Academic Psychiatry (2023) 47:251–257
https://doi.org/10.1007/s40596-023-01763-z

EMPIRICAL REPORT

The Psychosocial Impact of Treating Patients with COVID-19 on Psychiatry Residents in a Community Hospital: a Qualitative Study

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Received: 3 July 2022 / Accepted: 28 February 2023 / Published online: 14 April 2023

Abstract

Objective The authors explored the experiences of psychiatry residents caring for patients during the COVID-19 pandemic on a medical unit.

Methods From June 2020 through December 2020, structured, individual interviews were conducted with psychiatry residents deployed to internal medicine wards in a community hospital to provide medical care to COVID-19 patients for greater than or equal to 1 week. Interviews were recorded, transcribed verbatim, and analyzed using thematic analytical methods.

Results Psychiatry residents ($n=16$) were interviewed individually for approximately 45 min each. During the interviews, many residents described emotions of fear, anxiety, uncertainty, lack of preparedness, and difficulty coping with high patient mortality rates. Many of the residents expressed concerns regarding insufficient personal protective equipment, with the subsequent worries of their own viral exposure and transmission to loved ones. Multiple residents expressed feeling ill-equipped to care for COVID-19 patients, in some cases stating that utilizing their expertise in mental health would have better addressed the mental health needs of colleagues and patients' families. Participants also described the benefits of processing emotions during supportive group sessions with their program director.

Conclusions The COVID-19 pandemic represents a public health crisis with potential negative impacts on patient care, professionalism, and physicians' well-being and safety. The psychiatry residents and fellows described the overwhelmingly negative impact on their training. The knowledge gained from this study will help establish the role of the psychiatrist not only in future crises but in healthcare as a whole.

Keywords Internship and residency · COVID-19 [supplementary concept] · Physicians · Pandemics · Burnout

In light of the coronavirus disease 2019 (COVID-19), healthcare providers faced unprecedented challenges, including the uncertainty of a contagious new virus with high mortality rates, scarcity of medical resources, and subsequent sudden changes in hospital policies and provider care assignments in an immensely strained healthcare system [1]. Given these challenges, the World Health Organization (WHO) has stressed the importance of preventing and mitigating the negative physical and mental effects of the COVID-19 pandemic on healthcare providers [2]. Physician distress plays an integral role in a provider's job productivity, satisfaction, absenteeism, interpersonal relationships, premature retirement, and employee well-being [3–6]. Many global studies of healthcare worker experiences during the COVID-19 pandemic revealed significant concerns regarding anxiety, high mortality rates, insufficient PPE, fear of family viral exposure, contamination, delivering bad news, hypervigilance, flashbacks, self-doubt with regard to their medical prowess, and death among countless other findings [7–10].

During the peak of the pandemic in March 2020, the community hospital utilized for the purpose of this study faced an overwhelming demand for patient care, driving the

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administration to mobilize all available physicians across every specialty to care for COVID-19 patients. Many inpatient psychiatry wards were converted to COVID-19 units. Psychiatry residents were scheduled to assist the internal medicine team to care for critically ill patients. Previous studies have investigated the psychosocial impact of the COVID-19 pandemic on frontline healthcare workers, but few have explored this topic specifically in psychiatry residents. The authors' aim is to illustrate the effects of treating a critically ill patient population far outside the participants' expertise by reporting their lived experiences.

Methods

Study Design

A phenomenological approach [11] which seeks to understand how individuals perceive their "lived" experience was utilized in this study. This observational, qualitative study consisted of the informed consent process followed by structured, individual, 45-min phone interviews of psychiatry house staff deployed to provide medical care to COVID-19 patients on internal medicine wards during the height of the pandemic from June 2020 to December 2020 [12]. The study was approved by the Nassau Health Systems ethics committee of Nassau University Medical Center.

The criterion sampling method was applied to recruit participants, as the method aids in seeking individuals who share common experiences but differ in individual characteristics [13]. All psychiatry residents and fellows within the community hospital, deployed to care for COVID-19 patients for 1 week or more, were considered eligible to participate in the study. The residents ($n=37$) received three emails inviting them to participate. Sixteen agreed to be interviewed. Demographic characteristics of participants are shown in Table 1. The authors developed an interview guide consisting of predetermined, open-ended questions based on a prior literature search on the impact of pandemics on frontline workers [14, 15]. Demographic data was collected via a short paper survey. All the authors received training in qualitative interviewing techniques before the start of the study. The interviews were recorded then transcribed verbatim utilizing EVISTR Digital Voice Recorder and Microsoft Office. In order to safeguard the data, the authors assigned a unique identifying code to each interview, de-identified the transcripts, and used password-protected recording devices. Interview sessions continued until theoretical saturation was achieved and no new themes were derived.

Data Analysis

A codebook was developed prior to the coding process, with questions from the interview guide serving as the first set of twelve deductive codes. Subsequently, two additional iterative codes were generated after the initial review of the transcribed interviews. After each transcript was individually reviewed, they were collectively coded and themes were derived from each transcript using thematic analysis with aid of the Dedoose software. Redundant codes within umbrella

Table 1 Demographic data of the study participants

Characteristics	Participants ($n=16$)	Percentages (%)
Male	10	62.5
Mean age, yrs. (range)	36.73 (29–49)	NA
Background/demographics		
American Indian or Alaskan Native	0	05
Asian	12	75
African American	1	6.3
Native Hawaiian or other Pacific Islander	0	0
Caucasian	1	6.3
Pakistani/Indian	1	6.3
Middle Eastern	1	6.3
Post-graduate year		
PGY-1	5	31.25
PGY-2	3	18.75
PGY-3	2	12.50
PGY-4	3	18.75
PGY-5/fellows	3	18.75
Living situation		
Alone	2	12.5
With family	14	87.5

codes emerged, revealing commonalities and recurring themes across the interviews. Data analysis occurred concurrently with interviews, which served as a guide for data saturation. After the interview was completed, findings were shared with participants who further verified the accuracy of the results. The coding framework used is shown in Fig. 1.

Results

Theme 1: Experience Switching from Providing Psychiatric Care to Internal Medicine Care

Residents and fellows discussed a disorganized environment on medical floors with shift-scheduling issues, lack of support from the medical chief residents, a steep learning curve, and a lack of knowledge of COVID-19 protocol, particularly in the early stages of the pandemic. Many participants described an overwhelming patient load and staff shortages, covering more than 10 ICU-level patients. One resident felt that some deaths occurred as a direct result of poor physician- and nurse-to-patient ratios. The participants expressed shared feelings of anxiety about their deployment to work on the medicine floor. They reported a lack of orientation prior to deployment. One stated his only role was communicating with patients' families and writing patient notes. Moreover, a few described being treated like intern residents due to unfamiliarity with treating critically ill patients.

> They treated me just like an intern even though I was a 4th year resident, but I don't mind. I'm here to help the human being. (PGY-4, psychiatry resident)

Those who completed a preliminary medicine year felt more confident with the work environment and reported reduced feelings of anxiety compared to colleagues that did not. Although all psychiatry residents are trained in internal medicine wards for their first year of residency, they reported feeling a steep learning curve due to feeling unprepared to care for the critically ill COVID-19 patients.

> I felt as a third-year psychiatry resident, I'm very far removed. The last time I was on medicine was way back in first year and I only did four months of inpatient medicine. I never dealt with this kind of thing. Infectious diseases and these sorts of things were not my forte, it's not what I spent my time doing. I felt very ill-prepared for this, and I felt that I would literally just do whatever my senior tells me to do. (PGY-3, psychiatry resident)

Most participants discussed the impact on all patients including those with COVID-19 and psychiatric disorders. They expressed feelings of guilt when abandoning their psychiatric patients to care for those admitted with COVID-19. Some residents described hurried patient rounds to decrease risk of exposure as a negative aspect. The conversion of psychiatry detoxification units to isolation units caused treatment interruptions and the rescheduling of numerous outpatient appointments which led to psychiatric illness exacerbation.

> All of the Psychiatric patients on the inpatient units had to be discharged or dispositioned to some other units or another hospital. It was like a mass discharge of psychiatry patients to clear out the floor in order to

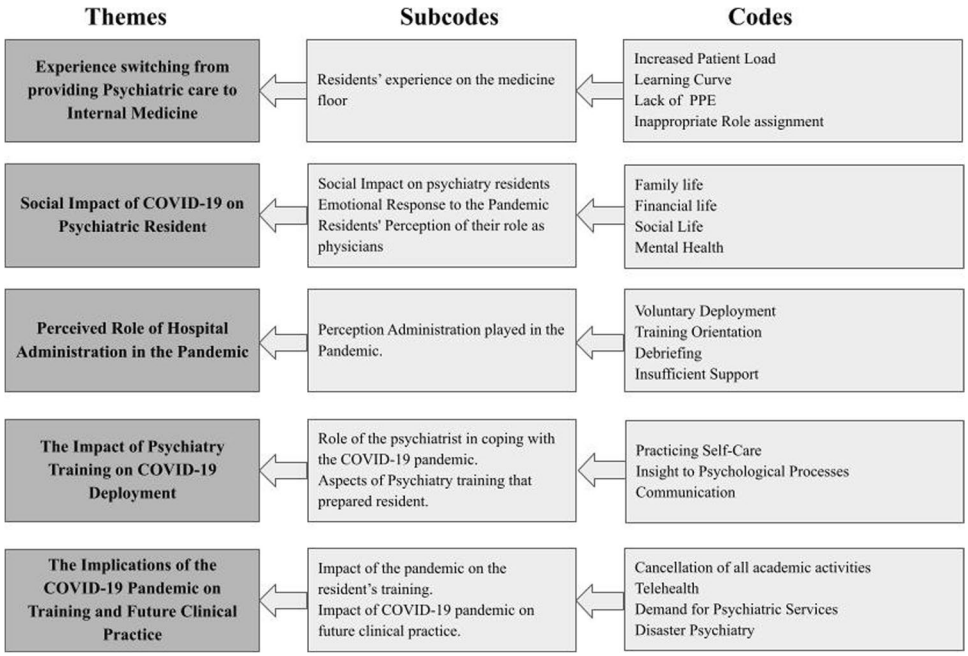

Fig. 1 The coding framework (PPE = personal protective equipment)

> make space for COVID patients. The hospital pretty much almost reinvented itself as like this infectious unit. We felt that this was sort of unfair to the psychiatry patients because their treatment is getting interrupted for COVID. (PGY-4 psychiatry resident)

Psychiatry residents noted that there were positive aspects of the experience, including the overall rewarding experiences of caring for suffering patients and contributing to the provision of medical care during a global health crisis. Some expressed enhanced confidence when dealing with future pandemics. Many reported adapting to the patient load as their teams developed better organization and the hospital received additional supplies.

Theme 2: Social Impact of COVID-19 on Psychiatric Residents

The described personal, familial, social, and financial impacts of the COVID-19 pandemic varied with participants. They discussed their difficulty treating dying and suffering patients, and their frustration with the isolation from family and friends. In addition, they endorsed fear for their own lives and their families.

> I have a family at home, and I had to isolate myself from them basically. So, we always spent our time separate from each other, even when eating dinner, they would eat dinner on the other side of the room. And the other thing is that even sleeping... so like you know my wife would have to sleep in my daughter's room for about 3 weeks basically since that started and then two weeks after my last day on medicine. (PGY-3 psychiatry resident)

The excessive work hours caused mental and physical exhaustion. Three voiced the expectation to display utmost resilience despite their emotional burden. The participants described shared emotions such as fear, anxiety, and uncertainty. Many referred to the initial wave as overwhelming.

> Following the redeployment, especially for a few weeks thereafter, I was having some terrible anxiety symptoms... it's gotten better but like I would have panic attacks I would have nightmares... wake up just like a... cold sweat...that really, I mean it impacted certainly my job you know. I knew I wasn't performing the way that I like and that I expected myself." (PGY-4 psychiatry resident)

As mortality rates climbed, several expressed feelings of hopelessness. Others shared how the constant death was demoralizing and virtually insurmountable. Many mentioned how the suffering and death of their patients left a profound impact on them and anticipated these emotions would follow them throughout their careers with fears of premature burnout.

> Yes, I did feel burnout for about two to four weeks during the peak. Being there for a while at the peak, weeks after having seen death after death, that is when I personally felt burnout. The burnout was also because regardless of what you did people were still dying or not getting better. So, it kind of felt like we're doing all the hard work, but it was futile. (PGY-2 psychiatry resident)

Interviewees voiced the devastation they felt helping the families and loved ones say their goodbyes on video calls.

> You're watching patients die in isolation, no family members, there are no last words, there are no last moments, there's nothing, no gifts, no visits, nothing. It's one of the most heartbreaking ways to die...put on the ventilator and... the only connection this family has to this patient dying is a phone call from a resident saying this person's passed away. (PGY-4, psychiatry resident)

Moreover, they described fear of the possibility of their own impending death and new-onset anxiety as they approached the hospital daily. Two participants expressed frustration toward the chaos created by conflicting news articles and social media.

> We do this every day now we finally shined a light on it and you're able to see that doctors are overworked, underpaid, underappreciated, it's a very thankless job at times you know there's a high-stress burden high emotional burden there's a sacrifice of the prime years of your life. (PGY-3, psychiatry resident)

A few noted a positive social support system within the hospital that included friends and colleagues, families that provided food, and more time spent making personal phone calls. Others conveyed feelings of gratitude for support from the public, such as PPE and food donations. Some participants reported feelings of job satisfaction and fulfillment. Lastly, two participants felt their deployment served as a "call to duty" and "a service to humanity."

Theme 3: Perceived Role of Hospital Administration in the Pandemic

Participants expressed mixed opinions regarding the role of the administration. Throughout the pandemic, the most common shared challenge expressed was the lack of PPE. Several expressed distress resulting from repeated use of the same mask for weeks at a time and many ultimately purchased their own protection. Many expressed a preference for voluntary deployment with appropriate role assignments.

> I think it would be better if people went on a voluntary basis because I mean they made us go. We didn't have a choice and I guess as residents we felt a little bit vulnerable because it's like maybe attendings can say no but we couldn't say no. (PGY-3, psychiatry resident)

One participant expressed frustration toward the leadership, government, and the overall failure of the nation's response to the pandemic.

> I just felt the insensitivity of leadership. I just felt that the administration would be more sensitive to residents' individual needs. That got me to the core. (PGY-2, psychiatry resident)

Some reported the administration responded inadequately and felt unsupported. Additionally, participants expressed a need for improved departmental debriefings.

> We have process groups but already the residents were not feeling well taken care of so I don't think the process groups were honest, because I attended some of them, and I didn't hear residents voice out the same things that they voice out in my office. It was maybe because of a lack of trust in the administration. (PGY-4 psychiatry resident)

Another expressed a lack of financial compensation by the administration, specifically with respect to temporary housing relocation costs. Several residents expressed the fear of infecting loved ones as a reason for seeking alternative lodging during their deployment.

> If you don't want to stay at home, the cheapest hotel, oh... discount, comes to $99 a night and the resident is supposed to pay for it and get a refund. Some residents don't have that money. (PGY-4 psychiatry resident)

Many expressed feelings of frustration at the general unpreparedness of the health care system regarding existing catastrophic scenarios while still supporting the effort put forth by the hospital's administrative staff.

> I mean the administration was also not expecting this kind of pandemic. So, I mean they were trying their best to be the most helpful. (PGY-3, psychiatry resident)

Additionally, participants expressed a need for improved departmental debriefings. In contrast, others stated the administration provided support in the form of daily meals and praised the mental health support provided in departmental meetings.

Theme 4: The Impact of Psychiatry Training on COVID-19 Deployment

Considering their training and insight in the field of psychiatry, some participants recognized personal symptoms of anxiety and depression. They applied clinical tools to themselves, such as trauma acknowledgment, compartmentalization, self-reflection, and mindfulness. Moreover, participants reported engaging in supportive conversations with colleagues and loved ones.

> As a psychiatrist, you talk to patients and tell them how to take care of their own mental health. Talking about how to do relaxation exercises or how to think positively, helped me apply some of the principles on my own. The fact that I also try to live in the present, that also helped me during this time. There must be a time during the day when you spend internalizing your feelings or expressing it to a loved one or just reflecting on what happened during the day. (PGY-2 psychiatry resident)

All but one participant agreed that their core psychiatry training inadequately prepared them to care for COVID-19 patients. Few who recently completed 4 months of internal medicine rotation or an additional full year of residency training (preliminary or transitional years) felt more comfortable in their role. Two stated these brief rotations lacked specific critical care training.

> I was so unprepared, I just dealt with things as they came… there was no competency, preparation of any sort. I just drew from inner strength. Every day was new, and a challenge and you just deal with it. It's not like you're trained in your field and you're like ok, good I can handle this. (PGY-4 psychiatry resident)

Some discussed specific communication skills such as listening, paraphrasing, summarizing, questioning, and nonverbal communication, acquired during their psychiatry training which helped them to better communicate with the patients and their families. Residents stated they allocated ample time to console those affected. They described using supportive language and therapeutic skills to help those impacted by COVID-19 cope in healthy ways.

Theme 5: The Implications of the COVID-19 Pandemic on Training and Future Clinical Practice

Most participants reported the cancelation of all academic activities such as didactics, journal clubs, grand rounds, and rotations. However, a few participants near the end of their residency did not experience interruptions to their training. Other participants identified exposure to telepsychiatry as an advantage during the pandemic. Participants endorsed improved hospital preparedness for future crises. One advocated a refresher in fundamental medical training such as basic cardiovascular life support and advanced cardiovascular life support immediately prior to deployment.

Some reported future integration of telemedicine in clinical practice.

> We were able to use different software to have video conversations or do phone sessions. So that was kind of a learning experience for the future as to how to do telepsychiatry or telemedicine. In terms of my own experience, I feel that when a patient comes to the clinic or they come to the hospital and you see them in person, you can get more findings as compared to when you talk to them on the phone or on a video. (PGY-3 psychiatry resident)

A few suggested advocating for mental health in all populations including healthcare providers. Others endorsed creating better support systems for disadvantaged populations in particular, those who come from low-socioeconomic backgrounds and individuals who face language barriers.

> I've witnessed in COVID the ones most severely affected by this being low-income communities of color and even when it comes to mental health care the same communities being impacted the same way. I think as a psychiatrist it's an obligation upon you, that if you truly really have a passion for mental health and mental health care then you need to advocate for a better mental health system. (PGY-4 psychiatry resident)

Discussion

The COVID-19 pandemic represents a public health crisis with potential negative impacts on patient care, professionalism, and physicians' well-being and safety. Increased preparedness and current pandemic experiences will decrease the psychosocial hardship of healthcare providers in future crises. This qualitative study illustrates the psychiatry resident and fellow experience, challenging aspects, and potential health care improvements relating to the COVID-19 pandemic. Overall, participants voiced stress related to limited training in ICU patient care, the magnitude of mortality, scarcity of PPE, fear of self-contamination and transmission to loved ones, isolation from social support, and increased symptoms of anxiety and insomnia similarly to findings in other studies [7, 8, 16, 17].

Several concerns emerged from the interviews regarding orientation, appropriate role assignment, and adequate resource allocation. In fact, participants in this study reported the lack of orientation to ICU protocols as a challenging aspect of the deployment. Moreover, they felt their additional role assignment was not well suited to their current clinical skill set. Many participants believed their psychiatry training was more beneficial in providing emotional support for staff, patients, and patient families instead of direct medical management of COVID-19 patients. A review on previous pandemics recommended promoting human connections through patient, family, and healthcare provider communication and individualized care planning focused on supporting patients' advanced care wishes and beliefs [18]. Participants of the current study and Kentish-Barnes et al. [7] felt phone communication with family was unsatisfactory and created a barrier to important end-of-life discussions and breaking bad news. A recent article noted the benefits of designing regularly updated processes and protocols, critical care training, and prioritizing the assignment of physicians most suited for these tasks [19]. These findings correspond with those reported by the participants in the current study. Pandemic deployment role assignment of psychiatrists in training should include the provision of psychosocial support and communication with colleagues, families, and patients as it represents a significant part of their expertise. The authors believe implementing such practices may minimize physician stress in similar scenarios.

Participants also suggested the implementation of support groups for processing their emotions. In particular, they stated that meetings with their program director provided psychological support and a means for debriefing. The psychiatry residents in this study stated that their knowledge and practice of self-care techniques provided some relief from pandemic-related stress for themselves and their colleagues. A recent study developed "digital packages" with information and activities for health care providers to mitigate stress during COVID-19 [20]. Healthcare providers may apply this approach in future crises. This intervention may also include a mental health hotline accessible to all providers. Ultimately, the authors recommend that early support in a private, non-biased environment may result in positive psychosocial outcomes in future crises.

Although sampling across many residents within various specialties may yield a more robust perspective of COVID-19 experiences, interviewing only psychiatry residents provides a unique perspective of treating patients within a vastly different healthcare environment from their usual practice. The psychiatry residents in this study were deployed to care for COVID-19 patients in an urban healthcare setting, with high patient load. Therefore, this study may not be generalizable in other healthcare settings.

In conclusion, psychiatry residents and fellows described the challenges of caring for COVID-19 patients and the overwhelmingly negative impact on their training. Future research should focus on the further development of a pandemic protocol based on the current experiences across all specialties. The authors' recommend that healthcare facilities remain updated on adequate PPE stocks for future pandemics. The knowledge gained from this study will help establish the role of the psychiatrist not only in future crises but in healthcare as a whole.

Acknowledgements The authors would like to thank all the residents who participated in this study and Dr. Constantine Ioannou who supported the project from its inception.They would also like to thank Dr. Mahlet A. Woldetsadik for her guidance with the methodology and Mr. Ted Goldstein for reviewing the manuscript.

Declarations

Ethical Considerations The study was approved by the Nassau Health Systems ethics committee of Nassau University Medical Center (IRB #20-322). Informed consent was obtained before all interviews were conducted.

Disclosures On behalf of all authors, the corresponding author states that there is no conflict of interest.

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