the drivers of accumulated economic, scientific and cultural human development^{10,11}.

Another notable aspect of the profile of the participants is the religious affiliation indicated

by the majority (Catholic and Evangelical), since religious values can be considered moral values of each individual's culture¹¹. Religious morality can intersect with the outcomes of this survey, regardless of whether the medical school explicitly references moral values.

Among the values students deemed to have been developed during their education, respect, responsibility, patience and humility stood out. These same values were the most cited as essential medical values and as the most applied in practice during the teaching-learning process, varying only in order of importance, thus corroborating the findings in Marques' study³. However, regarding the values considered essential for the internship, prudence also appeared with a higher percentage, potentially indicating how sensitive students are to exercising practical wisdom in the practice of medicine¹².

Prominent among those moral values was respect, which had not been considered among the most developed in theoretical activities, but enjoyed a significant increase in frequency when participants referred to essential values and those applied in academic practice. This perspective supports the need for healthcare providers to develop interpersonal skills in their professional practice, providing harmonious conditions for the performance of work activities, resulting in effective care and humanized relationships¹³.

In addition, it is believed that this is a sign of a medical education that considers respectful care a fundamental human attitude and presumes that there must be integration between care and respect, recognizing that, in the relationship with the physician, the patient is an individual with intrinsic value and fundamental rights. In this sense, the teaching-learning process should include, besides theory, techniques, and procedures, care and moral respect for patients' vulnerabilities¹⁴.

The values of harmony and compassion had lower percentages than the others and were not cited as essential or experienced during the academic journey of the participants. This raises questions about the theoretical knowledge and importance of these values among students, especially in the current context in which

institutions that view educational services as a commodity are favored¹⁴.

One should also consider the impact of the lack of values like harmony and compassion on the education of medical students, since union of wills, which results in concord, and conformity of opinions, which leads to peace, are foundational values for respectful, humanized and effective care¹⁵. Students may thus face difficulties to recognize and apply harmony and compassion on a daily basis in their work, and healthcare professionals may struggle to build a more humane and supportive society¹⁴⁻¹⁶.

Regarding the CUs and subject areas that enable the students in this study to benefit from the teaching-learning process of moral values, it is interesting to note that the cited CUs are at the intersection of theory and practice and emphasize behavior and skills over knowledge. Concerning educational strategies, it is observed that practical experiences and internships, as well as group discussions, are the most cited as facilitators of moral values, corroborating the findings of Marques' research³. This indicates that the development and building of "ethical" (of moral values) competence depend less on theory and more on experience, cooperative practices and peer learning¹⁶⁻¹⁸, approaches prioritized by active learning methodologies.

It is noteworthy that the ethics and bioethics CU (48.6%) and undergraduate research activities (undergraduate monograph I and II) (25% and 25%) did not feature prominently among the main subject areas that promote the teaching of moral values. This raises questions about the point of having a specific moment in the medical curriculum for ethics and bioethics classes and the efficiency of the research process as a means to learn about and adopt ethical practices in knowledge production. The end-of-term paper is an assignment directly related to moral values, given the Brazilian resolutions on ethical research with humans and animals, which require experience and understanding of values such as truth, respect, responsibility, trust and prudence.

Michael Apple's debate on critical pedagogy¹⁹ describes the development of the educational curriculum not merely as an objective report but as conditioned by the social group that comprises

the classroom, bringing the discussion to its critical reality. Therefore, it seems evident that the curriculum units should be addressed so as to encourage reflection and learning about ethical and moral values, with a continuous, transversal and interdisciplinary approach throughout the course, as a responsibility and critical commitment of all professors and students, to stimulate reflection in daily real-life practice.

In this sense, active learning methodologies can be more productive than traditional teaching, insofar as the educational strategies employed in this conception change the behavior of both faculty and students. They include immersion in the reality of healthcare services from the beginning of the course, the professor's role as mediator/adviser/facilitator, student leadership and the development of abilities that consider levels of knowledge complexity and socio-emotional skills^{20,21}.

The relationship between faculty and students in the teaching-learning process influences the development of moral/social values. A more horizontal behavior, as proposed by active learning methodologies, enables students to create bonds and develop similar attitudes when accompanying professionals and engaging in open relationships²². According to research on characteristics that contribute to problem-based learning (PBL), a supportive environment and open, respectful relationships are means to facilitate the teaching-learning process.

Regarding how moral values were studied throughout medical training, it is observed that such values, or the lack thereof, may emerge implicitly in the academic content. This relates to the hidden curriculum, that which goes beyond the formal curriculum and is characterized by interpersonal relationships experienced in the academic milieu^{19,24}. Therefore, the fact that

moral/social values are explicit in the course's syllabus does not guarantee that they will be discussed and developed. Moreover, the explicit content, which generally meets the DCN, may conflict with the hidden curriculum, in which emerge values, interests, discourses, knowledge and practices that also shape medical training and may serve hegemonic models that contrast with medical professionalism²⁴.

Final considerations

In the relation of moral values developed during medical education to their application in the internship program at a medical school in southern Brazil, the profile of the investigated students shows a predominance of young adult women and religious affiliation (Catholics and Evangelicals).

Regarding the moral values learned during medical training and those practiced and considered essential for the internship experience, it is noteworthy that the ones most commonly indicated by students were the same—respect, responsibility, patience and humility—varying only in order of importance. Additionally, students report that discussions and lessons about these moral/social values occur more often when strategies typical of active learning methodologies are adopted.

The study suggests the need to invest in faculty development and training to enable professors and students to legitimize the teaching-learning process as a means of teaching/learning while caring and of caring while teaching/learning. Future research on the influence of the hidden curriculum on the teaching of moral/social values in medical education may contribute new inquiries to legitimize and indicate new ethical and bioethical pathways for health care within the SUS rationale.

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