RESEARCH ARTICLE

Proposing a set of ethical guidelines for Iranian physiotherapists: results of a modified Delphi technique

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Abstract

The code of ethical conduct for physiotherapy services must be compatible with the local culture. The ethical guidelines proposed here were developed through a literature review, focus group discussions, and finally a modified Delphi technique to achieve consensus after the data were analysed. At first, the collection of different ethical codes yielded 132 items. In the second stage, repetitive items were discarded, some new items were added, and the various codes were categorised into three domains. Overall, 175 items were considered in the Delphi stage. Subsequently, the items were reduced to 134 in total – 59 in the treatment domain, 41 in research, and 34 in the education domain. The resulting code of ethics will support patients, researchers, students, and teachers in the field of physical therapy with sensitivity to current Iranian legislation and culture.

Keywords: *Ethics, physiotherapy, physical therapy.*

Introduction

Codes of conduct and ethical requirements are common ways to advance professional integrity in a professional area, consolidated by guidelines and regulations (1: pp. 19). Physiotherapists must frequently make decisions involving ethical considerations. Thus, an ethical framework would enable greater independence and autonomy in decision-making among physiotherapists, providing them the necessary context and vocabulary (2).

Between 1970 and 2000, two different approaches emerged to define ethical frameworks in the context of physiotherapy around the world. The first, an essentially philosophical approach, concerned how physiotherapists should conduct their professional activities. Later, biomedical values were posited as a basis for ethical behaviour. A more in-depth look at the literature suggests that broadly, between 1970 and 1979, physiotherapists were viewed as decision-makers. They used to work under the supervision of physicians; Specialisation for physical therapy occurred in 1974. In the following decade, from 1980 to 1989, philosophical principles were applied to physiotherapy; and between 1990 and 2000, the relationship between physiotherapists and patients received increasing attention (3). Philosophical ethics is concerned with what people ought to do and how they ought to conduct themselves, as well as the rational basis for these types of decisions. The goal of philosophical ethics is to advise action, to shed light on what "ought" to happen (4). Between 2000 and 2007, a focus on ethical issues emphasised the link between theory and practice in clinical physiotherapy (3).

Since 1935, national and international associations have developed specific codes of ethics for physiotherapy (5). The American Physical Therapy Association (APTA) proposed 8 principles, including 38 ethical recommendations, in an effort to create a foundation for integrity of practice among its members (6). Similarly, the Australian Physiotherapy Association (APA) sought to provide ethical physiotherapy services for all Australians by establishing 9 principles and 59 recommendations for professional conduct (7), and the World Confederation for Physical Therapy (WCPT or, more commonly, World Physiotherapy) currently expects physiotherapists to abide by 8 principles and 40 recommendations of good practice (8).

It has been suggested that the societal dimensions of

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ethical obligations affect codes of ethics in different societies (5). In addition, cultural diversity in how services are framed and received is a key factor in the healthcare professions (9). Previous studies suggest that physiotherapists should modify their approach so that it becomes "compatible with clienteles' culturally-diverse needs" (10-12). This approach would ensure that medical services are appropriate to that culture.

In Iran, because of local considerations, including the predominantly Muslim population of the country, physiotherapy services and consequently codes of ethical conduct must be compatible not only with the best medical and healthcare practices, but also with Islamic culture and Persian civilisation. Unfortunately, a national consensus on best practices for physical therapists is yet to emerge. Within the nationwide plan called packages for reform and innovation in medical sciences education started in the spring of 2015, the task of developing a territorial health plan was assigned to the authors of the present article. Because of the importance of achieving consensus, and in order to incorporate the most effective practical features into the national code of conduct for physiotherapists in Iran, we decided to use a modified Delphi technique to develop these ethical guidelines.

Methodology

The core members of the research team consisted of physiotherapy and medical ethics specialists and faculty members. Once the project design was finalised, the steps described below were undertaken.

Advanced literature review

The first stage of the study consisted of a literature review of both healthcare ethics and the rehabilitation profession to develop a commonly understandable terminology. The authors then studied and discussed similar national guidelines from around the world to identify simple, independent concepts across the relevant documents. This also allowed the authors to identify the documents and concepts that could potentially be applied to Iranian culture and society. Five meetings were held at the dean's office of the School of Rehabilitation Sciences, Shiraz University of Medical Sciences. At these meetings, a nominal group technique was used to brainstorm and develop a tentative draft, reflecting the goals for the final set of guidelines. The meetings took place around a round table, and each expert was asked to contribute her or his five most relevant articles. Duplicate recommendations were counted only once.

Focus group discussion

In the second stage, the results of the literature review were classified, and the initial draft of the guidelines was validated through smaller focus group discussions.

A panel of experts was invited to participate. This group consisted of three faculty members from the physiotherapy department and two faculty members from the medical ethics department. They were selected because of their experience working in the field of the ethics of physical therapy. Over the course of nine meetings, the items in the initial draft were discussed, and the most suitable terms in Persian were chosen by 100% consensus among the participants. These meetings were held between January and March 2016, around a square table in the office of the deputy dean. Each meeting lasted for three hours or longer. Finally, the results from these expert consultations were categorised into the treatment, research, and education domains, and the next draft of guidelines was prepared for the next stage, which was to achieve nationwide consensus using the Delphi technique.

Modified Delphi technique to achieve consensus

In the third stage, a broader range of participants were invited to take part, using the modified Delphi technique, with a goal of reaching at least 75% consensus (13). The participants consisted of members of the focus discussion group plus six expert faculty members from the physiotherapy departments of rehabilitation schools at universities around the country. For this stage. a questionnaire and a five-point Likert scale were prepared. The questionnaire consisted of open-ended questions, and the instrument requested feedback on a total of 175 items across the three different domains. In the first Delphi round, the questionnaire was sent to 11 participants by email. The participants were asked to score each item from 1 (lowest) to 5 (highest). Space for additional comments and explanations was provided to make the questionnaire semi-open and to allow respondents to elaborate on and clarify their opinions regarding each item in the draft guidelines, as well as to allow them to raise new questions.

In the second Delphi round, items with less than 75% consensus and the comments from the respondents were sent to the participants for scoring again and review. Participants were invited to elaborate on their reasons in writing, and were given time to discuss the comments.

In the third Delphi round, participants were allowed to change their responses or provide additional comments in support of their stance. Finally, the data were analysed and the final version of the code of ethical conduct for physiotherapists was generated.

Results

Demographic information for participants from the schools of rehabilitation sciences and departments of medical ethics at different medical universities are presented in Table 1.

The literature review and collection of different codes of ethical conduct in the first stage of the study yielded three main domains and several subdomains (Table 2) and a total of 132 potential items. In the second stage of the study, duplicate items were discarded, some new items were added, and all items were categorised into three domains, ie,

treatment (41 items), research (67 items), and education (67 items). In all, 175 items entered the Delphi technique stage.

Ten out of 11 participants in the third stage (Delphi technique) completed the study. During the Delphi technique phase, 20 items were added in the treatment domain, 2 items were deleted, and 9 were changed. In the research domain, 3 items were added, 29 were deleted, and 4 were changed. In the education domain, 5 items were added, 38 were deleted, and 30 were changed. Subsequently, the total number of items was reduced to 134: 59 in the treatment domain, 41 in

Table 1: Demographic information on participants in the modified Delphi technique

	Advanced literature review stage (n = 9)		Focus group discussion stage (n = 5)		Modified Delphi technique stage (n = 10)	
	Frequency	***Percentage***	***Frequency***	***Percentage***	***Frequency***	***Percentage***
Age in years						
31–40	3	33.3	3	60	4	40
41–50	4	44.4	0	0	4	40
51–60	2	22.2	2	40	2	20
>60	0	0	0	0	0	0
Sex						
Female	3	33.3	2	40	2	20
Male	6	66.6	3	60	8	80
Professional practice						
Rehabilitation	9	100	3	60	8	80
Physician#	0	0	2	40	2	20
Medical ethics#	0	0	2	40	2	20
Years of professional practice						
≤ 10	2	22.2	2	40	3	30
11–20	4	44.4	1	20	2	20
21–30	3	33.3	2	40	5	50
>30	0	0	0	0	0	0
Years of practice as medical ethics activist						
≤ 5	5 *	55.5	1 *	20	4 *	40
6–10	3 *	33.3	1	20	2 (1+1 *)	20
11–20	1 *	11.1	3 (1+2 *)	60	4 (1+3 *)	40
21–30	0	0	0	0	0	0
Academic position						
Full professor	0	0	0	0	0	0
Associate professor	2	22.2	2	40	4	40
Assistant professor	6	66.6	2	40	5	50
PhD candidate	1	11.1	1	20	1	10

Notes:

**Non-systematic reading and class participation*

#Two participants were physicians and medical ethicists

Table 2: Ethical considerations identified with the Delphi technique

Section 1: Ethics in providing physiotherapy services
Chapter 1: Respect for patient rights and human dignity
Axis 1: Providing high-quality care based on scientific standards
Axis 2: Respect for patients' privacy, confidentiality, and preferences
Axis 3: Honesty and veracity
Axis 4: Compassion and empathy
Chapter 2: Equity and justice
Chapter 3: Primacy of patient interest and non-maleficence
Chapter 4: Social responsibility of professionals
Chapter 5: Ethics in professional relations
Chapter 6: Compliance with social norms and regulatory laws
Section 2: Research ethics in physiotherapy
Chapter1:General considerations; contribution to research, planning, and promotion of the profession
Chapter 2: Specific considerations in different stages of research
Axis 1: Before conducting the research
Axis 2: While conducting the research
Axis 3: After conducting the research
Section 3: Ethics in physiotherapy education
Chapter 1: The ethics guide to student education
Axis 1: Demonstrated efforts towards the advancement of students' knowledge
Axis 2: Ethical guidelines for clinical education
Axis 3: Adherence to social and cultural norms
Chapter 2: The ethics guide to respecting the rights of colleagues, institutions, and professionals
Chapter 3: Ethics guide for students
Axis 1: Striving for the proper use of knowledge
Axis 2: Ethical guidelines for clinical education for students
Axis 3: Adherence to social and cultural norms

the research domain, and 34 in the education domain (Table 3 with detailed codes is available online on the website only) . The full version of the developed guidelines in Persian is available on the University's website[a]. All final items in the code of conduct were accepted by consensus among more than 75% of all the experts consulted.

Discussion

Professional codes of ethics are necessary for several reasons. They can clarify moral concerns or dilemmas and stimulate self-regulation among members of the profession, educate and offer direction on ethical decision-making and behaviour, promote public responsibility, and endorse societal expectations (14). The healthcare professions in developing countries are encouraged to develop their own codes of ethics (15). Despite considerable efforts to develop national codes of ethics in Iran (16), much still remains to be done across all healthcare professions. However, a more important responsibility of the concerned authorities is to plan to familiarise healthcare professionals with the developed guidelines (17) and take the necessary steps to implement them.

Though it comprises universal values and elements of common morality, medical professionalism has been shown to be contextually sensitive (18). The aim of this project was to achieve a general consensus on the draft ethical guidelines, culturally adapted for physiotherapists in Iran, which could be used to develop official national guidelines endorsed by the authorities, such as the Islamic Republic of Iran Medical Council (IRIMC), Iranian Physiotherapy Association, or the Ethics Supreme Council of the Ministry of Health and Medical Education. At the end of the three-stage process described above, 134 items were included in the final code of conduct for practitioners, researchers, instructors, and students of physiotherapy.

The main ethical considerations in providing physiotherapy services were 'respect for patient rights and human dignity' (including 'providing high-quality care based on scientific standards', 'respect for patients' privacy and confidentiality', 'honesty and veracity', and 'compassion and empathy'), equity and justice, the primacy of patient interest, non-maleficence, the social responsibility of professionals, ethics in professional relations, and compliance with social norms and regulatory laws.

The main ethical considerations put forth by experts; contribution to research, promotion of the profession, and specific considerations for different stages of research, which are divided into 'before conducting research', 'during the conduct of the research', and 'after conducting the research'. This portion considered the ethical aspects of conceptualising and designing research as well as processes after the the study is completed, such as publication of the results after the study is completed.

The section on ethics in physiotherapy education proposes ethical guidelines for student education, which is divided into 'demonstrated efforts to advance students' knowledge', 'ethical guidelines for clinical education', and 'adherence to cultural and social norms'; an ethical guide to respecting the rights of colleagues, institutions, and the profession; and the ethical guidelines for students, which is divided into 'striving for the proper use of knowledge', 'ethical guideline for clinical

education of students', and 'adherence to cultural and social norms'

Given the universal nature of the professional values embedded in the healthcare delivery system (19), it is to be expected that the code developed in this project is consistent with other professional codes of ethics currently implemented worldwide, particularly codes of ethics for physical therapists, as provided by the WCPT and the APTA.

A closer look at the similarities and differences between codes of ethics for physical therapists developed by international and national physical therapy associations (such as the WCPT and the APTA) and the present guidelines reveals a congruency in the core values, though they are adapted to the particular structure of the Iranian healthcare system and the nation's cultural background, and so include more detailed advice in some areas.

In all three versions considered here (APTA, WCPT, and our version), the foremost principle is respect for the patient's rights and human dignity. The experts who participated in this project insisted more on human dignity than the principle of respect for patients' autonomy, as the emphasis on inherent human dignity is quite strong in Islamic culture. As Sachedina states in his Islamic biomedical ethics book, according to the holy Quran (Q. 17:71), all humankind, whether Muslim or not, is to be accorded the same dignity (20: pp. 180-1). While the APTA and the WCPT mention privacy and confidentiality, we have also assigned several additional codes to the principle of respect for the patient's privacy and confidentiality, and tried to consider different examples of maintaining confidentiality and privacy to close any room for violations in this area, so as to be completely in agreement with the emphasis of Islamic ethics on the value of bodily modesty (21: p. 408).

Additional codes in the present guidelines are also extended along the axes of compassion and empathy, since compassion and mercy are part of the Islamic religious tradition and can promote better care delivery to patients in Muslim societies (20: pp. 25-27). Hence, the present ethical guidelines are well adapted to Iranian cultural norms. Furthermore, the authors have helpful administrative experience in ethics and physiotherapy professional and regulatory bodies as well as scientific research experience in the field of ethical (13) and cultural (22) accreditation of hospitals in Iran.

These six values (Table 2, Section 1) were the ones that the experts believed to be the most important ethical considerations for Iranian physical therapists in the context of their therapeutic practice. Their concern for human dignity, human rights, equity, beneficence, and non-maleficence was widely shared despite some regional and contextual differences. The values emphasised in this study also include the principles of beneficence, non-maleficence, and justice in common with the statement of biomedical ethics by Beauchamp and Childress (23). The ethical concerns expressed by the Iranian experts show much in common with those of other ethicists around the world. This may be due to the influence of bioethics education in Iran over two decades (24). It could also be in accordance with the theory of 'common morality' (25).

On the other hand, the APTA and WCPT codes include a title for responsibility for judgement, which is absent in our guidelines. In the Iranian healthcare system, patients are referred to a physiotherapist only by a specialist medical doctor and therefore the physiotherapist is not directly responsible for diagnosing the disease, maybe the difference would be due to that.

Providing several codes for education, research, and professor–student relationships, besides ethical codes for patient care, is another major difference between our version and the APTA and WCPT versions. The reason is that public health centres in Iran are often a subset of larger medical–educational–research centres, and therefore patients referred to public clinics are evaluated, treated, and studied by both professors and students. This consideration is also echoed in other codes of professional ethics compiled in Iran, such as the *Iranian Society of Asthma and Allergy Codes of Professional Ethics (26), the Code of Ethics for Iranian Nurses* (27), and the *Guideline for Professional Conduct in Medical Practice* (28).

Healthcare professionals are responsible not only to their individual patients, but also to society (29). This is reflected in the ethical code developed through this project in consultation with, and by achieving consensus among, experts. Physiotherapist–patient relationships, which are an important issue in debates on ethics and professional codes (30, 31), are also covered in our guidelines. From an organisational ethics perspective, respect for and compliance with social norms, ethics, and laws is the foundation of ethical behaviour. As Spencer and colleagues have noted, ethics programmes are distinct from compliance programmes in healthcare organisations, and compliance with the law is the minimum level of ethics that healthcare organisations should aim to meet (32: pp. 3–15.). This issue is well addressed through this study.

The most important limitation of this study, in terms of replicability, was the time-consuming modified Delphi method. Maintaining anonymity, comparing and reconciling the comments from all experts, and encouraging them to respond required considerable investments of time and management efforts. All healthcare professionals are at risk of being placed in situations where institutional constraints may conflict with the practitioner's perception of the right thing to do (33). In addition, in rehabilitation services, practitioners may face different and more challenging ethical issues compared to other medical services, because their patients are often managed by a multidisciplinary team rather than a single doctor (34: pp. 8012). Failure to explore the views of patients as well as healthcare providers from the private sector is also among the limitations of this

research. This aspect requires further research to improve the validity of the developed code.

Conclusion

The code of ethical conduct for physiotherapists developed with the methods reported here appears to be necessary and is suitable to support patients, researchers, students, and teachers in the field of physical therapy. This code, in addition to supporting best practices, is compliant with Iranian culture and current legislative requirements. We are therefore hopeful that this code can be implemented to appropriately support education, research, and practice in physical therapy, although it must be said that more work needs to be done to improve the practical guidelines for physiotherapists to help them to better navigate clinical cases. Although this project was a part of a national physiotherapy curriculum revision conducted by the Vice-Chancellery for Education, Ministry of Health and Medical Education (MOHME), it is not a national code of conduct yet. However, it could be used as a draft to develop official national guidelines by authorities such as the IRIMC, the Iranian Physiotherapy Association, or the Ethics Supreme Council of the Ministry of Health and Medical Education.

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[a]Note

The Persian text of these guidelines is available from:

https://dorsa.sums.ac.ir/Dorsapax/userfiles/Sub78/Departments/Physical-Therapy/Published/Ethics-For-Physical-Therapists.pdf

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