

Graduate Health Professional Student COVID-19 Experiences: An Era of Uncertainty

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ABSTRACT

On March 11, 2020 the World Health Organization declared COVID-19 a global pandemic (World Health Organization, 2020). At this time many universities and schools in the United States decided to move to strictly online learning. This study sought to investigate how graduate students in five health professional programs at a private university in Virginia were impacted by and coping in response to the COVID-19 pandemic. This study, which utilized an anonymous survey, brought to light five different themes regarding what students saw as their biggest challenge. These themes included learning difficulties, pandemic specific concerns, mental health, maintenance of routine/schedule, and family responsibilities. Respondents were also asked if they felt students could be utilized in any capacity if another pandemic were to arise. Students felt that they could be helpful in assisting medical professionals, public health outreach, volunteer work and assisting fellow students. Through this research, information about how pandemics affect graduate health care students can be better understood, and highlight potential solutions by extension, in the setting of a future pandemic.

Background

The first confirmed case of coronavirus disease 2019 (COVID-19) in the world was reported on January 21, 2020 (Center for Disease Control and Prevention, 2020). Less than two months later, on March 11, 2020, the World Health Organization declared COVID-19 a global pandemic (World Health Organization, 2020). The United States, at the time of this paper being written in June 2020, had over two million confirmed cases of COVID-19 (World Health Organization, 2020). The 2009 H1N1 pandemic was estimated to have caused 12,469 deaths in the United States (Center for Disease Control and Prevention, 2019). Comparatively, as of June 2020, close to 130,000 deaths in the United States were attributed to COVID-19 (Center for Disease Control and Prevention, 2020). The United States at this time is facing a massive death toll due to the COVID-19 pandemic when compared to the last global outbreak of disease.

While the pandemic unfolded across the United States with daunting trends being tracked state by state, difficult decisions had to be made regarding every aspect of daily life. Recommendations and regulations were deployed across America to shut the doors of non-essential businesses in order to slow the rapidly spreading virus. The closures of non-essential businesses also affected schools of all levels including colleges and universities. Following many states implementing stay-at-home orders, countless higher education institutions cancelled in-person classes and transitioned to an exclusively online platform. The impact of school closures spread far beyond the classroom walls and course curriculum adaptations, including drastically altering student social interactions, living accommodations, extracurricular activities, collegiate athletics, off-site clinical experiences, internships, etc. (Smalley, 2020).

The haste of the changes, as well as the ongoing nature of the COVID-19 pandemic, continue to take a toll on college students, graduate students, and doctoral students universally. One study done in China found that 24.9% of students at one medical college were experiencing anxiety because of the COVID-19 outbreak (Wenjung et al.,

2020). As of June 2020, no research had been published regarding the mental health effects of the COVID-19 pandemic on college students in the United States. This is an area where further research is needed to continue to explore and provide insight into the vast consequences and impact from the COVID-19 pandemic faced by students attending universities here in the United States.

Another study done in Pakistan, found that caregivers were negatively impacted due to the extensive demands of caregiving and the limited resources available. The study emphasized the importance of finding coping strategies to handle the challenges faced when becoming a caregiver (Irfan et al., 2017). While available resources for caregivers may differ in Pakistan compared to what is available for students who become caregivers in the United States, it is imperative that universities ensure that their students are fully equipped with the necessary tools to succeed in being a caregiver, as well as being a student in their chosen program.

Purpose

The purpose of this study is to investigate how students in health professional graduate programs at a private university in Virginia are impacted by and coping in response to the COVID-19 pandemic. Graduate health professional students are uniquely impacted by this pandemic as future medical providers, needing clinical rotations to graduate, and being trained during a global pandemic. These students have also selected healthcare as a profession and may experience a pandemic with a unique perspective about how it will impact their future career. This study will explore the graduate health professional student experience to create innovative and dynamic strategies to help students move forward in their respective programs and future careers.

Methods

IRB approval was obtained through the university to conduct an anonymous survey designed to assess the graduate health professional student experience during the COVID-19 pandemic. The survey was extended to students from several different disciplines of study including Physician Assistant, Physical Therapy, Athletic Training, Pharmacy, and Occupational Therapy programs. The survey instrument was designed to determine and explore the greatest challenges faced by students during the COVID-19 pandemic as well as strategies used to overcome these obstacles. Specific survey items also targeted future-oriented questions, such as the impact of COVID-19 on career outlook and possible roles for health professional students during future pandemics. Data analysis included descriptive statistics of demographic data as well as recursive and dynamic coding for pattern and theme assessment. Key words and short phrases were chosen in accordance with themes that materialized throughout the analysis of the responses. The key words and short phrases that were chosen to code the answers with included “routine”, “family”, “schedule”, “mental health”, “online learning”, “hands on learning”, “pandemic”, “job concerns”, and “caregiver”.

In June 2020, graduate students enrolled in five different health professional programs at a private university in Virginia, including Occupational Therapy, Pharmacy, Physical Therapy, Athletic Training, and Physician Assistant programs, were invited to participate in an online survey regarding student experiences and responses to the COVID-19 pandemic. The survey was created using Google Forms and then distributed to each discipline by administrative staff for each respective program. The survey was distributed based on current enrollment status and to students who were only deemed currently enrolled in some portion of their respective program. Students signed a consent form explaining the survey and agreed to be a willing participant without any incentives from the programs or authors. It is important to note that students were not made aware of who the authors were and what graduate program they were enrolled in to minimize potential bias. A total of 109 health professional graduate students responded to the survey providing insight into the student experience during this pandemic.

Results

The results of the survey are shown below. See Table 1 for respondent demographics. Strengths of this study include the variety of health profession students from different disciplines who took the time to fill out the survey and the timeliness of the questions during a novel pandemic.

Table 1. Demographics of Student Respondents

Sex	Male	Female	Prefer not to Answer
13	95	1	
Program of Study PA			
	AT	OT	PT Pharm
45	5	21	25 13
See Table 2 and Table 3 for survey questions, responses, and themes that emerged from the data that will be explored in the discussion.			

Table 2. Student Survey Responses

Survey Questions	Responses		
Will the pandemic affect the potential job market?	Yes	No	
	87	22	
How has the pandemic affected amount of time spent studying?	Increased	Decreased	No change
	42	37	30
Was your programs clinical schedule altered or disrupted due to the pandemic?	Yes	No	
	91	18	
Do you feel at a disadvantage due to changes in your programs clinical schedule?	Yes	No	Unsure
	61	11	19
Do you feel there is a place for students to be used during a pandemic?	Yes	No	
	60	49	

Table 3. Major Themes from the Survey

Themes that emerged as the biggest challenges faced by students	Learning difficulties
	Pandemic specific concerns
	Mental health
	Maintaining routine/schedule
	Family responsibilities

Themes that emerged regarding the <i>best ways to use students</i> in a future pandemic	Assisting medical professionals
	Public health outreach
	Volunteer work
	Assisting fellow students

Theme # 1: Challenges Surrounding Learning

All university classes transitioned abruptly to an online format starting in March of 2020. Students were notified with little notice that classes would be online until the end of the spring semester. The challenges surrounding learning that were expressed by the student respondents included the sudden nature of this transition to online learning, handling the workload of classes, and the need for new study skills. Students highlighted the challenges caused by not having a dedicated study space or sufficient room to study that had previously been available to them on campus. Others expressed concerns surrounding the lack of a hands-on learning experience, especially within graduate programs in health professions training to take care of patients. With classes going online, students did not have access to in-person laboratory activities in such courses as Human Anatomy & Physiology. The transition to completely online also impacted the way students were receiving feedback, if at all, on skills they were developing. Other common challenges included distractions due to being home, difficulty maintaining focus, and lack of communication from faculty.

Theme # 2: Challenges Surrounding the Pandemic

The biggest challenge faced during the pandemic by the graduate health profession students were due to the pandemic itself, as opposed to school. The challenges expressed included concerns about family members falling ill with COVID-19, fears about themselves getting sick, and issues surrounding access to safe medical care. Other concerns included financial instability due to the loss of a job for themselves, spouses, or parents. Students also mentioned that their thoughts were preoccupied with their fears, anxieties, and particularly the social injustices that were exacerbated by the pandemic. Part of the distress for these graduate students stemmed from a lack of any previous exposure to a pandemic of this magnitude; the concept of a pandemic requiring quarantine was considered abstract. As this scale of disease is something none of these students have ever experienced, they found it difficult to reconcile, understand, and navigate the constant changes associated with surviving a pandemic and staying safe.

Theme # 3: Challenges Surrounding Mental Health

Another prominent theme that emerged amongst the biggest challenges faced by graduate health professional students during the COVID-19 pandemic were issues surrounding mental health. Students reported feelings of loneliness and helplessness. There were reports of being fearful of the unknown that were complicated by feelings of guilt. Students also experienced a perceived lack of social support, a lack of motivation, and decreased confidence in themselves. These mental health challenges were ubiquitous across all of the graduate programs surveyed.

Theme # 4: Challenges Surrounding Routine and Schedule

Many respondents described significant difficulty in keeping and maintaining a routine during the COVID-19 pandemic. Students struggled with finding a reasonable school-life balance and bringing schoolwork into their home routine. The stay-at-home orders were affecting students who may have never had to learn at home and were challenged to develop new learning habits to adapt to this new way of learning. Many students were also challenged by changes to clinical rotation schedules, which are a mandatory part of health professional training, and even delayed graduation dates. Numerous students feared that the trajectory of their career path was going to be negatively affected by the disruptions caused by COVID-19. Research will be necessary in the future surrounding the impact on new healthcare provider graduates and their ability to secure employment following this pandemic.

Theme #5: Challenges Surrounding Family Responsibility

The final major theme that emerged reflected challenges surrounding family responsibility. Several students stressed their biggest challenge had to do with becoming a caregiver for someone and/or finding childcare during the pandemic. The impact of becoming a caregiver while pursuing a rigorous academic endeavor was overwhelming and difficult to manage.

Discussion

There were several themes that emerged from the survey responses that provided valuable insight into the graduate student experience during COVID-19. Students who were surveyed mentioned that they found it challenging to learn in a way they never had to before and adapt to changes in their typical routine and schedules. Students also mentioned that they felt challenged by new found family responsibilities and the need to find original ideas to stay healthy, not only physically, but mentally as well. Students indicated many struggles in regards to the pandemic itself which is no surprise as these students had never experienced a pandemic of this magnitude.

Through conducting research to try and understand what students found the most challenging during the pandemic, universities can make changes to better assist the enrolled students in the current programs. Universities, especially those who have graduate health professional programs, need to be prepared to possibly make emergency changes to their programs to ensure students are able to learn all the required material and feel equipped to provide outstanding patient care upon graduation. One surgery resident program at the epicenter of the pandemic in Seattle, Washington showed that this was possible when those who ran the residents program were able to come up with a conceptual plan and implement it within 48 hours to ensure their students would succeed while staying safe. They did this to ensure not only patients were receiving optimal care, but also to ensure the well-being of the resident workforce (Nassar et al., 2020) This type of prompt action is necessary to ensure students in graduate health professional programs are able to maintain their health, but also get an education that allows them to provide the optimal patient care once they graduate.

This study is also relevant in the setting of increased mental health challenges faced among college students. Research has shown steady rates of mental health problems among college students in the United States, as well as in countries around the world (Auerbach et al, 2016). Studies have also shown notable associations between mental health problems and a lower performance in academics (Bruffaerts et al, 2018). These facts highlight why it is especially important to determine if students are experiencing challenges in relation to their mental health. Respondents in this study stated they faced challenges in regards to their mental health. Therefore, universities must ensure they are assisting their students with these problems before there is a decline in their academic performance, especially when enrolled in vigorous graduate programs. It is important to note, there was no baseline on the student population surveyed regarding their mental health conditions before the pandemic. It is unclear if respondents suffered from mental health concerns prior to the survey, but that there is a possibility mental health conditions could have been exacerbated due to the pandemic. It is vital to a student's success that programs understand what mental health challenges their students are facing and try to come up with solutions to assist them to ensure every student can succeed in their educational endeavors.

How Students Overcame Challenges Caused by COVID-19

Many students mentioned several coping mechanisms that they developed in response to the COVID-19 pandemic. Students described overcoming challenges by re-thinking their schedule, which included setting aside time for studying and taking intentional breaks. They also overcame challenges through new ways of socialization with friends and family. Virtual platforms such as Zoom, FaceTime, and other applications became more widely used not only for learning purposes, but also as a way to socialize. Students described managing their stress by participating in activities

such as meditation, improving diet and exercise, and by controlling worry by taking changes day by day. Some students redefined the resources they had access to and began practicing clinical skills on those who lived with them. Many students found comfort in keeping in contact with faculty members.

How Students May be Useful During a Pandemic

There is still no answer yet as to whether the COVID-19 pandemic will be deemed a learning opportunity for students or be seen as detrimental to their education (Imielski, 2020). One avenue that may be advantageous for students and their learning during a pandemic is utilizing them and their abilities to assist in any capacity their programs deem necessary. More than half of the students who responded to the survey believed that students could be used in future pandemics in some capacity to meet apparent demands. Four major themes emerged from the responses: assisting medical professionals, public health outreach, volunteer work, and assisting fellow students. Volunteer ideas that were suggested included helping with contact tracing, cleaning public places like school facilities, making masks, and helping people who cannot leave their home for one reason or another. Some ideas that were mentioned regarding assisting classmates included discussing ideas for coping strategies, helping others study, and giving suggestions about best practices when it comes to learning through classes online. One respondent mentioned that students could be utilized in future pandemics with research efforts.

Limitations

Limitations to this study include the small number of respondents that all come from one university and capture one moment in time. Similarly, the measurements used depends upon student self-report which may be skewed depending on the honesty of each self-reflection and answer.

Future Research

In the future, it may be advantageous to perform research on long-term consequences faced by students who lived through the current pandemic. It would be important to also find out if students felt adequately prepared to treat patients in their respective field upon graduation, regardless of the changes made to their program during the pandemic. In addition, it may be valuable to assess the amount and type of mental health resources students used while enrolled in graduate programs at universities during this pandemic.

Conclusion

In conclusion, it is not yet understood what impacts the COVID-19 pandemic will have on students who were completing their graduate level educational degrees. All aspects of student's lives were altered due to this pandemic, including their graduate programs. Through this research, information about how pandemics affect graduate health care students can be better understood. This research also offers insight into obstacles faced by students that may not be otherwise considered by their respective program and faculty. Educational programs can use these important findings to better assist their student population during future health crises, especially when the curriculum is forced to be taught online. In addition, the findings could help the universities determine if they need to offer more resources to help students cope with their feelings and adequately maintain their health, both physically and mentally during a pandemic. In an ever changing global environment, it is paramount for universities to be able to assist their students in not only their academic endeavors, but also help navigate other challenges students may face in their personal lives including mental health, family life, or unforeseen disruptions like the COVID-19 pandemic.

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