# Rehabilitation healthcare professionals' perceptions of professional responsibility: a focus group study in Italy

Alessandra Da Ros¹, Pamela Tozzo², Luciana Caenazzo³

<sup>1</sup> Management and Healthcare Laboratory, Institute of Management and Department EMbeDS, Sant'Anna School of Advanced Studies, Pisa (Italy); <sup>2</sup> Department of Molecular Medicine, University of Padua, Padova (Italy); <sup>3</sup> Department of Molecular Medicine, University of Padua, Padova (Italy)

Abstract. Background and aim of the work: Italian Law no. 24/17 has updated the Italian legislation regarding healthcare professional responsibility. In practice, all eight healthcare professionals (Physical therapists, Speech therapists, Professional educators, Orthoptists, etc.) have well-defined areas of activity and responsibility. This research aims to investigate how rehabilitation healthcare professionals perceive responsibility in the professional life. Gaining new insights could improve the healthcare process and support Rehabilitation Professionals in their daily care assignments. Methods: a qualitative pilot study was conducted using a focus group consisting of rehabilitation professionals enrolled with a convenience sampling in the Master's Degree program in Rehabilitation Sciences at the University of Padova in 2019. Out of the 39 invited, 26 Rehabilitation Professionals responded (66.7%), including Physical Therapists, Speech Therapists, Professional Educators, and Orthoptist. The Focus Group discussed the teamwork dynamics, the relationship between the participants and the organization, and the caregivers in rehabilitation care. Results: the analysis (performed at micro, meso and macro-level) highlighted that respondents perceived professional responsibility as a dilemma, because it is identified as a continuous balancing between external and internal pressures regarding professional competence, professional autonomy, teamwork, and social matters. Conclusions: rehabilitation professionals seem to experience plenty of dilemmas because they felt that their responsibility was a constant challenge of weighing pros and cons. Rehabilitation professionals need genuine autonomy recognition at every level of their practice to cope with the professional responsibility daily. This analysis helped highlight the emerging issues that need to be addressed in everyday practice.

**Key words:** Professional Responsibility, Healthcare Professionals, Rehabilitation Research, Qualitative research, Grounded Theory, Focus Group, Pilot Study.

### Introduction

Rehabilitation is a pillar of the Italian Healthcare system. It deals with both prevention and cure activities. Rehabilitation aims to ensure the best possible level of physical, functional, social, intellectual, and relational autonomy of a patient, regardless of impairments (Table 1).

According to Italian Law, the rehabilitation professional (RP) category consists of eight sub-profes-

sions, each of these requiring a Bachelor's degree in a specialised area as well as a level of autonomy, and responsibility (Table 1). The Italian Law no. 24 regulates and outlines patient safety, health care professionals' responsibility, and insurance regulations. In 2017, this law was updated with the intention of reaching two main goals (1):

 relieve healthcare professionals from increased claims for medical responsibility and reduce litigation with patients; - push healthcare organizations to supervise and prevent adverse events (2).

Responsibility is seen as the paradox of the causality of what was done and the accountability of what should have been done. While responsibility is the primary concern of forensic medicine (3), the issue of normativity is always linked to an ethical approach because of the obligatory character of ethically-sounding care: "What counts as good care?" (3). Responsibility concerns the coexistence of both one's freedom as well as others' (4). Acting responsibly implies taking notice of the limits that common-values categories mean at the individual and societal level. Thus, responsibility can be viewed as a matter of care as well as an increasingly important element in modern professional ethics. In healthcare, responsibility could be defined as the consequence of what has been done, both positively and negatively. Increased medical complexity sustains the creation of an ethical basis centred on responsibility principles.

### Methods

Aims

This paper aims to investigate how Italian RPs perceive their responsibility in everyday professional life. Furthermore, the project aims to identify and theorize new aspects that could improve the healthcare process and support RPs in their care assignments. The gathered data generated a multi-level discussion that ranges from the individual RPs' point of view to the one of the wider society.

**Table 1.** The rehabilitation health professions recognized by the Italian Ministry of Health and their main normative references.

Podiatric physician,	D.M. 14.09.1994, n.666
Physical therapist	D.M. 14.09.1994, n.741
Speech therapist	D.M. 14.09.1994, n.742
Orthoptist	D.M. 14.09.1994, n.743
Neuro and psychomotricity evolutionary age therapist	D.M. 17.01.1997, n.56
Ergotherapist	D.M. 17.01.1997, n.136
Professional educator	D.M. 08.10.1998, n.520
Psychiatric rehabilitation technician	D.M. 29.03.2001, n.182

A qualitative pilot study following the Grounded Theory (GT)'s content analysis method was conducted (5, 6). The GT approach was chosen as the data was generated from the inhabited reality, created by the interactions between researchers and participants, cocreators of knowledge (7). The theory of social interactionism is a cornerstone of GT, thanks to its capacity to analyse social issues and to develop theories (8).

The initial team conducting the study consisted of a specialist in bioethics and a specialist in forensic medicine (S1, S2), both are involved with consultation in healthcare responsibility issues. A rehabilitation professional (S3) joined the research team as an observer.

Items from the consolidated criteria in reporting qualitative research (COREQ) were used (9).

Sampling and setting

During the Academic Year 2018-2019, thirtynine RPs, enrolled in the Master's program in Rehabilitation Sciences of the University of Padova (Italy), were invited to participate in a pilot study. The sampling of participants was carried out verbally and by giving information on the study's methodology and aim through a face-to-face approach by S3 (Table 2).

The study took place in a classroom at the University of Padova at the beginning of May 2019.

# Data collection

The focus group (FG) interview was chosen as the data collection tool to produce an overview of RPs' perceptions. This technique typically has five characteristics: (I) It is carried out with a small group of peo-

Table 2. Selection criteria for study participants.				
Inclusion criteria	Exclusion criteria			
<ul> <li>Enrolled in Year I or II of the Master Course in Rehabilitation Science of Padova during the 2018-2019 Academic Year</li> <li>To have received information on the study's methodology and aim from the researchers</li> </ul>	<ul> <li>Decide to not participate at the FG discussion</li> <li>To be unable to participate at the planned date for per- sonal reasons</li> </ul>			

ple (II) with common characteristics, (III) producing qualitative data (IV) in a few topic-oriented discussions (V) to gain new insight on a topic and to generate new ideas. In addition, a heterogeneous healthcare professional field is suitable to generate dynamic discussions (10, 11).

Given that the FG format elicits many points of view quickly, this tool was particularly suitable for the study because it allowed the essence of the participants' thoughts to emerge freely (12).

The FG was performed in a close-knit interdisciplinary group (Table 4).

S1 and S2 conducted the FG following a list of four previously discussed open-ended questions (Table 3) that were developed by the research team with an active and critical comparison. These questions were based on the rehabilitation process's main features: the teamwork dynamics and the relationship between the participants and the organization, and the caregivers.

Participants were encouraged to offer their perceptions regarding the theme of the questions that were used at the beginning of the discussion. S2 ensured and promoted dialog among all participants. During the FG, S1 and the RP took note of the main themes that emerged.

The FG was deliberately given a very rigid structure. The duration of the discussion following each question was either pre-set at 15' or would last until the exhaustion of the topic when none of the participants had any additional elements to add. This was done to avoid too many regressions. The FG was conducted in Italian. In the results section, the meaning consistency of the participants' citations was safeguarded during the fragment translations from Italian to English.

## Data analysis

Following the verbatim transcription of the focus group session, researchers developed a general overview of the participants' reported experience. The synthesis of the emerged concepts followed three rigorous steps: (I) *open coding* in which the researcher formulates a code to group data into smaller units, (II) *axial coding* in which categories originate from codes, and (III) *select coding* in which the content of the groups is labelled to discern the different themes (7, 13, 14, 15).

The process of adaptation and arrangement was performed with a continuous forward-backward movement within the text. Researchers discovered new insights by reading and re-conceptualizing the meanings.

**Table 3.** Guide of FG questions list. The aim was to deepen the four aspects of the responsibility, from a general point of view and dealing with team, organizations, and caregivers dynamics.

Field	Open questions
General	1. What is your source of guidance when comes to responsibility?
Teamwork dynamics	2. How do you perceive your responsibility inside your team?
Organization	3. How would you define your responsibility in respect to the organization?
Caregivers	4. How would you define your responsibility in relation to the patient's family?

Table 4. FG participants' demographic.

Female

\* Rate on the participants' total.

Gender

Table 4. 1 O parti	cipanto demograpine.		
An overall FG	Modality	Total	%
layout emerged			
from the analysis			
that allows to			
synthesize the			
results in five			
macro-areas			
(Figure 1).			
		26	100

22

84,6

	Male	4	15,4
Master course year	· I	12	46,2
•	II	14	53,8
Age	I+II	28,9	_
	I	5,88	-
	II	29,4	-
		6,32	
		28,4	
		5,65	
Profession	Physical Therapist	12	46,2
	Speech Therapist	10	38,5
	Professional educator	3	11,5
	Orthoptist	1	3,80
Job experience	< 5 years	14	53,8
	5-10 (extremities included)	6	23,1
	>10 years	6	23,1
Employment	Private	13	50,0
setting	Public	12	46,2
	No employment	1	3,80
Educational	Master course	7	26,9
attainment*	Other Bachelor degree	2	7,60
	High specialization	1	3,80

The presented process led the researchers to develop a theoretical framework (Figure 1). The primary process was carried out by S3 and then discussed with S1 and S2 to enhance the reliability of data analysis through an interjudge agreement.

### **Ethical Considerations**

Each participant received information about the methods and aims of the study before deciding to participate. Before starting the study, participants were given further information and the chance to express their doubts. Participants were also reminded that they could withdraw from the study at any moment.

Participants gave their informed consent for their participation and they have been recorded for the

purpose of this study. To ensure complete anonymity, published fragments did not contain personal or professional data. The tape is stored in a server accessible only with a password.

The authors report no involvement of the sponsor in the research that could have influenced the outcome of this work.

### Results

The focus group lasted one hour, excluding the introduction and the collection of the participants' demographic data.

The respondents were 26 of the 39 invited RPs (66.7%). Their demographic and professional characteristics are described in Table 4.

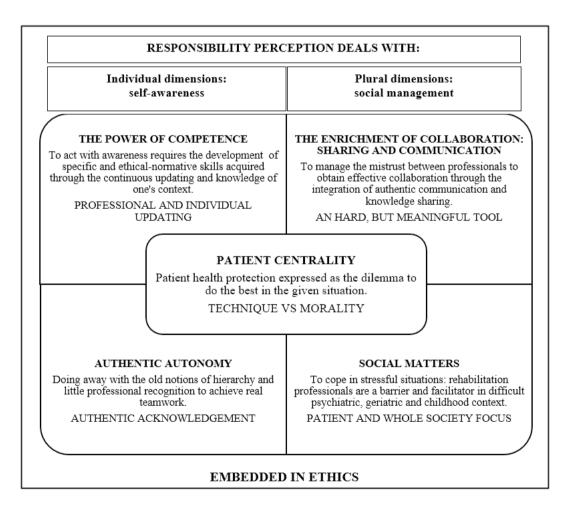


Figure 1. Emerged framework. Graphic description of the results' theoretical framework.

## Patient centrality

According to the participants, RPs put the patient at the centre of the care process.

[In terms of responsibility, I am driven] by the common aim of the patient's health, the goal is the protection of their health.

Nevertheless, RPs are often torn between what is best for patient health and contextual duties such as organizational issues.

To which extent can I treat a patient in the context of public health? [...] there is a waiting list; regardless of my responsibilities and my therapeutic goals; a balance has to be found.

This tension is perceived as a thorny dilemma and sometimes it is necessary to break the rules to uphold one's professional duty.

Without illegality, I feel free to disobey [the structured orders for patient care].

# The power of competence

Participants recognized the importance of technical competencies and knowledge as part of their professional responsibility. Participants pointed out that the process of caring does not resume to the simple application of technical skills. It also requires constant awareness of many other fields.

[I notice] differences between before and after the Master's degree course. Before, it was only common sense to not harm the patient and to judge the work based on Evidence Based Medicine. Nowadays, we are required to have greater awareness concerning different aspects of professional responsibility such as bioethics, deontological principles and legislation in order to make the most appropriate clinical decision.

Moreover, participants perceived responsibility as a continuous process of improvement and context adaptation. Responsibility in caring requires being an active player whose decisions are rooted in deep knowledge, and not simply following directives.

Our responsibility is not malleable to everything [the organization] tells us. We also take into account the or-

ganization's policies, as well as their mission and vision. Every time we are asked to do something that goes against fundamental principles, [the professional needs] to say that he/she will not do that.

# The enrichment of collaboration: sharing and communication

The importance of teamwork arises within the rehabilitation process. As such, it is not clear on whom the responsibility relies on. It seems to vary depending on the professional roles and contexts. Responsibility is also perceived as something that could be shared.

Beyond the laws, [I am driven] by the awareness [of being able] to share responsibilities and to talk with other professionals to understand what to do with a patient at a certain time.

[My responsibility motivator is] defining my role and task in a team setting. Knowing what I have to do helps me to understand my responsibilities in regards to teamwork.

Most participants perceived hierarchy and the senior physicians' paternalistic approach and mistrust as the most significant barriers to teamwork. Although this causes a sense of frustration, it appears that good communication and recognition from others were some effective responsibility motivators in respect to teamwork.

I notice mistrust. There is a hierarchy between professions and because of this, there are complicated interactions.

# The need for genuine autonomy

People say that responsibility seems to be often influenced by the hierarchy, which is not perceived as an added value to the rehabilitation care process. For this reason, not wearing uniforms seems to decrease this negative perception.

Outside the hospital, where there are no uniforms, the relationship with other team members is equal. There is an awareness of different professionalisms. Inside the hospital, hierarchies are felt more acutely.

Some RPs feel they have full professional responsibility because the possibility of free choice is allowed

within their field. Otherwise, it seems that this sense of full responsibility is usually found only among free-lance professionals. Throughout the rehabilitation process, many professionals collaborate. This main feature of teamwork leads to viewing professional responsibility as something indefinite and vague. By assuming all the apparent responsibility, physicians are seen as having total power over the patient and other professionals.

In a freelance setting, decision-making is assigned to rehabilitation professionals and responsibility is seen as an enrichment of my autonomy.

# Responsibility as a social issue

Often, RPs felt their responsibility to be a source of stress. RPs were in a weak position in terms of the rehabilitation process because management-oriented governed it instead of care-oriented rules.

Healthcare services that go against professional responsibility are sometimes requested without organizational safety nets. [...] If I do not want to do what they ask me, they point towards the exit door. If you want to work, you have to shut your mouth. Moreover, the organization also says that in case of problems it does not have any responsibilities.

RPs have an essential role in the direct management of patients. They are on the front line daily. However, their work is carried out in the shadow, adding to thousands of other responsibilities they may also have.

Parents should also be involved in rehabilitation improvements in the pediatric context, but they are often fragile, psychologically and emotionally. It is challenging to give them any tasks because you cannot know how much care responsibility and pressure they can manage [...] As a rehabilitator, I do not know how much I can ask from them without overburdening them.

### Discussion

This pilot study has allowed us to highlight how RPs perceive their professional responsibility, a not investigated area in the rehabilitation field.

The data shows tensions and dilemmas expressed

by professionals, thus reflecting on how to structure a better organization and education to promote genuine professional responsibility.

The synthesis of the analysis (Figure 1) reflects the research field of interest (Figure 3). The concept of responsibility is in fact complex and includes different aspects: the clinical-individual (micro-level), the inter-professional and organizational (meso-level) and the plural-managerial (macro-level) (see supplemental material).

Rehabilitation found its space within the concept of health evolution (16). Health is a dynamic concept with an ethical dimension. In the complexity of health-care settings, RPs will always have a dilemma, even if the system is continuously improving. The particularity of rehabilitation is due to its holistic approach to patient care, increased care time, and the unpredictability of results. Patient autonomy, quality of life, and justice in resource allocation have to be maintained. The Italian National Bioethics Committee endorses an "integral" ethical approach based on relations. It aims to promote the "rehabilitation alliance" by considering the whole person (17).

Constructing an ethical framework is as important in the care process as knowledge of anatomy and physiology (3). This effort to identify and analyse ethical problems also helps us solve daily challenges in the field of rehabilitation. However, ethics cannot be reduced to professional conduct standards (i.e. professional codes and ethics rules) because these standards do not necessarily reflect the best approach in every context. As such, one needs to retain a critical mindset when making clinical decisions (3).

In 2007, Walker suggested that care is a responsibility practice in which the responsibility is a reaction to human vulnerability. Thus, RPs' practice deals with a moral dimension that inherently requires responsibility (18). This is aligned with the Quadripartite Ethical Tool (QET) for physiotherapy practice support developed by Drolet et al. (19). The tool combines the ethics of care theories with the professional values from both universalism (systematic reflection theories) and particularism (case-based reflections) approaches. This tool has been created to help physiotherapists integrate ethical knowledge into their practice and to find new ways of thinking about and dealing with the patient in their environment.

QET could also be helpful for other RPs and other healthcare professionals and managers to deal with daily dilemmas.

Ethics are not to be considered only in relation to a particular case with which the professional struggles, but also in dealing with real daily possibilities (20). From a broader perspective, Denier et al. in 2019 declared that from the 1990s onwards,

"the newly emerging field of organizational ethics, shifted the focus to ethical issues encountered in management and governance of health organizations, the ethical implications of organizational decision making on key stakeholders (patients, staff and the community); and the ethical complexities of balancing the goal of quality patient care with other important goals such as financial sustainability, staff well-being, learning and innovation, and public accountability" (21).

Within our complex socio-cultural context, an evaluation of all the dimensions is needed. Organizational ethics aims to achieve the best possible alignment between the organisations' mission and values and those of the human resources inside the organization (21).

To obtain value-based health, the leader's responsibility is to observe, take action when necessary, and do so in a well-balanced way. Promoting a genuinely collaborative setting could be an option when improving the system. An environment that fosters sharing and communication at both the clinical and managerial levels has to be pursued to fulfil professional responsibility. Following the data presented, there are some references to the difference between public and private settings. To deal with these differences, the current trend of adherence to Clinical Guidelines is proposed (the Italian Law no. 3/18 allowed for the creation of a multi-professional register) (22, 23).

Because of their simultaneous roles as stakeholders in both the system and the lives of patients and their families, it is clear that the RPs' point of view has to be taken into account. Responsibility at every level should lead to a value-based organization (24). As stated by Denier et al. in 2019, "creating a values-based organizational culture is not an individual matter, to be done by the manager on one's own. It has to be done, together with everyone involved" because of the importance of being connected with people who

can serve as a sounding board and inspiration when one has to make difficult decisions (21).

Having professional responsibility in the healthcare setting is embedded in ethics and could always lead to a dilemma "because it is about care and not about cookies" (21).

## **Conclusions**

Methodological considerations

This pilot study presents strengths and potentialities that could be used as starting points for future research. It promotes the creation of reflexivity and sheds light on the field of rehabilitation driven by socio-historical changes (e.g. population aging, social inclusion, disabilities, ...). FG gives voice to the RPs' perceptions. RPs are direct stakeholders in many healthcare processes. By providing the possibility to RPs of creating an environment in which they can work better and thrive as individuals. The focus group tool is a way to improve the system through a bottom-up approach (21). Authors considered an interdisciplinary setting in which different rehabilitation professionals work: their diversity of backgrounds is both an asset and an accurate reflection of the rehabilitation team. It also provided an opportunity for students to share their points of view in a peer discussion context. Adopting an FG-type interview has been used to investigate the RPs' perceptions in a setting that resembles a public debate. It has also enabled free discussion and the rise of different frameworks.

### Limitations

The researchers chose a large sample of participants despite being aware that doing so goes against the classical recommendations for designing a qualitative study. Instead, they aimed to offer an outline of a possible view in the current Italian context. Therefore, the participation of one representative from each profession should be considered a strength (25).

In such a large focus group, a possible source of bias is that more extroverted individuals tend to speak more than shyer ones, even in the informal setting of a class discussion where all participants are more willing to express themselves.

Furthermore, it is clear that in order to gain a broader insight on the topic, future studies with both higher professional diversity and smaller interview groups need to be conducted.

### Future research

RPs seemed to experience many dilemmas regarding their professional responsibility. They felt that their responsibility was a continuous challenge of weighing pros and cons.

RPs need recognition of their genuine autonomy, both at a micro level (i.e. from colleagues and team members) and the macro level (i.e. from an organizational and societal standpoint) to better cope with their daily professional responsibility. They perceive knowledge sharing and team communication as an asset benefiting the care process, mainly when they come across complex cases where dilemmas arise. RPs perceive themselves as being a natural barrier and facilitator regarding social matters.

Caring is a developing process in which responsibility has to be continuously effectively implemented in all its aspects. Therefore, qualitative data on responsibility perception and experience must be further generated and investigated to improve the system. To gain further insights on this study topic, it would be helpful in organizing other FGs involving other stakeholders as well (i.e. physicians, healthcare managers, patients, and caregivers). In addition, it could be interesting in today's globalized world to find benchmarks that could be used for comparison with other countries (despite different regulatory systems) and settings.

Following this direction, we will gain insights that could help us improve and update RP education and care practice on the long term.

**Acknowledgments:** The authors acknowledge the rehabilitation professionals for their contributions.

Conflict of Interest: Each author declares that he or she has no commercial associations (e.g. consultancies, stock ownership, equity interest, patent/licensing arrangement etc.) that might pose a conflict of interest in connection with the submitted article.

### References

- Benci L, Bernardi A, Fiore A, Frittelli T, Gasparrini V, Hazan M, et al. Sicurezza delle cure e responsabilità sanitaria. Commentario alla legge 24/2017 [Safety of care and health responsibility. Commentary on law 24/2017]. Roma: Quotidiano Sanità Edizioni, 2017.
- 2. Heavey E, Waring J, De Brún A, Dawson P, Scott J. Patients' conceptualizations of responsibility for healthcare: a typology for understanding differing attributions in the context of patient safety. J Health Soc Behav 2019, 60(2): 188-203.
- 3. Gastmans C. Dignity-enhancing nursing care: a foundational ethical framework. Nurs Ethics 2013, 20(2): 142-149.
- 4. Mackenzie C, Stoljar N. Relational autonomy: Feminist perspectives on autonomy, agency, and the social self. Oxford University Press, 2000.
- Glaser BG, Strauss AL. Discovery of grounded theory: Strategies for qualitative research. Routledge, 2017.
- Charmaz K, Belgrave LL. Grounded theory. The Blackwell encyclopedia of sociology 2007.
- Rieger KL. Discriminating among grounded theory approaches. Nurs Inq 2019, 26(1).
- 8. Malterud K. Qualitative research: standards, challenges, and guidelines. Lancet 2001, 358(9280): 483-488.
- Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. J Healthc Qual 2007, 19(6): 349-357.
- Shamdasani P, Stewart D, Rook D. Focus groups: Theory and practice. Group Dynamics and Focus Group Research. Newbury Park, Calif: Sage Publications, Inc 1990.
- 11. Krueger RA. Focus groups: A practical guide for applied research. Sage publications 2014.
- 12. Vandemeulebroucke T, Dierckx de Casterlé B, Welbergen L, Massart M, Gastmans C. The Ethics of Socially Assistive Robots in Aged Care. A Focus Group Study With Older Adults in Flanders, Belgium. J Gerontol: Series B 2020, 75(9), 1996-2007.
- 13. Eisenhardt KM. Building theories from case study research. Acad Manage Rev 1989, 14(4): 532-550.
- 14. Doody O, Slevin E, Taggart L. Focus group interviews part 3: Analysis. Br J Nurs 2013, 22(5): 266-269.
- 15. Cho JY, Lee EH. Reducing confusion about grounded theory and qualitative content analysis: Similarities and differences. Qual Rep 2014, 19(32): 1-20.
- Koplan JP, Bond TC, Merson MH, Reddy KS, Rodriguez MH, Sewankambo NK, Wasserheit JN. Towards a common definition of global health. Lancet 2009, 373(9679): 1993-1995.
- 17. Presidenza del Consiglio dei Ministri, Comitato Nazionale per la Bioetica, Bioetica e riabilitazione [Council of Ministers, National Committee for Bioethics, Bioethics and Rehabilitation], 2006.
- Walker MU. Moral understandings: A feminist study in ethics. Oxford University Press 2007.
- 19. Drolet MJ, Hudon A. Theoretical frameworks used to dis-

- cuss ethical issues in private physiotherapy practice and proposal of a new ethical tool. Med Health Care Philos 2015, 18(1): 51-62.
- 20. Praestegaard J, Gard G. Ethical issues in physiotherapy–Reflected from the perspective of physiotherapists in private practice. Physiother Theory Pract 2013, 29(2): 96-112.
- 21. Denier Y, Dhaene L, Gastmans C. 'You can give them wings to fly': a qualitative study on values-based leadership in health care. BMC Med Ethics 2019, 20(1).
- 22. Casserley-Feeney SN, Bury G, Daly L, Hurley DA. Physiotherapy for low back pain: Differences between public and private healthcare sectors in Ireland—A retrospective survey. Man Ther 2008, 13(5): 441-449.
- Sackett DL, Rosenberg WM, Gray JM, Haynes RB, Richardson WS. Evidence based medicine: what it is and what it isn't, Clin Orthop Relat Res 1996, 455, 3.
- 24. Graber DR, Kilpatrick AO. Establishing values-based leadership and value systems in healthcare organizations. J

- Health Hum Serv Adm 2008, 179-197.
- 25. Erlingsson C, Brysiewicz P. A hands-on guide to doing content analysis. Afr J Emerg Med 2017, 7(3): 93-99.

Received: 27 January 2021 Accepted: 3 January 2021

Correspondence:

Alessandra Da Ros, PT, Phd Student Institute of Management and Department EMbeDS, Sant'Anna School of Advanced Studies

Pisa, 56127 Italy

Phone: +39 345 46 42 969

E-mail: a.daros@santannapisa.it