



Western ideals and global realities – physiotherapists' views on factors that play a role in ethical decision-making: an international qualitative analysis

Andrea Sturm, Amanda L. Ager & Roswith Roth

To cite this article: Andrea Sturm, Amanda L. Ager & Roswith Roth (2022): Western ideals and global realities – physiotherapists' views on factors that play a role in ethical decision-making: an international qualitative analysis, European Journal of Physiotherapy, DOI: [10.1080/21679169.2022.2155240](https://doi.org/10.1080/21679169.2022.2155240)

To link to this article: <https://doi.org/10.1080/21679169.2022.2155240>



© 2022 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.



[View supplementary material](#)



Published online: 15 Dec 2022.



[Submit your article to this journal](#)



Article views: 565






[View related articles](#)



[View Crossmark data](#)

Western ideals and global realities – physiotherapists' views on factors that play a role in ethical decision-making: an international qualitative analysis

Andrea Sturm^a , Amanda L. Ager^b  and Roswith Roth^{a,c} 

^aInteruniversity College for Health and Development Graz, Leibnitz, Austria; ^bDoctoral School of Life Sciences and Medicine, Gent University, Gent, Belgium; ^cInstitute of Psychology, University of Graz, Graz, Austria

ABSTRACT

Background: There is a lack of knowledge about factors that play a role in ethical decision-making of physiotherapists internationally. The purpose of this study was to explore, describe and map factors in ethical decision-making of physiotherapists from around the globe.

Methods: A descriptive research design and constructivist research paradigm was applied. Elements of both a coding reliability thematic analysis and a reflexive thematic analysis method were used deductively and inductively to analyse the content of responses to an optional open question in an internationally distributed online survey with 559 participants from 72 countries through several steps and cycles.

Results: A spectrum of 43 factors was identified within 200 individual responses, allocated to five themes: individual factors (19 factors); relational factors (6 factors); organisational factors (6 factors); situational factors (6 factors); and societal factors (6 factors). The importance of context on organisational, situational and societal levels, interrelatedness of physiotherapists, individual characteristics and situatedness of patients/clients and physiotherapists, as well as aspects and features of the patient/client-physiotherapist relationship became apparent throughout analysis.

Conclusions: To meet the emerging requirements for ethical physiotherapy practice, we advocate that both physiotherapy students and practicing physiotherapists internationally need to be trained as moral agents in integrated manners. Based on the results of this study we conclude that such training should embrace professionalism, professional values, ethical codes, ethical theories and ethical decision-making frameworks that acknowledge interrelatedness, epistemology and situatedness, self-reflective and communicative techniques, critical thinking, social/societal determinants of health, social responsibility, cultural competence and self-care techniques.

Abbreviations: AI: Artificial Intelligence; ICF: International Classification of Function, Disability and Health; LAMIC: Low- and middle-income country; SDGs: Sustainable Development Goals (by the United Nation's Agenda 2030); UN: United Nations; WCPT: World Confederation for Physiotherapy; WP: World Physiotherapy (former WCPT); WHO: World Health Organisation

ARTICLE HISTORY

Received 21 February 2022
Revised 22 November 2022
Accepted 24 November 2022
Published online 14 December 2022

KEYWORDS


Themes; decision-making; ethics; physiotherapy; physical therapy

Introduction

Physiotherapists internationally are confronted with an increasing diversity and complexity of both healthcare environments and ethical challenges on a regular basis [1–12]. Responding to these complex and diverse challenges requires physiotherapists to engage in sophisticated ethical decision-making processes. Accordingly, physiotherapists have to be knowledgeable about ethical principles and theories, as well as about their professional obligations and rules that govern their scope of practice. They require the ability to critically reflect on both personal and professional values and experiences, as well as on those of their patients/clients and extended systems, and to prioritise ethical values over others. Another necessity is to identify and analyse an ethical situation by gathering relevant information about internal

and external factors that are contributing to its occurrence and/or persistence. Furthermore, an ethically responsible decision requires determining and implementing a plan of action, which – at best – will be evaluated and reflected upon, after the plan has been realised [13–15]. Therefore, ethical decision-making is not linear, but rather consists of various, overlapping processes, than following sequential steps [16,17]. At times, an understanding of ethical decision-making can be limited to the judgement of right versus wrong based on underlying principles and values. In this paper, we understand ethical decision-making as recognising an ethical situation, making professional ethical judgements, establishing a moral intent, implementing (courageous) ethical actions and engaging in ethical behaviour(s) [1,4,13,15,16,18–29] (Table 1).

CONTACT Andrea Sturm  Andrea.Sturm@Inter-Uni.net  Interuniversity College for Health and Development Graz, Leibnitz, Austria

 Supplemental data for this article can be accessed online at <https://doi.org/10.1080/21679169.2022.2155240>

© 2022 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.

This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.

Table 1. Glossary of terms.

Ego strength is a concept derived from psychoanalytic theory and is related to strength of convictions or self-regulatory skills. Individuals high in ego strength are likely to do what they think is right [18,19].

Ethical decision-making includes recognising an ethical situation, making professional ethical judgements, establishing a moral intent and implementing ethical actions/engaging in ethical behaviour [15] An ethical decision is a decision that is both legal and morally acceptable to a larger community [20,p.367].

Ethical principlism is a consequential theory widely applied in healthcare professions' code of ethics. Beauchamp and Childress reviewed existing (Western) philosophical approaches, and organised them into the four biomedical key principles autonomy, non-maleficence, beneficence and justice [28,29].

Epistemology refers to the nature and scope of knowledge. It includes an understanding of the limitations of different forms of knowledge, and how knowledge is created in certain social, historical and cultural contexts from which the knower cannot be removed [27].

Field dependence is a psychological trait associated with an external locus of orientation. Field-dependent persons are more affected by a lack of structure in the environment as other persons. Field-independent individuals use an internal frame of reference and can impose their own sense of order in a situation that is lacking structure; they also function with greater autonomy in social settings [19,21].

Locus of control is a psychological concept that refers to an individual's perception of how much control they exert over events in life, or the causes of their successes or failures. Locus of control can be external or internal [18,19].

Mentalising ability is the ability to attribute mental states (such as beliefs, desires and intentions) to oneself and others. It is needed in order to understand and predict other people's behaviour, and therefore it is thought to influence all human social interaction [22].

Moral agency is a person's ability to make moral judgments based on commonly held notions of right and wrong, to act morally on behalf of others and to be held accountable for these actions [24].

Moral agent is a person who is capable of deliberating, thinking, deciding and acting in accordance with personal and professional moral standards and principles [1].

Moral courage involves implementing the chosen ethical action, including the development a plan and perseverance in the face of barriers and adversity [15].

Moral judgement requires deciding on right versus wrong actions. This process involves generating options, selecting and applying ethical principles [15].

Moral motivation places a priority on ethical values over other values, such as self-interest, status or financial gain. Professionalism is a primary 'motivator' for ethical behaviour [15].

Moral sensitivity involves recognising, interpreting and framing ethical situations [15].

Professional codes of ethics or *codes of conduct* are formalised and expected standards of professional behaviour and values within a profession and are usually developed by a professional association or governing body [4].

Professional (ethical) responsibility is defined within professional codes of ethics, and can be seen as a reaction to human vulnerability. Healthcare has a moral dimension that inherently requires responsibility to ensure patient's safety, their best interest and centrality [13,23,25].

Professional values guide daily practice and professional behaviours. They clarify what professionalism means to a profession, by providing insight into the values that members of the profession aim to uphold and profess [26].

The dynamic, multidimensional and situated nature of both ethical situations and decision-making processes in physiotherapy has been highlighted and discussed by researchers from several world regions [3,4,10,15,30–33]. Oyeyemi from Nigeria appealed for training programmes that equip physiotherapists with capabilities to make sound professional moral decisions and pointed to the involvement of psychological, economic, sociological, legal, cultural, religious and organisational factors in ethical dilemmas [32]. Various socio-cultural and religious dimensions, as well as aspects of the physiotherapist-patient/client relationship, were portrayed as influencing ethical decision-making and

physiotherapy practice in reports from Afghanistan [4], Ghana [7], Iran [8], Nigeria [2], South Africa [31] and Zambia [34]. They ranged from cultural norms pertaining to physical contact and gender segregation [8,34], to difficulties regarding truth-telling to patients/clients or their families about certain prognosis of disability or at the end-of-life [2,4], to decision-making by and expectations of the (extended) family [2,31]. These dimensions further included healthcare systems' conditions or socio-economic issues [2,7,8,31,34]. Some of these issues were reported to be perceived more difficult to ethically decide on than others [7]. Furthermore, an incompatibility of applying ethical principles for physiotherapists based on Western, individualistic values to the communitarian realities of the Afghan society has been highlighted by Edwards et al. [4]. Physiotherapists from around the globe agree that ethical decision-making requires more skills than just following a code of ethics [35]. Australian physiotherapists described professional codes of ethics as valuable reference points, but not perceived them to support the required dynamic and situated responses to ethical dimensions of practice [3]. Instead of cognitive processes such as the application of ethical theories and principles, their ethical responses comprised relational, emotional and context-bound activities. The ethical responses were based on clinical experiences, physiotherapists' decision to put the patient first, personal and professional values, their intuition, discussions with peers, and the consideration of organisational aspects. A Canadian study reported similar processes of ethically based clinical decision-making [13]. Only a few participants identified ethical principles involved in an ethical situation, or referred to an ethical decision-making framework. Whereas, previous experiences, emotional reactions such as confidence, frustration or anger, perceptions of potential risks to themselves, their employers or the physiotherapy profession played a role in their ethical decision-making processes, as well as discussions with peers, and perceived professional responsibilities. Additionally, the consultation of professional associations and regulatory bodies has been reported to gather information or finding answers to their ethical questions. Greenfield [36] from the United States early on challenged the idea of ethical decision-making as being a rational process only. He outlined the importance of affective aspects and the role of emotions in ethical decisions, which he suggested should be acknowledged in physiotherapy education. In another Canadian study including physiotherapists in sport, therapists were reported to draw from their personal and professional experiences, and to contact colleagues, mentors or experts for guidance in responding to ethical situations [37]. Consulting a colleague was also described as the most common method of ethical decision-making by Finnish physiotherapists [38], followed by discussions in groups and making use of ethics literature. Theories of ethical decision-making were only used by one-tenth of their study sample, as well as consulting ethics committees or ethics specialists.

In line with results of studies pertaining to ethical decision-making in physiotherapy, an assumed dominance of cognitive processes in moral development and moral

decisions [39,40] – functions attributed to the left brain hemisphere – has been challenged recently by other disciplines. The research, on which such assumptions were based on, mainly included Western research participants and experimental tasks, without investigating ethical decision-making occurring on a moment-to-moment basis, and participants' perceptions interacting with individual situations [41–43]. Research in the fields of neurobiological development, neuroscience and developmental psychology identified emotional and intuitive processes of the right brain hemisphere to play a substantial role in the moral decisions of individuals, which go hand in hand with cognitive processes [41,44,45]. These processes are shaped by interrelational, lived experiences as well as cultural dimensions and can affect therapeutic relationships [41–44,46]. Also, physiotherapists and their patients/clients are rather situated within a complex web of relationships than being independent individuals [10,31]. They need to deal with responsibilities, pressures, external and internal influences on their behaviour, and different understandings and experiences of health, illness and healing, or capabilities [4,10,30,47–50]. Responding to the wider contextual and societal aspects of physiotherapists' ethical practice is supported by frameworks for ethical decision-making that acknowledge the many dimensions of these processes. Such frameworks address individual, organisational/institutional and societal realms and characteristics of the situation (e.g. Realm–Individual Process–Situation (RIPS) Model [15]), as well as protagonists' interrelatedness, their individual situatedness and their narrative/relational and normative understandings of ethics, and meanings of health and illness (e.g. the Ethical Reasoning/ER-Bridge and phenomenological approaches to ethical decision-making [30,33]).

Knowledge about the factors that play a role in ethical decision-making of physiotherapists, investigated through an international lens, is required to support physiotherapists at all levels and professional contexts to respond to ethical challenges within increasingly complex and diverse healthcare systems and societies. Identifying these factors will help to prepare current and future physiotherapists (in practical relevant ways) to adapt and act as moral agents within their various global realities. It is therefore the objective of this study to explore and map the views of physiotherapists from around the world on factors that play a role in their ethical decision-making, and to describe the scope of factors identified. Mapping such factors is the first step towards better understanding, and potentially identifying indicators, which may impact the quality of ethical decision-making of physiotherapists both locally and on a global scale.

Methods

Design

This study is part of a larger survey which investigated the views of physiotherapists from around the world on diverse factors that play a role in ethical decision-making [35]. Within the larger project, various factors were embedded into statements pertaining to physiotherapists' everyday

ethical decision-making (see [supplemental Appendices I & II](#)), to probe their relevance for the physiotherapy profession. To identify factors beyond those that participants were asked about, an optional open-ended question was included at the end of the survey. The results of the study reported in this paper are based on the responses provided by participants to this optional open-ended question. A descriptive research design [51,52] was selected, as we sought to map and describe the scope of factors that play a role in ethical decision-making to inform teaching, practice and future research, rather than to develop a new theory. An online survey in the English language was shared with physiotherapists internationally using the SurveyMonkey[®] tool (Version: April 2018). The study received ethical approval from the Institute of Rights and Ethics in Medicine of the University of Vienna (Ethics Vote 3/2018).

The larger survey was separated into three sections. Section I contained 13 demographic questions. Section II contained 30 statements underpinned with various factors which may play a role in physiotherapists' ethical decision-making. Participants were asked about their perceptual weighing of these statements. The themes and survey statements' underpinning factors within section II were adopted from healthcare ethics, as well as business and management ethics, as, at present, there is a lack of literature on this type of thematic categorisation within the physiotherapy profession. Section III contained the optional open-ended question (question 44) asking participants, '*Which factor(s) additionally play(s) a role in your professional ethical decision-making?*' which provided the data for this paper. As the factors underpinning the survey statements in section II were not always obviously recognisable [35], but sometimes woven as an essence into statements, it was expected that both factors aligning with survey statements, and new factors would be described by the participants.

Participants and data collection

Physiotherapists from all world regions were invited to participate. The survey was distributed online using purposeful and snowball sampling. The survey was available from October 2018 to October 2019. 559 participants from 72 countries took part in the survey. Four participants were excluded as their responses were unrelated to physiotherapy. Eight included participants self-identified as physiotherapy students. 415 participants completed the entire survey (sections I and II). 200 participants responded to the optional open-ended question (section III). Baseline demographics (age, gender, occupation, religion, ethics education, geographic region) are provided in [Table 2](#). The results from sections I and II of the survey are reported in another study [35].

Data analysis

Data were exported from SurveyMonkey. Quantitative data for sample description by baseline demographics were analysed using the Statistical Package for the Social Sciences

Table 2. Description sample by gender, age, occupation, religion, ethics education, and geographic regions.

Characteristic	<i>N</i> or <i>M</i> (<i>SD</i>) Reports	<i>N</i> or <i>M</i> (<i>SD</i>) Nothing more to add	<i>N</i> or <i>M</i> (<i>SD</i>) Total
Gender			
Female	127	11	138
Male	58	3	61
Diverse/other	1	0	1
Age (years)			
<i>M</i> (<i>SD</i>)	38.59 (12.49)	40.64 (13.30)	38.73 (12.45)
≤35 <i>N</i>	91	6	97
>35 <i>N</i>	94	8	102
Years of practice			
<i>M</i> (<i>SD</i>)	13.86 (12.03)	15.73 (10.78)	13.98 (11.98)
<i>N</i>	185	13	198
Different fields of practice (currently or over lifetime)			
<i>M</i> (<i>SD</i>)	5.41 (3.13)	5.57 (2.65)	5.42 (3.04)
Religion			
Christianity	72	9	81
Islam	19	0	19
Hinduism	25	1	26
Buddhism	6	0	6
Secular/Nonreligious/Agnostic/Atheist/Irreligious/Unaffiliated	54	3	57
Ethnic and indigenous religion	0	0	0
Sikhism	0	0	0
Juche	0	0	0
Spiritism	1	0	1
Judaism	0	0	0
Baha'i	0	0	0
Jainism	1	0	1
Neo-Paganism	1	0	1
Unitarian	1	0	1
I don't want to share this information	5	1	6
Other	1	0	1
Total	186	14	200
Learned about a professional code of conduct/code of ethics			
No	20	2	22
Yes, during my basic physiotherapy education	100	7	107
Yes, in a graduate or post-graduate program	39	4	43
Yes, in a professional ethics course	16	1	17
Yes, by learning about professional ethics on my own	8	0	8
Yes, by learning about professional ethics from others	2	0	2
Don't know	1	0	1
Other	0	0	0
Total	186	14	200
Learning sources <i>M</i> (<i>SD</i>)	1.47 (1.07)	1.29 (0.83)	1.46 (1.05)
Learned about specific ethical decision-making/or ethical reasoning frameworks			
No	40	3	43
Yes, during my basic physiotherapy education	80	8	88
Yes, in a graduate or post-graduate program	38	2	40
Yes, in a professional ethics course	16	1	17
Yes, by learning about professional ethics on my own	10	0	10
Yes, by learning about professional ethics from others	1	0	1
Don't know	0	0	0
Other	0	0	0
Total	185	14	199
Learning sources <i>M</i> (<i>SD</i>)	1.35 (1.11)	1.07 (0.83)	1.33 (1.03)
Geographic region	<i>N</i> of participants in survey	<i>N</i> of participants who responded to Q44 (%)*	<i>N</i> of participants who responded to Q44 with data for analysis (%)*
Africa	57	28 (49.1)	24 (42.1)
Asia Western Pacific	151	60 (39.7)	58 (38.4)
Europe	273	86 (31.5)	80 (29.3)
North America Caribbean	63	26 (41.3)	24 (38.1)
South America	11	0 (00.0)	0 (00.0)
Total	555	200 (36.0)	186 (33.5)

*Percentage calculation based on total number of participants from each region.

N: total number of participants or participant responses; *M*: mean value; *SD*: standard deviation; Q44: optional open question at the end of the survey.

software (SPSS version 25.0, IBM Corp., Armonk, NY) by RR. A constructivist research paradigm was applied. The qualitative analysis of data included elements of both coding reliability thematic analysis (categorising data into predetermined

codes and themes; several coders working independently; one coder having no prior knowledge of the topic of concern; consensus coding) [53–55] and reflexive thematic analysis (supporting reflexivity; familiarisation with the data; and

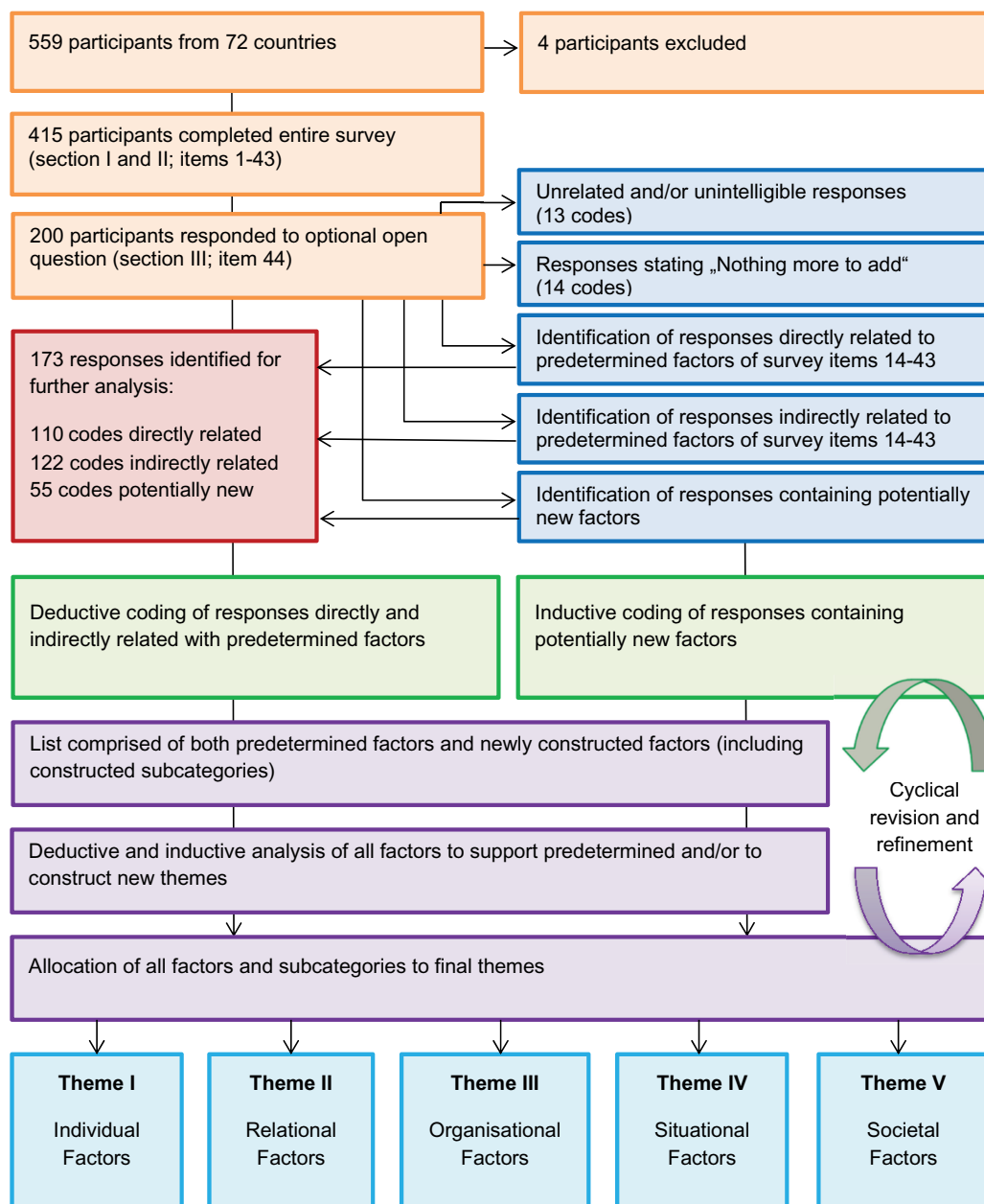


Figure 1. Qualitative analysis of data by using elements of coding reliability thematic analysis and reflexive thematic analysis.

to counterbalance the rather post-positivist assumptions of coding reliability thematic analysis) [54,55]. The content of responses was analysed, coded and categorised through several steps and cycles, using both deductive and inductive ways.

Two researchers (AS and ALA) independently coded the 200 individual responses into five categories (Figure 1) [10]. 173 responses were identified for further coding. Responses that were identified as directly and indirectly aligning with a preliminary coding scheme based on predetermined factors were coded deductively. All responses coded as potentially containing new factors outside of the predetermined factors were coded inductively to construct new factors. Some of the predetermined and newly constructed factors were further divided into subcategories due to their multifaceted nature. All factors were allocated to the predetermined four

themes of survey section II; individual, organisational, situational and societal factors, as primarily no additional new theme could be constructed from the data. However, when revisiting the data after several months, interestingly a fifth theme became apparent: relational factors. Finally, all factors including subcategories were allocated to the refined themes. A response could contain more than one theme and factor.

Trustworthiness

The two coders were in constant review of each other's work through all stages of analysis via exchange of documents including written comments, and virtual meetings to resolve differences in interpretation. A third coder (RR) reviewed and

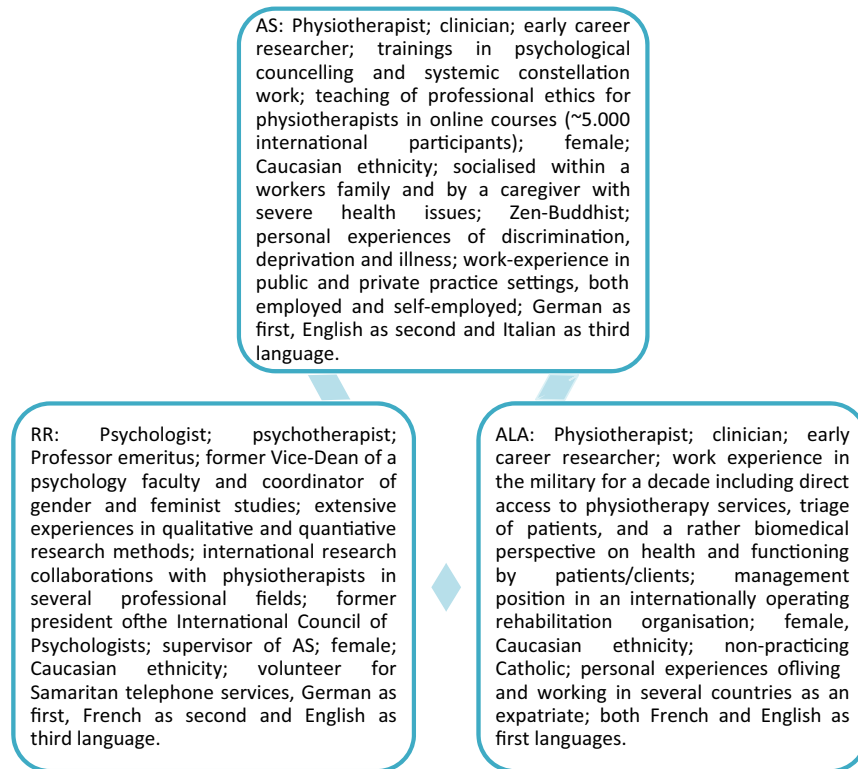


Figure 2. Individual situatedness of the three researchers.

corroborated the coding by AS and ALA, after consensus for 12 codes that required further clarification was reached via email discussion between all three coders (Figure 2).

The researchers' varying individual backgrounds and experiences were acknowledged and discussed to identify possible biases (which were socialisation of all three researchers in rather individualistic high-income countries, all identifying as female and Caucasian ethnicity). Different pre-existing knowledges, experiences, and researcher subjectivities were not perceived as a threat to reliability of the study, but acknowledged as potential resources contributing to an enriched analysis process and nuanced consensus coding.



Figure 3. Five themes of factors identified in ethical decision-making of physiotherapists internationally.

Results

Participants responded to the optional open question in section III of the survey by sharing factors they perceived to play a role and influence their ethical decision-making (Figure 3). In total, 43 various factors (reported in *italics*) with subcategories (reported after factor in brackets) were identified from 173 participant responses. The factors were categorised into five main themes:

- Individual factors (19 factors),
- Relational factors (6 factors),
- Organisational factors (6 factors),
- Situational factors (6 factors), and
- Societal factors (6 factors).

In this online study, participants from around the world including non-English native language speakers took part (Figure 4). To honour the authenticity of participants' contributions, original quotes are presented including any grammatical errors.

Theme I: individual factors

Data allocated to this theme described factors pertaining to the physiotherapists themselves. We considered most individual factors as dynamic and alterable, such as *attitude*, *awareness*, *communication*, *education* (subcategories: formal; informal), *experience* (subcategories: maturity; personal; professional; role reversal), *knowledge*, *moral intent(ion)*, *responsibility* (subcategories: patient's best interest; wider interest), or *skills* and *values* (subcategories: personal; professional). For example, a participant identified

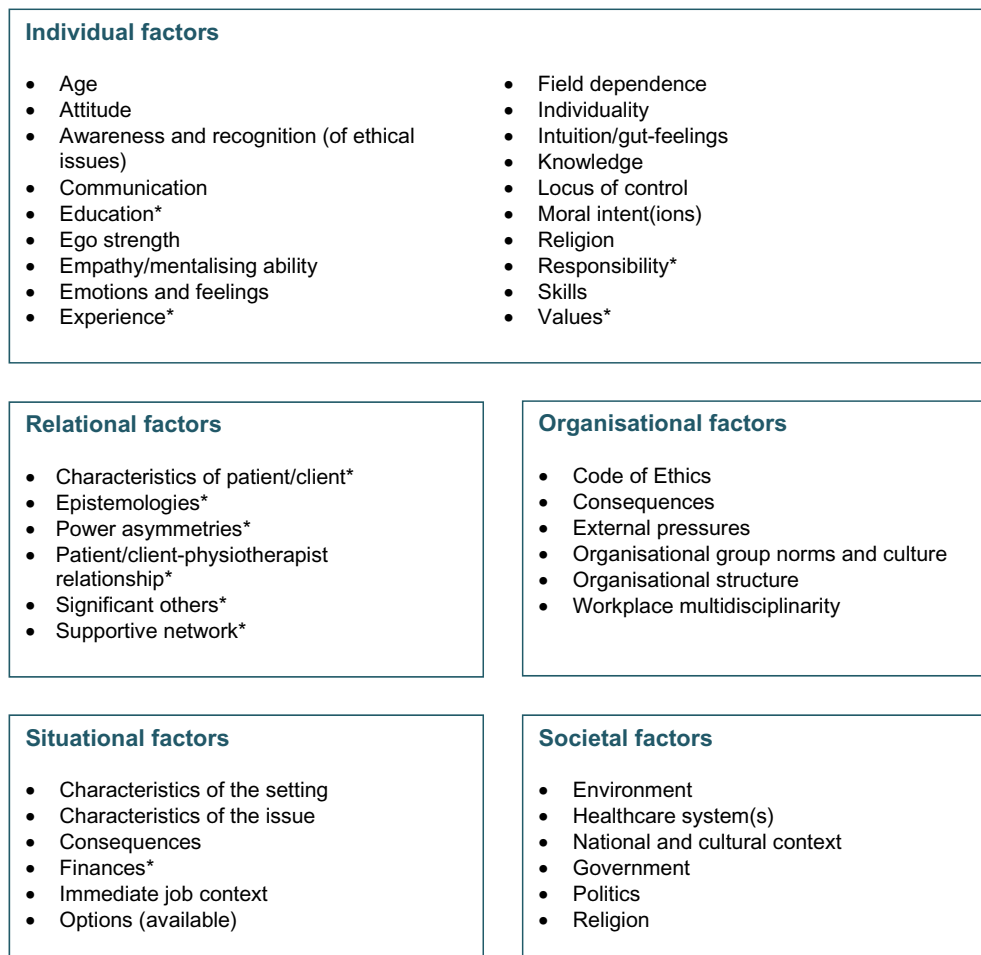


Figure 4. List of themes and factors in ethical decision-making of physiotherapists internationally. (* = these factors include subcategories)

professional values of formal education as influencing a physiotherapist's ethical decision-making:

I worked in undergraduate physiotherapy for 15 years and realize that technical aspects of vocational training are valued more by teachers and students than ethical aspects. This leads to low ethical, humane training and reduces physical therapy education to unacceptable technicality. #31

We considered other factors as relatively consistent for the individual, such as a physiotherapist's *emotions and feelings*, *empathy/mentalising ability*, *intuition/gut feelings*, and their *individuality* or *ego-strength*. The strength of character demanding to holding up professional values was reported by a participant as not being appreciated by their employer:

Many situations where employer either threatened to fire, or did fire me due to my insistence on maintaining ethical standards in providing treatment to patients. #91

Age and *religion* (irrevocable in some countries) were understood as being stable factors. Some participants described a perceived dependency on individual persons, and organisational or environmental circumstances that influenced the degree to which they felt a sense of agency in regard to ethical actions, coded as *locus of control* and *field-dependence*. A participant from a low- and middle-income country (LAMIC) reported their perceived lack of agency

about professional training that they considered as being insufficient:

In LAMICs service providers often do not get the necessary training to maintain good practices. Knowing this but not being able to affect change is difficult to accept. #187

The factors most often reported were (a) *experience*; with equal weight on professional and personal experiences, (b) *values*; with emphasis on personal values, (c) *responsibility*; with focus on the patient's best interest, (d) *education*; with formal education more often reported than informal, and (e) *moral intent(ion)*.

Theme II: relational factors

Data allocated to this theme described characteristics, aspects or interrelatedness of protagonists involved in, affected by or influencing the ethical decisions of physiotherapists. A complex landscape of the *characteristics of patients/clients* (subcategories: commitment; cooperation; cultural background; gender; dependency; education level; family status; family structure; individual state; (medical) history; preferences, wants and needs; psychological profile; responsibility for health; socio-economic status of patient/client and/

or their family; values) was described by participants, and reflected in a broad scope of subcategories:

The wants and needs of my patients. I place them above any individual, societal, or organisational needs. #92

Patients socio economic status, social status, psychological condition and family status are important factors on which ethical decision making some times based on. #172

Acknowledging the different understandings of, and forms of knowledge used by, individually situated protagonists were coded as the factor *epistemologies* (subcategories: physiotherapist; patient/client). One participant offered insight into their sophisticated foundation of knowledge(s), and consideration of multiple perspectives in ethical decision-making:

Drawing on philosophy more widely, especially critical theory and political philosophy, not just moral philosophy or ethical frameworks/codes. E.g. theories of recognition, distributive justice, affect theory, and critique of liberal autonomy and utilitarianism. I also consider previous cases, discuss with patients, and do research in ethical theory. #70

Features and aspects of the *patient/client-physiotherapist relationship* (subcategories: acceptance of physiotherapy; communication; likeability of patient/client; likeability of family; patient's/client's interest; patient's/client's safety; physiotherapist's safety; respect for patient/client; respect for the physiotherapist's role by patient/client; status of relationship; quality of the relation with family/kin) played another important role. For example, one participant described the concern about their own safety during treatment even on a level of vital significance:

If treating a patient who is physically stronger than me, who wants something specific against my ethics, I must take personal safety into account. #86

Participants described also *power asymmetries* (subcategories: healthcare professionals; patient/client-physiotherapist relationship; workplace), as influencing physiotherapists' ethical decisions, highlighting differences in both the recognition of the profession and allowed professional autonomy between countries:

Doctor's ethics sometimes reflects physiotherapist's decision making. They are all decided the treatment plan more than the physiotherapist itself. There are sometime argumentation between physiotherapist and the Rehab Doctor (...) because of when the Rehab Doctor rule over physiotherapist (...).#108

Two more factors identified pointed to roles of persons within the social context of physiotherapists as impacting their ethical decisions. One was coded as *significant others* (subcategories: colleagues; management; mentors/role-models; other health professionals; other staff), described for example as educators influencing their students:

When you are an educator, students watch you and follow you. So this is one of the factors which play a role. #127

Another factor was coded as *supportive network* (subcategories: colleagues; ethics committee; lack of it; professional body; team), when a participant's response made other

persons' or institutions' supportiveness for their ethical decision-making clear.

The factors most often reported were (a) *significant others*; with a strong emphasis on colleagues, (b) *characteristics of patient/client*; with emphasis on their preferences, want and needs; and (c) *patient/client-physiotherapist relationship*; with emphasis on respect for patient/client.

Theme III: organisational factors

Data allocated to this theme described characteristics or conditions of participants' workplaces that were influencing their ethical decisions. Factors coded as belonging to this theme were *organisational group norms and culture* such as reported by participant #56: "*The philosophy set by the administrators of the clinic or workplace*"; and *organisational structure*, such as "*Influence of stronger voices within a team or organisation's structure*", reported by participant #78. *Consequences* pertaining to the organisational realm was a factor reported often by participants, such as consequences of an ethical decision on their future careers. *External pressures* within the workplace played another role in participants' ethical decision-making, sometimes hindering the physiotherapist acting as a moral agent:

Pressure to keep a job and/or remain employable. I have been told to 'not ask these type of questions' if 'you want to get work here as this is a small community and we all talk to each other'. #161

Other responses highlighted the importance of an interdisciplinary team, within which the participants could discuss their concerns and doubts with other team members, or where to ethical decisions could be referred, coded as *workplace-multidisciplinarity*. Professional principles and codes were reported as playing a role in physiotherapists' professional ethical decision-making. Therefore, *code of ethics*, both for the workplace specifically and those of national physiotherapy associations or health organisations, was coded as another factor category.

The factors most often reported were (a) *code of ethics*; (b) *external pressures*; and both (c) *organisational structure*; and *organisational group norms and culture*.

Theme IV: situational factors

The unique situations in which physiotherapists make ethical decisions were reported as playing a substantial role. Situational factors were identified as *characteristics of the setting*, and *characteristics of the issue*, reported by participants for example as the type of issue, or ambiguity or certainty of facts that influenced their decisions. The potential *consequences* of a decision was another factor raised, as described by a participant preferring a practical solution over strict rule following:

The context and possible repercussions for all involved ... keen to get a win win pragmatic outcome rather than a rigid framework decision that may create further problems. #87

Participants also raised the role of financial aspects influencing or contributing to the situation, coded as *finances*

(subcategories: institution; patient's/client's/family's status; physiotherapist's status; systemic corruption). Finances played a role on individual level pertaining to patient/client and physiotherapist, and on organisational level and systemic level, as reported by several participants:

Profit motive is terribly corruptive in the USA. #91

Some forms of wide-spread financial fraud in the practices in my region: how to act? Lots of younger colleagues feel almost obligated also to fraud to keep their heads above water. #180

In France the more ethically you work, the less you get paid. Personal lack of money may push some PT to take unethical decisions. #198

The *options available* that were perceived in the situation and the physiotherapists' *immediate job context* were further factors that played a role in their ethical decisions. One participant found no time for reflection on their practice due to the workload:

Lack of time to question yourself cause of charge of work. #89

The factors most often reported in this theme were a) *consequences*, b) *finances* and c) both *characteristics of the setting* and *immediate job context*.

Theme V: societal factors

Societal factors identified to influence physiotherapists' ethical decision-making included the *environment, healthcare system(s), national and cultural context, politics, and religion*. One participant pointed to responsibilities of educational institutions and professional bodies in responding to challenges in these realms:

Physica therapy schools and Universities and professional bodies have to play a greater role in the education and implementation of professional ethics, in diverse environments (culture, religions, beliefs, etc) especially for the junior physical therapists and stress the importance of continuous changes in the code of ethics in modern societies and health care systems of different countries. #27

Furthermore, the influence of *government* was not perceived as supportive by one of the participants:

Government, unfortunately. #149

The most apparent factor in this theme was *national and cultural context*.

No participant responses were identified as aligning with four organisational factors, *bureaucracy, opportunity* (related to the existence or non-existence of professional codes and/or corporate policy), *obedience to authority*, and *system of reward or punishment*, which were underpinning the original survey statements in section II.

Discussion

In this study with participants from around the world, we identified a range of 43 factors, within five themes, which play a role in physiotherapists' ethical decision-making globally. These five themes were individual, relational, organisational, situational and societal factors. The factors identified

and allocated to these themes were both, either predetermined and refined, or newly constructed from the data provided by participants responding to an optional open-ended survey question. Some of the factors were further divided into subcategories due to their multifaceted nature. Four of the five themes were adopted from other disciplines, and explored, expanded and refined in their scopes. One theme, relational factors, was newly constructed from the data.

Our identification of the influence of relational factors on ethical decision-making processes of physiotherapists globally is important, especially in the light of the increasing cultural diversity of pluralistic societies, and the fact that most of the people in this world live in communitarian/collectivistic, and not in individualistic societies [14,56,57]. The vast majority of the world's population does not hold Western viewpoints, values and knowledges. An ability to work within two or more frames of reference is required for acknowledging varying epistemologies of health, illness, healing or dying of persons involved both in ethical decisions and therapeutic relationships [6,9,27,47,50,58]. Based on the results of our analysis, we reason that physiotherapists' ethical decision-making needs to comprise recognising, acknowledging and considering all involved cultures. This includes characteristics and interests of patients/clients and their extended systems, of physiotherapist, of individual setting and healthcare systems, of the profession; and historical influences such as colonialism, or religious, environmental or political dimensions, including armed conflicts or natural disasters [4,6,11,30,59–64]. Culturally safe practices, societal responsibilities and ethical decision-making can be facilitated by the ICF-model from the WHO and the UN Agenda 2030 SDGs, as they are holistic frameworks for the assessment and intervention of patients/clients and transformative societal changes [14,30,31,65,66]. Also, within this study, the influence of a supportive network in ethical decision-making of physiotherapists became apparent. The inclusion of colleagues, team, professional bodies and ethics committees as useful strategies for ethical decision-making, and to enhancing ethically competent decisions, has been described by previous studies [3,13,38]. The results of this study add weight to the understanding of physiotherapists' role as moral agents as being relational, as previously discussed within the physiotherapy literature [3,15,30–32,67].

Moreover, the results of our analysis process support the influence of individual, organisational, situational and societal factors on ethical decision-making by physiotherapists as reported for other disciplines. The individual, organisational and societal realms of professional ethics are most likely those investigated and discussed within physiotherapy already within the last two decades [3,10,12,15,68–70]. Nonetheless, this study highlights the importance of situational factors, such as characteristics of the issue and setting, consequences of the decision, or options available that were indicated to play important roles in physiotherapists' ethical decision-making. The results of our analysis also underline the impact of various financial aspects on ethical decision-making. This is relevant, as payment modalities for physiotherapy treatment or healthcare systems' working

conditions differ greatly on a global scale [2,10–12]. The financial status of patients/clients or/and their families is considered as being important by physiotherapists, and the financial situation of physiotherapists themselves, at times, plays a role in their ethical decision-making. Furthermore, we identified economic factors on systemic and organisational levels, described by Sturm et al. [10] as contributing to ethically challenging situations.

The factors identified as pertaining to the individual physiotherapist are part of cognitive, emotional, relational and reflexive processes of ethical decision-making. The revealed levels of complexity challenge past assumptions about ethical decision-making as mainly cognitive processes. This is supported by new insights about moral development and moral decision-making in the fields of neurobiological development, neuroscience and developmental psychology [41,43,44]. Our results are also in line with the literature on how physiotherapists respond to ethical challenges, social responsibility, core values and professionalism within physiotherapy [3,13,71–73]. The participants emphasised the importance of various forms of experience and both personal and professional values in ethical decision-making. These factors are interlinked and mediated by workplace, colleagues, mentors/role models and institutional discourses, patients/clients, emotions or the contingencies of someone's life story [72,73]. Our participants' responses underscore the importance of understanding the frame of mind of another person, or to "walk in their shoes", in order to do justice to patients'/clients' individually lived experiences [9,13,74]. The ability to consider someone else's point of view requires a reflection of one's own morals, values and beliefs, sometimes including an experience of role reversal [74]. Ethical decisions were indicated to be made by physiotherapists in the patient's/client's best interest, as well as to ensuring their safety. Participants described the importance of communication; both as an individual skill of the physiotherapist and as a vital component of the patient/client-physiotherapist relationship [13,75–77]. Notwithstanding the emphasis on benevolence values in participants' responses, the study's results suggest that it is not just patient's/client's best interest and safety that play a role in physiotherapists' ethical decision-making, but their own safety as well. Physiotherapists pay attention to patient's/client's acceptance for physiotherapy and respect towards a physiotherapist's role in healthcare. Placing the patient/client at the centre does not automatically imply that physiotherapists decide solely based on altruistic values, but also consider vital self-interests.

Our analysis further identified hierarchical interplays or role codes, high patient/client flow, economical frameworks and broader organisational factors as affecting the ethical reasoning processes of physiotherapists, aligning with contextual influences on the ethical experiences of physiotherapists internationally [10]. At times, physiotherapists' field dependence, an external locus of control or anticipated adverse consequences of an ethical decision limit the scope of physiotherapists' actions. These results are congruent with other studies which suggest that external factors on societal, situational and organisational levels cannot always be

controlled or influenced by physiotherapists [10,78,79]. Ethical decision-making requires negotiating and managing available options and various factors within reciprocal processes. These processes cannot be understood in isolation from the individual setting, characteristics and interests of protagonists' involved, organisational contexts and broader health systems' policies, politics and priorities, or health needs of individuals and communities. This is also relevant in the light of professional evolution, predicting that artificial intelligence (AI) will have an impact on physiotherapists' future practice and decision-making [80]. As machine learning algorithms are not yet able to take cultural, ethical and social factors into account, values and contextually-based human decision-making will need to exist alongside algorithmic predictions related to clinical outcomes.

Therefore, preparing physiotherapists for ethical decision-making and equipping them with related skills will become increasingly important. Doing justice to physiotherapists' complex, interrelated, multidimensional and context-dependent realities of ethical decision-making requires making current and future physiotherapists familiar with a broad spectrum of ethical theories and decision-making frameworks. Several scholars in physiotherapy ethics – located in both individualistic and communitarian/collectivist societies – suggest including approaches into professional ethics education that acknowledge both individual situatedness and interrelatedness, physiotherapists' social/societal responsibilities, foster mutual understanding, and recognise the value of own perceptions such as intuition, emotions, as well as of reflective practice [3,4,15,30,31,33,36,81]. On the basis of the weight that our study's results put on the findings of studies and theoretical considerations of other ethicists in physiotherapy, we echo such claims.

Strengths and limitations

To our knowledge, this was the first study that investigated various factors that play a role in ethical decision-making for physiotherapists from an international perspective. Using an online survey design in the English language allowed us to seek the views of physiotherapists in all world regions considering a small research budget, but might have excluded interested participants with other linguistic preferences. Albeit some individual responses were brief, and there was no possibility for follow-up questions, the entirety of the whole data-set of the optional open question allowed describing a complex overall picture of diverse factors playing a role in ethical decision-making within the participants' global realities. One difficulty we recognised within the literature which addressed professionalism, values, the patient/client-physiotherapist relationship or cultural competency, is the diversity and diffusion in its components, aspects and definitions across clinical contexts, authors and professions. We as researchers were confronted with these difficulties also during the analysis process, when several factors presented themselves as fitting in more than one theme, or when we critically discussed some of the terms, used in our coding process, from our diverse backgrounds and

perspectives. We did not perceive this inconsistency within terminologies as something necessary to obliterate, but rather to embrace as an expression of professional life's diversities, ambiguities and uncertainties – which actually are "core elements" of daily clinical encounters that need to be endured and balanced [82]. We do not, and cannot, claim that the identified 43 factors provide a complete view on all possible factors that play a role in ethical decision-making of physiotherapists internationally. Nevertheless, an obvious complexity of various individual, relational, organisational, situational and societal factors became apparent – factors that are equally important, sometimes entangled with and influencing each other. Although we all identify as Caucasian ethnicity, our individual professional (and personal) situatedness and international experiences supported the development of several frames of reference. Nonetheless, we suggest that future studies on this topic should be conducted by more diverse teams of researchers, and also focus on local variations. This study's findings are rooted within contributions of study participants' lived experiences in many World Physiotherapy regions. They certainly cannot be generalised to every setting, but we assume that those recognised as being relevant for specific contexts can be transferred to these and/or investigated specifically by future research.

Conclusions

To appropriately meet the emerging requirements for ethical physiotherapy practice internationally, we advocate that both physiotherapy students (to understand the ethical dimensions of practice before entering the profession) and practicing physiotherapists (to reflect on, and apply ethical theories to, real life experiences, and to continuously develop their "ethical" skill-set) [83], need to be trained as moral agents in integrated manners. Based on the results of this study, we conclude that such training should embrace professionalism, professional values, ethical codes, ethical theories and ethical decision-making frameworks that acknowledge interrelatedness, epistemology and situatedness, self-reflective and communicative techniques, critical thinking, social/societal determinants of health, social responsibility, cultural competence, and self-care techniques. The complexity of individual ethical landscapes shapes and interrelates with the complexity of factors that play a role in ethical decision-making of physiotherapists. Physiotherapy students and practicing physiotherapists alike need support in developing strong personal and professional identities to be relational and indispensable moral agents. Capable of both shaping and adapting to the inevitable changes within the profession, societies and health systems worldwide, as identified by the current global realities.

Acknowledgements

We thank our research participants for contributing their time and knowledges, the physiotherapists from Asia, Europe and Australia who were piloting the survey, and the National World Physiotherapy Associations for sharing the survey with their members. We would like to acknowledge the work of Gingerich, Volkenburg, Maurice, Simpson,

and Roots, who published the paper "Urban ideals and rural realities – Physiotherapists navigating paradox in overlapping roles" [84], which inspired us to the title of the manuscript. Further we thank the three anonymous reviewers and Dr Caroline Fryer for their supportive and inspiring comments on the manuscript, significantly enhancing the readability and strengthening the quality of the report. We thank Dr Stefan Dinges from the Institute of Right and Ethics in Medicine at the University of Vienna, and the Department for Culture and Science of the Salzburg Government (Land Salzburg), Austria for making open-access publishing possible.

Ethical approval

The first page of the survey provided participant information about the study. If the participant consented to participate, they could continue the survey, and leave at any point. If they did not consent to participate, they could exit the survey at the beginning. The study received ethical approval from the Institute of Rights and Ethics in Medicine of the University of Vienna (Ethics Vote 3/2018).

Author contributions

AS conceived and designed the study, acquired the data, contributed to data analysis, interpretation of data, and writing the manuscript. ALA contributed to data analysis, interpretation of data, and writing the manuscript. RR contributed to data analysis, interpretation of data and writing the manuscript. All authors read and approved the final manuscript.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by the Department for Culture and Science of the Salzburg Government (Land Salzburg), Austria, under Grant number 20204-WISS/225/80-2018 (survey distribution) and 20204-WISS/225/193-2019 (open access publishing).

ORCID

Andrea Sturm  <http://orcid.org/0000-0001-9777-2194>
 Amanda L. Ager  <http://orcid.org/0000-0002-5177-9494>
 Roswith Roth  <http://orcid.org/0000-0003-3955-2198>

Data availability statement

The data that support the findings of this study are available on reasonable request from the corresponding author, AS. The data are not publicly available due to ethical restrictions to protect the research participants who provided sensitive information.

References

- [1] Carpenter C. Moral distress in physical therapy practice. *Physiother Theory Pract.* 2010;26(2):69–78.
- [2] Chigbo NN, Ezeome ER, Onyeka TC, et al. Ethics of physiotherapy practice in terminally ill patients in a developing country, Nigeria. *Niger J Clin Pract.* 2015;18 Suppl: s40–45.
- [3] Delany C, Edwards I, Fryer C. How physiotherapists perceive, interpret, and respond to the ethical dimensions of practice: a qualitative study. *Physiother Theory Pract.* 2019;35(7):663–676.

- [4] Edwards I, Wickford J, Adel AA, et al. Living a moral professional life amidst uncertainty: ethics for an Afghan physical therapy curriculum. *Adv Physiother.* 2011;13(1):26–33.
- [5] Mamin F, Hayes R. Physiotherapy in Bangladesh: inequality begets inequality. *Front Public Health.* 2018;6:80.
- [6] Norris M, Allotey P. Culture and physiotherapy. *Divers Health Soc Care.* 2008;5:151–159.
- [7] Nyante G, Andoh C, Bello A. Patterns of ethical issues and decision-making challenges in clinical practice among Ghanaian physiotherapists. *Ghana Med J.* 2020;54(3):179–185.
- [8] Sourì N, Nodehi Moghadam A, Mohammadi Shahbolaghi F., Iranian physiotherapists' perceptions of the ethical issues in everyday practice. *IRJ.* 2020;18(2):125–136.
- [9] Würth K, Langewitz W, Reiter-Theil S, et al. Their view: difficulties and challenges of patients and physicians in cross-cultural encounters and a medical ethics perspective. *BMC Med Ethics.* 2018;19(1):70.
- [10] Sturm A, Edwards I, Fryer CE, et al. (Almost) 50 shades of an ethical situation — international physiotherapists' experiences of everyday ethics: a qualitative analysis. *Physiother Theory Pract.* 2022;0:1–18.
- [11] Barth CA, Donovan-Hall M, Blake C, et al. Focus group study to understand the perspectives of physiotherapists on barriers and facilitators to advancing rehabilitation in low-resource and conflict settings. *IJERPH.* 2021;18(22):12020.
- [12] Fryer C, Sturm A, Roth R, et al. Scarcity of resources and inequity in access are frequently reported ethical issues for physiotherapists internationally: an observational study. *BMC Med Ethics.* 2021;22(1):97.
- [13] Finch E, Geddes EL, Larin H. Ethically-based clinical decision-making in physical therapy: process and issues. *Physiother Theory Pract.* 2005;21(3):147–162.
- [14] Louw B. Cultural competence and ethical decision making for health care professionals. *Humanit Soc Sci.* 2016;4(2):41.
- [15] Swisher LLD, Arslanian LE, Davis CM. The realm-individual process-situation (RIPS) model of ethical decision-making. *HPA Resource.* 2005;5(3):1–8.
- [16] Bebeau MJ, Rest JR, Narvaez D. Beyond the promise: a perspective on research in moral education. *Educ Res.* 1999;28(4):18–26.
- [17] Swisher LL. Environment, professional identity, and the role of the ethics educators: an agenda for development of the professional ethics curriculum. In: Purtilo RB, Jensen GM, Brasic Royeen C, editors. *Educating for moral action: a sourcebook in health and rehabilitation ethics.* Philadelphia: F.A. Davis Company; 2005.
- [18] McDevitt R, Giapponi C, Tromley C. A model of ethical decision making: the integration of process and content. *J Bus Ethics.* 2007;73(2):219–229.
- [19] Trevino LK. Ethical decision making in organizations: a person-situation interactionist model. *Acad Manage Rev.* 1986;11(3):601–617.
- [20] Jones TM. Ethical decision making by individuals in organizations: an issue-contingent model. *Acad Manage Rev.* 1991;16(2):366–395.
- [21] Cognitive Style - Field-dependence And Field-independence [Internet]. [cited 2022 Feb 17]. Available from: <https://social.jrank.org/pages/147/Cognitive-Style-Field-Dependence-Field-Independence.html>
- [22] Nijhof AD, Brass M, Bardi L, et al. Measuring mentalizing ability: a within-subject comparison between an explicit and implicit version of a ball detection task. *Plos One.* 2016;11(10):e0164373.
- [23] Ros A, Tozzo P, Caenazzo L. Rehabilitation healthcare professionals' perceptions of professional responsibility: a focus group study in Italy. *Acta Bio-Medica Atenei Parm.* 2021. 92:e2021021.
- [24] Cherkowski SL, Walker KD, Kutsyuruba B. Principals' moral agency and ethical decision-making: toward a transformational ethics. *IJEPL.* 2015;10(5):1.
- [25] World Physiotherapy. Policy statement: ethical principles and responsibilities of physical therapists and member organisations. *World Physiotherapy.* 2022. p. 1-5. Available from <https://world.physio/policy/policy-statement-ethical-responsibilities-and-principles>.
- [26] Aguilar A, Stupans I, Scutter S, et al. Exploring the professional values of Australian physiotherapists. *Physiother Res Int.* 2013;18(1):27–36.
- [27] Kuper A, Veinot P, Leavitt J, et al. Epistemology, culture, justice and power: non-bioscientific knowledge for medical training. *Med Educ.* 2017;51(2):158–173.
- [28] Beauchamp TL, Childress JF. *Principles of biomedical ethics.* 8th ed. New York: Oxford University Press; 2019. 512 p.
- [29] Searight HR. Ethical challenges in multi-cultural patient care cross cultural issues at the end of life. *Chams (Switzerland): Springer Nature Switzerland AG;* 2019. 107 p. (SpringerBriefs in Ethics). Available from: <https://link.springer.com/book/10.1007/978-3-030-23544-4>
- [30] Edwards I, Delany CM, Townsend AF, et al. Moral agency as enacted justice: a clinical and ethical decision-making framework for responding to health inequities and social injustice. *Phys Ther.* 2011;91(11):1653–1663.
- [31] Burgess T, Jelsma J. The ethics of care as applied to physiotherapy training and practice – a South African perspective. In: Nortjé N, Jongh JCD, Hoffmann WA, editors. *African perspectives on ethics for healthcare professionals.* Chams (Switzerland): Springer Verlag; 2018. p. 147–157.
- [32] Oyeyemi A. Ethics and contextual framework for professional behaviour and code of practice for physiotherapists in Nigeria. *J Niger Soc Physiother.* 2012;18(1–2):49–53–53.
- [33] Greenfield B, Jensen GM. Beyond a code of ethics: phenomenological ethics for everyday practice. *Physiother Res Int.* 2010;15(2):88–95.
- [34] Chileshe KM, Munalula-Nkandu E, Shula H, et al. Identification of ethical issues encountered by physiotherapy practitioners in managing patients with low back pain at two major hospitals in Lusaka, Zambia. *J Prev Rehabil Med.* 2016;1(2):74–81.
- [35] Sturm A, Roth R, Ager AL. Views of physiotherapists on factors that play a role in ethical-decision-making: an international online survey study. *Arch Physiother.* 2023; in print.
- [36] Greenfield B. The role of emotions in ethical decision making: implications for physical therapist education. *J Phys Ther Educ.* 2007;21(1):14–21.
- [37] Riendeau C, Parent-Houle V, Lebel-Gabriel ME, et al. An investigation of how university sports team athletic therapists and physical therapists experience ethical issues. *J Orthop Sports Phys Ther.* 2015;45(3):198–206.
- [38] Kulju K, Suhonen R, Puukka P, et al. Self-evaluated ethical competence of a practicing physiotherapist: a national study in Finland. *BMC Med Ethics.* 2020;21(1):43.
- [39] Rest JR, Thoma SJ. of moral judgment development to formal education. *Dev Psychol.* 1985;21(4):709–714.
- [40] Swisher LL. Moral reasoning among physical therapists: results of the defining issues test. *Physiother Res Int.* 2010;15(2):69–79.
- [41] Narvaez D. *Neurobiology and the development of human morality: evolution, culture, and wisdom.* Illustrated ed. New York: W. W. Norton & Company; 2014. 458 p.
- [42] Henrich J, Heine SJ, Norenzayan A. The weirdest people in the world? [Internet]. *RatSWD Working Paper;* 2010. (Report no.: 139). [cited 2020 Jun 10]. Available from <https://www.econstor.eu/handle/10419/43616>
- [43] Narvaez D. Baselines for human morality should include species typicality, inheritances, culture, practice, and ecological attachment. *Behav Brain Sci.* 2019;42:e163.
- [44] Schore AN. Forging connections in group psychotherapy through right brain-to-right brain emotional communications. Part 1: theoretical models of right brain therapeutic action. *Int J Group Psychother.* 2020;70(1):29–88.
- [45] Young L, Koenigs M. Investigating emotion in moral cognition: a review of evidence from functional neuroimaging and neuropsychology. *Br Med Bull.* 2007;84(1):69–79.
- [46] Schore AN. The interpersonal neurobiology of intersubjectivity. *Front Psychol.* 2021;12:648616.

- [47] Edwards I, Richardson B. Clinical reasoning and population health: decision making for an emerging paradigm of health care. *Physiother Theory Pract.* 2008;24(3):183–193.
- [48] Liamputtong P. Health, illness and wellbeing: an introduction to social determinants of health. In: Liamputtong P, Fanany R, Verrinder G. *Health, illness and wellbeing: perspectives and social determinants.* 1st ed. South Melbourne, Australia: Oxford University Press; 2012. 456 p.
- [49] Flynn MB. Global capitalism as a societal determinant of health: a conceptual framework. *Soc Sci Med.* 2021;268:113530.
- [50] Yeung E, Gibson B, Kuper A, et al. 'Making strange': exploring the development of students' capacity in epistemic reflexivity. *J Humanit Rehabil.* 2019. p. 1-15. Available from: <https://www.jhrehab.org/2019/11/14/making-strange-exploring-the-development-of-students-capacity-in-epistemic-reflexivity/>
- [51] Sandelowski M. What's in a name? Qualitative description revisited. *Res Nurs Health.* 2010;33(1):77–84.
- [52] Sandelowski M. Whatever happened to qualitative description? *Res Nurs Health.* 2000;23(4):334–340.
- [53] Braun V, Clarke V, Hayfield N, et al. Thematic analysis. In: Liamputtong P, editor. *Handbook of research methods in health social sciences.* Singapore: Springer; 2019. p. 843–860. [cited 2022 May 25].
- [54] Braun V, Clarke V. Can I use TA? Should I use TA? Should I not use TA? Comparing reflexive thematic analysis and other pattern-based qualitative analytic approaches. *Couns Psychother Res.* 2021;21(1):37–47.
- [55] Braun V, Clarke V. One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qual Res Psychol.* 2020;18(3):328–352. [cited 2021 Jul 29]; Available from: <https://www.tandfonline.com/doi/abs/10.1080/14780887.2020.1769238>
- [56] Purtilo RB, Jensen GM, Royeen CB. *Educating for moral action: a sourcebook in health and rehabilitation ethics.* Philadelphia (PA): F.A. Davis Company; 2005. 318 p.
- [57] Hofstede G, Hofstede GJ, Minkov M. *Cultures and organizations: software of the mind.* 3rd ed. New York: McGraw Hill; 2010. 578 p.
- [58] Pettersen T. The ethics of care: normative structures and empirical implications. *Health Care Anal.* 2011;19(1):51–64.
- [59] Mohamadi M, Rojhani-Shirazi Z, Enjoo SA, et al. Proposing a set of ethical guidelines for Iranian physiotherapists: results of a modified Delphi technique. *Indian J Med Ethics.* 2022;VII(1):1–22. [cited 2021 Aug 12]; Available from: <https://ijme.in/articles/proposing-a-set-of-ethical-guidelines-for-iranian-physiotherapists-results-of-a-modified-delphi-technique/>
- [60] Maric F, Nicholls DA. Environmental physiotherapy and the case for multispecies justice in planetary health. *Physiother Theory Pract.* 2021;0(0):1–12.
- [61] Curtis E, Jones R, Tipene-Leach D, et al. Why cultural safety rather than cultural competency is required to achieve health equity: a literature review and recommended definition. *Int J Equity Health.* 2019;18(1):174.
- [62] Hojjati A, Beavis ASW, Kassam A, et al. Educational content related to postcolonialism and indigenous health inequities recommended for all rehabilitation students in Canada: a qualitative study. *Disabil Rehabil.* 2018;40(26):3206–3216.
- [63] Shahabi S, Skempes D, Pardhan S, et al. Nine years of war and internal conflicts in syria: a call for physical rehabilitation services. *Disabil Soc.* 2021;36(3):508–512.
- [64] Nepal Physiotherapy Association The role of physical therapists in the medical response team Following a natural disaster: our experience in Nepal. *J Orthop Sports Phys Ther.* 2015;45(9):644–646. Available from: [10.2519/jospt.2015.0108](https://doi.org/10.2519/jospt.2015.0108)
- [65] WHO. International Classification of Functioning, Disability and Health (ICF) [Internet]. 2021. [cited 2021 Sep 22]. Available from: <https://www.who.int/standards/classifications/international-classification-of-functioning-disability-and-health>.
- [66] United Nations. *Transforming our world: the 2030 Agenda for Sustainable Development* | Department of Economic and Social Affairs. 2015. [cited 2021 Oct 17]. Available from <https://sdgs.un.org/2030agenda>.
- [67] Davis CM. Educating adult health professionals for moral action: in search of moral courage. In: Purtilo RB, Jensen GM, Brasic Royeen C, editors. *Educating for moral action: a sourcebook in health and rehabilitation ethics.* Philadelphia (PA): F.A. Davis Company; 2005.
- [68] Glaser JW, Hamel RP. *Three realms of managed care: societal, institutional, individual.* Kansas City (MO): Sheed & Ward; 1997. 260 p.
- [69] Crabtree JL. The self under siege: warring constructs of individualism versus communitarianism and autocratic versus democratic models of governance in rehabilitation settings. In: Purtilo RB, Jensen GM, Brasic Royeen C, editors. *Educating for moral action: a sourcebook in health and rehabilitation ethics.* Philadelphia (PA): F.A. Davis Company; 2005. 318 p.
- [70] Griech SF, Vu VD, Davenport TE. Toward an ethics of societal transformation: re-imagining the American physical therapy code of ethics for 21st century. *Phys Ther J Policy Adm Leadersh.* 2020;20(2):13.
- [71] Edwards I, Delany CM, Townsend AF, et al. New perspectives on the theory of justice: implications for physical therapy ethics and clinical practice. *Phys Ther.* 2011;91(11):1642–1652.
- [72] McGinnis PQ, Guenther LA, Wainwright SF. Development and integration of professional core values Among practicing clinicians. *Phys Ther.* 2016;96(9):1417–1429.
- [73] Hammond R, Cross V, Moore A. The construction of professional identity by physiotherapists: a qualitative study. *Physiotherapy.* 2016;102(1):71–77.
- [74] Ackerman IN. What's important: walking in the shoes of our patients. *J Bone Joint Surg Am.* 2021;103(8):748–749.
- [75] Hiller A, Delany C. Communication in physiotherapy: challenging established theoretical approaches. In: Gibson BE, Nicholls DA, Setchell J, Groven KS, Abaraogu U, Ahlsen B, editors. *Manipulating practices.* Cappelen Damm Akademisk/NOASP: Nordic Open Access Scholarly Publishing; 2018. [cited 2022 Feb 9]. Available from <https://press.nordicopenaccess.no/index.php/noasp/catalog/download/29/120/957>
- [76] Przyłuska-Fiszler A, Wójcik A. Ethics of touch – axiological model of therapeutic relation in physiotherapy. *Anal Egzystencja.* 2020;49:119–133.
- [77] Miciak M, Mayan M, Brown C, et al. The necessary conditions of engagement for the therapeutic relationship in physiotherapy: an interpretive description study. *Arch Physiother.* 2018;8(1):3.
- [78] Igwesi-Chidobe C, Anyaene C, Akinfeleye A, et al. Experiences of physiotherapists involved in frontline management of patients with COVID-19 in Nigeria: a qualitative study. *BMJ Open.* 2022;12(4):e060012.
- [79] Holdar U, Wallin L, Heiwe S. Why do we do as we do? Factors influencing clinical reasoning and decision-making among physiotherapists in an acute setting. *Physiother Res Int.* 2013;18(4):220–229.
- [80] Rowe M, Nicholls D, Shaw J. How to replace a physiotherapist: artificial intelligence and the redistribution of expertise. *Physiother Theory Pract.* 2022;38(13):2275–2283.
- [81] Ramklass S. A framework for caring in physiotherapy education and practice. *South afr fam. Pract [Internet].* 2015;57(2):126–130.
- [82] Simpkin AL, Armstrong KA. Communicating uncertainty: a narrative review and framework for future research. *J Gen Intern Med.* 2019;34(11):2586–2591.
- [83] Sokol D. When is the best time to teach medical ethics? *BMJ.* 2022;376:o504. Available from: <https://www.bmj.com/content/376/bmj.o504>
- [84] Gingerich A, Volkenburg KV, Maurice S, et al. Urban ideals and rural realities: physiotherapists navigating paradox in overlapping roles. *Med Educ.* 2021;55(10):1116–1117. [cited 2021 Aug 9]; Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1111/medu.14476>