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Moral conflicts in physiotherapy practice: perception of physiotherapists and students

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Abstract

Moral conflicts are inherent to the practice of physiotherapy, more so as manifestations of the scientific evolution are increasingly more present in the professional praxis of the physiotherapist, which demands a close contact between the professional and the patient. The objective of this study was to analyze the perception of physiotherapists and students in a physiotherapy program towards moral conflicts in clinical practice. A cross-sectional study was performed by means of a questionnaire applied to students in initial (Group 1) and final (Group 2) stages of a physiotherapy course as well as to physiotherapists (Group 3) working in cities in the Midwest of Santa Catarina, Brazil. The sample consisted of 110 students, 59 in Group 1 and 51 in Group 2, with a mean age of 22.7 years old and were predominantly females. Moreover, there were 36 physiotherapists included in Group 3, most of whom were female, with ages ranging from 31 to 40 years old and with 11 to 20 years of training. Almost all students and professionals reported that approaching professional ethics and bioethics in professional training is particularly important. The students in the more advanced stages, who had taken the bioethics course, showed greater general knowledge when compared to the other groups, indicating the importance of teaching this theme at the undergraduate level. Most professionals (75%) self-reported little knowledge on the topics discussed in the Ethics and Deontology Code of Physiotherapy; 72% affirmed having partially read the document, but only 47% get annual updates on the ethics code. The conflicts most frequently mentioned by the professionals were secrecy and confidentiality (61.1%), intra- and interprofessional relationship (33.3%), fees (30.5%), professional autonomy (25%), truthfulness of information (19.4%), therapist/patient relationship (16.7%), and patient autonomy, decency, and intimacy (5.5%). Moral conflicts are part of the practice of physiotherapy, even if it was not sufficiently acknowledged by the participants in some cases. Based on this study, some measures are needed regarding teaching, professional recycling, and the inclusion of themes in the professional code of physiotherapy, considering that some issues constitute a challenge for ethical training. Unfortunately, but they are not addressed in the physiotherapist's professional code of ethics and professionals who finished training before did not have adequate learning on the topics discussed.

Keywords: Bioethics. Professional ethics. Deliberation. Higher education. Physiotherapy.

INTRODUCTION

Bioethics teaching is increasingly gaining importance in the moral development and decision-making process of physiotherapy professionals. Therefore, they need preparation to act in a moral and socially responsible manner in the different situations deriving from scientific and technological development[1]. Even though physiotherapy programs and bioethics courses are new to the higher education, the development of the profession has been accompanied by an increase in the number of physiotherapy programs in Brazil: from six in 1970, which then rose to 48 in 1991, and reaching 505 undergraduate cour-

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ses in 2008[2].

In a review study, when analyzing the teaching profile of ethics and bioethics in Brazilian universities and university centers with a physiotherapy program, it was observed that out of 234 institutions, only 17 (13.82%) offered courses on bioethics in their curriculum, and 62 (50.41%) offered ethics and deontology courses. This implies that it is necessary to increase the offering of ethics and bioethics courses in physiotherapy courses, emphasizing the promotion of critical thinking, which will contribute to the confrontation of ethical conflicts in professional practice[3].

For the physiotherapy program, the National Curricular Guidelines (NCGs), issued by the National Council of Education[2], emphasizes ethics/bioethics as a necessary requirement for the training and performance of students. Bioethics is the course that provides support for decisions related to health, life, death, solidarity, dignity, quality of life, and defends the humanization of health care. It also helps to identify issues and to make decisions during clinical practice, which is oriented towards the analysis of decision-making, formulation of practical and political judgments on choices, decisions, and acts based upon moral values and principles. Bioethics involves, therefore, different academic, scientific, technical, and professional domains, projecting itself into a field of activities that lies beyond the particular perspectives of the courses that constitute it. In addition to being considered interdisciplinary, it is complex, as it includes multiple aspects involved in its object of attention, as well as it is shared, since it uses different interfaces to carry out mutually enriching dialogues[4,5].

The reflection on the adequacy of professional practice goes through three main dimensions: moral, ethical, and legal. Strictly speaking, the so-called Professional Codes of Ethics establish a set of moral rules on the exercise of the profession. In Brazil, because professional regulations are governed by federal laws, these specific professional codes are incorporated into the legal framework for proper professional practice. Therefore, 35 years after the first Code of Ethics in Physiotherapy and Occupational Therapy was put in effect by the Resolution published on September 22 of 1978, it became imperative to update this reference and the new Physiotherapy Code of Ethics and Deontology (Código de Ética e Deondologia da Fisioterapia - CEDF) which was approved and published in the Resolutions 424 and 425 on August 1, 2013[6].

The *Conselho Federal de Fisioterapia e Terapia Ocupacional* (COFFITO) Resolution number 424/2013 contains the precepts for good professional practice based on ethics and bioethics. The document is divided into 11 chapters and subdivided into several articles, referring to their responsibilities, relationship with patients/clients, team members, teaching and research, among others[6].

Various thought and analysis models are applied in bioethics, but the model presented by the Four Principles Theory (autonomy, justice, beneficence, and non-maleficence), or principlism theory, as it became known, is the most widespread. Like any other health profession, several moral conflicts permeate the practice of physiotherapy, as physiotherapists are in direct contact with their patients, their suffering and discomfort, they often making decisions in situations of uncertainty[7].

Physiotherapists are now autonomous and hold great responsibility in interdisciplinary teams. They increasingly participate in decision-making and are exposed to complex ethical dilemmas and accountabilities in the professional practice[8].

Throughout history, however, the themes involving bioethics and physiotherapy in Brazil have been based on deontological concepts, limited to the code of ethics and legal

aspects of the profession. Still incipient and recent, these practices remain in the process of identification and construction, seeking perspectives of development. Authors have demonstrated that, in the Brazilian context, research involving bioethics and physiotherapy only emerged in 2002 with Renner *et al.*[7], while in the United Kingdom, Barnitt *et al.*[19] published a precursor study in 1998[9].

The growth of the profession is related to changes in the health profile of the population and in the education of professionals, who began to focus on a complex and comprehensive intervention aimed at promoting health. Thus, the reflection on ethics and bioethics raises questions about what ethical care in rehabilitation is, or even what rehabilitation is based upon. Questions of this nature lead to discussions about the procedures adopted when it comes to someone who temporarily or permanently requires physiotherapy services[10].

In the indexed Brazilian articles that identify topics related to ethics, bioethics and the practice of physiotherapy, confidentiality and secrecy, decision-making, respect for patient autonomy, professional autonomy, and truthfulness of information are the items most cited in clinical, hospital-based or home care research[11]. In this study, the objective was to analyze and compare the perception of physiotherapists and students in a physiotherapy program about moral conflicts in the practice of physiotherapy.

METHODS

A cross-sectional study with a quantitative approach was performed. Students in the initial (4th and 6th semesters - Group 1 [G1]) and final (8th and 10th semesters - Group 2 [G2]) stages of the physiotherapy program at a philanthropic university in the Midwest of the state of Santa Catarina, as well as physiotherapists enrolled in the Regional Council of Physiotherapy and Occupational Therapy, of the 10th region (CREFITO 10) who specifically worked within the Association of the Municipalities of the Midwest of Santa Catarina (AMMOC) (Group 3 [G3]) were invited to participate. We chose these course stages because "bioethics and professional ethics" is addressed in the 7th period of the program, allowing us to analyze and compare stages before and after the course.

The choice of the University to carry out the research is justified because it is a philanthropic community university, located in the Midwest of Santa Catarina, and a regional reference in higher education in health. The campus where the survey was conducted covers more than 50 municipalities, accounting for approximately 250,000 inhabitants. The physiotherapy course in this campus obtained the maximum grade (score 5) in the last National Exam for the Assessment of Student Performance (ENADE), carried out by the Ministry of Education (MEC).

According to data from CREFITO 10, there were approximately 8,600 registered and working physiotherapists in the state of Santa Catarina in 2018. Of these, 200 were working in the studied region, spread across clinics, offices, educational institutions, public health services, and others.

To collect the data, we divided the sample into three groups and applied two questionnaires. The inclusion criteria for the students were to be attending the initial (4th and 6th semesters) or final (8th and 10th semesters) phases of the physiotherapy course at the chosen university. For professionals, the inclusion criteria were to be enrolled in CREFITO 10 and to be working professionally in the AMMOC region. The ex-

clusion criterion for the students was not accepting to participate in the study and for the professionals it was not answering the invitation e-mails or phone calls within 30 days or not accepting to participate in the study.

Data collection was performed in the first two weeks of the second semester of the 2018 school year, and a researcher carried out the data collection with students and professionals. The students answered the questionnaire individually, in the classroom, at the beginning of a class period. Professionals were first contacted via cell phone or e-mail to find out if they were interested in participating in the study. After acceptance, the questionnaire was delivered in person or sent via e-mail for completion.

We prepared one questionnaire for groups G1 and G2 and another one for G3. The choice of the topics addressed in the research tool was based on the most frequent ethical problems or moral conflicts in clinical practice found in from a review of the literature. Given the absence of validated questionnaires for this type of study in the area, the structuring of questions for each type of perception was based upon the guidelines in the book How to prepare questionnaires[12].

The questionnaire for students contained 31 questions, 30 of which were objective and one discursive, and included: at what stage of physiotherapy they are, their age, gender, level of knowledge about ethics in physiotherapy, evaluation of the student's ethical attitude by the patient during sessions, knowledge of inappropriate ethical attitudes of undergraduate professors, experience of moral problems during professional practice, and disclosure of bad news if a patient's condition had worsened.

The questionnaire for professionals had 37 questions, of which 36 were objective and 1 was discursive. Examples of questions were: city of work, marital status, age, gender, time since graduation, place of work, if they worked as a teacher, including for how long and the reasons why they started teaching, the existence of curricular components of professional ethics and bioethics during university education, frequency of reading the CEDF and updating their sources, attitude when witnessing a misconduct by a colleague, frequency of ethical conflicts or moral problems within their professional practice, and feeling physical/sexual attraction to a patient.

Some questions were pertinent to the three groups, such as: importance of bioethics and professional ethics courses during training, importance of professional ethics for the professional practice, knowledge of the content and issues addressed in the CEDF, the physiotherapist's right to know the human immunodeficiency virus (HIV) serology of the patient, compliance with the physiotherapy fees established by COFFITO, professional conduct recommended when charging family fees, decision-making when dealing with a serious patient in need of ICU admission when it is at capacity, proper conduct of the professional when a mastectomized patient reports being uncomfortable undressing during the session, disclosure of a diagnosis/prognosis to a patient when the responsible physician did not communicate it to them, variation of attitudes by the professional, when a patient reports worsening of the condition, when the patient shares information that demands confidentiality, exposure of photos of the patient, not performing care despite medical referral, how a consent form in research is obtained, opinion on the use of animals in research, experiencing the death of a patient, importance of knowing how to deal with the death of a patient, and the knowledge on how to behave with the relatives of a recently deceased patient.

The project was submitted to the Ethics and Research Committee (CEP) of the institution, and after evaluation it was accepted under approval number 2.578.732. The participants

received the Informed Consent Form to read and sign.

Statistical procedures were performed in SPSS (version 24.0) or Le Sphinx Plus2 (version 4.5). Significance was set at $p \leq 0.05$. The existence of differences in the prevalence of the answers to the intergroup questions ("G1", "G2" and "G3") was analyzed using the Chi-Squared test ($\chi 2$). To compare the mean scores to question 6 (knowledge level on ethics in physiotherapy) among the students (G1 vs. G2), we used the Mann-Whitney test, as the scores did not present normal distribution in the Kolmogorov-Smirnov normality test.

RESULTS

All 172 students enrolled in the physiotherapy program in the 2018 school year were invited to participate in the study. From these, 59 students in the early semesters (53.6%) and 51 in the final semesters (46.4%) agreed to participate, constituting the sample of 110 students (75.4%). Among the 200 physiotherapists who are members of the union CREFITO 10 and working in the studied region, only 36 (18%) agreed to participate in the study.

Among the students, women (89.1%) and those aged between 21 and 25 years old (44.6%) were predominant. In the professional group (G3), women were also predominant at 69.4%. The most frequent age range was 31-40 years old (50%) and the most frequent time since graduation was 11-20 years (39%).

Among the 11 (30.5%) professionals active in higher education institutions, 36.4% had up to five years of teaching experience, 38.3% between five, and ten years 36.4% between 11 and 20 years old. When asked about the main reason that led them to teaching, 54.5% answered that it was to do another activity related to the profession, 45.4% reported aiming to fulfill the desire to be a teacher, and for 9.1%, it resulted from the pursuit of stability or better financial conditions.

Regarding the importance of addressing the curricular components of bioethics and professional ethics in undergraduate education, the vast majority of participants in groups G1 (93.2%), G2 (98%) and G3 (100%) considered it to be "very important", with no significant associations between the sample groups (p=0.164). Groups G1, G2, and G3 unanimously (100%) considered professional ethics and bioethics very important for physiotherapy education; however, 88.9% of participants in G3 reported that a professional ethics course was part of their undergraduate curriculum, and only 38.9% had a bioethics course.

To assess the level of self-knowledge on the Ethics and Deontology Code of physiotherapy (EDCF) in groups G1 and G2, we used a numerical scale from 1 to 10 (with 1 indicating no knowledge at all and 10 indicating great knowledge) and found a significant increase ($p<0.001$) in the level of knowledge among the students in the more advanced stages, ranging from 6.9±1.6 in G1 to 7.8±1.1 in G2. When asked about their level of knowledge on the EDCF, 75% of the professionals in G3 answered that they have little knowledge on the topic, while 19.4% declared having very little knowledge, 2.8% answered having no knowledge, and 2.8% reported having great knowledge. When asked whether they have read the code, 72% affirmed "having partially read it", 16% "never read it", and 11% "fully read it". When the importance of knowledge was associated with the reading of the EDCF, no significant association was observed between both (p=0.842).

Concerning the frequency of EDCF updates, 47% of the professionals answered "annually", 44% reported that they do not update their knowledge at all, 5.5% update their knowledge every semester, and 2.7% update their knowledge monthly. Among the professionals who updated their knowledge, 63% indicated the internet as the main source, 6% through conversations with colleagues, and 3% at scientific events. When the importance of knowledge was compared with reading the EDCF among the professionals, although all of them considered it as very important, 74.3% of the participants indicated having only partially read the EDCF, which demonstrates a contradiction in the answers. Among the physiotherapists who updated their knowledge, 47% indicated doing so annually and 63% indicated the internet as the main source of updates.

When comparing groups G1, G2, and G3 concerning the knowledge on the content of the EDCF, there was a significant difference between groups G1 and G3 ($p<0.001$), with a predominance of "no knowledge" (40.7%) amongst the students in G1 and a predominance of "little knowledge" (75%) among the professionals (G3) (Figure 1).

Groups G1 and G2 were asked if the patient evaluates the physiotherapist's ethical attitude during rehabilitation, and they all answered yes (100%).

When analyzing the students' experience or knowledge of unfit ethical attitudes of their professors during undergraduate education, 47.5% of the participants in G1 and 33.3% in G2 answered "never"; 30.5% in G1 and 41.2% in G2 answered "rarely"; 22% in G1 and 23.5% in G2 answered "sometimes"; and 2% in G2 and none in G1 answered "frequently". When comparing G1 and G2, there was no significant difference between the groups ($p=0.335$).

When the participants in G3 were asked how they would behave if they witnessed an ethical misconduct of a colleague, 47.2% answered that they would talk to their colleague, 38.9% would report it to the Regional Physiotherapy Council, 11.1% would talk about it to other people, and 2.8% would not do anything.

When G1, G2, and G3 were asked if they considered that they experience moral problems in physiotherapy practice, "sometimes" was predominant in all groups, being 54.2% in G1, 62.7% in G2, and 44.4% in G3, without significant associations among groups ($p=0.518$), as shown in Table 1.

When the participants in G3 were asked to point out the most frequent ethical conflicts or moral problems in physiotherapy practice, 61.1% answered professional secrecy; 33.3% the intra-and interprofessional relationship; 30.5% fees; 25% professional autonomy; 19.4% truthfulness of information; 16.7% the therapist/patient relationship, and 5.5% patient autonomy, decency, and intimacy.

Participants in G1, G2, and G3 were asked whether they would reveal the existing complication and the prognosis to a patient with urinary incontinence following prostatectomy due to prostate cancer, considering that they were referred to physiotherapy but had not been informed by the physician about their condition yet. Students G1, 52.5% answered "probably yes"; in G2, 33.3% answered "probably no"; and 44.4% of the professionals in G3 answered "probably yes" (Table 2), without significant associations between groups ($p=0.110$).

When students in G1 and G2 were asked whether the diagnosis and/or prognosis should be communicated even when they suspect that the patient's condition will worsen if bad news about his/her disease is revealed at that time, 62.7% of G1 and 58.8% of G2 answered "yes" 58.8% ($p=0.535$).

Students in G1 and G2 were asked if, during a team meeting, they would agree to remove a terminal patient from the ICU to make room for a patient waiting in the emergency department, who needs urgent hospitalization and

has chances of survival. In this scenario, 37.3% of the participants in G1 and 60.4% in G2 predominantly answered "probably yes".

When asked about the patients' right to know the physiotherapist's serology, 39% of G1, 68.6% of G2, and 38.9% of G3 answered no. When the participants in all groups were asked to justify the reason for the patient not being entitled to know the physiotherapist's HIV serology status, approximately 60% of the participants in the group did so. The answers are displayed in Table 3.

Participants in G1, G2, and G3 were asked if they believe that it is an ethical and legal duty to maintain absolute secrecy when a patient reports during care that they got their bruise from a burglary they practiced in a house whose dwellers were not present. In G1, 62.7% answered "yes, maintain secrecy"; in G2, 74.5% said "yes, maintain secrecy", and in G3, 58.3% also said "yes, maintain secrecy", without significant associations between groups (p=0.239). The students in the final stages of the course were rightly more emphatic in choosing to maintain secrecy than groups G1 and G3.

Participants in G1, G2, and G3 were asked what the correct conduct of the physiotherapist would be if, during care, a patient revealed to the physiotherapist that he would kill his ex-girlfriend. Most of the participants in the three groups replied that the correct conduct would be "to reveal professional secrecy because it is of just cause, avoiding harm to third parties", with no significant associations between groups (p=0.636) (Table 4).

Table 1 – How often participants from groups G1, G2, and G3 reported experiencing moral problems in the practice of physiotherapy; Midwest of the state of Santa Catarina, 2018.

		Group			
		G1	G2	G3	Total
Often	n	11	6	5	22
	%	18.6%	11.8%	13.9%	15.1%
Sometimes	n	32	32	16	80
	%	54.2%	62.7%	44.4%	54.8%
Rarely	n	11	10	11	32
	%	18.6%	19.6%	30.6%	21.9%
Never	n	5	3	3	11
	%	8.5%	5.9%	8.3%	7.5%
No Response	n	0	0	1	1
	%	0.0%	0.0%	2.8%	0.7%
TOTAL	n	59	51	36	146
	%	100.0%	100.0%	100.0%	100.0%

$\chi 2 = 7.177$; gl = 8; p = 0.518.
The prevalence calculation (%) was established in a column.

Table 2 – Responses from groups G1, G2 and G3 about revealing the existing complication and the prognosis to the patient not previously clarified by the doctor; Midwest of the state of Santa Catarina, 2018.

		Group			
		G1	G2	G3	Total
Surely yes	n	15	14	6	35
	%	25.4%	27.5%	16.7%	24.0%
Probably yes	n	31	14	16	61
	%	52.5%	27.5%	44.4%	41.8%
Probably no	n	11	17	11	39
	%	18.6%	33.3%	30.6%	26.7%
Surely no	n	2	6	3	11
	%	3.4%	11.8%	8.3%	7.5%
TOTAL	n	59	51	36	146
	%	100.0%	100.0%	100.0%	100.0%

$\chi 2 = 10.375$; gl = 6; p = 0.110.
The prevalence calculation (%) was established in a column.

Table 3 – Justifications of participants in groups G1, G2, and G3 for not needing the patient to know the HIV serology of the physiotherapist; Midwest of the state of Santa Catarina, 2018.

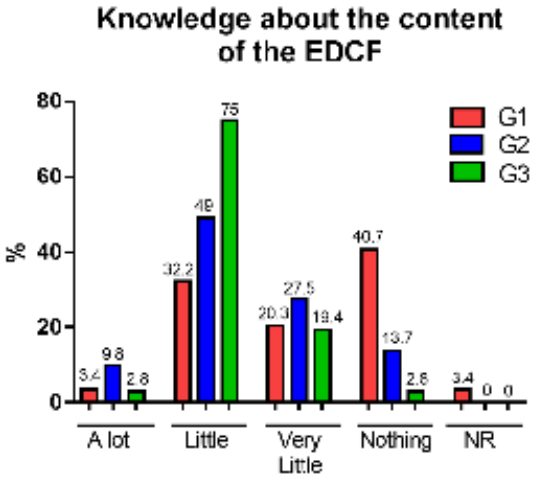
Justifications	G1 = 33 (55.93%)	G2 = 37 (72.5%)	G3 = 18 (50%)
Patient has no right to know	8 (24.2%)	-	-
Does not interfere with treatment / Has no risk of contamination	7 (21.2%)	19 (51.3%)	1 (5.5%)
Professional ethics	5 (15.1%)	-	-
Secrecy	3 (9.1%)	5 (13.5%)	-
Patient prejudice	2 (6.1%)	3 (8.1%)	4 (22.2%)
Patients would tell other people	1 (3.1%)	-	-
Only in case of contamination / accident	-	5 (13.5%)	-
Right to know	-	-	6 (33.3%)
Respect for the principle of non-maleficence	-	-	2 (11.1%)
Respect for biosafety standards	-	-	4 (22.2%)

Table 4 – Answers from participants in groups G1, G2, and G3 on revealing personal secrecy; Midwest of the state of Santa Catarina, 2018.

		Group			
		G1	G2	G3	Total
Reveal	n	47	42	32	121
	%	79.7%	82.4%	88.9%	82.9%
Do not Reveal	n	11	9	4	24
	%	18.6%	17.6%	11.1%	16.4%
No response	n	1	0	0	1
	%	1.7%	0.0%	0.0%	0.7%
TOTAL	n	59	51	36	146
	%	100.0%	100.0%	100.0%	100.0%

χ2 = 2,548; gl = 4; p = 0,636.
The prevalence calculation (%) was established in a column.

Figure 1 – Answers from participants in groups G1, G2 and G3 on knowledge of the Ethics and Deontology Code of physiotherapy; Midwest of the state of Santa Catarina, 2018



DISCUSSION

The objective of this study was to analyze the perceptions of professionals and students in a physiotherapy program about moral conflicts in the practice of physiotherapy. Therefore, some aspects considered fundamental for this analysis are discussed below.

Regarding the perceived importance of bioethics in the undergraduate physiotherapy program, all the studied groups considered it as very important. These subjects are more frequently taught in the medical program (42.1%) and less frequent in the physiotherapy program (2.6%)[1]. Another study[13] emphasized that educators need to value ethics and

behavior courses in undergraduate programs using appropriate curricular planning.

Few professionals in G3 received education on bioethics in the undergraduate level, indicating that its implementation is recent, slow, and fragmented. In Brazil, the course "ethics and deontology" is mandatory in higher education in health[6]. In 2002 the National Curricular Guidelines[4] included bioethics among the subjects in the health professionals' education. This guideline is part of the Universal Declaration of Bioethics and Human Rights[14] which, in article 23, paragraph 'a', recommends bioethics education for all educational levels. All levels are considered important, but undergraduate education represents a crucial stage and a singular opportunity to provide and receive bioethics training.

For students at the Universidad Iberoamericana de Colombia, training related to Human Rights and Social Justice are addressed in the bioethics course, which is complemented by courses such as ethics, human development, and public health and intervention. The bioethics course, therefore, is part of the curriculum and of the humanistic training of the physiotherapist[15]. However, in Ecuador, a study with 60 physiotherapists found that most of them were unaware of bioethics and its principles, showing that in some regions of Latin America the introduction of bioethics in teaching is even more precarious[16].

The significant increase in the knowledge level of G2 students can be explained by the fact that the bioethics and professional ethics course is scheduled to occur the 7th semester, providing greater knowledge on the EDCF6 in the final stages of the course. This is in accordance with another study[6] that, when comparing two groups of physiotherapy college students, verified a higher level of knowledge on the EDCF among the advanced students.

As for the observed result that most of the respondents in this study had read the EDCF, the data partially differ from the study by Magalhães *et al.*[17], in which 50% of the teachers and physiotherapists reported having fully read the EDCF, while data on the frequency of professional updates (39%) and the internet as the source of updated knowledge (77%) were similar.

Paiva, Guilhem, and Souza[1], commenting on the fact that most teachers rarely or at least annually update their knowledge on the code of ethics, emphasized that they should be aware of the updates regarding ethics and bioethics because, in general, they are considered as models for their students. Almeida *et al.*[18] reported that 70.6% of the students had already witnessed improper attitudes of their teachers when dealing with patients. These data indicate an urgent need for teachers to self-evaluate their ethical conduct in classrooms in the early stages of undergraduate education, or when in contact with patients during curricular internships.

Regarding moral problems, most physiotherapists would talk with their colleagues before reporting them, explaining that they are seeking better relationships and greater professional valuation, aiming to unite the category. The EDCF[6] itself clarifies this aspect in the Article 7, when it instructs physiotherapists to communicate occurrences containing ethical infractions. In the study by Magalhães *et al.*[17], when the teachers of an institution were asked if they already had an unethical attitude towards students or professional colleagues, only 56% answered "no". Unethical attitudes can weaken and disjoint the professionals in a category, making it difficult to fight in favor of the collective interest.

Our results showed that the participants had difficulties identifying moral problems in a practical context. This can be explained by what

is suggested by authors like Barnitt[19], Swisher[20], and Renner *et al.*[7], that highlight the timid increase of studies in the area, as well as by the modest inclusion of bioethics in the curricula of undergraduate health programs.

In the study by Lorenzo and Bueno[8], the most recurrent moral conflicts identified in Brazilian studies were patient autonomy, truthfulness of information, confidentiality, and secrecy. In the same sense, Ladeira and Koifman (2017)[9] indicated the limitations of professional performance, the lack of financial resources, the efficiency and competence of the therapist, and the exposure or omission of the truth in order to favor optimistic reactions in cases of unfavorable prognosis as the most common ethical problems.

Moral problems have also been discussed in studies conducted by authors from other countries. In Colombia, Moscoso Herrera[21] found that decision-making, professional autonomy, and patient-therapist relationship are constant dilemmas in the practice of physiotherapy. In the USA, Scheirton *et al.*[22] observed that the main moral misconducts observed among professionals in the area were the lack of effectiveness in patient communication and referral, in addition to the breach of professional secrecy.

In this study, when the participants were asked if they would reveal to the patient the existing complication and its prognosis if they had not yet been informed by the doctor, the answers differed between the groups. In the study by Lorenzo and Bueno[8], conflicts in relation to the truthfulness of information are discussed not only as a subject of professional practice of physiotherapists, but of all health professionals. In article 14, paragraph V, the EDCF[6] states that the professional is obliged to provide complete information, ranging from the diagnosis and physiotherapeutic prognosis to the therapeutic approach, striking a balance mainly between the principles of autonomy and beneficence.

Telling the truth is a duty, but it must be acknowledged that bad news may change the patient's future perspective[7]. Appropriate communication of the cancer diagnosis was considered as an important conduct, especially by patients aged up to 39 years (90.5%) and women (77.6%)[23].

As expected, more students in G2 correctly answered the question on how to proceed concerning the removal of the terminal patient from the ICU. In the study by Lorenzo and Bueno[8], the ICU environment was the place where ethical conflicts were most evident, such as therapeutic obstinacy, dysthanasia, orthothanasia, and euthanasia. Ladeira, Silva Júnior, and Koifman[9] presented the participants with a hypothetical dilemma between respecting patient autonomy or professional autonomy when submitting a patient to mechanical ventilation, obtaining 99% of the responses based on the principle of beneficence, agreeing to impose treatment. It should be noted, however, that the patient's condition, whether terminal or not, is a fundamental element in the professional's decision. Araújo[24], when investigating the opinions of physiotherapists at an ICU concerning the autonomy of conscious terminal patients and responsibility in decisions on the future of these patients, found that according to most professionals the patients have no autonomy over their own life. On the other hand, in a study by Comin *et al.*[25] with 100 cancer patients, the majority expressed opposition to the practice of dysthanasia after receiving clarifications about its meaning, not willing to be submitted to futile treatments.

When asked if the patient has the right to know the physiotherapist's HIV serology, most students in G2 correctly answered that the patient does not have this right. Voors[26] notes that the risk of patients being infected by an HIV-positive physiotherapist is hardly higher than for any other person in society, and it can

be minimized using of standard precautions. Sim[27], examining whether there are reasons for knowing the HIV status of physiotherapists and patients, argues that there is no "need to know" and that the type of therapeutic interaction creates a negligibly small risk of transmission, with no justification to revoke confidentiality. In the resolution 11/1992 of the Federal Council of Medicine (CFM)[28] it is argued that even when the doctor is known to be infected but does not present the disease in a state capable of impairing his professional competence, information to the patient is considered as not mandatory, a position officially defended by the American Medical Association (JAMA) in 1989[29].

The justifications of Group 2 for the patient's lack of needing to know the physiotherapist's serology were that it "does not interfere with treatment" and "there is no risk of contamination", assuming the adoption of standard precautions. In G1, probably due to the lesser knowledge of bioethical principles, the main justification was paternalistic: "the patient has no right to know". G3 claimed that they have "right to know" and uses the "respect for safety standards" for justification.

A recent survey investigated the perception of patients in a physiotherapy service on the right of the physiotherapist to know the HIV serology of their patients, and it was observed a 91.5% rate of agreement. However, when asked if the patient has the right to know the HIV serology of the physiotherapist, only 64.9% agreed[30]. It can be seen, therefore, that patients are concerned about the interference of the physiotherapist-patient relationship when the patient knows the physiotherapist's serology; however, they are not concerned if the physiotherapist knows the patient's serology, relying on the observance of professional secrecy.

The breach of secrecy in the face of the patient's threat to kill his ex-girlfriend is based on just cause and most of the participants answered correctly. These results are consistent with other study[9] in which, when physiotherapy students were asked about maintaining absolute secrecy, they replied that the breach would only be justifiable if there was a categorical imperative of moral conscience to do so, or if circumstances indicated an inevitable need to do so.

Finally, authors point to the need for changes in the teaching of physiotherapy aiming to introduce content related to the end-of-life patients, since in this context, bioethical dilemmas are increasingly present during professional practice, especially promoting activities that improve their autonomy, as well as providing humanitarian care for greater dignity to patients who are in the terminal phase[31].

CONCLUSION

Even though the study had a low sample of professionals and was regional, the results were similar to what was reported by most studies in the literature. There was a predominance of females and adolescents among students. Most professionals were female, worked in only one city, in a clinic or office, were married, aged between 30 and 40 years old, and had graduated 10 to 20 years earlier.

When analyzing the approach of bioethics and professional ethics within the curricular components, it was noticed that among the groups of students most considered it to be "very important" and that it favored a greater knowledge of CEDF in the final stages of the course. Nevertheless, more than half of the professionals did not have bioethics during their undergraduate course, which denotes the slow implementation of the course in the curriculum. However, this course is mandatory by the

National Curriculum Guidelines (*Diretrizes Curriculares Nacionais* – DCNs) in health programs, highlighting the need for its inclusion in all undergraduate physiotherapy programs. It is noteworthy that some issues not included in the CEDF could be addressed in a future review, as they are extremely important in professional practice, especially regarding guidance on patients with HIV/AIDS and the performance of scientific research.

Concerning possible moral conflicts in the exercise of the profession, in general, both students and professionals reported experiencing them at times, and students considered the acquisition of this competence as very important. Physiotherapists listed professional secrecy, intra- and interprofessional relationship, fees, professional autonomy, veracity of information, therapist/patient relationship, and patient autonomy as the most frequent ethical conflicts or moral problems in professional practice. In this aspect, it is concluded that, despite the moral conflicts being experienced in daily professional life, physiotherapists have had little training in this regard, once again underlining the need to encourage the inclusion of this content during undergraduate studies.

According to the students, the basic principles of bioethics must be respected, especially regarding patient autonomy and patients beyond therapeutic reach. However, even though almost all students come forward and ask for the patients' consent to perform procedures, some do not, demonstrating the need to improve these guidelines.

Regarding the end-of-life, students and professionals considered the preparation for the experience of death as very important, but they considered their preparation to care for the relatives of a recently deceased patient as acceptable, and the topic of death was identified as deserving greater attention during training and professional practice.

It is concluded, therefore, that moral conflicts are part of the practice of physiotherapy, even though, in some matters, there is still little perception of it. Therefore, some measures are needed in relation to teaching, professional updating, and the inclusion of topics in the professional code of physiotherapists. New studies making an interface between physiotherapy and bioethics are suggested to confirm and complete these findings. In this context, it is necessary to emphasize and encourage new professionals to effectively make a difference in the lives of their patients, not only as good and exemplary professionals, but as good human beings.

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