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# COVID-19 Pandemic's Effect on Occupational Therapy Students' Time-Use and Occupational Engagement On Returning to In-Person Learning

## Abstract

The COVID-19 pandemic emotionally and physically impacted students in occupational therapy and occupational therapy assistant programs. College students lost autonomy and access to meaningful occupations and environments. As students returned to campus, they struggled to navigate and adapt to in-person occupations and how they use their time. This study uses a mixed method descriptive research design to understand how the pandemic affected occupational therapy students' time-use and occupational engagement during the transition to in-person learning. Seventy-three students completed an online survey, while 12 of those students additionally participated in a follow-up time-use diary and interview. Eighty-three percent of the participants agreed or strongly agreed they learned more effectively in-person compared to online, while 65% agreed or strongly agreed to make time to participate in satisfying occupations. Three themes emerged after the thematic analysis of the qualitative data: time compression, lessons from adapting, and autonomy and choice. The findings provide perspectives on occupational therapy students' ability to adapt and manage their time during this transition and offer insight into other transitions in their programs.

## Comments

The authors declare that they have no competing financial, professional, or personal interest that might have influenced the performance or presentation of the work described in this manuscript.

## Keywords

college students, COVID-19 pandemic, in-person learning, online education, virtual learning, transition

## Credentials Display

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The World Health Organization (WHO) formally recognized the outbreak of the novel COVID-19 virus as a pandemic in March 2020 (Ghebreyesus, 2020). The COVID-19 virus affects not only someone's physical health but also their economic, social, and emotional health. Because of the overwhelmed health care systems and the highly contagious virus, public health authorities urged lockdowns and social distancing for the public to limit face-to-face interactions (U.S. Department of Education, 2021). Across the globe, society enforced adjustments to mitigate the spread of the COVID-19 virus. As a result, universities transitioned to online platforms. For many students, their school became a "safe zone" and provider of essential goods and services (U.S. Department of Education, 2021). The COVID-19 pandemic caused many college students to move back to their previous homes, transition to an online learning environment, and lose access to important occupations, such as work or health management. However, not all students had the privilege of remaining safe and staying in sheltered homes, as some were essential workers who served the public at grocery stores, restaurants, medical facilities, and transportation.

According to Werner and Jozkowski (2022), the COVID-19 pandemic caused a shift in "time-use, time perception, and human occupational behavior" (p. 2). The concept of time-use allows occupational therapists to understand people's quality of life, what they do with their time and why, and how a condition affects occupational engagement. Gathering time-use data from a population promotes the assessment of social change and how people adapt to the requirements of daily life (Farnworth, 2003). Occupational therapy and occupational therapy assistant students have a unique perspective as they have a foundational knowledge of how occupations affect one's well-being and the intersectionality of time-use and health. According to Farnworth (2003), time-use findings are an accessible term for non-occupational therapy audiences because people can apply and relate it to their own lives. Studying occupational therapy students' time-use with their occupational engagement creates a sample that can provide content-specific and accessible insight into the COVID-19 pandemic's impact on college students.

### **The COVID-19 Pandemic's Impact on Occupational Therapy Students**

The indefinite nature of the social distancing measures and lockdown took its toll on society. The effects of social isolation became more present as time progressed. According to a study by Hämmig (2019), the younger population, 15 to 24 years of age, tend to experience poorer health conditions and behaviors because of social isolation compared to their counterparts aged 25 years and older. Furthermore, these unprecedented times and uncertainty brought a new level of psychological stress for young adults learning to navigate remote work or university courses, such as a lack of motivation and socialization and feelings of boredom, loneliness, and anxiety (Filho et al., 2021). Furthermore, with social distancing, students expressed decreased productivity and concentration levels, increased unhealthy lifestyles, and decreased quality of sleep (Ferreira da Mata et al., 2021). With the COVID-19 pandemic and the switch to an online medium, most students may have had the underlying knowledge to transition to remote work. However, many lost access to social circles and meaningful milestones (Rideout et al., 2021).

Keptner and McCarthy (2020a) outline the impact of COVID-19 on students' occupations during the beginning of the COVID-19 pandemic and outline how there is an overall reduction in engagement in nonessential activities, such as work, internships, service, dating, spontaneous social gatherings, and spiritual practices. Alongside the decreased occupational engagement, Rodríguez-Fernández et al. (2021) suggest that the student role and negative self-perception contribute to poor occupational balance. During this time, students experienced a shift in what occupations they engaged in and how they balanced and engaged in them.

Occupational therapy students' perceptions and values of their academic roles may have affected the pressure to cope with how they use their time (Werner & Jozkowski, 2022). Furthermore, Wegner et al. (2022) found that during the beginning of the COVID-19 pandemic, young adults lost their "occupational right of autonomy" (p. 9) and experienced occupational deprivation and occupational alienation, which had adverse effects on their socialization, connectedness, and interpersonal relationships. These negative implications influenced their health, well-being, and sense of belonging. Over time, during the COVID-19 pandemic, the students learned to adapt how they used their time to participate in social and leisure occupations to manage stress and promote their well-being (Wegner et al., 2022).

Werner and Jozkowski (2022) found an increase in occupational therapy students' time spent studying as a possible coping mechanism. They suggest that "toxic positivity" motivated their desire to incorporate studying more into their daily routines by understanding their need to excel academically and avoid negative emotions, fear, and uncertainty (p. 8).

### **The COVID-19 Pandemic's Implications on Time-Use and Occupational Engagement**

College students experienced significant disruptions to their occupational engagement when in-person activities suddenly ceased. Some students expressed boredom and loss as they did not know how to use their newly acquired time (Wegner et al., 2022). For other students who did not experience significant shifts in their time-use, Werner and Jozkowski (2022) found that increases in certain occupations, such as sleep and rest, had negative and positive implications on their health during the pandemic.

As the COVID-19 pandemic progressed, the development of vaccines helped the fight against the evolving virus and facilitated the public to feel safe and return to some normalcy. Universities transitioned back to in-person or blended learning, allowing the re-introduction of pre-pandemic routines, such as group leisure activities and face-to-face social gatherings. A different uncertainty loomed across society as they transitioned into the "new normal." The effects of social isolation and the biological, psychosocial, and financial experiences that stemmed from COVID-19 took its toll on people of all ages and continue to be a traumatic stressor (Bridgland et al., 2021). Karnbach et al. (2022) found that as students received more workload with their academic responsibilities, they had increased negative emotions and stress, resulting in difficulties handling social situations.

As students returned fully to in-person or blended programs, they experienced a transition from isolated learning environments to more social conditions. Students must navigate a new stage of the pandemic with all the emotional and physical toll that came from the pandemic, so it is crucial to understand how they spend their time and what occupations they engage in to support their transition and well-being more effectively.

### **Method**

This study used a mixed method descriptive approach to answer the research question: How did the COVID-19 pandemic affect occupational therapy students' time-use and occupational engagement? This methodology allows researchers to extract and analyze data to draw on the students' direct words while inviting their audience to interpret the data (Sandelowski, 2000; Stanley, 2014). The descriptive study offered a comprehensive summary of the students' experience during the pandemic presented in everyday terms, which allows an audience without an occupational therapy background to comprehend the findings. The research study included an online survey consisting of quantitative and qualitative questions. Students had the option to participate in a time-use diary called the Occupational Experience

Profile (Atler & Fisher, 2022) and an interview to gain deeper insight into the students' experiences with their transition to in-person learning. Students' consent was obtained at each stage of the study: survey, assessment, and interview. This study was approved by the University of St. Augustine for Health Sciences Institutional Review Board.

### **Participants**

Participants were recruited through a mass email to an occupational therapy program with enrolled associate, master's, doctorate, and post-professional doctorate students. Furthermore, participants were also recruited through social media posts in groups with occupational therapy students and snowball sampling with researchers' networks. The inclusion criteria were occupational therapy and occupational therapy assistant students 18 to 65 years of age who have experienced college coursework virtually and in person. Exclusion criteria would be those who experienced college coursework virtually or in-person, current occupational therapists, or prospective occupational therapy students not currently enrolled in a program.

### **Data Collection and Instrumentation**

An online-survey including multiple choice, a 5-point Likert scale, and short answer questions was distributed to understand participant demographics and the effects of the pandemic on their daily routine. Students answered six Likert-scale questions about their perceptions of their satisfaction with their occupational engagement (see Figure 1). At the end of the survey, an optional question asked students if they wanted to continue participating in the research study with a follow-up time-use diary and interview.

The follow-up time-use diary and interview aimed to understand what aspects of their daily routine were affected the most and how their well-being was affected throughout the pandemic. The Occupational Experience Profile assessed occupational therapy students' time-use and perceptions of their occupations. The Occupational Experience Profile is a time-use diary to measure the occupational experience associated with occupations completed in a day (Atler & Fisher, 2022). The pilot version of the Occupational Experience Profile displayed positive occupational experiences and awareness of how they completed occupations, which helps benefit college students' daily lives (Atler & Fisher, 2022). Furthermore, this study aligns well with the population studied by Atler and Fisher (2022) to test the validity of the Occupational Experience Profile as they recruited occupational therapy graduate students. The Occupational Experience Profile allows a concrete and consistent means to document time-use compared to a similar study that analyzed time-use for students during the beginning of the pandemic using a variety of time-use documentation methods (Werner & Jozkowski, 2022).

Lastly, conducting an optional follow-up interview offers insight into the college students' answers to the Occupational Experience Profile, their perspectives on how the pandemic has affected their occupational engagement, and how they have transitioned to in-person learning. Werner and Jozkowski (2022) describe the need for more interviews and narratives to supplement the college students' experiences and time-use during the pandemic.

### **Data Analysis**

Quantitative data from the surveys were analyzed in Microsoft Excel. Descriptive statistics summarized the Likert scale-based question. Following the transcription of the interviews, the student researcher used Dedoose (Version #9.0.62) to organize and code qualitative data collected from the open-ended survey questions and interviews. Data were analyzed using Braun and Clarke's (2006) method for thematic analysis to determine themes that would provide insight into how the pandemic has affected the students' time-use and occupational engagement. Data were familiarized through transcription of verbal

data. Then, initial codes were generated from the transcriptions to identify patterns and relationships between data. Themes were generated by sorting and grouping similar codes. Themes were produced by reviewing the coded data to see if they matched the themes and sub-themes created. Also, data were analyzed to decide if the theme's name depicted the message. Then, themes were rearranged to depict a story of how they fit together to answer the research question.

### Positionality Statement

The lead author was an occupational therapy student who transitioned from virtual to in-person learning during the pandemic. Also, the lead author attended the same university from which most of the participants were recruited. The second and third authors were educators at occupational therapy graduate programs who taught students before and during the pandemic.

### Results

Of the 74 students who participated in the survey and interview, ages ranged from 19 to 38 years of age, with a mean of 25 years of age. Table 1 further highlights the demographic information for the survey and interview participants.

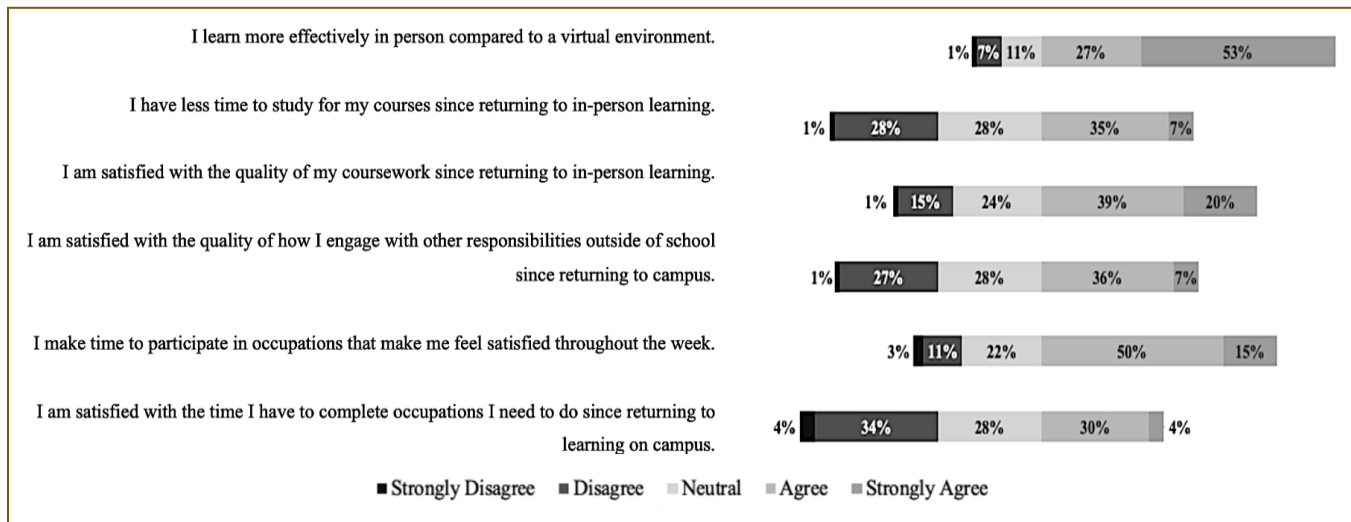
**Table 1**  
*Participants' Demographics*

Demographics	<i>n (%) that completed the survey</i>	<i>n (%) that conducted the interview</i>
<b>Gender</b>		
Female	62 (84.9%)	8 (66.7%)
Male	10 (13.7%)	4 (33.3%)
Non-binary	1 (1.4%)	0 (0%)
<b>Race or Ethnicity</b>		
White	32 (43.2%)	1 (8.3%)
Asian or Asian American	28 (37.8%)	9 (75%)
Hispanic, Latinx, Spanish Origin	8 (10.8%)	1 (8.3%)
Native Hawaiian or Pacific Islander	2 (2.7%)	0 (0%)
Middle Eastern	1 (1.4%)	1 (8.3%)
Other	3 (4.1%)	0 (0%)
<b>Anticipated Degree</b>		
Master's	39 (52.7%)	4 (33.3%)
Entry-level doctorate	26 (35.1%)	7 (58.3%)
Post-professional doctorate	5 (6.8%)	0 (0%)
Associate	4 (5.4%)	1 (8.3%)

Students rated their perceptions of their occupational engagement with general and educational occupations using Likert scale-based questions to rate whether they disagreed, agreed, or felt neutral about the statements. Fifty-nine students (79.7%) agreed or strongly agreed that they learned more effectively in-person than in a virtual environment. Also, 48 students (64.9%) agreed or strongly agreed with the statement, "I make time to participate in occupations that make me feel satisfied throughout the week."



**Figure 1**  
*Likert-Based Questions*



Three major themes were identified from the two open-ended survey questions and 12 interviews: time compression, lessons from adapting, and autonomy and choice. Each theme will be discussed further in the following sections. Table 2 summarizes themes and subthemes.

**Table 2**  
*Themes and Subthemes*

Themes	Subthemes
<b>Time Compression</b>	<ul style="list-style-type: none"> <li>• Loss of “Placeholder Occupations”</li> <li>• Preparatory Occupations</li> <li>• Time and Energy Levels</li> </ul>
<b>Lessons from Adapting</b>	<ul style="list-style-type: none"> <li>• “Mind Shift”</li> <li>• Relearning Occupations</li> <li>• Manipulating the Environment</li> </ul>
<b>Autonomy and Choice</b>	<ul style="list-style-type: none"> <li>• Freedom to Choose</li> <li>• Tensions Between Polarities</li> </ul>

### Time Compression

The respondents reported this experience of time compression as not having enough time or having less time to do occupations they want or need to do as they returned to in-person learning. The students reported a range of impacted occupations, such as meal preparation, self-care, health management, education, work, social participation, rest and sleep, and leisure.

#### *Loss of “Placeholder Occupations”*

As the students experienced time compression, they described the loss of “placeholder occupations” after resuming in-person activities. During the COVID-19 pandemic, the students could not participate in their desired occupations as a result of social distancing measures, so they reported trying new occupations or doing more of an occupation. Student 28 mentioned spending “more time with [her] dog” because she “felt like [she] had to do all those things to increase [her] well-being” during the



pandemic. She “felt like it was a replacement for the things [she] used to do. [She thinks] it was just a good placeholder.” Student 40 noted playing video games and online shopping more during the pandemic to “prepare for when things would open.” Student 57 stated, “walking outside a lot became like going to the gym and exercising.”

The students also used their placeholder occupations to fill the extra time during the pandemic. Student 57 mentioned that he “randomly would pick up hobbies. During the time [he] was really into it . . . It was one thing I really put my time into.” For Student 28, “placeholder occupations” were used as a replacement “because [she] couldn’t work out. [She] got more into meditation and journaling and stuff to help with [her] mental health... [she doesn’t] do that anymore . . . But that’s definitely what kept [her] sane during the day.” As the students returned to in-person learning, their decreased time hindered them from continuing to do these “placeholder occupations.” Student 57 also noted that learning bass guitar “was one thing I really put my time into. But I think going back to campus, I wanted to focus on school, so I didn’t bring it with me.” Placeholder occupations were gained to fill the time spent on previous occupations but were lost after the resumption of in-person learning.

### *Preparatory Occupations*

Some of the students’ limited time was a result of integrating their preparatory occupations into their schedules and routines. Student 28 described “getting ready to attend in-person events [as] more challenging. [She had] to set time aside to get ready and drive to in-person events instead of just hopping on [her] laptop two minutes before class.” Furthermore, Student 22 described going to school as preventing engagement with occupation: “Due to my commute, I have less time before and after class every day to participate in the occupations I WANT to do.” Furthermore, Student 34 noted his difficult experience with preparatory occupations during the transition process:

Time was dedicated to planning and making adjustments. Understanding what essentials I need to pack, what items I can forgo (leaving textbooks behind, etc.), planning my commute, planning my sources of food, and knowing my studying-comfort spots (areas around the campus where I can focus and be productive with little to no distractions.) I experienced three semesters worth of remote learning, so my habits and performance of being a remote student was heavily established.

There was an overall feeling of needing to find time and move their schedules around so they could make space for these preparatory occupations. Student 53 describes it as “more challenging to find time to make and pack healthy lunches” and having “less sleep because [she] needs to get up earlier to travel to school.” The re-engagement of preparatory occupations in a student’s daily life increased their experience of time compression.

### *Time and Energy Levels*

In the interviews and survey, the students mention this relationship between their energy levels and time. Many of the students describe that they do not have enough energy to complete other occupations because of the time compression they experience during the day. Student 19 stated, “Sometimes I come back from school, and I’m so tired I just take a nap instead of showering or doing anything else.” Student 32 mentions they “have been emotionally exhausted at the end of every day and have no energy to complete homework and studying.”

The process and time to commute affected the students’ occupational engagement. Student 33 stated, “Driving is always taxing on me. It just drains my energy. Instead of wanting to do stuff, I’m just tired.” Furthermore, another student’s meaningful occupation was working out. However, the commute

“would drain out all [her] energy, on top of all the expectations that you have for yourself to complete your coursework” (Student 39). Sometimes, she even mentioned going home after being on-campus to take a “thirty-min nap and still go [to the gym], just because I feel like I should go. But I’m still mentally so tired right now. I’m not even. I don’t feel like I’m at the gym. But I’m here.” Furthermore, Student 39 describes that she “wouldn’t put intention in [her] workout because [she] was so exhausted after driving from school.” As the students experience time compression after transitioning to in-person learning, they feel its effects on their energy levels as it negatively impacts their engagement with meaningful occupations.

### **Lessons From Adapting**

Since the students had less time, they needed to adapt out of necessity during this new stage of the pandemic. Student 27 felt that “learning in person is less flexible, which makes it frustrating for individuals with disabilities or neurodivergent needs if the program is not as willing to accommodate those needs in an in-person learning situation.” Also, Student 9 described that a person with a physical disability it is “often hard to keep up energetically, physically, and emotionally” with learning-in-person. With the sudden shift to in-person learning, some of the students find it difficult to adapt to the demands of face-to-face education.

### ***“Mind Shift”***

Some of the students felt they were required to change how they approached situations to adapt successfully during this transition. Student 47 noted:

It was that mind shift of like, “I’m not home all day. I can’t just eat lunch whenever I want to eat lunch.” I have to account for being out of place at a certain time and preparing myself to leave and preparing myself to be there rather than just running to my computer and turning it on.

Furthermore, there was this “mind shift” when the students allowed themselves to enjoy being outside or taking breaks. Student 40 stated that when they went to campus, they strove to “just be out to do something.” Student 47 also mentioned being “more aware of [her] mental health” and knowing her boundaries:

We started [the pandemic] without any boundaries, so, like kind of rebuilding those boundaries. Now, I know when to take breaks, when to really listen to how my body feels like tired-wise, how active my mind feels, or how active it doesn’t feel, and just kind of feeling that out. It was weird going between that feeling of I need to be grinding every hour at the top of every hour to “Oh, I can actually take a break because I went to school like a physical aspect of school.”

Because of this heightened self-awareness, this student also understood how to adapt and delegate her energy productively.

I just really know when to chill out and when to do what I would do what I like or when I do things better. Like my mind is more active in the morning, so I’d rather work on my capstone in the morning, and I’d rather work out in the afternoon when no one’s there. So like just knowing those things, like how to block my schedule. I definitely know better now.

Some of the students gained new insight and skills from the pandemic and learned to apply it to their transition on campus.

### ***Relearning Occupations***

As the students transitioned from virtual learning, they needed to refresh themselves with in-person occupations and time management. Student 25 described the process of relearning to make time for preparatory occupations and incorporating it back into their lives:

Before OT school I was working. I had to do all of those things. I had to make sure my car was clean. I had to make sure I had gas. I had to make sure I had groceries to pack my lunch. Like, I had all of those things, but, like, after being virtual, for, like, I don't know, what was it like? A year and a half? I just got out of, like, the habit of doing those things.

Furthermore, Student 57 described social participation as one of the main occupations to focus on during their transition back to in-person learning. He stated, "I think it did encourage me to improve my social interaction with people. Yeah, making sure I was more outspoken to make it a lot better." With this new stage of the pandemic, the students learned to adapt to the transition by relearning and improving aspects of previous occupations.

### ***Manipulating the Environment***

The students described doing all of their occupations in the same environment throughout the pandemic. The students described "really locking [themselves] in a room" (Student 57), "spending a lot of time on the computer" (Student 19), "home was kind of hard" (Student 62), "doing schoolwork 10 hours straight and not [taking] those longer breaks" (Student 25) during the pandemic, which negatively impacted their mental health and motivation. Student 33 stated, "You're not as motivated to learn when you're in your room, and you have all the distractions around." Another student stated that isolating themselves "was really bad for the mental space, and not even to talk about everything that was going on in the world at that time. So it made it all worse" (Student 47).

Throughout the pandemic, some of the students learned to manipulate their environments intentionally, and this skill continued as they returned to in-person occupations. Student 63 mentioned that she "needed" to change her environment: "I was just studying in my backyard. I needed a change of scenery. And, like, my room, I can't just keep studying here, like, I would have went crazy." When she started physically going to school, she continued to manipulate her environment to continue effectively studying:

Sometimes I find it easier to go to school earlier and try to beat traffic so that I could study there because, like, it's more like I feel like I could get more done there and be productive, like, in an area where it's just table, chair, or like, in the library over there by it. So, it's nice to have that resource.

The pandemic showed these students the impact their environment has on their mental health and well-being. With the transition back to in-person learning, they took these realizations and used them to better adapt to their newly acquired environments.

### ***Autonomy and Choice***

As the social distancing measures were lifted, the students had more occupations available to them. The students had more options for occupational engagement at their disposal. However, with the world re-opening in-person environments, obligations and responsibilities continued to take the students' time.

### *Freedom to Choose*

With the transition to in-person learning, the students had “a lot more activities available” to them (Student 33). Student 19 mentioned, “I can choose my activities and what I can do.” The students recognize they have more options. They can “go out and meet [their] friends a lot more often rather than just seeing them on a screen, which is nicer” (Student 19). The students also felt more autonomy and intention in their occupational engagement. Student 57 stated, “I want to make friends. Luckily, I was able to do that.” Furthermore, one student who was able to do the same occupations as before the pandemic felt that “more things opened up and the hours change for certain things, so it’s easier to access those places when [he] wanted” (Student 17). As the pandemic’s regulations changed and the students returned to on-campus learning, they experienced increased autonomy in how they spent their time.

### *Tensions Between Polarities*

Despite having access and the freedom to choose what the students wanted to do, certain obligations prevented them from truly experiencing the freedom with this reacquired autonomy to the outside world. Student 63 described her struggles juggling family responsibilities: “It was really stressful because I have other stuff to do at home. Sometimes I drop off my mom to work, and having to find a time for my fieldwork stuff I [just] push [it] all the way to the end.” Another student also described having to drop her “dad off at the BART station and [having] to drive back” home so that she could join an online class (Student 19).

Furthermore, Student 28 describes her role as an older sister, which prevents her from doing other occupations:

I have to still fulfill responsibilities as a sister, especially as an eldest daughter, especially since my mom and dad aren’t the best at scheduling appointments and understanding social norms and tech things. I always have to be there for them or to help them. And especially during this time, since my sister is still going to her doctor’s appointments, and I still have to do all that for her. And she’s also applying to college, which I’m helping her with.

On the other hand, Student 33 mentioned, “I still have a lot of obligations, but I still make sure that I balance them out with things that I like to do,” which describes positive adaptation to post-transition freedom. A few of the students described that with the world reopening, their obligations stayed the same or increased, so it impacted how they manage their engagement with in-person occupations and responsibilities.

### **Discussion**

At the height of the COVID-19 pandemic, students acquired different hobbies to fill the extra time they would have used to do other occupations, described as “placeholder occupations.” However, after resuming in-person activities, they could participate in occupations they used to do before the COVID-19 pandemic or did not have enough time to continue their acquired “placeholder occupations.” Occupations such as meal preparation, self-care, health management, education, work, social participation, rest and sleep, and leisure were also heavily impacted. Some of these occupations were classified as preparatory occupations, so some of the students did not have to account for the time it took to complete them. In the survey, most of the students agreed that they made time to do satisfying occupations. However, the students with an overwhelming number of occupations to fit in throughout their day experienced time compression because, apart from doing the occupations themselves, the students had to relearn how to do past habits and routines. This phenomenon aligns with Larson’s (2004) concept of time compression

because the students experienced disinterest or lack of presence in some meaningful occupations, such as going to the gym.

Because of the experience of compressed time, the students in the interviews described their energy as greatly affected throughout the day. This occurrence varied from the study by Werner and Jozokowski (2021), where they found that students during the COVID-19 pandemic seemed to have general stability in their time-use patterns compared to pre-pandemic time-use because students would try to “maintain their main occupations to the extent possible” (p. 6). This difference may be because the students in this study were engaging and incorporating pre-pandemic occupations, such as social participation, after one and a half years. As social distancing measures dissipated, the students regained their autonomy to participate in more occupations outside their homes. In turn, the students had to refresh their skills to engage in those occupations and adapt to their in-person environments. To participate in these meaningful occupations during this time, the students creatively adapted to the COVID-19 pandemic. They found virtual alternatives to socialize during lockdown (Wegner et al., 2022), but the physical components of social participation were unused. The students had to relearn how to read body language and communicate outside a digital screen.

The COVID-19 pandemic also demonstrated an increasing need to address mental health, which may have facilitated the occupational therapy students in this study to have a “mind shift” and become more mindful as they conducted in-person occupations. This adaptive technique contributes to the students’ self-efficacy, which facilitates a more positive experience with occupational engagement and allows them to mitigate sentiments of time compression. This experience can be further supported by DaLomba et al. (2022) because they found that allied health professionals who scored higher in terms of general self-efficacy were able to adjust to the COVID-19 pandemic. Also, the effects of the “mind shift” align with Shigemoto’s study (2021) that asserted “individuals who have engaged in an intentional and purposeful thinking process were more likely to experience psychological growth during the COVID-19 pandemic” (p. 1). These findings further highlight the importance of mindfulness and intention to promote positive adaptation and occupational engagement during the transition.

However, the elevated self-awareness may have contributed to some feelings of stress or guilt when experiencing time compression. Some of the students had to complete family obligations, go to the gym, and complete coursework, and possibly because of this new sense of freedom, they would think about other responsibilities during other occupations. They experienced satisfaction with these meaningful occupations but sometimes felt guilt or stress because they were not currently doing their responsibilities. Royeen (2020) describes this experience as the meta-emotion of occupation with *Wissen*, or “feeling about feeling while doing with meaning” and the knowledge that surrounds that (p. 3). This phenomenon relies on the act of reflection and one’s emotional literacy. In terms of the study, one student engaged in a meaningful occupation of going to the gym. However, because of time compression caused by obligations, such as family and coursework, she expressed feelings of guilt for her perseverance to engage in this occupation after a strenuous day, which led to feelings of lacking mindfulness and presence at that moment. The concept of meta-emotion of occupation describes what emotions arise with time compression and autonomy.

Furthermore, the students described this experience of completing family obligations originating from a cultural practice of filial piety, where children are expected to provide care and respect to their parents and exude a strong sense of devotion towards them (Liu et al., 2020). The students may experience

the meta-emotion of guilt during their meaningful occupations as a result of their worry about completing familial duties.

This study aligns with Krusen and Martino's study (2020), which discusses how occupational therapy educators can adjust their delivery of education to adjust to the learners' needs by modifying material to make it more accessible, time-efficient, and occupation-based. Occupational therapy students are faced with transitions in their programs, such as going into fieldwork from didactics. By experiencing the COVID-19 pandemic as another external stressor, it is important to understand how to make education more accessible and effective for students based on their current situations. At the profession's core, occupational therapy holistically addresses people and their occupations by addressing their client factors, analyzing their environments, and promoting healthy occupational engagement (American Occupational Therapy Association, 2020). The general population's abrupt and sudden shift in daily life during the COVID-19 pandemic greatly affected their environments, mental and physical health, and occupational engagement (Lin & Fisher, 2020). As students transition to in-person environments, they experience an impact on all aspects of their lives.

### **Limitations**

Although the students were recruited through social media and snowball sampling, most of them from this mixed method descriptive research study attended one university. Furthermore, only 12 students conducted an interview compared to the 74 total students, so the interviews were not representative of the diversity in the survey participants. A potential limitation in data collection was the failure to ask about the participants' prior experiences with virtual learning. The participants' familiarity and previous experience with virtual learning could have potentially impacted their occupational engagement. Lastly, one cannot exclusively distinguish the COVID-19 pandemic as a causal effect of the themes found in this study because it was not a cause-and-effect study.

### **Implications for Future Research**

Occupational therapists have an emerging role in the postsecondary education setting, which provides an opportunity to "fill [a] unique void" on college campuses to promote students' wellness and health (Keptner & McCarthy, 2020b, p. 13). This study supports the role occupational therapists can play in facilitating occupational therapy students and other college students as they transition to in-person learning. The effects of the COVID-19 pandemic will continue to linger, and some of the data found in this study can relate to transitions experienced in graduate school.

Since the transition to in-person learning is ongoing, students actively adapt to their time-use, so future research will be beneficial to compare the lived experience at different aspects of time. Furthermore, gaining knowledge of students' experiences that were not well-represented (i.e., students with disabilities, occupational therapy assistant students, post-professional doctorate students) in the study would provide future insight into college personnel and occupational therapists.

Also, researching the different experiences of time-use for other populations of college students would be insightful to understand further how the COVID-19 pandemic affected their occupations and to see how it compared with these individuals. Further investigation on the concept of placeholder occupations, especially with other variations in time-use and transitions (i.e., occupations someone engages in after an injury), would be insightful for occupational scientists.

### **Conclusion**

This research study provides perspectives on occupational therapy students' ability to adapt and manage their time during COVID-19 pandemic related transitions. Occupational therapists and other



stakeholders working with this population can use these data to facilitate seeking students' perspectives on their emotions and overall well-being to assist them with difficult transitional periods and unforeseen circumstances. The themes found in this study are not exclusive to the COVID-19 pandemic and may relate to other transitions in occupational therapy students' programs. Future research investigating how time-use and occupational engagement change over different transitions in occupational therapy programs would provide further insight into occupational therapy education and university programs focused on student wellness.

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