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Adolescent health brief

Mental Health and COVID-19 in Pediatric Emergency Departments: Perspectives From Directors

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ABSTRACT

Purpose: The aim of this study is to understand pediatric emergency department (PED) directors’ perspectives on the COVID-19 pandemic’s effect on PED visits for mental health concerns.

Methods: Semi-structured phone interviews were conducted with a national convenience sample of PED directors. Interviews were recorded, transcribed verbatim, and analyzed using rapid content analysis.

Results: Twenty-one PED directors from 18 states were interviewed. Directors perceived an increased volume of mental health visits and higher patient acuity. Some PEDs innovatively adapted services but were also met with new barriers in providing care due to increased use of personal protective equipment and required COVID-19 testing. Transfer to inpatient psychiatric units was more complicated due to reduced overall bed capacity and the need for a negative COVID test.

Discussion: The COVID-19 pandemic strained an already fragile pediatric emergency mental health system. Building infrastructure for adaptations and mental health service reserve capacity could help ensure proper care for pediatric patients with mental health crises during future public health emergencies.

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IMPLICATIONS AND CONTRIBUTION

PED mental health service delivery and discharge dispositions were often more difficult during COVID-19, but also prompted innovative solutions to address barriers. Mental health service reserve capacity and investment in continued innovation is necessary to continue to serve pediatric patients in mental health crisis during future public health emergencies.
Table 1
Demographic characteristics of pediatric emergency department directors interviewed

| Characteristic                      | n (%) |
|------------------------------------|-------|
| Total                              | 21 (100) |
| Practice setting                    |       |
| Suburban                           | 2 (10) |
| Urban                              | 19 (90) |
| Practice type                       |       |
| Academic                           | 17 (80) |
| Community                          | 4 (20) |
| ED type                            |       |
| Pediatric ED in general hospital   | 10 (47) |
| ED in freestanding children’s hospital | 11 (54) |
| ED geographic region               |       |
| Northeast                          | 6 (29) |
| West                               | 5 (24) |
| Midwest                            | 5 (24) |
| South                              | 5 (24) |
| Role                               |       |
| Director/Division Chief/Chair       | 18 (86) |
| Other ED leader                    | 3 (14) |
| Years in practice                  |       |
| ≤10 years                          | 4 (19) |
| 11–19 years                        | 7 (33) |
| ≥20 years                          | 10 (48) |
| Years in current ED                |       |
| ≤10 years                          | 8 (38) |
| 11–19 years                        | 6 (29) |
| ≥20 years                          | 7 (33) |

ED = emergency department; MH = mental health; PED = pediatric emergency department.

Pediatric emergency department director deputized a PED physician colleague involved in MH services delivery or quality improvement to participate in the survey/interview.

preliminary interviews to include questions about changes in PED practices during the COVID-19 pandemic. Interviews were audio-recorded and transcribed verbatim. As outlined in detail in Table A1, we used a rapid analysis approach [3,4], to analyze domains related to COVID-19 and MH. Rapid qualitative analysis is considered a particularly advantageous approach for studying time-sensitive phenomena and when actionable results are needed [5], both of which apply to the COVID-19 and accompanying MH pandemic. In our study, the three predetermined analytic domains focused on how the COVID-19 pandemic affected the following: (1) patients’ MH emergency presentations; (2) provision of MH services; and (3) discharge dispositions. These domains were selected based on data from preliminary interviews and research team members’ clinical experience. Analysis within and across domains was conducted by two Masters-level analysts experienced in qualitative research. The team met regularly to discuss results and resolve discrepancies in coding. The Institutional Review Board determined that this minimal risk study was exempt from review. Informed consent was obtained from all subjects.

Results

Of the 35 PED directors who indicated they were interested in an interview, 11 were unable to be reached in the study timeframe, 3 declined to participate due to scheduling, and 21 enrolled and completed an interview between December 2020 and February 2021. PED director characteristics are provided in Table 1. Below we present our three domains of analysis. Table 2 includes exemplary quotes to support each domain.

Effect of COVID-19 on mental health presentations

“The number of patients that did not have preexisting psychiatric illness increased, or the patients that did not have preexisting conditions, but were coming in with new suicidality increased, as well. So, it [the pandemic] had a profound effect. The numbers are higher, and the length of stays are longer” PED Director 7

“I mean, the – it seems like the acuity’s higher. All the resources are exhausted. All the resiliency is exhausted by the pandemic” PED Director 11

“So I think one thing that’s gotten in the way is if we had a lot psych patients waiting to be seen, there would just be a lot of people in this hallway waiting. But with COVID, it’s not ideal to have that many people together. So that’s been a challenge in that when there are more patients than spots, finding additional places where they can be safely, without being an infectious control risk is challenging” PED Director 16

“We have plenty of PPE. It just takes us longer to see patients, every patient, because we are donning and doffing PPE for every single patient” PED Director 19

Effect of COVID-19 on mental health service provision

“The number of psychiatric beds either has not increased, and in many occasions, has actually decreased. And due to the COVID constraints, many hospitals where they used to have double beds or shared rooms, they just became a private room, so that also decreased the number of patients who could be admitted” PED Director 21

“so that’s not a resource-rich specialty anywhere, let alone where I’m practicing. And I think there’s a big strain on the system right now” PED Director 16

“The number of psychiatric beds either has not increased, and in many occasions, has actually decreased. And due to the COVID constraints, many hospitals where they used to have double beds or shared rooms, they just became a private room, so that also decreased the number of patients who could be admitted” PED Director 19

Effect of COVID-19 on mental health discharge dispositions

“The number of psychiatric beds either has not increased, and in many occasions, has actually decreased. And due to the COVID constraints, many hospitals where they used to have double beds or shared rooms, they just became a private room, so that also decreased the number of patients who could be admitted” PED Director 21

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ED = emergency department; PCR = polymerase chain reaction; PED = pediatric emergency department; PPE = personal protective equipment.

Table 2
Supportive quotes from pediatric emergency department directors

| Effect of COVID-19 on mental health presentations | Quote |
|--------------------------------------------------|-------|
| “The number of patients that did not have preexisting psychiatric illness increased, or the patients that did not have preexisting conditions, but were coming in with new suicidality increased, as well. So, it [the pandemic] had a profound effect. The numbers are higher, and the length of stays are longer” | PED Director 7 |
| “I mean, the – it seems like the acuity’s higher. All the resources are exhausted. All the resiliency is exhausted by the pandemic” | PED Director 11 |
| “So I think one thing that’s gotten in the way is if we had a lot psych patients waiting to be seen, there would just be a lot of people in this hallway waiting. But with COVID, it’s not ideal to have that many people together. So that’s been a challenge in that when there are more patients than spots, finding additional places where they can be safely, without being an infectious control risk is challenging” | PED Director 16 |
| “We have plenty of PPE. It just takes us longer to see patients, every patient, because we are donning and doffing PPE for every single patient” | PED Director 19 |

Effect of COVID-19 on mental health service provision

| Quote |
|-------|
| “So, it seems like the acuity’s higher. All the resources are exhausted. All the resiliency is exhausted by the pandemic” | PED Director 11 |
| “so that’s not a resource-rich specialty anywhere, let alone where I’m practicing. And I think there’s a big strain on the system right now” | PED Director 16 |
| “The number of psychiatric beds either has not increased, and in many occasions, has actually decreased. And due to the COVID constraints, many hospitals where they used to have double beds or shared rooms, they just became a private room, so that also decreased the number of patients who could be admitted” | PED Director 19 |

Effect of COVID-19 on mental health discharge dispositions

| Quote |
|-------|
| “so that’s not a resource-rich specialty anywhere, let alone where I’m practicing. And I think there’s a big strain on the system right now” | PED Director 16 |
| “The number of psychiatric beds either has not increased, and in many occasions, has actually decreased. And due to the COVID constraints, many hospitals where they used to have double beds or shared rooms, they just became a private room, so that also decreased the number of patients who could be admitted” | PED Director 19 |
PED presentations had increased. Respondents also noted that the severity and acuity of patients’ MH symptoms seemed to have increased so that MH visits made up a greater proportion of overall PED volumes. Directors discussed that the severity and acuity of patients’ MH symptoms seemed to have increased since the onset of the pandemic. Some directors reported that their staff felt that they lacked the education and experience to manage the increasing volumes and acuity of MH cases, and that the COVID-related precautions such as donning and doffing personal protective equipment (PPE) added to staff frustration.

**Effect of COVID-19 on mental health service provision**

When asked about telehealth use for MH concerns, participants ranged from reporting no telehealth use to saying telehealth increased dramatically. Telehealth consults for social work and psychiatric evaluations were most common. The availability of telehealth was seen by some as a facilitator to better care for a growing MH patient population, whereas other respondents said that telehealth was not ideal for mental healthcare or the PED setting. Further impeding ideal MH care in the PED was the use of PPE, which several directors reported hindered staff’s ability to build rapport with MH patients.

Another change in service provision due to the pandemic was the need to perform a COVID-19 test prior to initiating MH services. In some cases, patients were left waiting without evaluations or services for many hours while awaiting COVID-19 test results.

**Effect of COVID-19 on mental health discharge dispositions**

Most respondents discussed the reduction in available inpatient psychiatric beds and difficulties transferring patients. Patients who tested positive for COVID-19 were “impossible” to transfer to a psychiatric unit. Other delays occurred when inpatient psychiatric units closed to new transfers due to COVID-19 outbreaks within their facilities. Due to need for COVID-19 testing and capacity limitations of inpatient psychiatric units during the pandemic, more patients boarded in the PED while awaiting definitive psychiatric treatment. This sometimes resulted in PED policy changes related to boarding. Many interviewees said it had always been difficult to transfer patients to inpatient psychiatric units, and the pandemic further strained an already-strained system.

Although it was clear that discharge to inpatient settings had been affected by the pandemic, there was no clear consensus among respondents about whether discharge to community resources had been affected. A few participants noted that discharge to the community was slightly easier than to inpatient facilities for a few reasons, including not needing to perform COVID-19 tests prior to discharge and telehealth adoption by community MH agencies.

**Discussion**

PED directors reported that during the COVID-19 pandemic, PEDs experienced more volume and higher acuity of MH presentations, rapid changes in how PED services were provided, and a decrease in available disposition options. Our findings provide context to prior work showing increases in the proportion of PED visits for MH care and suggesting that PED MH presentations have been more severe during the COVID-19 pandemic [7–9]. Our interviews suggest that the COVID-19 pandemic exposed existing fragilities in the pediatric MH care system [10,11] and exacerbated the problem of pediatric patients boarding while awaiting definitive MH care.

Although COVID-19 infection prevention measures such as distancing and increased PPE presented challenges to engaging in mental healthcare in the PED, the pandemic also forced some health systems to develop innovative solutions to ensure patients receive quality and timely MH care. This included increasing the use of telehealth for MH care in the PED and providing patients with enhanced psychological services in the PED during boarding. The increased flexibility demonstrated by these innovations provide examples of potential long-term policy and practice amendments that may improve the care of children presenting with MH crises in the PED. Future disaster and pandemic preparedness can incorporate these findings with existing policy and practice recommendations [12–14] to build reserve capacity for pediatric MH care into systems.

Our study can be interpreted in the context of limitations. First, the study was designed to focus on MH services provision in PEDs (not specifically on the effects of COVID-19). Therefore, the conceptual models used to develop the interview guide did not focus on pandemic preparedness, and other COVID-19-related changes to PED care were outside the scope of our interviews. However, the structured nature of the interviews lent the data to rapid analysis based on predetermined domains related to COVID-19. Second, although our sample was largely urban, academic PEDs, it was geographically diverse and evenly split between freestanding PEDs and those nested within general adult hospitals. Still, results may not be generalizable beyond the PEDs included in our interviews.

Our study’s main findings showed that PED staff experienced stress related to the increasing volume and acuity of patients seeking MH crisis care; that requirements to use PPE and have COVID testing results were barriers to high-quality patient care; and that MH services capacity was inadequate to meet patients’ MH needs. Increased use of telehealth was an innovation spurred by the COVID-19 pandemic, and study participants were mixed on whether telehealth care was advantageous for patients seeking MH care in the PED.

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**Supplementary Data**

Supplementary data related to this article can be found at https://doi.org/10.1016/j.jadohealth.2022.03.019.

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