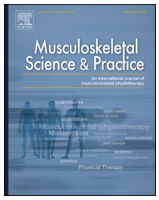
Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Musculoskeletal Science and Practice 62 (2022) 102684

Contents lists available at ScienceDirect

Musculoskeletal Science and Practice

journal homepage: www.elsevier.com/locate/msksp



Original article

Doing things you never imagined: Professional and ethical issues in the U.S. outpatient physical therapy setting during the COVID-19 pandemic

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ARTICLE INFO

Keywords:
COVID-19
Ethics
Professionalism
Professional issues
Outpatient
Physical therapy
Musculoskeletal

ABSTRACT

Objective: Despite being the most prevalent physical therapy practice setting in the United States, no literature to date has examined the professional and ethical issues faced by outpatient physical therapists during the COVID-19 pandemic. The purpose of this study was to explore professional and ethical issues experienced by outpatient physical therapists in the United States during the COVID-19 pandemic.
Design: An explorative semi-structured interview study using reflexive thematic analysis
Methods: Virtual semi-structured interviews explored physical therapists' experiences during COVID-19 in the OP setting. Data was analyzed using reflexive thematic analysis as described by Braun and Clarke.
Results: Respondents worked predominantly with patients with orthopaedic impairments. Six primary themes and associated subthemes were identified: 1) Disruption of routine professional and personal life. 2) Negative impacts on health and wellbeing (physical, mental, and social). 3) Barriers to relationships, communication, and providing quality care. 4) Telehealth as a safe option to increase access with opportunities and challenges. 5) Discomfort practicing in an environment of misinformation, mistrust, and divisiveness. 6) New & pre-existing ethical issues in the COVID-19 context.
Conclusions: Results of this study indicate that physical therapists in the outpatient setting wrestled with critical questions regarding outpatient physical therapy practice during the COVID-19 pandemic: the role of touch in professional identity, challenges to the therapeutic alliance, effect of productivity and fiscal expectations and whether outpatient physical therapy is essential during public emergencies.

1. Introduction

Globally, the World Health Organization has confirmed more than 547 million cases of coronavirus disease 2019 (COVID-19) with over 6.3 million resulting deaths (WHO Coronavirus COVID-19 dashboard, 2022). The Centers for Disease Control estimates that COVID-19 has infected 146.6 million people in the United States, with an estimated 921,000 deaths from February of 2020 to September 2021 (Estimated COVID-19 burden, 2021). The pandemic has also had significant psychological, social and economic impacts (World Economic Outlook Report, 2021). Stressors to healthcare workers include economic concerns and risk of exposure (Gianola et al., 2021; Gómez-Ochoa et al., 2021). The mental health burden of caring for patients with COVID-19 has been compounded by concerns of exposing loved ones (Yang et al., 2020). Widespread misinformation and disinformation further extended COVID-19's impact, creating social disagreement and mistrust about appropriate public health policies (Banerjee and Meena, 2021; Chou et al., 2018, 2020).

Physical therapists experienced similar challenges to other healthcare providers: declining patient volume, loss of employment, financial concerns, job and career stress, changes in personal lives (Chou et al., 2018; American Physical Therapy Association, 2021), increased COVID-19 related burnout (Jácome et al., 2021; Pniak et al., 2021; Tiwari et al., 2021), and anxiety and depression (Yang et al., 2020). The United States does not have a single payor healthcare system and the cost of physical therapy is therefore financed by Medicare, Medicaid, private insurance, or the patient (Carp, 2019). During the pandemic, the physical therapy profession sustained the highest cumulative decrease (28%) in Medicare physician fee service spending of all specialties during 2020 (Gillis, 2020). This indicates that patients may have delayed or deferred outpatient care in hospital based or private practice facilities. Since outpatient (OP) settings are the most prevalent physical

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https://doi.org/10.1016/j.msksp.2022.102684
Received 12 August 2022; Received in revised form 19 October 2022; Accepted 25 October 2022
Available online 29 October 2022

therapy practice setting (DATA USA, 2019), losses in referral and patient volume may have been greatest in this setting (American Physical Therapy Association, 2021). Business and fiscal issues related to billing, reimbursement, coding, productivity, and profitability are important concerns for OP physical therapy clinics in the United States. These fiscal challenges, risk of exposure, uncertainty, and widespread consequences of the COVID-19 pandemic presented unprecedented professional and ethical issues for physical therapy practice (American Physical Therapy Association, 2021).

Applied professional ethics in medicine (Borry et al., 2005; Hedgecoe, 2004; Hoffmaster, 2018; Mertz and Schildmann, 2018), healthcare (Knight, 2016; Vogelstein and Colbert, 2020; Wangmo et al., 2018), and physical therapy (Greenfield and Jensen, 2010) has increasingly appreciated the importance of the moral experience of practitioners. Focusing on contextual moral experience represents a shift away from the early focus in professional ethics on normative rational philosophical analysis and toward integration of social scientific research (Borry et al., 2005; Hedgecoe, 2004; Mertz and Schildmann, 2018). As Hoffmaster (2018, p. 120) aptly summarized: "Realistic, practical, productive bioethics does not dwell in the ethereal realm of theory; it is embedded in the capricious lives and the contingent worlds where ethics exists." This study sought to understand the experiences of outpatient physical therapists during the COVID-19 pandemic regarding professional and ethical issues. While studies have explored professional and ethical issues in physical therapy acute care settings during COVID-19 (Bennett et al., 2020; Ditwiler et al., 2021; Palacios-Ceña et al., 2021), limited information exists regarding these issues in outpatient settings (Parnes et al., 2020). Research before the pandemic identified a number of ethical issues in OP physical therapy (Hudon et al., 2015; Riendeau et al., 2015; Laliberté et al., 2017). Cantu (2019) described overutilization, productivity standards, aggressive billing and coding, ethical environment, and moral distress in OP settings. Hudon, Drolet, and Williams-Jones (Hudon et al., 2015) found that almost half of the 25 ethical issues identified in private practice literature were business and economic issues, concluding that institutional environment has a significant impact on ethical issues. The purpose of this current study was to explore professional and ethical issues in the outpatient physical therapy setting during the COVID-19 pandemic in the United States.

2. Methods

2.1. Design

A semi-structured interview study within the interpretivist research paradigm, social constructivist framework (Creswell and Poth, 2018; Petty et al., 2012) explored physical therapists' experiences of professional and ethical issues during COVID-19 in outpatient physical therapy settings. In interpretive qualitative research, reality is viewed as constituted by multiple perspectives, within which individuals create meaning through social interaction (social constructivism) (Creswell and Poth, 2018; Petty et al., 2012). This outpatient study was part of a larger study that explored professional and ethical issues in different practice settings (acute care (Ditwiler et al., 2021), outpatient, post-acute, and home health). Professional and ethical issues were operationally defined as situations that raised issues of right or wrong or challenged professional duties, standards, or values (Suppl. Appendix A) (Ditwiler et al., 2021). This definition recognized that ethical and professional issues are influenced by professional role and organizational context. Participants were asked to describe their experiences of professional and ethical issues in the individual, organizational and societal realms (Glaser, 2005; Swisher et al., 2005). Data was collected using semi-structured individual interviews and the resulting data was analyzed using reflexive thematic analysis (RTA) (Braun and Clarke, 2006). RTA was chosen because it is consistent with the interpretivist paradigm and is useful in describing commonalities and differences across participants' perspectives and interpreting insights beyond the data (Braun and Clarke, 2006, 2020). Furthermore, the results of RTA are readily accessible to clinical audiences without extensive backgrounds in qualitative research (Braun and Clarke, 2021). The study was approved by the University of South Florida Institutional Review Board on June 1, 2020 (Study # 000969) and maintained in good status.

2.2. Participants

Purposive sampling was used to recruit physical therapists (PTs) and physical therapist assistants (PTAs) impacted by COVID-19. Electronic flyers were distributed to PTs and PTAs through social media, the Florida Physical Therapy Association, and the American Physical Therapy Association (APTA) Academies (Geriatrics, Neurology, and Sports). Participants were included if they provided outpatient physical therapy, were professionally impacted by COVID-19, fluent in English, and had access to a virtual interview platform. Although both PTs and PTAs were targeted in recruitment, no PTAs were successfully recruited for the study. All potential participants who responded met the inclusion criteria and successfully completed an interview. Participants provided verbal informed consent. A total of 21 participants completed interviews between March 23 and May 4, 2021. The sample were PTs (15 female, 6 male) representing all major geographical regions of the United States. Participants represented a wide range of experience in the outpatient setting, 9 of whom had achieved advanced clinical certification from the American Board of Physical Therapy Specialties (APTA Specialist Certification Governed by, 2022). All participants treated patients with musculoskeletal impairments, and most participants treated predominantly orthopaedic or sports populations (Table 1).

2.3. Data collection

An online virtual platform (©Teams, Microsoft, Redmond, WA) hosted individual interviews with 2 investigators (RED, DDH). Virtual interviews are considered acceptable for qualitative data collection (Archibald et al., 2019; Dodds and Hess, 2020; Roberts et al., 2021). Virtual interviews allowed for a wider geographical and diverse pool of potential participants (Sah et al., 2020) but potentially limited appreciation of participants' body language and control of the interview environment (Oliffe et al., 2021). All interviews were conducted with audio and video except on two occasions that intermittent technical difficulties necessitated audio only. One investigator (RED) conducted interviews, while investigator 2 (DDH) assisted, took field notes, and monitored technology. This process allowed the primary interviewer to focus attention on the participant (Dodds and Hess, 2020; Roberts et al., 2021). Interview questions were adapted from the previous study of the acute care setting (Ditwiler et al., 2021) to reflect professional and ethical issues in outpatient physical therapy practice. Questions were developed based on the Code of Ethics for the Physical Therapist (Code of Ethics for the Physical Therapist. American Physical Therapy Association, 2020), APTA resources on professionalism (Core Values for the Physical Therapist and Physical Therapist Assistant. American Physical Therapy Association, 2019), and a review of literature relevant to OP physical therapy and healthcare during the pandemic. For this outpatient study, interview questions were added about telehealth (Turolla et al., 2020), interacting with support personnel (Resnik et al., 2006), issues of productivity (Cantu et al., 2021), and issues unique to the outpatient setting. Participants responded to questions about the professional and ethical issues they had encountered in the OP setting during the COVID-19 pandemic (Suppl. Appendix 1). Interviewers used follow-up questions to probe and clarify responses. The average length of interviews was 60 min, with a range of 43–89 min. There were no limits placed on interview length.

2.4. Data analysis

Recorded interviews were transcribed by a professional transcription

Table 1
Participant characteristics.

Participant Number	Gender	Years Experience	Years Experience in OP PT	Primary Patient Population	Facility Ownership	Geographic Region	Board Certification
1	M	5	5	Orthopaedics	Private Practice	Midwest	No
2	F	5	5	Orthopaedics	Private Practice	West	Yes
3	M	38	36	Orthopaedics	Health System	Northeast	No
4	F	16	16	Orthopaedics	Private Practice	West	Yes
5	M	6	5	Sports	Health System	Midwest	Yes
6	F	3	3	Orthopaedics	Health System	West	No
7	F	1	1	Orthopaedics	Private Practice	Southeast	No
8	F	9	9	Orthopaedics	Private Practice	Southeast	No
9	F	5	5	Orthopaedics	Health System	Midwest	Yes
10	F	10	9	Neurologic	Health System	Southwest	Yes
11	M	4	4	Orthopaedics	Private Practice	West	Yes
12	F	8	3	Pediatrics	Private Practice	Northeast	Yes
13	F	23	5	Orthopaedics	Health System	Northeast	Yes
14	F	10	4	Pediatrics	Health System	Midwest	No
15	F	6	5	Orthopaedics	Health System	Southeast	No
16	M	13	7	Multiple	Private Practice	Midwest	No
17	F	10	10	Orthopaedics	Private Practice	Northeast	No
18	F	10	3	Pelvic Health	Health System	Midwest	Yes
19	F	3	3	Orthopaedics	Health System	Southeast	No
20	M	1	1	Orthopaedics	Private Practice	Southeast	No
21	F	6	5	Orthopaedics	Health System	Midwest	No

M-Male, F-Female.
Board Certification: American Physical Therapy Association Specialist Certification Program sponsored by American Board of Physical Therapy Specialties (APTA Specialist Certification Governed by, 2022).

service and checked for accuracy by the 2 investigators (RED, DDH) who conducted the interview. Data was de-identified to ensure anonymity, preclude cultural assumptions, and address potential ethical concerns of participants (Corden and Sainsbury, 2006). In RTA, the researcher's unique perspectives, subjectivity, and reflection are critical resources in interpreting the data (Braun and Clarke, 2006). The research team was comprised of physical therapists with varied backgrounds including quantitative and qualitative research, ethics, professionalism, education, orthopaedic practice, motor control, biomechanics, outpatient practice, and inpatient settings. The transcribed interview data were analyzed using RTA according to Braun and Clarke (2006). The six phases of analysis outlined by Braun and Clarke (2006) guided data

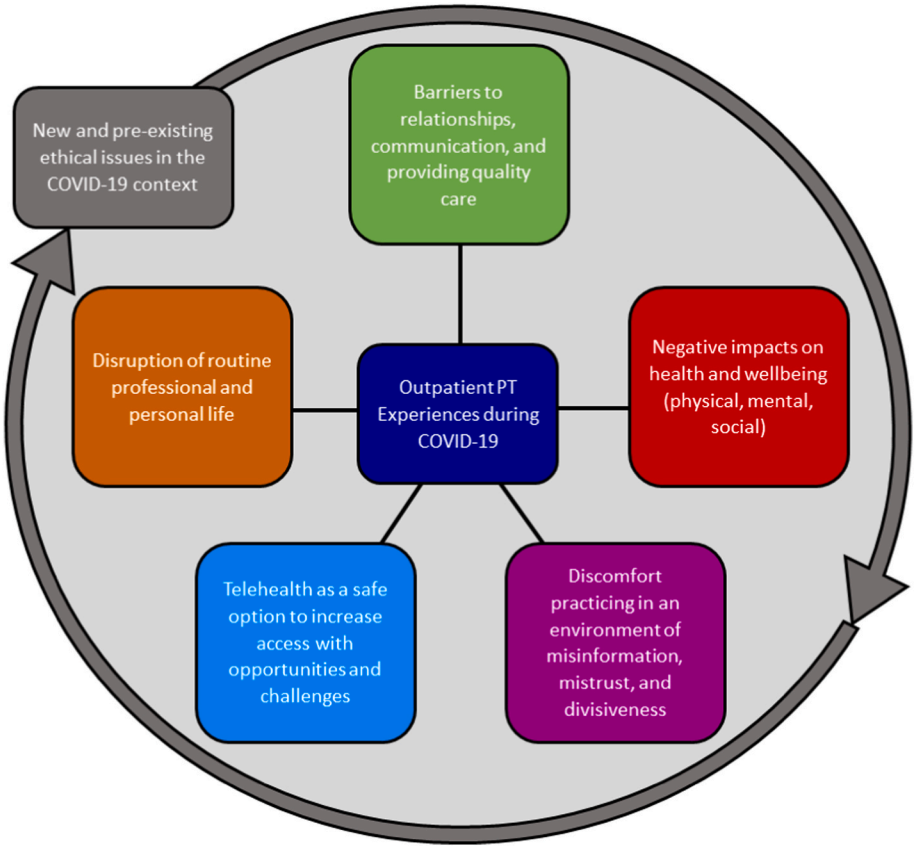

Fig. 1. Thematic map.

analysis: 1) Field notes and transcripts were reviewed by 2 investigators (RED, DDH) to gain familiarity with the data, search for patterns and meaning, and to inductively generate initial ideas for coding. 2) Data were coded inductively based on the initial patterns and meaning identified during data familiarization (RED, DDH). Coded data was then collated into meaningful groups of ideas. 3) A third investigator (LLS) reviewed the transcripts and collated data into integrated points for further discussion. Initial themes were generated by the 3 investigators (RED, DDH, LLS) utilizing the coded data. 4) Themes were revised through an iterative process visually represented through tables and thematic maps demonstrating relationships within the data until the thematic map fit. 5) Review of the final themes continued until themes were fully articulated. 6) Results of the analysis were summarized for publication.

3. Results

The team identified six primary themes with subthemes (Fig. 1): (1) disruption of routine professional and personal life, (2) negative impacts on health and wellbeing (physical, mental, and social), (3) barriers to relationships, communication, and providing quality care, (4) telehealth as a safe option to increase access with opportunities and challenges, (5) discomfort practicing in an environment of misinformation, mistrust, and divisiveness, (6) new and pre-existing ethical issues in the COVID-19 context. Table 2 provides themes, subthemes, and sample **quotations**. As suggested by Fig. 1, participants found ethical issues to be infused throughout their experiences.

Theme 1. Disruption of routine professional and personal life

Routine professional practice and everyday life were disrupted by the pandemic. Participants experienced temporary clinic closures, furlough, job loss, decreased hours due to low caseloads, change in compensation and benefits, or varied vacation or leave hours. As described by Participant P021, "I went to work Monday and Wednesday, and then all of a sudden sometime that week on Thursday or Friday, they said, "You're not coming back on Monday." I was like, "What?" They just shut down the clinic completely."

Another type of professional disruption was re-assignment of duties described by one participant as "doing things that you may have not ever imagined" (P013). Redeployments included janitorial, temperature checking, safety officer for PPE, acute care, proning team (team to position patients), or COVID-19 field hospital. Disruptions in everyday procedures included altered cleaning, social distancing, scheduling to allow spacing, fluctuating caseloads, and changes in support personnel. In addition to these work-related disruptions, many participants experienced a disruptive overlap between professional and personal lives. For example, many participants discussed the challenge of managing children or elderly parents at home while fulfilling rapidly changing professional obligations. The widespread transition to remote education expanded the educational responsibility and time commitment of parents, with the result that many professionals feeling that they were always "at work."

Theme 2. Negative impacts on health and wellbeing (physical, mental, and social)

The pandemic negatively affected the health and well-being of patients and providers. Mental health impacts included: financial worries, job insecurity, emotional toll from home responsibilities, uncertainty, health concerns, depression, anxiety, and increased stress. Participant P001 summarized this: "And when you are talking about … weekly, sometimes daily changes to what people's job role is. I think … people get very scared and unsure of what's going to happen, and it just makes the situation more stressful."

Decreased opportunities for physical activity and social interaction also affected health and well-being. Many recreational facilities, social events and religious services were closed or cancelled. Limiting outside social interactions to prevent increased risk to patients was perceived as personally challenging. Several participants discussed the professional obligation to protect patients by forgoing personal social activities to minimize exposure. In addition, changes in the workplace (furlough, re-assignment, loss of job, reduced departmental or team meetings) produced changes in professional interaction with colleagues. As a result, some participants felt isolated from colleagues: "So I felt very, very, very much alone because I'm a very big collaborator, and I had no one to collaborate [with] …" (P012) In addition to these health issues, physical therapists also expressed concerns about the long-term consequences of delayed medical, surgical, or physical therapy care.

Theme 3. Barriers to relationships, communication, and providing quality care

Participants described numerous barriers to relationships, communication, and providing quality care (Table 2). Interviewees commented on the effect that safety measures (PPE, masks, social distancing), lack of family support, and limitations on equipment and space had on physical therapy care. Use of masks, social distancing, and PPE affected verbal and non-verbal communication. As stated by one participant "You can't be as empathetic when you're masked and goggled and can't give them a hug or something." (P010) Communicating with those with hearing deficits was especially challenging.

Space limitations necessitated alternative treatment areas. Some equipment (resistive bands, exercise machines) was unavailable due to safety concerns. Participants viewed social distancing as presenting practical and affective limitations on the essential role of physical touch in quality care. Safety measures also restricted manual therapy interventions and evaluation, leading to concerns about sub-optimal care.

> "I would feel more hesitant to do certain treatments that maybe I'm doing more like manual techniques, where I'm really close to the patient. Because I'm thinking like, how much am I in their personal space? And how much are they comfortable with because you're told to stay six feet away from everyone, but here I am providing them like direct care, like really close to them." (P017)

Participants spoke about barriers to professional interactions: "the group time of meeting together was largely discontinued or definitely altered to video" (P003) and family caregivers were limited in attending sessions "because we'd only have a patient come in, no guests or visitors with them" (P017).

Theme 4. Telehealth as a safe option to increase access with opportunities and challenges

Emergency changes in policy provided increased opportunities for the use of telehealth: "All of a sudden, we had carte blanche to telehealth." (P003). Telehealth was viewed as an opportunity to reach patients safely. However, not everyone fully embraced telehealth: "It was a horrible experience, I hope we never have to do it again" (P020) One important concern raised by participants was how patients should be selected for telehealth (patient preference, patient safety, or delivering an optimal treatment plan).

> "But you can't do hands-on treatment if someone needs hands-on treatment. And I think for some people they just don't click with video as much as they would in person. I think that's probably the majority." (P005)

Despite recognizing telehealth's role in increased access to physical therapy during the pandemic, participants described practical, technological, and organizational impediments. Practical challenges for delivering physical therapy included administering clinical examinations in a virtual environment, verifying patient understanding, navigating impediments in home environments, and designing interventions with limited equipment. Numerous participants encountered technological challenges. "It was a baptism by fire. The first week was like everyone was trying to figure out Zoom. So the first week was so

Table 2
Sample participant quotations for themes and subthemes.

Themes & Subthemes	Sample Quotations
Theme 1. Disruption of routine professional and personal life	
1.1 Furlough, loss of job(s), or change in employment status	"When they first reduced us to part time, they asked if anyone voluntarily like to be furloughed. And I think that was the first time many of us had heard the word furlough. And we had no idea what it entailed, when you're going to get your job back, what that meant, if you could get unemployment benefits." (P017)
1.1 Redeployment	"They had people doing like linens and just deliveries, drivers, all sorts of stuff, anywhere there was a felt need …. they had people like therapists out sweeping the parking lot. And cleaning out old storage rooms, like, hey this doctor was hired 10 years ago, so clean out their charts." (P014)
1.2 Change in everyday practice procedures	"So we would see like could be 11 to 16 people in a 10 h shift, which can get pretty hectic. You do your best to always clean and wipe down stuff and we do have aides … or it's you need to go grab some equipment and someone's within maybe six feet or as close. (P006)
1.3 Overlapping home and work life	"My kids essentially became homeschooled when schools closed. And yet I was continuing to work … So that became like, okay, do school with my child during the day, and then go to work at night. Don't get enough sleep, repeat." (P014)
Theme 2. Negative impacts on health and wellbeing (physical, mental, social)	
2.1 Mental health of patients and providers was negatively impacted	"One of the biggest things that I've had overall with patients' mental health. And I've had to, I mean, this week I rarely have these conversations and I guess within the last six months, I've had more conversations about depression and about suicide and about all those things … It's been a lot more frequent." (P002)
2.2 Decreased opportunities for physical activity and social interaction	"It was difficult not to go out of the house in my free time to protect my patients, essentially. That was a very difficult thing." (P020)
2.3 Delaying medical and physical therapy care	"We had a couple of patients who all of a sudden just stopped coming post-operatively." (P021)
Theme 3. Barriers to relationships, communication and providing quality care	
3.1 Prioritizing safety compromised quality of physical therapy care	"When there's limits to the equipment I can use, there's limits to the space I can use, those are challenges. Do I think it reduced my actual excellence to whatever extent I have it? No, not really, but it wasn't exactly like the most fertile ground for PT excellence you ever saw in your life either?" (P007)
3.2 Physical touch as essential to physical therapy	"As a physical therapist, I cannot stay six feet away from my patients and help them in the best ways possible, so that was a big barrier." (P020)
3.3 Loss of opportunities for professional, interprofessional and social interactions	"We used to have a lot of protected time meetings. So we have specialty groups where I lead the falls and balance group. Normally we would have blocked time to music group and go through research articles and touch base with each other. We had none of that since COVID." (P005)
Theme 4. Telehealth as a safe option to increase access with opportunities and challenges	
4.1 Opportunity to reach more people safely, for the individual professional, and for the profession	

(*continued on next page*)

Table 2 (*continued*)

Themes & Subthemes	Sample Quotations
	"It's a fantastic tool that allows me to reach people I had not been able to reach before."(P013)
4.2 Challenges in selecting appropriate patients or providers for telehealth	"I think there really has to be like an algorithm, like some type of like inclusion exclusion criteria. If there are more high level, and they can do a lot more independently, I think it could work really well. But a lot of people, I don't feel would fit it." (P017)
4.3 Practical, technological, and organizational impediments to providing care via telehealth	"I would say one challenge on my end is with evaluation. Obviously, things can be a little bit more tricky because you have to be smart about how you're going to try to estimate strength and with their mobility limited by strength, or is it limited by range of motion? Balance training is definitely obviously more of a concern with telemedicine." (P009)
Theme 5. Discomfort practicing in an environment of misinformation, mistrust, and divisiveness	
5.1 Perceived public divide amongst patients and other physical therapists	"Yes, polarization is the perfect word. So if you have Joe and Betty and they watch different news outlets on opposite sides of the political spectrum, Joe is going to have a totally different belief in what COVID is and what COVID can cause than Betty. When you have those conflicting beliefs in one area such as a physical therapy clinic, and these two people are clashing in what they believe in, if one wants to take their mask off, and one says, "I'm not going to go in a building, if there's people with masks off," that can be very difficult for us to manage just as managing people." (P020)
5.2 Misinformation, disinformation or information overload	"[T]here's been a lot of like mistrust and vaccine hesitancy." (P018)
5.3 Physical therapists as educators for accurate public health information and evidence-based practice	"But if someone seems like they're open to talking about it, I will bring up facts, because I think that is our job to educate. Even if it's not about physical therapy, it's a public health crisis, we are healthcare professionals and I definitely feel like that's our role. I definitely feel like it's our role to get vaccinated and be an example for patients." (P021)
Theme 6. - New and pre-existing ethical issues in a COVID-19 context	
6.1 Pre-existing ethical issues exacerbated by COVID-19: effect of productivity and fiscal expectations on delivery of care, billing related to productivity	"My perception was dropping in case load, fight to stay alive. So now a lot of the ethical issues got worse, and a lot of these pressures got worse". (P012)
6.2 Balancing individual patient freedom and public safety	"If I worked with a patient who ended up being positive for COVID, but we're both wearing masks and it's not considered direct contact … But then is it ethically appropriate, like, would I need to tell other patients I've worked with that day that happened? We weren't, but you know, what is or is inappropriate?" (P017)
6.3 When and for whom, is outpatient physical therapy essential during a pandemic?	"I think one thing is the interesting conversation about essential workers versus non-essential workers. I know some PTs who work outpatient who saw themselves as non-essential and closed down … But I think that there must have had negative repercussions for some people too, because who gets to decide what's essential or not for someone? Maybe cardiac rehab is more essential than helping someone with a sprained ankle. Maybe that person with a sprained ankle has depression …" (P011)

*Note: Quotations are samples. See narrative text for additional quotations and a full description of themes and subthemes.

disastrous. But a lot of it was just trial and error and like figuring it out." (P012) Organizational policies and support for implementation varied in availability, amount and content: "I think it was a great option. Was I prepared for it? No, absolutely not." (P008)

Theme 5. Discomfort practicing in an environment of misinformation, mistrust, and divisiveness

Participants described discomfort in a practice environment of misinformation, disinformation, mistrust, and divisiveness. Misinformation is a "claim of fact that is currently false due to a lack of scientific evidence" (Chou, et al, 2018, p. 2417) or "false based on current scientific consensus" (Chou et al., 2020, p. S273). In contrast to misinformation, disinformation is "intentionally false or inaccurate information that is spread deliberately" (Al Khaja et al., 2018, p. 345). Discomfort was driven in part by politicized, tense, or polarizing discussions with patients and staff around vaccination, masks, and other safety measures. In the words of P001, "[B]ringing up political stances and stuff like that was something I tried to stay away from as much as possible, but became very challenging when you're asking people to wear masks and they're not wanting to comply with that." Commenting on staff behaviors, participant P019 said "angry statements and accusations and conspiracies in the office and in the patient gym is not appropriate."

Despite the challenging environment, participants saw the need for physical therapists, as evidence-based practitioners, to provide accurate scientific information to patients and staff in response to bias or misinformation. As one participant described:

> "Can we magic something up that will teach them (professionals) how to do the right thing for people without putting their own biases in [the] way? That'd be nice. I don't know what it looks like but that'd be great if we could do that." (P007)

The same participant (P007) described these politically-charged interactions as a challenge to providing care: "I do encounter personal challenges with showing care to people who are anti-science who want to insist that this is fake, who want to call you a sheep if you wear a mask, who want to say that vaccines are just designed to track you …" Tense, politically divisive and polarizing environments produced discomfort, lack of trust, and difficult conversations. As participant P011 described it: "There's always the conversation that you are and aren't supposed to have with the patient, like subjects you're not supposed to breach, politics, religion, that sort of thing."

Theme 6. New and Pre-existing Ethical Issues in a COVID-19 context

Although COVID-19 produced new ethical issues, the pandemic also exacerbated pre-existing financial issues (Table 3). Participants described concerns about fiscal sustainability, pressure to increase productivity, providing services beyond the patient's needs, double-booking, scheduling that prevents safe physical distancing, and pushing patients to use telehealth: As described by one participant: "At the end of the day, it's all about the money" (P016).

A second ethics sub-theme was balancing individual patient freedom and public safety. For example, should high risk patients come to the clinic or defer physical therapy to protect themselves and others from exposure? PTs wondered how to balance competing professional duties of confidentiality, privacy, veracity, safety, truth-telling, and quality of care. Should patients and staff be informed of the COVID-19 status of others in the clinic? Concerns were also expressed about policies to guide those decisions. Participants also discussed ethical concerns about quality of care and physical therapists' obligations for promoting health and safety. Regarding quality of care, participants expressed concerns about the long-term consequences of organizational decisions to delay care for high-risk, fragile, acute, or post-surgical patients in the name of safety.

A final subtheme addressed whether, when, and for whom outpatient physical therapy is an essential health care service during the pandemic. Participants considered this from the perspective of individual patients, health care organizations, and staff. Should outpatient clinics remain open during a pandemic and are PTs and PTAs in outpatient clinics essential frontline healthcare providers? Some saw issues of access as a matter of promoting patient autonomy versus preventing harm (non-maleficence). Others questioned whether administrators, providers or patients should make such decisions about patients' access to physical therapy. For example, "[T]hat didn't sit right with me … when I was kind of told not to see people … I want to help them. That was the hardest part." (P005)

Table 3
Sample ethical issues identified by sub-theme.

Pre-existing ethical issues exacerbated by COVID-19: Effects of productivity, fiscal expectations, billing
• Ramping up care, even if not appropriate for the patient [1]
• Pressure to increase productivity, billing or scheduling [1]
• Double booking or overbooking pressures undermine social distancing [1,2]
• Pushing patients to use telehealth services [1,4]
Balancing individual patient freedom and public safety
• Deferring physical therapy for high-risk patients – should patients and families decide or providers? (Patient autonomy versus non-maleficence) [2,3]
• Physical distancing and cleaning in clinic results in decreased quality of care due to lack of time, space, equipment, and resources [1,3]
• Should physical therapists be expected or obligated to obtain vaccination? [5]
• Are PTs and PTAs obligated to treat patients who are not vaccinated or not masked? [2,5]
• Long-term consequences for patients of delayed care versus risk of potential COVID exposure [2]
• Truth-telling and privacy about patient or provider's COVID-19 status and exposures – who has a "right" to know? [3,5]
• Responding appropriately to misinformation and disinformation about COVID and vaccination (patients and staff) [5]
• Should physical therapists discuss politically sensitive topics to promote public safety and health? [3,5]
When, and for whom, is outpatient physical therapy essential during a pandemic?
• Is outpatient PT an essential health care service during the pandemic? [1,2]
• For whom is physical therapy essential? Are PTs and PTAs frontline providers? [1]
• Should physical therapy clinics be open during the pandemic? [1,2]

Bracketed numbers indicate related themes.

4. Discussion

The results of this study identified the dynamic interplay of professional and ethical issues related to a disruptive professional and personal life experienced by outpatient physical therapists during the Covid-19 pandemic. These issues were related to ethical concerns, professional duties, personal responsibilities, political divisiveness, and challenges to mental and physical health. Ethical issues were not experienced in isolation but infused throughout this dynamic interplay as depicted in Fig. 1 and Table 3. The shift from a patient centered clinical ethic to a public health ethic (Dunham et al., 2020; Aguilera, 2020) required during COVID-19 was central to this dynamic environment. While traditional clinical ethics focuses on fidelity to the needs of the individual patient (autonomy, confidentiality, beneficence, non-maleficence), public health ethics focuses on shared societal needs (social utility, equity, social justice, transparency) (Aguilera, 2020). Like other health care providers during the pandemic, physical therapists experienced "unsolvable discomfort" (Robert et al., 2020)(p4) in prioritizing societal safety and individual patient needs (Fig. 2). This uncomfortable balancing act permeated the professional and ethical issues identified by participants. Professional responsibilities for public health (such as cleaning and distancing) created new ethical issues, but also exacerbated pre-existing ethical issues. For example, financial and productivity requirements identified in previous ethics research (Cantu, 2019) appeared even more challenging to physical therapists who were cleaning, distancing in limited space, implementing telehealth, and engaged in home schooling.

Participants described difficult ethical dilemmas regarding COVID-

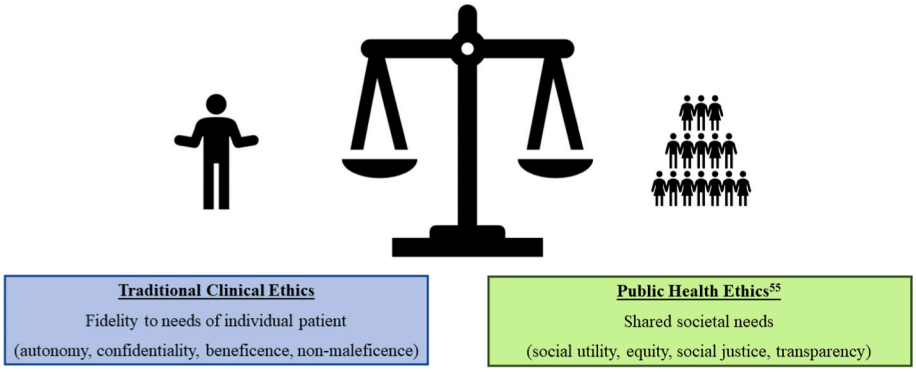

Fig. 2. Balancing traditional with public health ethics.

19. These dilemmas posed questions about whether patients had a right to know the COVID-19 status of other patients and staff, have the autonomy of choosing the type or timing of physical therapy during a health crisis, or decide whether to mask in a clinic space at the expense of compromising others' safety. Dawson and Sim (2012) have suggested that public health ethics requires broadening the professional role of physical therapists by "reorientation of physical therapy professional ethics away from an individual to a more social focus." (Dawson and Sim, 2012)(p144) Their discussion of balancing individual and common goods, moving away from the "privileged" position of individual autonomy, "justifiable paternalism," and public engagement were in many ways prescient of the experiences of outpatient physical therapists in this study.

Misinformation and disinformation raised questions about PT's role in providing accurate public health information about COVID-19. In addition to its social significance, mistrust of professionals based on misinformation or disinformation has the potential to undermine therapeutic alliance and the quality of patient care. Many participants discussed their frustration with vaccine hesitancy among patients and staff members. Despite the polarized environment, participants in this study supported the role of physical therapists as educators for accurate public health information. Referring to similar concerns raised by the HIV-AIDS epidemic, Sim and Purtilo (1991) suggested that PTs should support individual differences, promote health, foster supportive work environments to alleviate fear, and use evidence based practices. Extending their advice to the current environment, PTs should seek to be compassionate and non-judgmental in addressing misinformation expressed by patients, provide treatment to unvaccinated patients in safe environments, and promote accurate evidence-based public health information.

As has been extensively documented throughout the pandemic (Yang et al., 2020; Bennett et al., 2020; Dubey et al., 2020; Gorenko et al., 2021; Iglesias-López et al., 2021; Leo et al., 2021; Maunder et al., 2021) the disruptive COVID-19 environment produced numerous negative impacts on health and wellbeing of both patients and healthcare providers. Burnout in healthcare workers and physical therapists continues to be reported at an alarming rate (Cantu et al., 2021; Leo et al., 2021; Maunder et al., 2021). Most healthcare workers experienced stress or burnout related to home life during the COVID-19 pandemic. Stress and burnout were especially high for young professionals with families whose salaries or hours were reduced (Duarte et al., 2020). The stress of increased home responsibilities for female healthcare workers resulted in significant increases in women leaving or planning to leave the healthcare professions (Robinson et al., 2021; Goodchild, 2022). The experiences shared by the participants in this study suggest that physical therapists may be similarly affected by pandemic stress and may share increased risk of burnout.

Consistent with previous research about the effectiveness of telerehabilitation (Turolla et al., 2020; Bennell et al., 2021; Gilbert et al., 2020; Rosen et al., 2020; Seron et al., 2021; Suso-Martí et al., 2021; Tenforde et al., 2020; Bury and Stokes, 2020; Cottrell et al., 2017), in this study telehealth was viewed as providing access to safe and effective physical therapy care for some treatments and some patients. Nevertheless, participants expressed concerns about telehealth's inherent limitations and potential negative consequences for patient care and the physical therapy profession (Bennell et al., 2021; Tenforde et al., 2020; Grundstein et al., 2021; Hall et al., 2021; Barton et al., 2022; Malliaras et al., 2021; Tanaka et al., 2020). For example, participant P003 stated: "So, as much as I'm excited about telehealth, I'm also fearful that we're just going to distance ourselves from our patients in doing that." Lewis et al. (2021) suggest that the telehealth experience during the pandemic should initiate a new paradigm of active patient self-management. Consistent with participants' experiences in this study, Nicholls (2021) urges caution about dismissing the critical role of touch in physical therapy: "Human connection through touch is one of the most

Table 4
Recommendations for physical therapy profession.

Education and Professional Development	
1	Flexibility and critical thinking in response to changes in healthcare
2	Integrate research and literature about ethics and professionalism (including public health ethics) into outpatient practice.
3	Strategies for promoting respect, communication, and therapeutic alliance in the following situations: • While practicing optimal infection control (physical distancing, virtual care delivery, PPE usage) • During telehealth and remote interaction • When addressing information and disinformation
4	Resources and advocacy to address public health concerns, health, wellness, work-life balance, burnout and moral distress.
5	Educational resources for delivery of telehealth (clinical practice guidelines, practice implications, ethical & legal considerations, and appropriate patient selection).
Organizational Policies, Procedures, Resources	
6	Model policies, procedures, guidelines and resources for the outpatient setting for • Confidentiality, privacy, disclosure of exposure or risk • Realistic productivity expectations • Telehealth – selecting appropriate patients, informed consent • When and for whom outpatient physical therapy is essential and appropriate during a pandemic or other emergencies. • Promoting organizational change
Professional Reflection and Dialogue	
7	On-going reflection and dialogue about professional and ethical issues encountered in everyday practice (ethics rounds, team meetings, case reports. mentors)
8	Dialogue within the profession, interprofessional teams, and organizations • Role of touch for professional identity (within the profession). • Essential role of physical therapy. In which situations and for which populations is physical therapy essential during public emergencies? (profession, teams, organizations) • Addressing situations of public health versus individual ethics
9	Support for research on professional and ethical issues in outpatient physical therapy

distinctive aspects of physical therapy practice, particularly in orthodox health care, where so much touch is procedural and incidental"(Nicholls, 2021, p.320). In light of previous research (Kleiner et al., 2021; Miciak et al., 2019) about the importance of touch in musculoskeletal physical therapy practice this question is especially relevant to outpatient physical therapists as they evaluate the future role of telehealth.

The experiences of outpatient physical therapists during COVID-19 provide a foundation for recommendations to address their challenges (Table 4). One important recommendation is that outpatient physical therapists engage in on-going education and professional development in professional and ethical issues relevant to the outpatient setting. These issues include growing financial and productivity issues previously identified in the literature (Hudon et al., 2015; Cantu, 2019) but also issues highlighted by the pandemic: work-life balance, moral distress, burnout, providing patient-centered telehealth, and serving as change agents within organizations. On-going education and professional development on professional and ethical issues in the outpatient setting is critical to addressing its challenges. This requires reading and integrating literature, but also flexibility and critical thinking in response to changes in healthcare.

A second major recommendation is to address the need for organizational policies, procedures, and resources to address professional and ethical issues generated by the COVID-19 pandemic. It appeared that few clinics had developed robust policies, procedures or guidelines, or resources to address confidentiality, privacy, and telehealth during the pandemic. Rapid implementation of telehealth during the pandemic may not have comprehensively addressed legal and ethical dimensions of privacy and security relevant to organizations and health care systems (Fields, 2020; Nittari et al., 2020; Watzlaf et al., 2017). The lack of comprehensive policies, procedures, and guidelines put much of the burden, stress, and uncertainty on individual therapists. Financial, billing and productivity pressures had been reported well in advance of the pandemic (Hudon et al., 2015; Cantu, 2019). The fact that these issues were exacerbated by the pandemic suggests that addressing these longstanding issues is a critical concern for the profession. Therefore, the profession should develop additional resources for individuals and organizations to address organizational and societal issues raised by COVID-19.

A third recommendation is for physical therapists, interprofessional team, organizations, and the physical therapy profession to engage in on-going reflection and dialogue on professional and ethical issues. On-going reflection and dialogue should incorporate research and scholarship about professional and ethical issues into a formalized process within institutions and the profession (for example, ethics rounds, team meetings, case reports, mentors).

5. Limitations

Results of this study should be interpreted within the context of its limitations. This study represented the unique experiences of physical therapists in the United States during the pandemic. Findings of this study may not be representative of the wide variety of patients and settings seen in OP physical therapy. Similarly, the professional and ethical experiences of physical therapists in this study may not fully represent the experiences of all physical therapists within different regions and practice settings of the United States. Likewise, physical therapists in other countries may have experienced different professional and ethical issues based on their health care systems and contexts. Although the virtual format of interviews increased the potential number of available participants, it may also have affected the time, quality of interaction, or candor of some participants. This study did not represent the unique experiences of PTAs. Qualitative research methods, including RTA, may be influenced by researcher perspective and the inability to determine causal relationships.

6. Conclusion

COVID-19 is not the first pandemic confronted by the profession, as physical therapists (PTs) had responded to the 1918 influenza outbreak (Linker, 2021), poliomyelitis (Jette, 2005), and the Human Immunodeficiency (HIV)- acquired immunodeficiency syndrome (AIDS) epidemics (Sim and Purtilo, 1991). HIV-AIDS raised similar questions about transmission, evolving precautions about transmission, global impacts, rapid changes in testing, stigma, and the need for public education (The AIDS epidemic in the United States, 2021). Outpatient physical therapists also encountered important professional and ethical issues during the COVID-19 pandemic. As suggested by Fig. 1, professional and ethical issues were experienced within specific individual, organizational and societal contexts. The experiences of professional and ethical issues of outpatient physical therapists in this study suggest three questions for the professional identity of physical therapy. In which organizational and societal contexts is physical therapy essential? How can physical therapy address challenges to therapeutic alliance posed by productivity expectations, safety measures, widespread misinformation, and telehealth? Is touch a critical element of physical therapy professional identity?

Funding source

This work was supported by the University of South Florida Center for Neuromusculoskeletal Research. The funders had no role in the study.

Declaration of competing interest

None declared.

Acknowledgements

The authors would like to thank the participants for their openness in sharing their experiences.

Appendix A. Interview Questions and Sample Follow-up Questions

We are interested in ethical and professionalism issues that you have encountered in your physical therapy practice as a result of the COVID-19 pandemic.

For this interview, professional issues are situations in which it is not clear what the role of the physical therapist or physical therapist assistant is. Ethical issues are defined as moral conflict that involves questions of right and wrong. Ethical dilemmas are moral issues where there may be more than one right choice, or a right versus right. For example:

- Challenges to professional ethical standards – such as the Code of Ethics, Core Values of Professionalism, Standards of Practice, or the Standards of Ethical Conduct for the PTA
- Issues of "right" or "wrong" action
- Situations where there appeared to be 2 right courses of action
- Situations where you believed that you could not "do the right thing," fulfill professional duties, or act in the patient's best interests
- Situations where there was disagreement about the right course of action

Do you have any questions about these terms before we begin?

We will be asking you a series of questions today about professional and ethical issues specifically related to COVID-19.

1. Can you tell me about the primary ethical and professional issues you have encountered in your practice prior to the COVID-19 pandemic?

2. Did you notice a change in the ethical and professional issues you encountered during the COVID-19 pandemic?
3. Since the pandemic, can you think of specific patient examples that concerned or distressed you?
   a. What was that patient's situation?
   b. Were there specific ethical issues?
   c. What was most challenging about that situation?
4. Can you describe any specific situations that raised ethical issues about patient care or your role as a physical therapist?
   a. Can you describe the situation?
   b. What were the ethical issues that concerned you?
   c. What did you do in response to the situation?
5. During the COVID-19 pandemic, did you encounter a situation which challenged or violated your ability to uphold physical therapy ethical or professional standards or fulfill your ethical obligations to patients?
   a. Can you describe the situation?
   b. What were the ethical issues that concerned you?
   c. Were there challenges to professional standards?
   d. What did you do in response to this situation?
   e. If there was a barrier as to why the challenge could not be resolved, what was it and how did you handle it?
6. During the COVID-19 pandemic, have you experienced any challenges related to the Core Values of the physical therapist? The core values are accountability, altruism, collaboration, compassion/caring, excellence, integrity, (professional) duty, and social responsibility.
   a. Did you experience any challenges to accountability, if so, what?
   b. Did you experience any challenges to altruism, if so, what?
   c. Did you experience any challenges to collaboration, if so, what?
   d. Did you experience any challenges to compassion/caring, if so, what?
   e. Did you experience any challenges to excellence, if so, what?
   f. Did you experience any challenges to integrity, if so, what?
   g. Did you experience any challenges to (professional) duty, if so, what?
   h. Did you experience any challenges to social responsibility, if so, what?
   i. In your experience, which of these core values were the most difficult to uphold?
7. During the COVID-19 pandemic, have there been any organizational changes that have affected your practice or professional role?
   a. Were there any organizational barriers?
   b. For example, did you experience any policy barriers? Communication barriers?
   c. Did your professional role change as a result of organizational changes?
   d. Were there specific ethical issues?
   e. What did you do in response, if anything?
   f. Did you see these as new issues or simply exacerbations of previous issues?
8. During the COVID-19 pandemic, did you experience a change (either positive or negative) in health care team dynamics?
   a. What were the changes?
   b. What professionals, or other personnel, are a part of your team?
   c. Did you experience conflicts within the team?
   d. Did you face specific ethical issues as a team? If so, how?
9. Given your experience in this pandemic, what recommendations do you have about specific organizational policies?
   a. Why would you recommend those policies?
   b. What would the impact on individuals and the organization be?
10. What do you think are the greatest societal issues facing physical therapists because of COVID-19?
    a. What do you think physical therapists can do to support society in addressing the COVID-19 pandemic?
11. What changes do you recommend to health care laws and policies (local, regional or national) as a result of COVID-19?
    a. Are there specific insurance policies?
    b. Medicare and Medicaid regulations?
    c. A need for changes to practice acts, professional association guidelines, etc?
12. There has been a lot of discussion around telehealth. Have you participated in telehealth? If so, what was your experience?
    a. How did this impact the patient experience?
    b. Did you have difficulty with reimbursement?
    c. How did this impact your organization?
13 During the COVID-19 pandemic, have you encountered instances where moral principles have been in conflict? Examples of moral principles are fidelity (putting the patient's interest first), honesty (truth-telling), informed consent, confidentiality, patient autonomy, respect, beneficence (promoting the good), non-maleficence (doing no harm and preventing harm), or justice (fairness).
    a. Example: a patient's autonomy to choose a treatment or preference may be compromised by the need to distribute resources fairly across all patients
14. The following issues have been reported in medicine during the pandemic: health care disparities among minorities, allocation of scarce resources such as PPE and ventilators, and triage of patients. Have you experienced any of these issues?
    a. Can you give an example?
    b. Did you individually or as a unit/organization take any measures to address these issues?
15. Many ethical issues have been reported in physical therapy prior to COVID19 such as productivity, informed consent, patient autonomy, justice, abuse or misconduct by PTs, and confidentiality. Have you experienced a change in these ethical issues or any emergence of new issues since the pandemic?
    a. How did things change as the pandemic progressed?
    b. Have your productivity expectations changed?
    c. If expectations have changed, how did this impact your ability to provide care?
16. Can you think of a situation in which you were balancing or weighing your professional duties vs personal duties and responsibilities?
17. What advice would you give to physical therapists and physical therapist assistants in the outpatient setting in treating patients during the COVID pandemic.
    a. How should we prepare students and young professionals?
    b. What is unique about outpatient, and how should we prepare people for those aspects of care?
    c. What have you personally found helpful?
18. Are there other issues or information you would like to share with us?

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