# Politics, policies, and patient care: Rehabilitation therapists' experiences during the COVID-19 Pandemic

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## ABSTRACT

The year 2020 represents a historically turbulent period for the United States marked by the COVID-19 pandemic, a contentious political season, and heightened awareness of racism among citizens. This intersection of medicine, politics, and social unrest generated a demanding clinical environment for healthcare workers, including understudied groups such as physical therapists, occupational therapists, and speech-language pathologists. This descriptive qualitative study focused on experiences and perspectives of clinical rehabilitation therapists working in inpatient rehabilitation and acute-care units from September to November, 2020. Thirteen participants completed individual, semi-structured interviews focused on clinical practice and coping strategies. The analysis included a multi-step, inductive process. Four interconnecting factors chronicling participants' experiences emerged: sociopolitical, institutional, hospital unit, and personal. Stressors and buffers were noted that further shaped individual experiences. Utilization of an ecological framework provided a way to recognize the impact of a complex range of social and environmental factors affecting participants' experiences on personal and professional levels. Awareness of rehabilitation therapists' experiences enriches understanding of the pandemic's effect on healthcare workers and presents clinical implications for healthcare systems to promote therapist well-being.

## Introduction

In a span of just over one month, the novel coronavirus (COVID-19) escalated from a global health emergency to a global pandemic as declared by the World Health Organization on March 11, 2020 (World Health Organization [WHO], 2020). The rapid transmission of COVID-19 prompted travel restrictions, school and business closures, physical distancing and masking guidelines, and unprecedented strain on hospital systems worldwide. Akin to other historical pandemics, the outbreak of COVID-19 also intensified preexisting sentiments of racism and xenophobia (Clissold *et al.*, 2020). In the United States, COVID-19 coincided with a contentious political season and intense activism among citizens championing racial equality and policy reform to current policing practices. The intersection of politics, social unrest, and medicine during this time generated an especially demanding clinical environment for healthcare workers.

Depression, anxiety, and stress among healthcare workers, particularly in doctors and nurses providing frontline care during the COVID-19 pandemic, are well-documented in the literature (Benfante *et al.*, 2020; Cai, *et al.*, 2020; Lai *et al.*, 2020; Spoorthy, 2020). Recent work also acknowledges burnout in 67% of healthcare respondents (Denning *et al.*, 2021) previously defined as, "a syndrome of emotional exhaustion and cynicism" (p. 99) that negatively impacts clinical practice (Maslach *et al.*, 1981) along with documentation of secondary traumatic stress disorder (Orrù *et al.*, 2021) or vicarious traumatization (Greinacher *et al.*, 2019) arising from caring for others enduring physical and psychological trauma. Of 184 healthcare workers representing 45 countries surveyed during the height of the pandemic in Spring of 2020, 41.3% expressed symptomology consistent with secondary traumatic stress (Orrù *et al.*, 2021). Statistically significant predictors for secondary traumatic stress identified included perceived stress and emotional exhaustion in addition to patient death (Orrù *et al.*, 2021). Many factors contributing to the mental health decline among physicians and nurses, such as rapidly changing policies and protocols, increasing workload demands, stress associated with contracting and exposing others including family members to COVID-19, and insufficient personal protective equipment supply (Greenberg *et al.*, 2020; Sriharan *et al.*, 2020) extrapolate to rehabilitation professionals including physical therapists, occupational therapists, and speech-language pathologists. These professions typically involve evaluation and intervention techniques requiring close contact with patients for long durations (30+ minutes per treatment session on average). Despite the publication of COVID-19 clinical practice guidelines and recommendations across physical therapy (Felten-Barentsz *et al.*, 2020), occupational therapy (Hoel *et al.*, 2021), and speech-language pathology (Namasivayam-MacDonald & Riquelme, 2020) professions, these groups have received little study attention to date despite their valuable and ongoing role in promoting patient quality of life, safety, and independence across areas of mobility, participation in meaningful activities, and communication.

Notable findings from predominantly survey-based studies during COVID-19 acknowledged the presence of anxiety and depression in physical therapists (n=65) (Yang *et al.*, 2020) and also reduced morale in a cohort of 2,750 occupational therapists representing 100 countries (Hoel *et al.*, 2021). Respondents in the latter study also noted the negative impact of COVID-19 on their profession due in part to a lack of preparedness, additional practice demands, mastery of novel technology, space and personal protective equipment limitations, and reduced accessibility to occupational therapy services (Hoel *et al.*, 2021). A recent study employing a mixed-methods approach towards understanding the impact of COVID-19 on occupational balance (*i.e.*, the balance of participation across a variety of valued activities) among occupational therapists (n=42) suggested minimal adverse effects of the pandemic on occupational balance, potentially reflecting resilience and effective coping strategies across the cohort (Tse *et al.* 2021). Lastly, two qualitative studies involving 30 physical therapists representing 11 national public hospitals in Spain examined therapists' emotions and feelings (Palacios-Ceña *et al.*, 2021a) and experiences (Palacios-Ceña *et al.*, 2021b) of working on the frontlines during the COVID-19 pandemic from March to May, 2020. Major themes emerging from these studies included "emotional roller coaster" that reflected a wide range of emotions and coping strategies, "working in war time" that captured therapists' reckoning with fear, policy updates, and donning/doffing their "armor" (personal protective equipment), and "when I arrive at home" that encapsulated the impact of their frontline experiences on their family and home life (Palacios-Ceña *et al.*, 2021a; Palacios-Ceña *et al.*, 2021b). These studies provide rich descriptions of therapists' experiences in a particular context (*i.e.*, Spain). Given that experience is contextual, further research is warranted.

Therefore, the purpose of this study was to describe therapist experiences from working in acute and inpatient rehabilitation environments at a university-affiliated medical center in the Southeast region of the United States during the COVID-19 pandemic. Our specific research questions were i) How did rehabilitation therapists experience work during the pre-vaccination phase of the COVID-19 pandemic? and ii) What factors influenced their experience? We employed a descriptive qualitative approach to describe and summarize experiences as conveyed by therapists during a specific tumultuous time period in the United States marked by the COVID-19 pandemic.

The theoretical framework used to guide our analysis was the socioecological framework (Bronfenbrenner & Morris, 2006). Unlike other qualitative research approaches, descriptive qualitative research does not necessarily begin with a specific theoretical or philosophical perspective (Lambert & Lambert, 2012). However, as we engaged in our data analysis process, it became clear that the socioecological theory provided a useful framework to guide our understanding of the therapists' experience.

In the socioecological framework, bidirectional interactions between the individual and an array of nested and interrelated micro-, meso-, exo-, and macrosystems influence the individual's experience (Bronfenbrenner & Morris, 2006; Bronfenbrenner, 1977). This framework considers the component of *time* whereby interactions between the individual and respective ecosystems are fluid as determined by a specific moment or period (historical context). Initially serving as theoretical framework to describe child development, Bronfenbrenner's

subsystems refer to both immediate and outside environments encompassing home, family, school, community, and culture (Bronfenbrenner, 1974). Healthcare research has also adopted this model (Adibe, 2021). Consistent with our purpose, therapists' experiences during the COVID-19 pandemic (temporal context) may be shaped by multiple interrelated factors including personal (individual), interactions with patients and colleagues (micro-), changes occurring within the hospital institution (meso-), and attitudes toward the pandemic within their communities (exo-) and beyond as a society (macro-).

## Materials and Methods

We utilized a descriptive qualitative design (Sandelowski, 2000; Sandelowski, 2010) as we sought to describe and summarize experiences as conveyed by therapists at a specific period in time during the COVID-19 pandemic (Fall, 2020). To accurately capture and describe the therapists' experiences, we remained close to the data throughout the analysis process. Because we were interested in experience, we acknowledged the "hues, tones, and textures" (Sandelowski, 2000) (p. 337) of a phenomenological approach as the study progressed. Given the pandemic restrictions for in-person gatherings, all data was collected virtually. As noted by Pocock *et al.* (2021), virtual qualitative research can be conducted ethically and may provide some advantages to traditional in-person methods.

### Procedures

We recruited physical therapists, occupational therapists, and speech-language pathologists who worked full-time on an inpatient rehabilitation or acute care unit at a large university-affiliated hospital in the southeastern United States. Participants were recruited via an email announcement that clinical managers forwarded to clinicians working on the two units. Interested participants then contacted the principal investigator via phone or email to schedule their interview. All communication with participants was completed via HIPAA-compliant virtual communication platforms (*i.e.*, Zoom and WebEx). This study was approved by the Institutional Review Board at the University of North Carolina at Chapel Hill (approval no. 20-1509), and participants provided verbal informed consent. Data collection occurred from September to November, 2020.

Our primary source of data was semi-structured interviews conducted virtually. Additionally, questionnaires provided demographic and clinical background information and were either completed with an investigator during the virtual session or self-administered following the session. Semi-structured interviews, consisting of open-ended questions, were conducted to obtain information about clinician experiences, both professional and personal, during the COVID-19 pandemic. Interview questions focused primarily on changes, challenges, and coping. The interview guide included questions such as "How does it feel to go to work these days?" and "Describe some of the challenges you've encountered at work and outside of work." Interviews were conducted by the principal investigator and research assistants, who received training on qualitative interviewing and strategies to elicit detailed responses. Interviews averaged 45 minutes.

Data analysis was completed by a team comprised of researchers and students clinically trained in rehabilitation along with students interested in health professions. Analysis of the semi-structured interviews involved a multi-step, inductive, and iterative process based on Braun and Clarke's (2006) six phases. First, all interviews were transcribed verbatim, resulting in over 100 pages of single-spaced text. Transcripts were then de-identified. Team members first familiarized themselves with the data. Next, transcripts were divided among team members for analysis, with two team members assigned to analyze each interview. Team members each read and coded half of the transcripts independently, generating descriptive and verbatim codes (Saldaña, 2016) before coming together to compare and establish a list of codes for a code book. The process of establishing a code book entailed multiple meetings as we discussed our different readings of the texts and returned to the text to ensure that codes captured the explicit or surface meanings of the data (Braun & Clarke, 2006). Once code names and definitions were established in the code book, team members recoded the transcripts to ensure that the therapists' experiences were captured thoroughly with nearly all of the text assigned a code. A final review of codes was done by the research team.

Our next step was to determine relationships between codes and to group the codes into categories. Nearly all of the codes fit in a category. We talked at length about each category and reached consensus about how it reflected the therapists' experiences. Each team member developed a schematic to represent the relationships between the categories. As the team discussed our schematics, we were struck by how our categories reflected the socioecological framework and concluded that this framework had great utility and captured the participants' experiences. The socioecological framework developed by Bronfenbrenner (Bronfenbrenner, 1974; Bronfenbrenner & Morris, 2006) provided a way to recognize the impact of a complex range of interacting social and environmental factors affecting rehabilitation therapists' experiences during the Fall of 2020. This framework recognizes individuals as nested within larger ecosystems. It also recognizes that individuals affect and are affected by a complex range of socioecological factors. The resulting themes were conceptualized as interrelated factors af-

fecting therapists' experiences during COVID-19. See Table 1 for factors and sample codes.

To increase the rigor and trustworthiness of this study, the team engaged in and documented an iterative process of revisiting the data, discussing themes, and refining our analysis. Team members engaged in reflexive practices by writing memos and discussing during team meetings how our own experiences as researchers and rehabilitation professionals may have influenced our reading and interpretation of data. Finally, though we did not ask the participants to review transcripts, we did present our preliminary findings to a group of therapists and managers at the hospital and received feedback which helped us further consider the interrelated aspects of our themes.

## Participants

Thirteen therapists comprising six occupational therapists, four physical therapists, and three speech-language pathologists, ranging in age from 24 to 47 years (mean = 34.9 ± 8.1 years), participated in the study. Ten participants identified as female, and three identified as male. Eleven participants identified as white, and two identified as Asian. Eight participants worked in an inpatient rehabilitation environment, with the remaining working in an acute care environment. Participants' years of clinical experience ranged from one to 22 years with a mean of eight years.

## Context

The majority of participants practiced full-time in an inpatient rehabilitation facility where the emphasis of patient care is the promotion of independence and quality of life. There are several distinct features of an inpatient rehabilitation facility setting that provide important context to this work. Patients admitted to an inpatient rehabilitation facility are medically stable and are expected to complete at least three hours of intense therapy per day over an average length of stay of two to three weeks with the goal of discharging to their home. Meeting these expectations necessitates therapists' working closely with their patients to promote safety and independence with such tasks as mobility, participation in meaningful activities, speech and language, swallowing, and communication. The remaining participants practiced in an acute care unit. Here, therapists treated medically complex patients requiring frequent care from medical staff in conjunction with their therapy. A few of these participants also worked in the hospital's specialty COVID-19 unit, providing acute care therapy services to patients with COVID-19.

# Results

Our findings are presented according to the interconnected social and environmental factors influencing participants' experiences: sociopolitical, institutional, hospital unit, and personal. Each factor is described, and illustrative quotes are presented. Though these are expressed as distinct factors, our findings underscore that multiple interacting factors and environments are unable to be fully separated from one another. Within each factor, stressors and buffers that further shaped individual experiences are acknowledged.

## Sociopolitical factors

Participants discussed a range of sociopolitical factors which impacted their experience as rehabilitation therapists. It is important to consider the political context in Fall, 2020 as the country was not only facing a pandemic that was quickly becoming politicized, but was also in the midst of a contentious election accompanied by heightened awareness of racial disparities.

The participants noted how, at the start of the pandemic, they were viewed by the public as "healthcare heroes." As one participant noted, "When this all started it was like, 'we love our healthcare workers,' and 'they're so great,' and, you know, 'let's clap for them as we leave work.'" Over time, however, therapists felt public support

**Table 1.** Factors and sample codes.

| Factors | Sample Codes |
|---|---|
| Sociopolitical | - public perceptions of COVID-19<br>- disproportionate rate of COVID-19 in minority communities |
| Institutional | - visitor policies<br>- COVID-19 testing procedures<br>- interpreter policies |
| Hospital Unit | - maintaining quality of care<br>- support from management<br>- caregiver training and education<br>- personal protective equipment<br>- camaraderie with co-workers |
| Personal | - "measuring the risk" of social encounters<br>- change in routines<br>- use of self-care strategies |

waning as COVID-19 became more politicized and fatigue with following guidelines set in. The therapists found themselves frustrated that "People in the community are like, 'I don't believe it [COVID] exists' or 'I'm not going to wear a mask.'" Having to go to work each day and see very sick patients created a "strange disconnect" with the public. As one therapist noted, "It's more frustrating when you are seeing and actually treating COVID patients and you go back into the real world and where no one cares." Navigating the political nature of the pandemic at times impacted personal interactions, with one participant stating:

> I stay away from most of my family... outside the people living in my house.... I have some non-believers [laugh] in my family, umm, who no matter what I say about what I see, they don't believe me.... They don't consistently wear masks, they don't stay away from crowds, and so they don't do what they're supposed to do.

Additionally, several therapists noted the inordinate number of Spanish-speaking patients with COVID-19, with one therapist emphasizing, "It seems to be hitting that population a little more." For many therapists, the COVID-19 pandemic brought the social and racial injustices and inequities in health care to the forefront. One participant articulated:

> For me, one of the big things is the way that minority groups with COVID are being disproportionately affected by the disease and their health care is also affected by it. I think that is a huge thing that I have learned and experienced and seen while working in the hospital. That applies to all medical conditions, but I think especially COVID because it is really hitting different racial and ethnic groups differently because of the way that our whole system...is set up. This is very infuriating to me, and so all of these social justice movements that are happening right now on top of COVID are really applicable, specifically to this group.

Overall, these experiences during the pandemic provoked a heightened awareness of the intersection of sociopolitical factors with health care.

## Institutional factors

Participants' experiences were shaped significantly by policies set by the hospital institution. As the pandemic unfolded, these policies changed almost daily in response to state and federal guidelines and recommendations. Though the therapists understood the need for policy changes, at times they did not always feel that changes were communicated efficiently, often leaving them feeling vulnerable and frustrated. One participant noted:

> Some of the policies around COVID testing for employees has certainly been another sort of stressor.... I recently found out, just a few days ago, that now they have decided that they are going to charge employees for COVID tests, which again has, been just another stressor.

While hospital employees ultimately did not bear expenses for COVID-19 testing, the above quotation draws attention again to heightened anxiety among participants. Some of the participants also felt that policy changes occurred with little input from the managers of the rehabilitation and acute care unit-individuals that understood the professional roles and responsibilities of the participants and the implication of these policy changes on participants' clinical practice. For example, initially, all patients were tested for COVID-19 prior to their admittance to the inpatient rehabilitation facility. However, this policy reportedly changed without prior communication with the therapists. One participant stated that patients on the inpatient unit receiving therapy suddenly had their therapy paused while being ruled out for COVID-19, since testing was no longer required before admission to the unit. This led to concerns and heightened anxiety about exposure to COVID-19. Because frequent policy changes were implemented or made effective immediately, efficient communication was a challenge and, in this instance, impacted the ability to provide therapy.

Another change in policy that caused increased stress was the visitor policy. Initially, visitors were not allowed in the hospital. The impact on patients and their care was significant. Participants noted how concerned they were about their patients feeling isolated, lonely, and scared. This was especially true for non-English-speaking patients who typically relied on interpreters or family to communicate needs and concerns. One participant explained how this policy exposed issues of equity and justice:

> So much of communication and patient advocacy happens through family members. I think when people are left isolated, they are much less able to advocate for themselves, especially if they are non-English-speaking.

Another participant noted:

> But sometimes we don't seem to have as many interpreters available, so sometimes we've been using this iPad of which we kind of jokingly called the "interpreter on a stick" because it's on a rolling thing.

Visitor policies restricting family and friends and interpreter availability were stressors identified by several participants. However, when the policy changed and vis-

itors were allowed into the hospital, participants expressed concern about increased risk of exposure. For example, one participant noted:

> When things were really strict and limited, and it was pretty much just staff that were there. I felt very safe, like the lobbies weren't so crowded. And now, as things get more and more lenient, you just don't know what other people are doing. You don't know how many other people have been exposed, if they're truly wearing the mask all the time, if they're washing their hands. That kind of stuff. So common areas like the hospital lobbies and things like that, that's mostly where I start to feel a little uncomfortable. There are just too many people walking around.

In contrast, some participants noted that some of the policy changes acted as buffers which resulted in decreased stress. For example, participants noted that with new policies, they were able to park closer to the hospital, remote meetings saved time, and ordering food for patients was more efficient and a buffer for stressful working conditions.

## Hospital unit factors

Participants working on both inpatient rehabilitation and acute care units continued to provide care to their patients through the pandemic. They, like everyone else in the hospital, were expected to use personal protective equipment, maintain social distancing when possible, and follow strict sanitation procedures. Participants described feeling cautious and in some cases, anxious, about the potential for exposure when interacting with patients and caregivers. Several participants discussed the challenges with managing sociopolitical factors within the hospital unit, with one participant noting:

> Unfortunately, this pandemic has been very politicized, and we have patients of all political leanings. So, a lot of them, you know [laugh], you have to, "Okay, put your mask on, keep your mask on."… Like not all patients, uh, believe in the importance of masks.

Reconciling protecting oneself, enforcing institutional policy, and providing good care was "a tricky balance."

Though one participant did not feel practice had changed significantly, most felt that the new and changing institutional policies and procedures significantly impacted patient care, particularly the use of personal protective equipment. For example, speech-language pathologists, whose work often involves the face, noted how wearing masks made providing the best care difficult, though they tried to adapt:

> In speech therapy, we do…articulatory modeling, with the patient needing to see our face or us needing to see the patient's face. But then, for us needing to actually touch the patient's face as well. And that is exceedingly difficult right now…. It's hard to feel like you're still providing the same level of care.

All of the therapists noted that personal protective equipment, though acknowledged as necessary, posed challenges. The gowns, for example, were thick and hot. Participants noted feeling "almost suffocated" and that it was more difficult for occupational therapists to assist patients with showering.

The inpatient rehab participants, particularly speech-language pathologists who often saw some patients in group settings prior to COVID-19, reported that group therapy was no longer possible. This resulted in more individual sessions and, thus, larger workloads. One participant noted that this not only made it harder to fit in all of their patients each day, but that it had an impact on the patients themselves:

> It is helpful for patients to be able to have some kind of connection to other patients who are actually going through the same thing that they're going through or something similar. That is something that we have been unable to do, which has been sad.

Therapist thus acknowledged declines in commaraderie and socialization among patients upon the onset of COVID-19.

Perhaps the biggest impact on patient care within the hospital unit was the institutional visitor policy. Participants felt that the patient experience was impacted by not having regular in-person contact with family. One participant explained:

> Being in an unfamiliar environment, going through what is likely a life altering event, and then on top of that, to have everyone interacting with you be almost this kind of faceless entity is a strange experience for patients.

Reduced socialization with family members and other patients was perceived as a negative change within the hospital unit.

In addition, an essential part of therapy involves gathering accurate histories, obtaining information about homelife from family, and carrying out caregiver training in preparation for discharge. Initially, all contact with family was via phone; however, even with caregivers being allowed to visit and attend training sessions, therapists felt challenged to provide the best care. One therapist recounted:

> A lot of times our patients with stroke have cogni-

> tive involvement, and so sometimes, they might not be the best historians, and when family is present, you can verify information, specifically home support, which is a big deal. Other issues might come up that now we sometimes get surprised by on our family training day instead of kind of knowing them from the beginning.

Despite therapist preparedness for sessions, reduced rapport with patient caregivers resulted in additional challenges for the therapists during discharge preparation.

Many therapists described strategies to involve family members during sessions and family training despite visitor restrictions. Participants facilitated video calls, at times using numerous devices simultaneously in order to include multiple family members. Other therapists discussed practicing using technology during sessions with patients. One therapist stated:

> I have been trying to incorporate more of calling family members or video calling with family members as actual therapy [by] having the patient navigate on their phone to be able to call their family.... That's been really, really beneficial and also great therapeutic exercise.

Using technology during intervention and training was not, however, always seamless due to internet connectivity challenges.

A major change on the inpatient rehabilitation unit was the change in teams and scheduling. Initially, treatment teams were developed to reduce exposure risk for therapists and patients. The teams provided increased communication between clinicians, as the same group was consistently working together. Most patients were assigned to teams based on their primary medical diagnosis. Some therapists felt treatment teams stifled their growth as clinicians, with one therapist reporting, "I'm starting to become a little pigeonholed, and I do miss working with different patient populations," while others reported enjoying the opportunity to "specialize."

Notably, an important aspect of the unit culture was the formal and informal contact with co-workers. Before the pandemic, participants described eating lunch together, talking and providing support, working closely together in the therapy gym, and, on occasion, going out after work. Not having this regular contact with co-workers and "taking care of each other" was experienced as "a huge blow." However, participants reported that having some opportunities to talk about their challenges and stressors was invaluable. Additionally, participants consistently noted how important it was to them that there was "a feeling of we're all in this together" that "just knowing that the rest of the team is going through a lot of the same stuff" was comforting.

Finally, the support of management on the units proved to have a significant impact on participants' experience, an overall buffering effect. Participants described how management responded to concerns about the constant changes and potential for burnout by having more frequent meetings, asking more explicit questions about therapists' mental health, and sending uplifting weekly emails thanking the therapy team for their hard work.

## Personal factors

Participants were acutely aware of the exposure risks outside of work and were thus cautious about engaging in activities with family and friends who were not part of their household. This led participants to feel "on edge," noting "if I get sick, then I could possibly infect an entire floor." Many noted the disconnect they felt with family and friends who did not have the same experience of the virus. One participant stated, "There's kind of a strange disconnect that I feel sometimes with people who don't work in health care, that their day-to-day experience is just so different than mine is right now." For many, much energy went into "measuring the risk" of social encounters, and thus, they carefully monitored where they went, what they did, and who they saw. One participant stated that she often felt like "the COVID police" as she tried to navigate family interactions because "It just seems like I'm the only one who still cares or sees it as an issue anymore because I see it every day, and people don't."

Participants chose to limit exposure and changed their routines accordingly. For example, some engaged in shopping online, while others shopped at "off hours." Some participants spent time outside with friends, but were careful about keeping their distance, while others decided to limit all exposure outside of work. Like many people around the world, participants created opportunities to connect virtually with family and friends. While this was satisfying to some degree, the lack of physical contact was particularly challenging, especially for those who lived alone. As one participant noted: "There's a yearning for more closeness than I can have. Um, I have plenty of physical contact with patients…but you can't hug your friends and have the same level of closeness."

For participants, COVID-19 was ever-present, permeating both professional and personal lives. Because of the stress and isolation of COVID-19, many participants noted the importance of self-care strategies which served as buffers that took them away from thinking about COVID-19. Strategies included exercise routines, yoga, gardening, sleeping more, spending time with pets, and self-rewards or indulgences, often with food. One participant described making her car a COVID-free zone where she listened to music or a podcast "just to avoid hearing on the news 'COVID, this COVID that' because it was just so overwhelming." These self-care strategies provided the participants relief from the stressors of work and maintaining a constant state of hypervigilance.

## Discussion

This study captured detailed descriptions of clinical rehabilitation practice during the COVID-19 pandemic from physical therapists, occupational therapists, and speech-language pathologists using a qualitative descriptive design. In line with the socioecological framework (Bronfenbrenner, 1977; Bronfebrenner & Morris, 2006), we identified four interrelated factors (sociopolitical, institutional, hospital unit, and personal) along with a respective set of stressors and buffers within each factor that collectively impacted therapists' experiences. These factors, stressors, and buffers encapsulate a historically turbulent period in the history of the United States marked by the politicization of the pandemic, an intense presidential election season, and increased awareness of privilege and institutional racism (Elias & Paradies, 2021) among citizens. Obtaining information about the experiences of rehabilitation therapists in the context of political, social, and medical unrest ultimately enriches our collective perspective of the COVID-19 pandemic, which, until now, has predominantly featured insight from physicians and nurses.

Our cohort possesses several distinct features from other medical professionals. As stated previously, many of the participants practiced in an inpatient rehabilitation facility setting where productive collaboration between therapists, patients, and patients' family members is paramount. Therapists serve an integral role in cultivating an efficient patient transition from hospital to home by leading and overseeing patient and family/caregiver training. Related discharge planning facilitated by therapists addresses patient care and therapeutic activities for home, exercise programming, coordination of outpatient rehabilitation services, and consideration of the patient's home environment and available support system. Social distancing guidelines, personal protective equipment availability and use, and hospital visitor restrictions significantly impacted the delivery of care across all medical professions. Our findings underscore the profound impact of the COVID-19 pandemic specifically on rehabilitation therapists.

As discussed within Bronfenbrenner's socioecological model, we recognize numerous interactions between personal (individual), hospital unit (micro-), institutional (meso-), and sociopolitical (exo- and macro-) factors, which reinforce the notion proposed by Devakumar *et al.* (2020) that "the strength of a health system is inseparable from broader social systems that surround it" (p. 1194). We provide several examples below highlighting the degree of interconnectedness between these factors. For instance, hospital visitation restrictions (institutional factor) exposed underlying healthcare disparities (sociopolitical factor) in the inpatient rehabilitation facility. The absence of family members who typically serve as the primary advocates for non-English-speaking patients resulted in considerable challenges in discharge planning for participants, further exacerbated by the shortage of hospital interpreters. It is important to note widespread issues of medical interpreter shortages during COVID-19 (Herzberg, 2022) likely reflecting racial and ethnic disparities related to COVID-19 (Alcendor, 2020; Knuesel, 2021). Our participants, in turn, quickly gained proficiency in various technologies (an institutional and hospital unit stressor *and* buffer) to foster communication with patients' family members. Visitor restriction policies may have also contributed to participants' feelings of disconnectedness (personal factor) toward friends and family that did not possess the same experience or urgency of the virus (sociopolitical factor) or experience the infiltration of the pandemic in both their personal and professional lives. These sentiments support past qualitative work illuminating therapists' fears and frustrations with the pandemic outside of the hospital environment where relationships with family and friends were often strained (Palacios-Ceña *et al.*, 2021b). Relatedly, the formation of treatment teams to lessen exposure risk and the minimization of interactions among participants (hospital unit factor) contributed to their reported feelings of isolation. Yet, their utilization of self-care strategies (a personal buffer) encompassing hobbies, exercise, time outdoors, and virtual communication with friends, colleagues, and family along with support from colleagues and management reduced these feelings of disconnect and isolation.

Past work examining the effect of the COVID-19 pandemic on therapists' mental health and well-being provide contrasting views. Some studies reported elevated anxiety, depression, and reduced morale across therapist participants (Hoel *et al.*, 2021; Yang *et al.*, 2020) . Others reported minimal adverse effects (Tse *et al.* 2021) or the occurrence of positive feelings related to personal and professional growth embedded in an "emotional roller coaster" (Palacios-Ceña *et al.*, 2021a). This study contributes a unique angle to this discussion. Our participants identified similar stressors and fear as acknowledged in previous work (Hoel *et al.*, 2021; Palacios-Ceña *et al.*, 2021a; Yang *et al.*, 2020), but they also recognized how policies occurring at both institutional and hospital unit levels *alleviated* stress. For instance, visitor restrictions were often an obstacle or stressor in discharge planning; however, visitor restrictions also served as a buffer by reducing traffic within the hospital, thus making the participants feel safer. Hence, the stressors and buffers identified here were not mutually exclusive and sometimes posed contradictions within our socioecological framework in a similar manner to previous work that identified both negative and positive critical events among physical therapists (Palacios-Ceña *et al.*, 2021a). Our findings therefore resonate with past work employing quantitative (Hoel *et al.*, 2021; Yang *et al.*, 2020), qualitative (Palacios-Ceña *et al.*, 2021a; Palacios-Ceña *et al.*, 2021b), and mixed-methods (Tse *et al.*,

2021) approaches by expanding on and bridging their respective findings.

### Strengths and limitations

A major strength of this work was the application of a socioecological framework during our analysis that appropriately highlighted the intersection of politics, social unrest, and hospital culture impacting rehabilitation practice and therapists' experiences, which ultimately generated a more meaningful perspective. Another strength of our work was the numerous strategies employed to enhance rigor during the interview, coding, and analysis processes.

There are also limitations of this study that should be acknowledged. First, this study occurred at one university-affiliated hospital in the southeastern region of the United States. The experiences and sentiments expressed by our participants do not necessarily represent those from therapists residing in other regions of the United States or even those residing in a similar geographical region but practicing in a different healthcare system. Second, we want to emphasize that this study involved a single participant interview that occurred during the Fall of 2020, a window of time that preceded the advent of vaccines and boosters in addition to the onset of Delta and Omicron COVID-19 variants. The impact of these events on therapists' experiences deserves additional study. Relatedly, the average 45-minute duration of each participant interview may have hindered additional sharing from participants; however, given the semi-structured nature of these interviews, the interviewers provided participants opportunities to share additional information about their experiences not otherwise addressed in the interview guide. Lastly, practitioners were not asked to review transcripts or to provide input in the analysis and interpretation process, given the stress these practitioners were experiencing.

## Implications and Conclusions

This work provides a number of implications for healthcare systems. Our findings suggest that sociopolitical factors influenced policy changes at the institutional level, and these policy changes impacted rehabilitation therapists and their experiences during the COVID-19 pandemic. Participants in our study expressed an appreciation for transparency at the institutional and hospital unit levels along with consistent communication from leadership at these levels. These sentiments parallel a recent case report describing COVID-19-related challenges in a pediatric physical therapy/occupational therapy department (Greenwood *et al.*, 2021). The authors noted the tremendous value of increased communication in the form of brief team meetings (*i.e.*, huddles) held virtually to ensure attendance from hospital leadership, supervisors, therapists, and staff.

Not surprisingly, participant frustration arose when policy changes occurred without their knowledge or with little to no input from them. This was particularly evident in participants' concerns with the quality of care for their non-English-speaking patients resulting from visitation restrictions, interpreter shortages, and increased reliance on technology *vs.* face-to-face contact with family members.

Therapists play a pivotal role in promoting safety and independence across areas of mobility, meaningful activities of daily life, and communication in the lives of their patients. Fulfilling these job-related responsibilities typically requires close contact with patients for prolonged durations and collaboration with patients' family members. Policymakers at all levels should therefore understand therapists' roles and responsibilities in patient care when formulating policies.

Work by Pilbeam *et al.* (2022) reinforces this recommendation. The team acquired interviews from 14 healthcare workers in the United Kingdom and found that COVID-19 policies and guidelines were often poorly communicated to workers at the time of enactment and failed to account for their "contextual realities" (p. 2) and values as healthcare professions. Policymakers thus have a responsibility to ensure that guidelines and policies passed at institutional and hospital unit levels adhere to the professional practice standards of rehabilitation therapists. However, we recognize the complexity of these circumstances as policies enacted at the institutional and hospital unit levels frequently occur in response to both local and national government mandates.

Our work also underscores the importance of camaraderie amongst participants, which aligns with past work detailing how therapists often relied on mutual support from one another and how they appreciated talking with their colleagues openly about issues related to the pandemic, since many of their friends and family could not relate to their experiences (Palacios-Ceña *et al.*, 2021b). For our participants, the pandemic consumed both their personal and professional lives. Having colleagues that understood the nature of their profession, the demands of inpatient rehabilitation practice, and the devastating reality of the COVID-19 pandemic helped many of the participants. Policies restricting these interactions had a negative effect and contributed to participants' feelings of isolation.

By focusing on a distinct clinical environment and a relatively understudied group of medical professionals, the experiences captured here deepen our awareness of the pandemic's impact on healthcare workers and highlight the value of camaraderie and communication to promote therapist well-being.

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