ORIGINAL RESEARCH ARTICLE

The clinical education experience of physical therapist students during the COVID-19 pandemic: a phenomenological study

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Abstract

Purpose: The purpose of this study was to explore the lived experience of physical therapist (PT) students participating in clinical education (CE) experiences during the COVID-19 pandemic.

Methods: This qualitative study used an interpretive phenomenological analysis to explore the lived experiences of entry-level PT students enrolled in New York (NY) and New Jersey (NJ) PT educational programs in an effort to understand the unique experience of completing full-time CE experiences during the COVID-19 pandemic. Twelve students from accredited programs in New York and New Jersey who participated in a full-time CE experience during the COVID-19 pandemic were interviewed.

Results: Four themes emerged: disruption in their academic education, altered CE experiences, emotional responses to these unanticipated disruptions, and their ability to adapt to these changes.

Conclusion: The COVID-19 pandemic was an exceptionally disruptive experience. However, with support, understanding, and encouragement, students adapted to the disruptions created by this unpredictable clinical environment.

MeSH terms: preceptorship; physical therapists; students

Keywords: clinical education; COVID-19; physical therapist education; adaptability

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In March 2020, the COVID-19 pandemic surged in the New York (NY)-New Jersey (NJ) Metropolitan area, forcing physical therapist (PT) education programs to quickly transition to online remote education. The pandemic impacted physical therapy practice in most practice settings. Inpatient healthcare systems were overwhelmed with critical cases and outpatient services were significantly curtailed. Students participating in their clinical education (CE) experiences saw their experiences suddenly aborted, delayed, or rescheduled, with most future placements cancelled. Graduation was delayed for some students, and the curriculum sequence was quickly modified for others. A small percentage of students completed CE experiences during the first wave of the pandemic. Some clinical sites reopened their doors to students in the summer and fall of 2020, allowing students to resume clinical experiences, while other healthcare organizations remained closed or at reduced capacity.

Curricular changes in both didactic delivery and CE were accompanied by emotional responses relating to the transition to online learning, limited peer interaction, isolation, and uncertainty. Negative effects of the pandemic on the breadth of clinical exposure have been reported in medicine. Fear relating to potential exposure to a deadly infectious disease has been reported in medical trainees and PTs on the front line of the pandemic.

#Portions of this work have been accepted for a platform presentation at the 2022 Educational Leadership Conference.
Existing literature on the PT student experience focused on didactic education, but to our knowledge no literature has explored the CE experience of PT students during the COVID-19 pandemic. The pandemic changed the clinical environment, and it impacted the clinical learning of PT students is unknown. The lack of insight into students’ experiences is a critical gap in the literature, as we do not know what they experienced or how they persisted in their clinical coursework in an uncertain environment. Understanding students’ lived experiences and challenges faced during this crisis can aid academic and clinical educators in fostering strategies to support student success during other disruptive events.

The purpose of this study was to explore the lived experience of PT students participating in CE during the COVID-19 pandemic. This study sought to answer multiple research questions: How did the COVID-19 pandemic affect PT students’ CE experience? How did the COVID-19 pandemic affect the perceived preparation for CE? How did the COVID-19 pandemic affect the perceived quality of CE experiences? What was the students’ emotional response during CE?

**Methods**

**Design**

This qualitative study used an interpretive phenomenological analysis (IPA) to understand the unique experience of students who completed full-time CE experiences during the COVID-19 pandemic. A constructivist paradigm guided the development of demographic questions, open-ended interview questions, and probes to understand the phenomenon of completing a CE experience during the COVID-19 pandemic by reflecting on their experiences (Table 1). An experienced qualitative researcher consulted with the research team regarding research design, question development, and data analysis. The Job-Demands-Resource (JD-R) Model was used to frame this study and shed light on our analysis. The JD-R model describes how changes in the demands and resources of the work environment, which in this case is the educational and clinical environment, impact the individual or student.

**Ethics approval**

Nazareth University’s Institutional Review Board (SP 2021-24) approved this study.

**Subjects**

Purposeful criterion-based sampling recruited 12 PT students (Table 2). Ten participants were enrolled in traditional PT programs and two in a weekend program. Inclusion criteria included students enrolled in an accredited entry-level PT education program in New York and New Jersey who participated in at least one full-time CE

<table>
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<tr>
<th>Table 1. Interview guide</th>
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<td>Semi-structured interview questions</td>
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<td>1. Tell me how COVID-19 affected your clinical education.</td>
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<td>• Probes: Could you stay? Did you start your CE experience? What happened?</td>
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<td>• Probes: How did you feel about the communication from the site? How did you feel about the communication from the academic program?</td>
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<td>• Probes: If your CE experience was shortened, how did you feel? How was it resolved? What happened?</td>
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<td>• Probes: Did you have enough weeks of clinical education to graduate?</td>
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<td>• Probes: Did you meet the criteria to ‘pass’ the experience?</td>
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<td>• Probes: Describe your experience</td>
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<td>• Probes: How, if at all, was your caseload of patients affected by the pandemic in terms of volume, complexity, variety, etc.?</td>
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<td>2. Describe your feelings about going out to the clinic as a physical therapy student during the COVID-19 pandemic?</td>
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<td>3. Tell us about your clinical education experience(s) while you were working in the clinic.</td>
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<td>• Probe: Setting of the CE experience if not shared.</td>
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<td>• Probe: Tell us about the environment of your clinic.</td>
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<td>• Probe: How was the delivery of care different than you expected?</td>
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<td>• Probe: Tell us about your experience with telehealth.</td>
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<td>4. How do you feel COVID-related changes impacted the quality, breadth, and depth of your clinical education?</td>
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<td>5. How do you feel COVID affected your ability to perform in your clinic?</td>
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<td>• Probe: How did virtual learning affect your clinical education experience? If so, describe your experience.</td>
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<tr>
<td>6. Tell us about any personal or financial implications related to your participation in clinical education during the pandemic.</td>
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<td>7. What do you feel has been the biggest impact of COVID-19 on clinical education for physical therapy students?</td>
</tr>
<tr>
<td>8. Is there anything else from your clinical education experiences during the pandemic that we did not discuss that you would like to add?</td>
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experience between March 1, 2020 and March 1, 2021. This region was selected due to its proximity to the epicenter of the first wave of the COVID-19 pandemic. Nine of the 12 participants completed at least one CE experience before the COVID-19 pandemic began. Ten participants completed all CE experiences at the time of the study, and two had additional CE experiences remaining.

**Procedures**

The researchers emailed the Directors of Clinical Education (DCE) and Site Coordinators of Clinical Education (SCCE) in the NY and NJ Clinical Education Consortium to inform them of the study, and requested they forward the recruitment email to students who met the inclusion criteria. A sample of the first 12 participants who qualified and consented to participate provided sufficient cases to gather information for an in-depth analysis to answer our research questions. The Standards for Reporting Qualitative Research requirements were used during this study’s conceptualization, application, and reporting to ensure trustworthiness (Table 3).
Data collection
Participants participated in individual 45–60-min semi-structured Zoom interviews in November 2021. The research team has experience working with PT students in both academic and clinical settings. Two of the four researchers (MD and RH) with previous experience in qualitative research conducted the interviews. Interviews were recorded and transcribed verbatim by Rev.com. Each transcript was de-identified and then emailed to the participants for member checking.

Data analysis
An IPA was used to code, classify, and identify themes that were relevant to the student experience of participating in CE during the pandemic. All four researchers, two with experience in qualitative research and two novice
Disruption in academic education

The abrupt transition from in-person to online teaching reduced hands-on practice, diminished student interaction with other students and faculty, and led to a lack of perceived preparation for CE (Table 4). Online coursework required more self-directed learning on the part of the student. Students described feeling less engaged and lacked the motivation to be as interactive as in an in-person class.

A major impact noted was the inability to practice clinical and hands-on skills to develop psychomotor competency. Nearly all students expressed that online learning negatively impacted their ability to master psychomotor skills. Additionally, students feared that the first person they would perform these skills on would be the patient. Perceptions of the success of virtual learning varied among participants, but students consistently questioned their preparation to work with patients in the clinic after limited hands-on skill practice.

Altered CE experiences

Most clinical sites were unwilling or unable to host students during the pandemic, resulting in many students’ originally scheduled experiences being cancelled or changed. Students were concerned about missed time in the clinic due to cancellations or the need to quarantine, resulting in a possible delay in graduation. As CE resumed...
and students returned to clinical sites, students expressed disappointment over a lack of variety in available CE settings. Inpatient experiences and specialty experiences were particularly difficult to reschedule.

In hospital settings, the reduced volume and variety of patient caseloads were attributed to the overwhelming number of patients testing positive for COVID-19 regardless of other diagnoses, reduced number of elective surgeries, and social distancing requirements, resulting in students expressing concern over the decreased variety of diagnoses treated. Reflecting on their experience, students reported feeling uncertain about providing effective treatment, including telehealth, to patients diagnosed or recovering from COVID-19. Other students expressed gratitude for the experience of treating patients with COVID-19.

A decreased caseload created more downtime for some students to spend with their clinical instructor(s) (CI) on clinical learning and increased one-on-one time with patients. Reports of lower patient volumes in outpatient clinics provided additional time to practice psychomotor skills with their CI, increasing confidence. Conversely, other students felt individual mentorship was scarce due to the high number of students at the site. Students discussed CIs verbalizing discomfort with non-physical therapy job tasks necessitated by COVID-19 but felt that the CIs were role models by demonstrating how they adapted to uncertain situations in the moment. Students noted the perceived stress of CIs; however, most students stated that CIs were supportive, collegial, and fostered learning. Illustrative quotes are located in Table 4.

**Emotional response**

Early in the pandemic, emotions were characterized by shock, uncertainty, panic, stress, and fear. Initial emotions resulted from moving classes to an online format, cancellation of clinical placements, housing, finances, and the potential of not graduating on time. When students were allowed to resume CE, emotions were centered on the fear of being exposed to COVID-19 and feeling underprepared for patient care. Over time, emotions changed to feeling thankful and grateful to both academic and clinical faculty for the learning experience of working in the clinic during a pandemic. Sample quotes are located in Table 5.

**Student adaptability**

Despite the initial stress of cancellations and changes in CE placements, students trusted that their DCEs’ actions would allow them to meet CE graduation requirements. Frequent communication, even in the absence of a solution, was crucial for reassuring students. Students accepted, despite being disappointed, that they may have experiences in different settings than originally planned because graduating on time was their priority. Many

### Table 5. Themes 3 and 4 illustrative quotes

**THEME 3: Emotional response**

'I was a little bit frustrated because I’d secured housing somewhere else.' (P7)

'Panic. I really needed to graduate on time because of my scholarship.' (P10)

'I was in limbo for a couple of weeks hoping am I going to find a clinical.' (P1)

'I was a hot mess. I was so anxious. I was so worried that I would get there and just be like, “I don’t even know what to do. I’ve never done it before.”’ (P12)

'There’s definitely students out there who are scared… I was scared…I delayed, but most of my classmates didn’t. They were ready to go, ready to rock and roll.' (P8)

'I was also very nervous to now be in a hospital without a vaccine.' (P1)

'I’m very grateful because our school did awesome…They adjusted super quickly.' (P5)

'I had a very good experience…I had a very good instructor and the hospital had good policies in place for students. So, I didn’t feel overwhelmed. … I felt more confident leaving that rotation that I learned a lot of skills that I would use in the future.' (P11)

'It was definitely a little stressful…I was in a hospital setting…we were getting more COVID patients, and their staff needed to be redistributed to different floors, it was a week by week of whether or not I would be sent home or changed to an outpatient clinic and lose the rest of that experience in the acute care setting.' (P2)

'I had enough faith in my school and the DCE to know I would end up somewhere.' (P4)

**THEME 4: Adaptability**

'It was just like limbo. So, I just went with the flow. Just accepted it.' (P8)

'Everyone really shows how adaptable you have to be in challenging situations, this pandemic is still going on, you have to figure out new ways to get creative and just be safe.' (P9)

'He [CI] consistently went over the PPE with me… he was like, I just want to make sure you don’t get sick and you’re okay. And he was always asking me how I felt. And I did feel okay. But a large part of the reason is because he was always asking me.' (P11)

'Having someone else who understood and basically went through a similar, if not worse situation during the pandemic was definitely helpful in me navigating it myself.' (P2)

'I think that COVID in the clinical setting made me… a stronger clinician.' (P11)
realized that while the experience differed from the initial placement, it was a good learning experience.

Safety measures implemented by sites and CIs contributed to students adapting to working in an uncertain, frequently changing clinical environment and contributed to feelings of safety. Students reported less fear of working in the clinic once vaccinated, when strict and explicit safety measures were in place, and when these measures were enforced at their site. Creative solutions to working within the new safety precautions forced students to work outside their comfort zones, but with support from the CIs, students were successful. Some sites instituted policies that prohibited students from working with patients who were positive for COVID-19, which helped students feel safe. At other sites, CIs gave students agency in choosing if they were comfortable treating this population. Both options helped them feel more secure. Illustrative quotes are located in Table 4.

Discussion

Our findings extend the knowledge of the impact of the COVID-19 pandemic on PT students and add new insights specific to CE experiences that have not previously been discussed. This new understanding of the student experience is important because approximately 30% of their PT education occurs during CE. In this sample of PT students, initial responses were centered on the rapid switch to online learning, fear of not graduating on time, and possible financial implications. Similar emotions of uncertainty are documented in medical students and PT students. Tuition affordability and financial and food insecurities have previously been reported as stressors for PT students during didactic education. Additional financial implications of housing changes required for rescheduled clinical placements and not graduating on time were new findings specifically related to CE that were not previously reported. These concerns, although mentioned, were not an overwhelming focus, possibly because the interviews were conducted after the initial surge of the pandemic and students had resumed CE or had graduated.

Early in the pandemic, students cited the importance of communication with their program DCEs in coping with uncertainty. They trusted that their DCEs were working hard to find CE placements that would allow them to complete graduation requirements. Previous findings of the students’ need for faculty support to modulate stress in the classroom were expanded upon in our study because students also needed faculty support to manage stress in the clinical setting.

Students’ concern regarding their preparation to competently perform psychomotor skills in the clinic due to the lack of hands-on practice corroborated the findings of Hyland and Anderson. Although our findings differ from Kothe, who found no difference in perceptions of preparedness in the beginning of CE or final outcomes, our study expands their findings by adding additional information relating to the student experience and how they completed and achieved CE outcomes. These pre-clinical fears were eased with the understanding and mentorship of their clinical instructors. Participants consistently cited CIs’ understanding that students had limited preparation in hands-on practice and may not have been prepared was crucial to easing their fears.

Students worried about contracting or spreading the disease to relatives or roommates through encountering patients positive for COVID-19. These emotions were consistent with those experienced by PTs and medical students and residents. Although inadequate personal protective equipment (PPE) was reported by both PTs and surgical residents, this was not a major concern to students in this study. One possible explanation was that PT students were not sent to clinical experiences until the initial wave had subsided and PPE was more readily available.

The overall experience of clinical training during the pandemic was not universal across professions. Some CE experiences reported by students in this study are similar to trainees in other professions, yet others are different. Medical trainees reported a negative impact of the pandemic on clinical experiences, while the participants in our study reported an overall positive experience. Similar to the study by Coleman, the decrease in elective non-emergency surgical procedures impacted the breadth of patient exposure in this sample of PT students. The decrease in patient volume was perceived by the participants to allow for more CI mentorship and instruction. In contrast to the medical students polled in Seifman’s study, most participants in our study reported adequate supervision.

Adaptability, a theme of our study, has been linked to academic performance and burnout in didactic education. One study in athletic training reported the importance of student adaptability to cope with the challenges of the pandemic. However, this study did not specifically discuss adaptability during CE. In our study, participants cited how CIs acted as role models by sharing how they adapted and changed their practice during the pandemic. CI mentoring, coupled with academic faculty communication, helped students adapt to the changing clinical environment. Earlier studies focused on the initial impact of COVID-19 on PT students and not the evolution of the student experience as the pandemic progressed. In our study, all students adapted to these unexpected changes in the clinical environment, as evidenced by their successful completion of the clinical experience and progression in the program. Those who had completed their programs were all gainfully employed. We
believe this article expands the understanding of the CE experience of PT students during a public health crisis. We postulate that an entry-level PT curriculum should intentionally include activities that require students to perform in circumstances that are ambiguous and unanticipated to assist them in developing the skills to perform in the clinical environment when the unexpected occurs, as it routinely does. This is a skill necessary to effectively navigate all healthcare environments.

**Limitations**

Limitations of our study included interviewing a small sample of students, all of whom attended PT programs in one geographic region that was at the epicenter of the COVID-19 pandemic, demonstrating an unequal representation of PT programs on a national scale. The two male participants do not accurately represent the gender demographics of PTs. The participation self-selection process may have favored students with certain characteristics not identified, which may have influenced their responses. Additionally, our small sample of students may not have captured the group of students who were the first to return to clinics in 2020 when they first reopened. Participants did not include any students who were in their final clinical year in March 2020, impacting their ability to graduate. While we assumed students’ successful completion of the clinical experience indicated their ability to adapt to the changes and stresses they encountered, we could not identify the underlying personal characteristics responsible for their success. Students less successful may have chosen not to participate.

**Future research**

Further research may be able to determine whether more experimentation in learning, teaching to uncertainty, and providing less structure can help students develop adaptability before entering the clinical environment. Research to determine what characteristics contribute to student success in the clinic needs further exploration. Further assessment of the impact of DCE/CI communication and types of support necessary for student success in clinical experiences during a pandemic, including policies to keep students safe, might help better prepare PT academic and clinical programs in the future. It would be interesting to explore whether PT students who studied during the height of the pandemic are prepared, are competent, and have the necessary hands-on skills to practice as they enter the workforce, particularly those students who expressed worries about not having these skills due to missed lab time and lack of hands-on practice and/or a lack of variety and breadth, depth, and volume of patients during their clinical learning. Additionally, looking at the long-term career success of these students in contrast to students who trained prior to the pandemic could share additional insights. Lastly, as our sample consisted solely of students in New York and New Jersey, it would be beneficial to study the lived experience of PT students in CE during the COVID-19 pandemic on a national or international scale.

**Conclusion**

The COVID-19 pandemic was an exceptionally disruptive experience. However, with support, understanding, and encouragement, students in this study adapted to providing care in the clinical environment. A supportive environment that facilitates adaptability is important because real or perceived disruptions will occur post-pandemic. Academic programs should consider placing students in low-stake, disruptive situations during their entry-level education to support the concurrent development of cognitive flexibility with clinical skills to create a safe environment for growth. Adaptability may help students navigate future challenging situations to be successful clinicians in the changing healthcare environment.

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**Conflicts of interest and funding**

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*Previous presentation of the underlying manuscript content*

Portions of this work have been presented in a platform presentation at the 2022 Educational Leadership Conference.

**References**


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